<u>REVISED DRAFT</u>
<u>RCRA FACILITY ASSESSMENT</u>
<u>REPORT</u>

Evoqua Water Technologies, LLC.
2523 Mutahar Street
Parker, Arizona
AZD 982 441 263

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 9
75 Hawthorne
San Francisco, CA

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1.0 EXECUTIVE SUMMARY

The owner or operator of a facility seeking a Resource Conservation and Recovery Act (RCRA), (42 U.S.C. §§6901 *et seq.*) permit must institute corrective action operations as necessary to protect human health and the environment. The RCRA corrective action process includes development of a RCRA Facility Assessment (RFA). The RFA is conducted by the United States Environmental Protection Agency (EPA or Agency) to determine the presence or potential release of hazardous constituents into the environment from any hazardous waste management units (HWMUs), solid waste management units (SWMUs), or areas of concern (AOCs) at a facility.

In 2001, EPA began the process of developing an RFA for the Evoqua Water Technologies LLC (Evoqua or facility) facility located on the Colorado River Indian Tribes (CRIT) reservation near Parker, Arizona which is located at 2523 Mutahar Street
Parker, Arizona (AZD 982 441 263). This facility was formerly known as Siemens Water Technologies LLC, Siemens Industries Inc., U.S. Filter-Westates, and Westates Carbon-Arizona, Inc. For ease of reference, the facility operator is referred to throughout this RFA as "Evoqua." Prior names remain in older documents, maps, and diagrams that are used or referenced in this document.

A Draft RFA was prepared by EPA's contractor, Booz Allen Hamilton, Inc. (Booz Allen Hamilton), in September 2003. Additional information used in this RFA was provided by Evoqua in more recent versions of the Part B Permit Application, and this 2016 revision includes that information.

The first visual site inspection (VSI) at the facility was conducted in September 2003 by Booz Allen Hamilton. During the VSI 35 SWMUs were identified at the Evoqua facility. As a result of an EPA request for information dated September 2011, Evoqua re-categorized its SWMUs and AOCs as HWMUs, SWMUs, and AOCs. A follow-up VSI was conducted in March 2014 by EPA. The second VSI identified 25 HWMUs, 19 SWMUs, and 14 AOCs.

The findings of this revised draft RFA show that there is no need for immediate corrective action at this facility. The waste management units and AOCs at this facility will be further investigated and, if needed, will be cleaned up at the time of the facility closure, in accordance with the procedures documented in the Facility's closure plan.

2.0 INTRODUCTION

2.1 Purpose of the RCRA Facility Assessment

The 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA provide EPA with the authority to require corrective action at RCRA facilities. Corrective action is the process through which areas of a facility that could have received hazardous waste or constituents are evaluated and, if necessary, cleaned up. RCRA facilities include all facilities that currently treat, store, or dispose of RCRA-regulated hazardous waste or constituents (or have done so in the past). HSWA refocused the corrective action program from detecting and correcting future releases from regulated units, to cleaning up problems resulting from current and past waste management practices at RCRA facilities. The HSWA corrective action program addresses releases to all media including: groundwater, surface water, the atmosphere, surface soils and subsurface soils, both on and off-site; and sources across the entire facility.

The RCRA corrective action process consists of an appropriate combination of the following activities: a Preliminary Review (PR) of regulatory files for the site; conducting a Visual Site Inspection (VSI); conducting a Sampling Visit (SV), if deemed necessary; and preparation of an RFA Report. RFAs compile existing information on environmental conditions at a given facility, including information on actual or potential releases. The RFA focuses on obtaining information on the potential that a release has occurred from any HWMU, SWMU or any other AOC where wastes containing hazardous constituents have been managed or released at the facility.

EPA Region 9 requested Booz Allen Hamilton conduct an RFA of the Evoqua facility located in Parker, Arizona on the Colorado River Indian Reservation. The first phase of the RFA was a file search at the EPA Region 9 office in San Francisco, California and at the Arizona Department of Environmental Quality (ADEQ) office in Phoenix, Arizona. Brief interviews with ADEQ staff regarding the Evoqua facility records were conducted during the PR file search. The ADEQ interviews resulted in no file material different from what was found at EPA Region 9. The results of the file search were summarized in a PR Report dated March 2001.

The second phase of the RFA was a VSI conducted at the facility on July 12, 2001. The purpose of the VSI was to visually inspect SWMUs and AOCs at the Evoqua facility, to identify additional SWMUs, and to fill site characterization information gaps identified during the PR by interviewing facility personnel and reviewing on-site records. The CRIT was invited to attend the VSI by EPA Region 9 but declined to send a representative. Based on the findings and conclusions of the PR/VSI portion of the RFA, an SV at the facility was not deemed necessary.

On February 4, 2002, following the VSI, a letter was sent to the CRIT by Booz Allen Hamilton requesting relevant information and data from their files to complete the RFA investigation. A verbal response was received from a CRIT representative on February 8, 2002, indicating that no additional information or data relevant to the RFA is in the CRIT files.

The Draft RFA was prepared by Booz Allen Hamilton in September 2003. The RFA was more recently updated by the EPA Project Manager using information that was provided by Evoqua in the more recent Part B Permit Application's References 1 through 5 listed on page vi of the Table of Contents.

The Part B permit application was submitted on the following dates:

- January 1996 (Part B Permit Application Reference 1);
- February 2007 (Part B Permit Application Reference 2);
- April 2012 (Part B Permit Application Reference 3);
- July 2014 (Part B Application Reference 4); and
- April 2016 (Part B Permit Application Reference 5).

A follow-up VSI was conducted by the EPA Project Manager in March 2014 (Appendix A). EPA invited the CRIT Environmental Protection Office (EPO) to participate in the VSI, however the CRIT EPO declined and requested a debriefing of the EPA findings. The debriefing took place on the last day of the VSI at the EPO on Friday, March 14, 2014. During the VSI, EPA inspected the facility and documented the conditions of the SWMUs, HWMUs, and AOCs. The EPA Project Manager reviewed the last three (3) years of the facility's operating records, inspection records, and calibration records. The new VSI photographic documentation can be found in Appendix A.

2.2 General Procedures Used for Gathering Information

Each of the steps to the RFA requires the collection and analysis of data to support release determinations. During the PR process, existing documents, such as inspection reports and permit applications, are evaluated; and interviews are conducted with Federal, State, and Tribal personnel who are familiar with the facility. Additional site characterization information is gathered during the VSI, including visual observation of the site, interviews with the representatives of the facility, and review of requested file material from the facility and Tribal representatives.

2.3 Facility Information

The EPA Identification (ID) number for Evoqua is AZD982441263. The Standard Industrial Codes (SIC) for the facility are 4953 (refuse systems) and 9999 (otherwise unclassifiable establishments). The facility is located within the CRIT reservation lands.

The facility is divided into three main areas: (1) the receiving, unloading, and drum storage area; (2) the tank storage area and process (treatment) area; and (3) the reactivated carbon storage, packaging, and shipping area. The areas where hazardous waste is managed includes: (1) a container and bulk receiving and unloading area; (2) a container storage warehouse area; (3) four spent carbon slurry storage tanks; (4) and the carbon reactivation furnaces: RF-1 (used between 1992-1996) and RF-2 (1996-present) and the associated air pollution control equipment. Facility layout maps are included in Appendices D1 and D2 to this RFA report, and a process flow diagram is provided in Appendix E. This diagram is from the Permit Application Reference 5.

The facility operates 24 hours per day, seven days per week, and therefore is staffed continuously by operating personnel. The facility employs approximately 24 people.

3.0 SITE DESCRIPTION

3.1 Site Location

The facility is located within the CRIT Industrial Park, an area zoned for commercial and industrial uses on the Colorado River Indian Reservation. The facility is adjacent to US 95 with access to I-8, I-10, and I-40. The site is about one mile southeast of Parker, Arizona, in the county of La Paz in Township 9 North, Range 19 West, and Section 7, at the Gila and Salt River Base Line and Meridian. The latitude of the facility is 34˚07'55", and the longitude is 114˚16'19.7". The facility is located on approximately 10 acres of land. One entrance to the facility for all vehicles exists from Mutahar Street. A delivery truck of spent carbon must pass through one gate to get to the unloading area of the facility. The gates to the facility are chain link and topped with barbed wire. Appendix C to this RFA report presents the site location map for the Evoqua facility.

The physical address for the facility is:

> 2523 Mutahar Street
> Parker, Arizona 85344

3.2 Owner/Operator History

In May 1989, Evoqua approached the CRIT with a request to build a carbon reactivation facility in the CRIT Industrial Park in Parker, Arizona. On July 14, 1990, the CRIT approved the request for the land lease and facility construction on tribal lands. The agreement between Evoqua and the CRIT was then submitted to the U.S. Department of Interior, Bureau of Indians Affairs (BIA) for final approval. Final approval and a land lease agreement was signed effective April 1, 1991.

In February 1991, an Environmental Assessment (EA) was performed by Evoqua to comply with the National Environmental Policy Act (NEPA). The EA was required since the proposed carbon reactivation plant was to be constructed and operated on Indian Trust Lands. The Superintendent of the BIA determined that through implementation of the proposed action and environmental mitigation measures specified in the EA, the proposed Evoqua reactivation plant site would have no significant impact on the quality of the environment. The EA states that an Environmental Impact Statement (EIS) was not required.

The facility began operation on August 23, 1992. It is currently owned and operated by:

> Evoqua Water Technologies, LLC.
> 2523 Mutahar Street
> Parker, Arizona 85344

The address of the property owner (*i.e.*, the beneficial owner of the trust lands) is as follows:

> Colorado River Indian Tribes
> Route-1, Box 23-B
> Parker, Arizona 85344

3.3 Processes and Waste Management

The following process and waste management descriptions are based on information and data provided to EPA in the facility's 1995 RCRA Part B permit application and in EPA's Compliance Evaluation Inspection (CEI) Reports, and information gathered during the VSI. The spent carbon reactivation processes are depicted in the carbon reactivation process flow diagram in Appendix E.

The facility receives spent (used) activated carbon from off-site customers who use activated carbon in equipment to adsorb organic compounds from aqueous and vapor processes and waste streams. At the facility, the spent carbon is thermally reactivated in reactivation furnace RF-2. The reactivated carbon is checked for its reusability and shipped off-site for reuse.

The facility's revised October 1996 Part A application identifies 449 hazardous waste codes acceptable for treatment at the facility (See Appendix I of Part B Permit Application Reference 5). The list of hazardous constituents that may be adsorbed to the spent carbon is extensive, and may include, but is not limited to, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), phthalates, amines, pesticides, and metals. Activated carbon is typically used to remove organic constituents from a liquid or gas stream. It is not customarily used to remove metals from a waste stream, although low concentrations of metals may be present in spent carbon. Analytical results in 1994 and 1995 of monthly composite spent carbon samples indicated that the carbon contained traces of several metals, including arsenic, beryllium, cadmium and chromium (See Appendix I of Part B Permit Application Reference 5). Spent carbon characterized as corrosive or reactive is not accepted at the Evoqua facility. Less than eleven percent of the carbon the facility receives is classified as RCRA hazardous waste.

At the Evoqua facility, two types of spent carbon are received, inspected, sampled, unloaded, and processed by thermal reactivation. The first type of carbon is known as wet carbon because it is used in aqueous systems. The amount of hazardous constituents in the wet carbon is typically less than five percent by weight. The particle size used in wet carbon is generally smaller than the type used in vapor phase applications. The second type of carbon is used in vapor phase applications and is called dry carbon. Dry carbon may contain five to ten percent by weight of hazardous constituents. Wet and dry spent carbons are mixed before processing in the reactivation furnace. The facility also reactivates nonhazardous spent carbon and combines hazardous and nonhazardous spent carbon for processing in the reactivation furnace.

Spent carbon is delivered by truck to the Evoqua facility in containers (55-gallon drums or filter canisters) and in bulk-load tank trucks and roll-off bins. About half of the spent carbon received at the facility comes in containers. Upon arrival at the Evoqua facility, the truck drivers provide the manifests for the load and Land Disposal Restriction (LDR) forms to a facility representative.

The facility takes samples of each shipment of waste arriving on site. For incoming drums, the square root of the number of drums in the shipment plus one is sampled. Spent carbon is typically received in bulk loads that comprise of either 10,000-pound (lb) roll-off bins or 20,000-lb slurry trucks. Samples are collected from each roll-off bin and from representative locations in slurry truckloads. The samples are tested for pH, ignitability, and water reactivity.

Evoqua personnel review the hazardous waste manifests, laboratory results, and other information concerning the incoming spent carbon and check this information against the waste profiles. Any discrepancies in manifests, LDR forms, or waste profile information are addressed before the waste is accepted for treatment. The spent carbon is rejected if it cannot be appropriately treated at the operating conditions of the reactivation furnace.

Following receipt, inspection, and acceptance at the spent carbon transfer area concrete pad, spent carbon received in bulk load is typically transferred directly to one of the four spent carbon slurry storage tanks. The transfer occurs through the spent carbon unloading hopper H-1 and a pipe conveyance system, known as the spent carbon slurry and recycle water transfer system.

Recycled water is added to the spent carbon to flush it out of the trucks and into the unloading hopper. Excess water falls through a screen and goes through a filter, making the water reusable by the facility, and the water is recycled via piping to Tank T-9. The trapped materials in the carbon filter are fed through the reactivation furnace.
Spent carbon received in smaller containers, such as drums, is typically moved to the spent carbon storage warehouse in the container in which it was received, and subsequently transferred to one of the four slurry storage tanks via unloading hopper H-2 and the spent carbon slurry and recycle water transfer system.

The spent carbon received at the Evoqua facility requires a slurry system to move it from unloading hoppers to storage tanks and from storage tanks to the reactivation furnace. In the slurry system, an eductor/extractor at the bottom of the unloading hopper (H-1 or H-2) facilitates removal of the spent carbon from the hopper by adding water to the carbon.

From the slurry storage tanks, the water-carbon slurry is transferred via a piping system to the reactivation furnace RF-2 feed tank, T-18, and then to the reactivation furnace RF-2. Prior to introduction into the reactivation furnace, the water-carbon slurry is fed from Tank T-18 via a pipe system, to a dewatering screw at the top of RF-2 where the carbon is dewatered. The water from the dewatering screw is routed to the recycle motive water tank, T-9 where it is then recycled through the spent carbon slurry and recycle water transport system. The dewatered spent carbon is then fed into the top hearth of the reactivation furnace by a weigh belt conveyor. The weigh belt weighs the spent carbon as it enters the furnace to ensure feed rate limits are not exceeded.

The dewatered spent carbon is thermally reactivated in RF-2. RF-2 is a multiple hearth furnace consisting of five hearths. The spent carbon is introduced into the top hearth and flows downward through the remaining four hearths. Reactivated carbon exits the bottom hearth through a cooling screw. Prior to being shut down, RF-1 was operated in a fashion similar to RF-2 but had four hearths instead of five. The spent carbon was introduced into the top hearth and flowed downward through the remaining three hearths. Reactivated carbon exited the bottom hearth also through a cooling screw.

Inside the reactivation furnace (RF-2), the spent carbon is exposed to high temperatures. The high temperatures remove moisture from the spent carbon, desorb organic contaminants, and reactivate the carbon.

According to air emissions tests conducted by Evoqua and overseen by the EPA, the system achieves destruction and removal efficiency for organic compounds of greater than 99.99% (Appendix V of Part B Permit Application Reference 5).

The hot gases generated in RF-2 during the reactivation process then enter the RF-2 air pollution control equipment, which includes an afterburner, venturi scrubber, packed bed scrubber, wet electrostatic precipitator, and emissions stack. The afterburner is designed for combustion of organic constituents that were desorbed in the reactivation furnace. If the afterburner malfunctions, safety shut-down devices will stop all processing activity to minimize the release of contaminants to the atmosphere. From the afterburner, the hot gases are routed through a venturi scrubber for particulate matter removal. From the venturi scrubber, the gases are routed to a packed bed scrubber for acid gas control. From the packed bed scrubber, the gases are routed to a wet electrostatic precipitator for additional particulate matter removal. From the wet electrostatic precipitator, the gases are routed to the emissions stack.

The wet scrubbers employ a dual loop scrubbing system. The scrubber water is supplied to the wet scrubbers via a closed loop cycling system. A pump is used to route the scrubber water from scrubber water equalization tank T-19 to the upper section of the packed bed scrubber. A pump is also used to route the scrubber water from a tank in the bottom section of the packed bed scrubber to the venturi scrubber. From the wet scrubbers, the scrubber water is returned to Tank T-19 or periodically discharged to the local publicly owned treatment works (POTW).

Adjustment of scrubber water pH occurs twice, once prior to introduction into the scrubbers, and again prior to discharge to the POTW. The pH of the scrubber water is controlled by the introduction of caustic (via a metering pump) into the scrubber water line just prior to introduction into the venturi and packed bed scrubbers. A continuous portion of the scrubber water is removed from the system (blow down) and discharged to the POTW. This discharge (blow down) limits the buildup of total dissolved solids (TDS) and it is pH adjusted and cooled prior to discharge. Scrubber water discharge (blow-down) from the former RF-1 air pollution control equipment was treated in the wastewater treatment and storage tank, Tank T-11 prior to discharge to the POTW. Scrubber blowdown from RF-2 air pollution control equipment is treated in a wastewater treatment unit, or discharged directly to the POTW. The discharge to the POTW is continuously monitored for pH, total dissolved solids, flow and temperature to ensure compliance with the discharge limitations found in the facility's industrial wastewater discharge permit.

A baghouse and a carbon adsorber have been installed to collect the carbon dust (particulates) from the incoming spent carbon hoppers during unloading. Particulates collected in the baghouse are returned to the furnace feed system for treatment or are disposed in the facility hazardous debris bin. The particulate collection system is inspected for leaks or improper operation by facility personnel at least once each work shift.

All hazardous waste storage and treatment areas at the facility are surrounded by containment systems. All rainwater that falls within these containment systems is collected and routed to the recycle/motive water tanks T-9, where it is used as make-up water to the spent carbon slurry and recycled water system.

Reactivated carbon is removed from the bottom of the reactivation furnace and transported to three product storage tanks at the reactivated carbon, storage, packaging, and shipping area of the facility. Reactivated carbon is moved via a dense phase transporter conveyor to the product packaging building where it goes through screens to separate the reactivated carbon into different sizes, and is placed in an appropriate container (either a drum or a bag) for shipment to customers. All steps in this process are performed under a particulate control system. The nonhazardous product particulates are captured by a hood, bagged as a product, and sold to industry.

A map depicting the HWMUs, SWMUs, and AOCs locations that were verified during the VSI, is provided as Appendix D1. These figures are from the Permit Application Reference 5, Figures J-1 to J-7 of Permit Application Section J.

4.0 REGULATORY INVOLVEMENT

The following discussion is based on correspondence and documents cited in the references and appendices of this RFA Report.

4.1 EPA, CRIT, and State Regulatory Status, and Environmental Regulations

The facility is subject to federal environmental laws administered by EPA Region 9 and is subject to the authority of the CRIT.

Federal environmental laws that the facility must comply with include: the Clean Water Act (CWA), the Clean Air Act (CAA), the RCRA, and the Emergency Planning and Community Right-to-Know-Act (EPCRA).

CRIT Authority

The 10 acres of land on which the facility was constructed are part of tribal trust lands of the CRIT. A lease issued to the operator by the CRIT and the BIA on April 1, 1990 (Lease No. B-1122-CR) governs the operator's facility activities on the tribal trust lands. The primary term of the original lease was 20 years. The lease also had an option to renew the lease for an additional 20 years. The lease renewal for the additional 20 years took place in 2010. Under the lease agreement, the operator pays lease rental fees to the CRIT for the 10 acres of land on which the facility is located.

Clean Water Act

EPA Region 9 has authority for implementing the CWA on the Colorado River Indian Reservation. Wastewater discharges from the facility are subject to new pretreatment standards under the CWA, Section 307, which restricts pollutant discharges for certain facilities that discharge wastewater indirectly through sewers flowing to POTWs. The facility meets the definition of a "centralized waste treatment (CWT) facility."

Colorado River Sewage System Joint Venture (CRSSJV) was issued a National Pollutant Discharge Elimination System (NPDES) permit (No. AZ0021415, dated May 2015) to authorize the discharge of the treated effluent from the existing CRSSJV wastewater treatment plant to the Irrigation Return Canal which flows to the Colorado River in Arizona.

The POTW started operations in 1974 and has a design flow of 1.2 million gallons per day (MGD). The average daily discharge is 630,000 gallons per day (GPD) and the recent maximum daily discharge is 800,000 GPD.

CRSSJV has reported one significant industrial discharger – Evoqua. Evoqua's average daily volume of process wastewater is 140,000 GPD, which represents approximately 22 percent of the POTW's total flow of 630,000 GPD.

Wastewater discharged to the POTW is generated from the following areas within the facility: (1) domestic wastewater; (2) scrubber water discharge (blow-down) from the furnace off-gas system; (3) blow-down of boiler feed water; (4) wastewater from the cooling tower and cooling screw; (5) recycled water (contact motive water); (6) rain water falling within concrete containment area; and (7) facility wash-down water.

Clean Air Act

The CAA Title III-Maximum Achievable Control Technologies (MACT) Standards set emission limits for hazardous pollutants. Subpart EEE of the MACT standards reflect the maximum degree of hazardous air pollution reduction that can be achieved at hazardous waste combustion facilities, considering the availability and impacts of emissions control technologies. The Evoqua facility uses a furnace to regenerate waste carbon. The furnace is not included in the list of units in the definition of "hazardous waste combustor" under 40 CFR § 63.1201. This CAA definition includes "hazardous waste incinerators," as defined in 40 CFR § 260.10. That RCRA regulatory definition of an "incinerator" specifically excludes an enclosed device that uses controlled flame combustion and that is a carbon regeneration unit. As a result, the furnace is not regulated as a hazardous waste combustor under 40 CFR Part 63's Maximum Achievable Control Technology (MACT) standards.

While not a hazardous waste combustor, the carbon regeneration furnace at the Evoqua facility is defined as a "Miscellaneous Unit" under RCRA's regulations. RCRA's Miscellaneous Unit provisions authorize the Agency to impose appropriate requirements from Subpart EEE of the MACT standards on the furnace and its air pollution control equipment under RCRA's permitting regulations. Please see the further discussion of Subpart EEE below, under "Resource Conservation and Recovery Act."

The facility treats waste generated by facilities subject to the National Emission Standard for Hazardous Airborne Pollutants (NESHAP) for Benzene Waste Operations (Subpart FF in 40 CFR §§ 61.340, et seq.). As such, NESHAP Subpart FF for fugitive emissions applies to the spent carbon storage and treatment processes within the facility (See Appendix XXIII of Part B Permit Application Reference 5). Sources of potential benzene emissions from Subpart FF waste include the carbon adsorbers which control VOC emissions from spent carbon storage and furnace feed tanks; emissions associated with the reactivation furnace RF-2 and the afterburner; fugitive emissions from the unloading of spent carbon into hoppers H-1 and H-2; and fugitive emissions from containers of Subpart FF waste stored in the spent carbon storage warehouse.

NESHAP periodic visual inspection records document the integrity of the process equipment for prevention of emissions of benzene. The facility submits an Annual Report summarizing the total fugitive emissions monitoring that was performed by the operator annually at specific locations on flanges, piping, and other equipment. According to previous annual reports no instrument reading exceeded 500 parts per million by volume (ppmv) over the background concentrations, demonstrating an absence of leaks (Appendix M).

RCRA also requires controlling fugitive emissions from similar sources where hazardous waste is managed. RCRA provides for the facilities that have already installed air pollution control equipment under the NESHAP Subpart FF requirements to continue to use that equipment rather than undergo costly changes to comply with the RCRA air emission standards. Please see the further discussion of Subpart FF below, under "Resource Conservation and Recovery Act."

Resource Conservation and Recovery Act

The facility qualified for interim status under RCRA permitting requirements because it was an existing hazardous waste facility at the time that the first regulations that applied to the facility's hazardous waste management activities became effective. In a letter dated March 25, 1992, EPA confirmed that the facility had qualified for interim status.

Operations at the facility are currently regulated under RCRA interim status. The furnace and associated air pollution control equipment at the facility are regulated as a thermal treatment unit under 40 CFR Part 265, Subpart P.

RF-2 does not qualify as an incinerator and instead is designated by Subpart X of the RCRA regulations as a Miscellaneous Unit. According to 40 CFR § 264.601 of the Subpart X regulations, permit terms and provisions for a Miscellaneous Unit must include appropriate requirements of 40 CFR Part 264, Subparts I through O and Subparts AA through CC, 40 CFR Part 270, and 40 CFR Part 63, Subpart EEE. Testing of RF-2 was conducted in accordance with the requirements of the Subpart EEE MACT standards and an EPA-approved test plan. The testing consisted of a Performance Demonstration Test (PDT) of the RF-2 unit and a Continuous Emissions Monitoring Systems (CEMS) test. The CEMS testing was conducted just prior to the RF-2 PDT. The formal PDT was conducted on March 27 through March 30, 2006.

As noted above under the section discussing the CAA, many units at the facility are subject to the NESHAP for Benzene Waste Operations (40 CFR Part 61 at Subpart FF). Many units at the facility are also subject to regulation under RCRA's air emission control provisions (40 CFR Part 264 [and Part 265 during interim status], Subpart CC). The facility has three carbon adsorbers and an after-burner installed on certain units as air pollution control devices in order to meet the CAA Subpart FF Benzene NESHAP requirements. While these units might typically be subject to RCRA's Subpart CC Air Emissions Control requirements, the preamble to the Subpart CC regulations indicates:

> "The EPA has decided that it is not justified to require owners and operators to replace these relatively new control devices, which were installed pursuant to EPA regulation, and is therefore adding an exemption for control devices installed on such systems." 61 Fed. Reg. 59941/3, Nov. 25, 1996.

Because the facility's three carbon adsorbers and the after-burner were installed prior to the December 6, 1996 effective date of EPA's RCRA Subpart CC Air Emissions Control requirements, these emission control devices currently satisfy EPA's RCRA emission control requirements and the CAA Benzene NESHAP. However, any new control devices installed on the regulated units after December 6, 1996, would be required to meet the RCRA Subpart CC Air Emissions Control requirements in addition to the CAA Benzene NESHAP.

Emergency Planning and Community Right-to-Know Act

The facility is subject to the emergency planning and notification requirements of Superfund Amendments and Reauthorization Act (SARA) Title III under the Emergency Planning and Community Right to Know Act (EPCRA). The facility must immediately notify the local emergency planning committee and the CRIT Tribal Environmental Protection Office if there is a release of a reportable quantity (RQ) of the listed hazardous chemicals that result in off-site exposure. During both VSI, no reports were found in the facility file material of a release of a RQ of a hazardous substance at or from the facility.

The facility files Toxic Release Inventory (TRI) Report (Form R) for source reduction and recycling activities for benzene and other constituents. The reports are bi-annual for the reporting in odd years, as required by Section 313 of EPCRA. Further information can be found online under the EPA website for TRI reporting.

Following is EPA's TRI web address:
http://www2.epa.gov/toxics-release-inventory-tri-program

Following is Evoqua's TRI information on the EPA TRI website:
http://iaspub.epa.gov/triexplorer/release_fac_profile?TRI=85344WSTTS2523M&TRILIB=TRIQ1&FLD=&FLD=RELLBY&FLD=TSFDSP&OFFDISPD=&OTHDISPD=&ONDISPD=&OTHOFFD=&YEAR=2013

4.2 EPA Enforcement Actions

In 1994, a civil administrative enforcement action was instituted pursuant to Section 3008 (a)(1) of RCRA, based on violations observed during an EPA inspection of the facility in August 1993. Alleged violations of RCRA's interim status standards were specified in the "Consent Agreement and Final Order, Evoqua Industries Inc., Docket No. RCRA-09-04-0001," issued to the facility on February 16, 1994. These included allegations of violations such as failure to obtain hazardous waste tank assessments prior to beginning operations, as well as numerous record-keeping deficiencies. The facility returned to compliance and a civil penalty was paid as part of the settlement of the action.

On March 15, 1994, EPA conducted a hazardous waste investigation at the facility. Pursuant to Section 3008 of RCRA, EPA required the facility to correct the identified areas of noncompliance and to submit documentation of their correction to EPA. The facility's subsequent response, dated August 10, 1994, adequately addressed the violations, and documented the facility's return to compliance with the regulations cited in the inspection report.

A RCRA Closure Plan has been submitted to EPA as part of the application. This closure plan describes eventual closure of the hazardous waste portion of the facility including all hazardous waste management units described in the facility's Permit Application Reference 5. The RCRA Facility Closure Plan is Appendix XV of the permit application. Although the first thermal treatment unit (RF-1) was shut down in June 1996, and will not be restarted, closure has not occurred. The closure of RF-1 is in a separate closure plan in Appendix XVI of the permit application.

EPA conducted a series of inspections dated June 19-20, 2001, January 24, 2002, August 29, 2002, March 6-7, 2003, and February 12, 2004. EPA inspectors, accompanied by personnel from the CRIT EPO, conducted RCRA compliance evaluation inspections and found some alleged violations.

On June 30, 2006, EPA entered into a Consent Agreement and Final Order (CA/FO) with Evoqua Water Technologies, , resolving EPA's claims against the facility with respect to three alleged violations. The CA/FO required the operator to pay a fine and make various safety upgrades.

Full text of the Consent Agreement / Final Order (CA/FO) dated June 30, 2006 (PDF) can be found on the EPA website for this facility online at:

https://www3.epa.gov/region9/waste/evoqua/pdf/april2012/siemens-signed-CAFO-jun-15-2006-with-attachments.pdf

4.3 Inspection History

Since the time that hazardous waste management operations at the facility began in 1992, EPA conducted periodic compliance inspections at the facility, and prepared reports for most of those inspections.

This is a list of the facility's recent inspection reports that can be obtained from the EPA website for this facility online:

https://www3.epa.gov/region9/waste/evoqua/frequent.html

- EPA's Inspection Report from the June 2001 Inspection
- EPA's Inspection Report from the January 2002 Inspection
- EPA's Inspection Report from the August 2002 Inspection
- EPA's Inspection Report from the March 2003 Inspection
- EPA's Inspection Report from the February 2004 Inspection
- EPA Inspection Report from the September 2007 Inspection
- EPA Inspection Report from the June 2009 Inspection
- EPA Inspection Report from the April 2011 Inspection
- EPA Inspection Report from the March 2012 Inspection
- EPA Inspection Report from the March 2015 Inspection

4.4 Performance Demonstration Test

Evoqua tested the RF-2 unit under the oversight of EPA to demonstrate the performance and to establish operating parameter limits in accordance with the standards of 40 CFR 63 Subpart EEE. The regulations at 40 CFR 63 Subpart EEE are often referred to as the Hazardous Waste Combustor Maximum Achievable Control Technology (HWC MACT) standards. The testing was conducted in accordance with the requirements of the HWC MACT standards and the approved Performance Demonstration Test (PDT) plan. The testing consisted of a PDT of the RF-2 unit and a CEMS test. The CEMS testing was conducted just prior to the RF-2 PDT. The formal PDT was conducted on March 27 through March 30, 2006.

The purpose of the PDT was to:
1. Demonstrate Compliance with Applicable EPA Regulatory Performance Standards (Based on HWC MACT Standards for Existing Hazardous Waste Incinerators).
2. Establish Operating Limits.

3. Gather Information for Use in a Site-Specific Risk Assessment.

The PDT determined that continued operation of the Carbon Reactivation Furnace RF-2 under the conditions established by the PDT will result in effective destruction of organic compounds and control of emissions in accordance with the applicable performance requirements.

4.5 Summary of Risk Assessment

On July 30, 2007, Evoqua submitted its Human Health and Ecological Risk Assessment Report to EPA. The risk assessment uses the results from the Final March 2006 air emissions test, conducted at the facility in accordance with EPA regulations for this type of facility.

The risk assessment demonstrates that even using conservative assumptions:

• The potential risks associated with air emissions from both the facility's carbon reactivation furnace and from spent carbon unloading are below regulatory and other target risk levels, for both human health and ecological receptors;

• The incremental contribution of effluent from the facility's wastewater treatment plant drainage does not pose unacceptable risks to either aquatic life or human health; and,
• Both concentrations of fugitive emissions from carbon unloading at the facility and measured worker breathing zone concentrations are below occupational exposure limits.

In conclusion, this risk assessment demonstrates that even with conservative assumptions, the potential risks associated with facility operations are below regulatory and target levels.

Potential risks from stack air emissions at the facility were evaluated for over 170 compounds. These were selected for detailed assessment based on a comprehensive PDT. This test was approved in advance by EPA and conducted at the facility by an independent testing firm. The PDT involved several days of stack gas sampling and sophisticated chemical analysis.

The list of chemicals selected for evaluation included both compounds that were detected in stack emissions, as well as over 80 other compounds not detected, but included in the calculations just to be safe. Stack emission rates for all the selected compounds were calculated based on either PDT results, proposed permit limits, or for a few chemicals, long-term average chemical feed rates. A conservative value was also used for the furnace's destruction and removal efficiency in the calculations.

Potential risks from fugitive air emissions (rather than stack emissions) were evaluated for 21 compounds. These were selected for evaluation based on their spent carbon concentrations, number and amount of deliveries to the facility, chemical toxicity, and volatility. Air dispersion and deposition modeling was conducted using a model developed and approved by EPA. This model calculated chemical concentrations in the air and ground deposition rates within a 154 square mile study area surrounding the facility. The mathematical equations used to calculate the fate and transport of each chemical in the environment, environmental concentrations for each chemical, human exposures and risks, were based on current EPA guidance and solved using the Industrial Risk Assessment Program software. At EPA's request, and as part of the permit process, the operator completed a human health and ecological risk assessment (risk assessment) in July 2007. The purpose of the risk assessment was to estimate the facility's current and possible future impacts on the health of local residents and the surrounding environment.

Based on the risk assessment results, EPA concluded that likelihood of human health impacts (both carcinogenic and non-cancer) and ecological impacts from operations at the facility are low or insignificant are below levels of concern.

EPA cannot deny a permit for the facility based upon results of this risk assessment, because the analysis determined that the likelihood of human health or ecological impacts from facility operations are below the Agency's thresholds of concern. However, if EPA decides to issue the permit, it will not allow the facility to operate under conditions that could have a greater impact than the conditions evaluated by the risk assessment. For example, the permit would prescribe operational conditions such as the temperature to which the carbon is heated and the amount of carbon processed.

4.5.1 <u>Categories of impacts the risk assessment studied:</u>

- <u>Human health impacts from air emissions:</u> Long-term ("chronic") and short-term ("acute") human health impacts, as well as both carcinogenic (cancer) and non-carcinogenic (non-cancer) effects.
- <u>Water and fish impacts</u> due to wastewater discharge from the facility and consumption of potentially impacted fish.
- <u>Ecological impacts from air emissions</u>: Impacts to plants, animals and the environment.

4.5.2 <u>The Risk Assessment was conducted as follows:</u>

EPA provided the operator with guidance and oversight for the risk assessment process, ensured that the report was sufficiently thorough and extensive, and reviewed the results of the risk assessment. The risk assessment followed the steps below:

1) Measured maximum possible concentrations of emissions from the facility by conducting a trial burn (discussed in greater detail below).
2) Identified exposure routes by which the emissions would reach potential human and ecological receptors.
3) Determined concentrations at which the emissions would reach potential receptors through the identified exposure routes.
4) Calculated potential impacts to human and ecological receptors from exposure to emissions.

4.5.3 <u>Human and ecological receptors considered by the risk assessment:</u>

- Facility workers exposed to emissions on the job.
- The community around the facility, particularly the following sensitive receptors:
    - The elderly, people with health impairments, pregnant women, women of childbearing ages, and children.
    - Individuals engaging in subsistence fishing, hunting and agriculture, and particularly members of the above mentioned higher risk population engaging in subsistence activities.
- Plants and wildlife found around the facility.

4.5.4 Routes of exposure the Risk Assessment considered:

- Inhalation (breathing in) of impacted air.
- Ingestion (eating) of impacted soil (e.g. incidental ingestion of soil particles or through cultural practices).
- Eating food that absorbs and accumulates chemicals from the impacted air and soil. This food includes locally-raised produce, beef, chicken and eggs.
- Eating fish potentially impacted by wastewater discharge from the facility.

4.5.5 Specific information about the community and the area considered by the risk assessment:

- Information about community activities, such as home gardening, raising of livestock and use of local plants.
- Information about Tribal cultural and spiritual activities that may increase exposure of community members to contaminants.
- Information about local and regional weather patterns.

4.5.6 Human Health impacts from air emissions:

Based on the risk assessment study, the EPA concluded that human health impacts from long-term exposure to stack emissions, fugitive emissions, as well as the combination of the two, were below EPA's acceptable thresholds.

Stack emissions: To measure stack emissions, the operator conducted a trial burn under specific operating conditions (e.g. temperature of the furnace, amount of carbon being processed by facility, contaminants present in the spent carbon). The concentrations of contaminants coming out of the stack were measured during the trial burn. Computers helped model how emitted substances would disperse (spread) throughout the air and soil in a 154 square mile area surrounding the facility.

Fugitive emissions: Fugitive emissions are generated during unloading of the spent carbon that comes into the facility (see Figure 2). The risk assessment estimated levels of fugitive air emissions from information on amounts of spent carbon that are handled at the facility, as well as the concentrations of contaminants in that spent carbon.

What are the impacts to water and fish?

The facility sends its wastewater (mostly from air pollution control devices) through a pipeline to the Colorado River Sewage System Joint Venture, a treatment plant. The treatment plant processes wastewater from the facility along with wastewater from the surrounding community. It then releases the treated water to the Main Drain – a channel that flows to the Colorado River.

Currently, CRIT does not have EPA-approved surface water quality standards. As any discharge from the treatment plant may eventually flow into the Colorado River, the discharge must meet EPA-approved downstream standards established by the State of Arizona Water Quality

Standards. The risk analysis found that wastewater from the facility does not cause the discharge from the treatment plant to exceed the State's most stringent water quality standards. It also found that the discharge from the Joint Venture is not toxic to aquatic organisms.

The uptake of chemicals from the Main Drain into fish and the potential human health impacts from fish ingestion were also addressed as requested by EPA. The fish ingestion pathway was evaluated at a downstream location on the Main Drain where fishing may occur and where water flow rate measurements are routinely collected by USGS. Based on this analytical framework, it can be concluded that the incremental contribution of the facility effluent on the Joint Venture Out fall and Main Drain does not pose unacceptable risks to neither aquatic life nor human health.

4.5.7 Ecological Impacts:

The ecological risk assessment concluded that the stack emissions from the facility do not pose an unacceptable risk to wildlife that was considered to be the most sensitive in the area.

4.5.8 Level of risk from the Facility:

EPA applies an acceptable carcinogenic risk range when evaluating the likelihood of adverse health impacts from combustion facilities. The acceptable range spans from a 1 in 1 million excess cancer risk level to a 10 in 1 million excess cancer risk level. This range indicates that for every 1 million individuals or community members exposed to facility releases, at most 10 additional cases of cancer may develop over the course of a 70 year lifetime. This additional case of cancer would be in addition to cancers in the community caused by factors unrelated to the facility, such as smoking, diet, pesticide use, or naturally occurring radon.

When we apply the "one in 10 million" threshold to a community with fewer than one hundred thousand residents (such as Parker with about 3,000 residents), we would expect less than one additional case of cancer to develop in that community due to emissions from the facility.

5.0 ENVIRONMENTAL SETTING

The information summarized in the following subsections was cited from the *Final Environmental Assessment* performed in February 1991 for construction of the facility on Colorado River Indian Tribal Lands, as referenced at the end of this RFA report.

5.1 Climate

The climate in Parker, Arizona, where the facility is located, is typical of the Sonora and Mojave Desert Regions and the Gila Desert. Winters are mild with minimum temperatures above freezing. The summers are long, hot, and dry with temperatures commonly exceeding 100° F. Average total precipitation is approximately 3.82 inches per year. Precipitation is sporadic, occurring mainly in the time intervals of July through September, and December through February. The 24-hour, 25-year storm water event has been reported to be equal to the average precipitation. The evaporation rate in this area is 86 inches per year.

5.2 Geology

The Parker, Arizona area is characterized by roughly parallel mountain ranges separated by alluvial basins. The elevation of the basins varies between sea level and 1,000 feet. The mountains are rugged and rise abruptly from the Colorado River or from alluvial slopes. The highest mountain summits in the region reach an average elevation of around 3,300 feet. Between the flood plain and the mountains are piedmont slopes, which are dissected by washes from the mountains and, in a few exceptions, into adjacent and topographically distinct basins. The facility is located on relatively flat terrain, with slopes of zero to three percent.

The geologic units considered important to water resource development at the location of the facility are the Miocene Fanglomerate, the Bouse Formation, and the alluvium of the Colorado River and its tributaries. The rocks of the mountains are relatively impermeable, and form the boundaries of the groundwater reservoirs. Interbasin water movement is limited by the impermeable bedrock and limited to groundwater movement in surface sediments, where intermittent surface drainage exits from a basin.

The bedrock includes all rocks older than the Miocene Fanglomerate, and contains sedimentary, metamorphic, and igneous rocks. These Miocene beds are gravel deposits that have eroded from the mountains and filled the basins. The thickness of these beds varies widely across the basins. The Fanglomerate is a potentially important aquifer near Parker, where wells with a yield of 15 gallons per minute per foot of drawdown, have been developed.

Samples taken at the site prior to construction of the facility indicated that only the eolian (windblown) sand and silt are present. The eolian sand is tan to light tan and fine to medium grained, occurring as a deposit on the surface throughout the area. The Evoqua site soil is classified as Superstition series, which is a gravelly loamy fine sand that develops on zero to three percent slopes.

5.3 Hydrology

5.3.1 Surface Water

The facility is located approximately 2.8 miles southeast of the Colorado River. Hence, the distance from the facility to the nearest surface water body is greater than two miles.

The flood plain of the river is less than one mile wide near Parker, and increases to nine miles in the Parker Valley. The flood plain is that part of the Colorado River Valley that has been covered by floods of the Colorado River, prior to construction of Hoover Dam. The elevation of the flood plain near Parker is approximately 360 feet above sea level.

The town of Parker is no longer taking water directly from the Colorado River. However, a portion of the CRIT reservation (30 miles in length) is served by water drawn from the Colorado River.

5.3.2 Groundwater

Groundwater in the Parker area occurs in both confined and unconfined aquifers. Most of the wells are completed in the Colorado River gravels (alluvium), where unconfined or water table conditions prevail. The Miocene Fanglomerate (gravel deposits at the base of mountains) and the lower part of the Bouse Formation contain confined aquifers (artesian). The geological age is not certain. The city wells in Parker obtain most of their water from the Miocene Fanglomerate. Sources of recharge to the groundwater supply of the area are the Colorado River, precipitation, and underflow from areas bordering Parker Valley.

A large amount of the groundwater is lost through evapotranspiration in the Parker area. Direct recharge from precipitation is limited. Loss of water from the Colorado River provides almost 50 percent of the recharge to the groundwater near Parker.

The groundwater elevation near Parker is approximately 350 feet above sea level. The depth to the groundwater in the areas bordering the flood plain ranges from 70 to 300 feet below the land surface. The depth to groundwater at the facility is 80 to 100 feet, and groundwater flow direction is to the southwest.

Chemical quality of the groundwater in the Parker area is generally related to the source and movement of the water. The chemical quality of the groundwater is influenced by evaporation, transpiration by native vegetation, former flooding of the river, irrigation developments, and to a marked degree by the local geology. The groundwater beneath the floodplain is relatively poor in quality, except where irrigation water has entered the aquifer. The shallow groundwater in the non-irrigated part of the valley has twice the mineral content as the Colorado River water.

The drinking water from four wells within four miles of the facility, which are on CRIT property, meets all primary water quality standards in the CWA.

The Town of Parker's water source is groundwater. There are three active wells located within Parker (Well No. 6, Well No. 7, and Well No. 8) that the ADEQ considers to be groundwater for regulatory purposes. These wells serve approximately 3,140 people. The town water system is routinely monitored for constituents in drinking water according to Federal and State laws. The depth to the surface of the groundwater is approximately 75 feet near the center of town (90 feet at the well in the northeast corner of town, which is on higher ground) and flows from the northeast to the southwest.

In addition, there are six wells in the area on the CRIT reservation; these wells are located outside the Parker city limits and serve approximately 1,850 connections. Four of these wells are located northeast of Parker along the Colorado River, and two are located on the west side of the city limits.

5.4 Air/Wind

The closest sources of surface meteorological data for use in the air dispersion model for the facility's human health risk assessment were Needles, CA, approximately 60 miles north of the facility, and Blythe, CA, approximately 60 miles south of the facility. Both Needles and Blythe are located along the Colorado River, with terrain features similar to those found in Parker. Analysis of wind distribution by the U.S. National Climatic Data Center shows strong north-south components at both sites that reflect the influences of the surrounding terrain. A Wind Rose that provides the direction of prevailing winds at Needles is presented in Appendix F, which is – From Appendix II of Application Reference 5. A similar north-south predominance of wind direction at the facility would be expected due to its surrounding terrain, which is generally similar to that present near the Blythe and Needles monitoring stations.

5.5 Land Use

About 45 percent of the CRIT Reservation is used for irrigated farming. Most of the remainder of the Reservation is rangeland used for seasonal livestock grazing. The CRIT Industrial Park comprises approximately 1,140 acres set aside for commercial and light industrial use. The operator acquired a Land Use Permit from the CRIT to operate the carbon reactivation facility (Permit Number B1122-CR 30.7).

5.6 Biological Environment

The facility is located on CRIT land that is a transition zone between the Sonora and Mojave Deserts.

Desert Flora

Terrestrial vegetation at the facility site is associated with the desert scrub community of the Gila Desert. Creosote bush and burro bush are the predominant plant communities. Other native plants living in the area include desert trumpet, snakeweed, scorpion weed, lupine and brittlebush. Vegetation is sparse in most areas.

Desert Fauna

Songbirds, small mammals, amphibians and reptiles are common in the Gila Desert Cactus Plain in Parker.

Unique Ecosystems

The cactus plains dune ecosystem is located approximately one-half mile east of the facility. The dunes provide a natural habitat to the Mojave fringe-toed lizard (*Uma scoparia*), which is a candidate species on the Arizona Threatened Native Wildlife list. This species is threatened due to general loss of dune habitat. The facility is located in the flat cactus plain area outside the dune area.

Endangered or Threatened Species and Protected Birds

After a site survey in March 1990, it was determined that no listed endangered plants or animals were found at the site proposed for building the carbon reactivation plant. However, there may be several Federally-listed, endangered or threatened species and birds protected under the

Migratory Bird Treaty Act within the Parker area on CRIT property. To make the RCRA permit decision, EPA has requested that a species survey be conducted as part of the Ecological Risk Assessment that determined the potential for the presence of the following species and identified potential ecological receptors: the razorback sucker (*Xyrauchen texanus*)(endangered), also known as the humpback sucker in older literature; the desert tortoise (*Gopherus agassizii*)(threatened), critical habitat has been designated across the state line in California; the bony tail chub (*Gila elegans*)(endangered); the peregrine falcon (*Falco perigrinus*)(Migratory Bird Treaty Act); the southwestern willow flycatcher (*Empidonax traillii extimus*)(endangered); brown pelican (*Pelicanus occidentalis*)(endangered); Yuma clapper rail (*Rallus longirostris yumanensis*)(endangered); and the burrowing owl (*Athene cunicularia*)(Migratory Bird Treaty Act, also fully protected across the state line in California). Please see Appendix XI of Part B Permit Application Reference 5 for more details.
On February 25, 2009, a review of the Risk Assessment performed as part of the permit application process was evaluated in a memorandum from an EPA Environmental Scientist (John Beach) to the Project Officer for the RCRA project at the time. In the memorandum, Mr. Beach concludes that the Risk Assessment submitted with the Part B Permit Application demonstrated that the possible issuance of a RCRA permit for the Facility was not expected to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Mr. Beach also concluded that the Risk Assessment demonstrated that the possible issuance of a RCRA permit for the Facility was not expected to result in the taking or endangerment of any species protected by the Migratory Bird Treaty Act of 1918, as amended and was not expected to have any measurable negative effect on migratory bird populations. The determination reflected in Mr. Beach's memorandum was confirmed using an updated species list on July 30, 2015, March 20, 2016, and August 4, 2016, since determinations must be made with species lists that are not more than 180 days old. The most recent U.S. Fish and Wildlife IPaC species list for the project site, along with each of the referenced memoranda, are in Appendix D to the Statement of Basis.

6.0 HAZARDOUS WASTE MANAGEMENT UNITS (HWMUs), SOLID WASTE MANAGEMENT UNITS (SWMUs), and AREAS OF CONCERN (AOCs)

RCRA regulated waste is currently managed in a variety of units at the facility. The regulatory status of these units is specified in Tables 1, 2, and 3. RCRA waste is received and stored in the spent carbon storage warehouse, and the spent carbon slurry storage tanks, and ultimately processed in the reactivation furnace RF-2. The reactivation furnace RF-1 previously managed hazardous waste and is now inactive.

The SWMUs operated at the facility have been identified and visually inspected, where possible during the September 2003 VSI by Booz Allen Hamilton. A map of the location of SWMUs is attached as Appendix D2. Photographic documentation of the 2003 VSI tour of the facility is provided as Appendix B (Photographs F-1 through F-37). A detailed description of each SWMU is provided below based on the site characterization information and data which was cited in correspondence between EPA, the operator, and CRIT representatives; in the Part B permit application; and/or obtained during the 2003 VSI interview with the operator's representatives. The relevant cited references are provided in the Reference Section at the end of this RFA report.

The Draft RFA that was prepared by Booz Allen Hamilton in September 2003 was not finalized. The RFA was more recently updated by the EPA Project Manager using the information that was provided by Evoqua in the more recent Part B Applications References 1 through 5 listed on page vi of the Table of Contents.

When Evoqua responded to EPA's request for information dated September 2011, Evoqua re-categorized the SWMU and AOC list as the HWMU, SWMU, and AOC categories shown in Tables 1, 2 and 3. The three tables give details of how the units were re-designated. Table 4 coordinates the previously designated names of the units as listed in Appendix B with the new names as listed in Tables 1, 2, and 3 and Appendix A.

A follow-up VSI was conducted by the EPA Project Manager in March 2014 (Appendix A). During the 2014 VSI, EPA Project Manager inspected the facility and documented the conditions of the SWMUs, HWMUs, and AOCs. The Project Manager reviewed the last three (3) years of the facility's operating records, inspection records, and calibration records. The new VSI photographic documentation can be found in Appendix A. A map depicting the HWMU, SWMU, and AOC units locations that were verified during the VSI, is provided as Appendix D1. These are the new unit names. These figures are from the Permit Application Reference 5, Figures J-1 to J-7 of Permit Application Section J.

6.1 HAZARDOUS WASTE MANAGEMENT UNITS

Hazardous Waste Management Unit (HWMU): A contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed. [40 C.F.R. § 260.10.]

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
1	Spent carbon reactivation furnace - RF-1 and Associated Equipment (Dewater screw)	South of RF-2	Furnace shell – carbon steel; internal firebrick lining and block insulation; hearths and furnace roof constructed with firebrick; furnace roof is comprised of firebrick backed with block insulation and castable insulation; bottom hearth is insulated with block insulation and castable insulation	August 1992; Shut down in 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
2	Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt)	East of warehouse	Furnace shell – carbon steel; internally lined with firebrick and block insulation; hearths and furnace roof constructed with firebrick; furnace roof is comprised of firebrick backed with block insulation and castable insulation; bottom hearth is insulated with block insulation and castable insulation; Continuously seal welded internally to assure an air-tight assembly. Dewatering screw length 17 ft; diameter 8 in.	July 1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
3	RF–1 Air pollution control equipment					

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
	Afterburner	RF-1 structure	Refractory lined steel	1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Venturi scrubber	RF-1 structure	Hastelloy C	1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Packed bed scrubber	RF-1 structure	Fiberglass	1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Emissions stack	RF-1 structure	Mild steel	1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
4	RF–2 Air pollution control equipment					
	Afterburner	RF-2 structure	Refractory lined steel cylinder chamber	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
	Venturi scrubber	RF-2 structure	Hastelloy C	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Packed bed scrubber	RF-2 structure	Fiberglass	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Wet electrostatic precipitator	RF-2 structure	Fiberglass/AL6XN	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Induced draft fan	RF-2 structure	300-series SS	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
	Emissions stack	RF-2 structure	Fiberglass surrounded by a mild steel shell	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
5	Spent carbon unloading hopper H-1	North end of facility on containment	5000 lb capacity; mild steel	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	HWMU Type/Designation	Location	Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
6	Spent carbon unloading hopper H-2	Inside warehouse facing east wall	500 lb capacity; mild steel	August 1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
7	Hopper air pollution control equipment piping and baghouse	North end of facility on containment	Ducting, baghouse and fan are mild steel	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
8	Spent carbon slurry and recycle water transfer system	Inside warehouse on containment	4” pipes hopper to tank; 3” pipes T-tank to furnace feed tank; 300-series SS	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
9	Spent carbon storage warehouse	Inside warehouse	80 ft by 80 ft concrete/ metal	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
10	Spent carbon slurry storage tank, T–1	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
11	Spent carbon slurry storage tank, T–2	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
12	Spent carbon slurry storage tank, T–5	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
13	Spent carbon slurry storage tank, T–6	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
14	Furnace Feed System Tank T-8 and Ancillary Equipment	RF–1 Structure	905 gal 300 series SS	August 1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
15	T-18 and Ancillary Equipment	RF-2 structure	6500 gal 300-series SS	July 1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
16	Wastewater conveyance piping to wastewater treatment tank	East of RF-2 structure	3” PVC piping	August 1992	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
17	Spent carbon storage warehouse barrel washer	Next to H-2 in warehouse	2 ft by 3 ft 300 series stainless steel	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
18	Carbon adsorber - PV1000	North of Containment Pad for Storage Tanks	1000 lb carbon capacity; mild steel.	August 1992	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
19	Carbon adsorber WS-1	Beside spent carbon storage tank	2 x 2000 lb carbon capacity. Mild steel	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
20	Carbon adsorber WS-2	Beside H-1	5000 lb carbon capacity Fiberglass	1992 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
21	Carbon adsorber WS-3	Beside RF–2	1000 lb carbon capacity Mild steel	1996 to present	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
22	Slurry transfer inclined plate settler tank	Adjacent to the venturi scrubber	Mild steel	1992 to 1994	Spent activated carbon. See Part B Application for list of applicable waste codes	See Section J.2 of the Part B Application
23	Scrubber recycle tank T-17	Beside RF-1	Mild steel	1992 to 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	HWMU Type/Designation	Location	Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
24	Filter press	Next to scrubber system for RF-1	Mild steel with polypropylene plates	1992 to 1994	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure
25	New Facility Discharge Piping System	New piping bypasses Lift Station to POTW	6” PVC	February 1996	Spent activated carbon. See Part B Application for list of applicable waste codes	None. Will be further investigated at the time of closure

6.1.1 HWMU 1 (Previously designated as SWMU 1): Spent Carbon Reactivation Furnace RF-1

Unit Description:

RF-1 was a multiple hearth furnace consisting of four hearths (Hearths 1 through 4) used for spent carbon reactivation. RF-1, operated from 1992 until 1996, is located in the southeast portion of the facility, south of RF-2. RF-1 was replaced with RF-2 and has not been in operation since 1996, and has been replaced with the RF-2 unit.

During operation of this unit, organic compounds were desorbed from the carbon in the high-temperature environment of the reactivation furnace. RF-1 had a production capacity of 600 lbs/hr. The reactivation process in RF-1 involved drying, pyrolysis (i.e., chemical decomposition of the organics by heat), and chemical reaction.

The top hearth (Hearth 1) was an unfired hearth where heat generated in the bottom three hearths (Hearths 2, 3, and 4) was used to complete the dewatering of the spent carbon. The bottom three hearths were fired hearths, where the pyrolysis and reaction steps of the reactivation process occurred. Each of the bottom three hearths was fired with one natural gas burner. These burners were provided to ensure adequate heat input to the reactivation furnace for all the spent carbon reactivated at the facility.

When RF-1 was operating, spent carbon was introduced into the top hearth and flowed downward through the remaining three hearths. Rabble arms with teeth, each connected to a rotating center shaft, were located above each hearth. The rabble teeth plowed the carbon material across the hearth surface and towards drop holes. The carbon fell through the drop holes to the next lower hearth and eventually to the outlet of the reactivation furnace. Reactivated carbon exited the bottom through a cooling screw prior to packaging and shipping of the reactivated product. RF-1 was equipped with a primary combustion air fan and two-center shaft cooling fans.

RF-1 was equipped with air pollution control equipment (APCE) designed to reduce contaminants in the gases prior to discharge to the atmosphere through the stack. The equipment included an afterburner fired by two natural gas burners and designed for combustion of organic material in the off-gas from the furnace. From the afterburner, the gases moved to a venturi scrubber designed to remove particulate matter. The gases then traveled to a packed-bed scrubber designed to remove acid gases. An induced draft fan was used to exhaust combustion gases from the RF-1 furnace, afterburner, and air pollution control system. The gas stream was exhausted to the atmosphere via a 115-foot high stack with an inside diameter of one foot. The stack, constructed of carbon steel, was removed when the unit was shut down in 1996. The air pollution control equipment is described in more detail later in this document.

RF-1 was designed to remove organic compounds from the spent carbon and to remove benzene to a level that met the minimum requirements of NESHAP Subpart FF of the CAA.

The material of construction of RF-1 are presented in Table 1.

Status and Wastes Managed

The start-up date for RF-1 was in 1992; it was taken off-line in June 1996 and remains shut down. This unit was operated under RCRA interim status and is subject to RCRA interim status closure requirements, but it has not yet undergone closure. RF-1 has been disabled by locking out the starters of the motors for the unit's drive, cooling air fan, combustion air blowers, and induced draft fan. The electrical control panels have been removed so that there is no possibility that RF-1 could be operated in its current condition.

Hazardous and non-hazardous spent carbon was thermally treated in this furnace. The list of hazardous constituents that may have been adsorbed onto the spent carbon treated in RF-1 is very extensive and may have included, but may not be limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The afterburner and air pollution control equipment, described in more detail in Section 6.1.3, provided controls for releases to the air from RF-1.

To ensure good combustion in the furnace and afterburner, carbon monoxide (CO) and oxygen (O_2) concentrations in the exhaust gases were monitored using a CEMS. The CEMS on the RF-1 emissions stack was installed in 1993. The CEMS data was used to determine whether the furnace and afterburner were functioning properly and to alert operators to potential upset conditions. In the CEMS on the RF-1 stack, the stack gases passed through the analyzer without interruption. When RF-1 was disabled, the CEMS for RF-1 was relocated and installed on the RF-2 unit.

Prior to shutting down RF-1, a control valve located at the exit of the reactivation feed tank (Tank T-8) was used to control feed to the reactivation furnace. Feed to RF-1 could be interrupted in an emergency using the dewatering screw emergency stop button. All equipment associated with RF-1 has been disabled.

RF-1 is located over a concrete pad. The area is paved and slopes to grated trenches that lead to a sump. The area was (and still is) washed down daily. Liquids collected in the grated trenches and sumps were (and still are) recycled on-site. The concrete area is surrounded by a six-inch berm.

Release History

During a 1993 EPA inspection, the stack emission was described as clear, and the stack plume was observed to dissipate rapidly. There was a wisp of smoke from the upper end of the dewatering screw-conveyor directly above the discharge chute to the furnace. The operator explained that this was due to insufficient draft at the furnace top hearth and also due to the fact that the screw-conveyor covers were not tightly closed.

The March 1994 Compliance Evaluation Inspection (CEI) report for EPA's October 1993 inspection states that facility personnel failed to visually observe the stack plume at least hourly for normal appearance (color and opacity).

In November 1995, the facility operator submitted to EPA a summary of emissions data from tests conducted by the operator for RF-1 in 1993 and 1994. The stack emissions testing was performed to compare the facility's emissions with existing RCRA emissions standards. The facility reported RF-1 contaminant emissions to be below EPA's 1994 emissions standards. (Note that the standard for particulate emissions at that time was 0.08 grains per dry standard cubic foot (gr/dscf) with EPA guidance proposing a standard of 0.015 gr/dscf.)

Remedial Actions

In 1993, the operator believed that the afterburner system was limiting the furnace to about 80 percent of its capacity. To correct this problem, the facility operator installed a bigger fan with a control damper and a fan to blow air into the afterburner. The operator also upgraded the CO and oxygen CEMS to modulate air blown into the afterburner to maintain a set CO level in the stack.

Migration Pathways

The RF-1 carbon regeneration furnace is no longer in operation as of June 1996, so the potential for releases from the operation of RF-1 to all media has been eliminated.

(1) Soil to Groundwater Release Potential

During operation of RF-1, the potential release directly to soil and groundwater was low. The likelihood of release was reduced by the concrete pad beneath the unit. Air pollution control equipment reduced contaminant emissions from RF-1. Hence, atmospheric deposition of contaminants to the soil was ongoing during operation of the unit, but likely occurred in small amounts.

(2) Surface Water Release Potential RF-1

The potential for contamination from RF-1 to release directly to surface water was low when it was operational. The likelihood of release was reduced by the concrete pad beneath the unit. Containment was provided for the unit, and the distance to the nearest surface water body is greater than two miles. Air pollution control equipment reduced contaminant emissions from RF-1. Hence, atmospheric deposition of contaminants from stack emissions to surface water was ongoing during operation of the unit, but likely occurred in small amounts.

(3) Air Release Potential RF-1

According to testing conducted by the facility operator, there were ongoing releases of small amounts of contaminants to the air when RF-1 was operational. RF-1 was equipped with air pollution control equipment, which reduced emissions of contaminants to the air, and a CEMS for CO and O_2 that evaluated proper functioning of the furnace and alerted operators to potential upset conditions.

6.1.2 HWMU 2 (Previously designated as SWMU 2): Spent Carbon Reactivation Furnace RF-2

Unit Description

RF-2 is a multiple hearth furnace consisting of five hearths (Hearths 1 through 5). RF-2, which operated since 1996, is located in the process area of the facility, east of the spent carbon storage warehouse. Organic compounds are desorbed from the carbon in the high temperature environment of the furnace. RF-2 has a production capacity of 1,200 lbs/hr. The reactivation process in RF-2 involves drying, pyrolysis (the chemical decomposition of the organics by heat), and chemical reaction.

The top two hearths (Hearths 1 and 2) are unfired hearths in which heat generated in the bottom three hearths (Hearths 3, 4, and 5) is used to complete the dewatering of the spent carbon. The bottom three hearths are fired hearths, where the pyrolosis and reaction steps of the reactivation process occur. There are two natural gas burners per hearth on the bottom three hearths. These burners are provided to ensure adequate heat input to the reactivation unit for all spent carbon reactivated at the facility. The approximate operating temperatures in the RF-2 hearths are as follows: 600-800° F for Hearth 1; 900-1,200° F for Hearth 2; 1,300-1,400° F for Hearth 3; 1,350-1,450° F for Hearth 4; and 1,400-1,500° F for Hearth 5.

Spent carbon is introduced into the top hearth and flows downward through the remaining four hearths. Rabble arms with teeth, each connected to a rotating center shaft, are located above each hearth. The rabble teeth plow the carbon material across the hearth surface and towards drop holes. The carbon falls through the drop holes to the next lower hearth, and eventually to the outlet of the reactivation furnace. Reactivated carbon exits the bottom hearth through a cooling screw prior to packaging and shipping the reactivated product. RF-2 is equipped with a primary combustion air fan and two-center shaft cooling fans.

RF-2 is equipped with APCE designed to remove contaminants in the gases prior to discharge to the atmosphere through the stack. The equipment includes an afterburner fired by two natural gas burners and designed for combustion of organic material in the off-gas from the furnace. From the afterburner the gases move to a venturi scrubber designed to remove particulate matter. The venturi scrubber also serves as a rapid quench system, which greatly reduces the formation of dioxins. The gases then travel to a packed-bed scrubber designed to remove acid gases, and lastly are routed to a wet electrostatic precipitator (WESP) designed to remove extremely fine particulates and metals before the stack gas stream is discharged to the atmosphere through the stack. A variable speed induced draft fan is provided to exhaust off-gases from the furnace and afterburner and through the APCE. The gas stream is then routed to the atmosphere through the 110-foot high, fiberglass emissions stack with an inside diameter of one foot. The air pollution control equipment is described in more detail later in this document.

The RF-2 furnace is designed to remove organic compounds from the spent carbon and to remove benzene to a level that meets the minimum requirements of NESHAP 40 CFR 61, Subpart FF of the CAA. According to air emissions tests conducted in March 2006 by Evoqua and overseen by the EPA, the system achieves destruction and removal efficiency for organic compounds of greater than 99.99% (See Appendix V of the Part B Permit Application Reference 5).

The material of construction of RF-2 are presented in Table 1.

Status and Wastes Managed

The start-up date for RF-2 was July 11, 1996. The RF-2 unit is active and is the only reactivation process (treatment system) currently used at the facility. The unit is operated under RCRA interim status and is subject to the RCRA permit decision.

Hazardous and nonhazardous spent carbon is thermally treated in this furnace. The list of hazardous constituents that may be adsorbed onto the spent carbon treated in RF-2 is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The afterburner and air pollution control equipment provide controls for releases to the air from RF-2.

To ensure good combustion in the furnace and afterburner, CO and oxygen (O_2) concentrations in the exhaust gases are monitored using a CEMS. The CEMS on the RF-2 emission stack was moved from RF-1 in 1996 with shutdown of RF-1 and startup of RF-2. The CEMS data are used to determine whether the furnace and afterburner are functioning properly and to alert operators to potential upset conditions. In the CEMS on the RF-2 stack, the stack gases pass through the analyzer without interruption. The CEMS evaluates the gases at least once every 15 seconds and computes and records the results at least every 60 seconds. In addition to the CEMS, the RF-2 unit has a feed rate-monitoring device for continuous monitoring of CO and O_2.

A computerized system continuously monitors 739 points in RF-2 and associated equipment for parameters such as temperature, pressure, and flow rate every five seconds, of every hour, of every day. Readings from this system are fed into automatic alarm systems, such as high-level, low-flow, and low-pressure alarms. These automatic alarm systems help prevent malfunctioning of and releases from the furnace and related equipment. For example, a high-level alarm is attached to the dewatering screw on RF-2 where water carbon slurry is dewatered prior to introduction into the reactivation furnace. The unit is automatically shut down if this alarm is triggered. This ensures that the dewatering screw that feeds RF-2 does not overflow. There are low-temperature alarms for the furnace and afterburner. If the temperature in the afterburner falls below the level necessary to destroy incoming contaminants, the furnace feed system is automatically shut off within one to two seconds, preventing carbon from entering the furnace. This immediate feed system shut-off is designed to prevent the release of VOCs.

Other alarms include low-flow and low-pressure alarms for the combustion air supply and the shaft cooling air supply to RF-2. A failure alarm is attached to the RF-2 burners, a high-pressure alarm is provided for the RF-2 furnace draft, and a low-speed alarm is installed to detect problems with the RF-2 center shaft rotation. In addition, high-weight and low-weight alarms are functional on RF-2; these alarms alert the plant operations personnel if carbon levels on the weigh belts are outside the limits of predetermined specifications. If there is an explosion in the furnace or the afterburner, all equipment surrounding the furnace will be shut down automatically. This includes all burners, fans, and the dewatering screw. Natural gas will be shut off manually.

Daily inspections of the CEMS and the RF-2 furnace system are conducted. The RF-2 APCE and ancillary equipment (pumps, valves, and pipes) are visually inspected daily by the facility to ensure the absence of leaks, spills, fugitive emissions, and signs of unauthorized tampering. The calibration data from the CEMS is checked daily to ensure the CEMS is operating within proper parameters. For more information about the inspection and the calibration schedules please see the latest revision of the Permit Application Reference 5, Sections D, F, and Appendix XII.

A concrete pad surrounded by a berm is present under RF-2. The area is paved and slopes to grated trenches that lead to a sump. The area is washed down daily. Liquids collected in the grated trenches and sumps are recycled on-site.

Release History

During a review of the facility's inspection logs during both VSIs, no evidence of unsatisfactory operating conditions was discovered.

The emissions test data submitted by the operator in the permit application suggest that the plant operates below MACT emission standards from the stack during normal operations. (See the latest revisions of Appendix V and Appendix XI in the Permit Application Reference 5).

There is no known record or report of other past releases that have occurred at this unit. Other than the stack off-gas, no releases were observed at this unit during either VSIs.

Remedial Actions

One description of remedial action was found in the facility file material reviewed during the 2003 VSI. In April 2001, the CEMS operation was unsatisfactory for the oxygen analyzer. Corrective action involved ordering a new oxygen analyzer for the CEMS.

According to the facility's quarterly inspection reports reviewed during the 2003 VSI, a fan was purchased in 1999 to ventilate potential emissions from the dewatering screw to the afterburner.

No other remedial actions were noted in the 2014 VSI.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential directly to the soil and groundwater. The likelihood of release is reduced by the bermed concrete pad beneath the unit. APCE reduces the contaminant emissions from RF-2. For more details about the release potential and the risk from that please see Appendix XI in the Permit Application Reference 5.

(2) Surface Water Release Potential

The potential for contamination to release directly to surface water from RF-2 is low. The likelihood of release is reduced by the bermed concrete pad beneath the unit. APCE reduces the contaminant emissions from RF-2, and the distance to the nearest surface water body is greater than two miles. For more details about the release potential and the risk from that please see Appendix XI in the Permit Application Reference 5.

(3) Air Release Potential

According to testing conducted by the operator, there are ongoing releases of small amounts of contaminants to the air from RF-2. RF-2 is equipped with air pollution control equipment, which reduce emissions of contaminants to the air, and a CEMS for CO and O_2 that evaluates proper functioning of the furnace and alerts the operator to potential upset conditions. For more details about the release potential and the risk from that, see Appendix XI in the Permit Application Reference 5.

6.1.3 HWMU 3 (Previously designated as SWMU 3): Air Pollution Control Equipment for RF-1

Unit Description

APCE was present on RF-1 from startup in 1992 until it was shut down in 1996. The RF-1 equipment included an afterburner designed for combustion of organic material in the off-gas from the furnace. From the afterburner the gases moved to a venturi scrubber designed to remove particulate matter from the air stream. The gases then traveled to a packed-bed scrubber designed to remove acid gases. An induced draft fan was used to exhaust combustion gases from the RF-1 furnace, afterburner, and air pollution control system. The gas stream was exhausted to the atmosphere via a 115-foot high stack with an inside diameter of one foot. The stack, constructed of carbon steel, was removed when the unit was shut down in 1996.

The materials of construction of the APCE for RF-1 is presented in Table 1 listing the units above.

Status and Wastes Managed

APCE on RF-1 was operated from 1992 until 1996 when RF-1 was shut down. It has not been operated since 1996.

Gases that come off the carbon regeneration furnace were managed in the APCE. Although the combustion process was expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents that may have been in these gases included, but is not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes that were acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5. This is the same list that the facility continues to receive and treat in the newer furnace that is currently operating.

Release Controls

An induced draft fan was provided to exhaust combustion gases from the furnace and afterburner and through the air pollution control system. A high-level alarm system, a high temperature alarm, and a low flow alarm for the scrubber water supply were installed on the packed bed scrubber.

Devices in the venturi, packed bed, and WESP scrubber systems continuously monitored pressure drop of the gases exhausted from the furnace. If these monitors detect readings outside prescribed levels, the carbon feed system was automatically shut off. The pressure monitors were designed to protect against the release of acid gases or particulate emissions above concentration limits specified in the MACT standards.

The system also contained a CEMS, which monitored CO and O_2. The CEMS helped determine whether complete combustion occurred in the furnace and afterburner.

A bermed concrete pad was and continues to be present under the APCE. The area is paved and slopes to grated trenches that leads to a sump. The area was washed down daily. Liquids collected in the grated trenches and sumps were recycled on-site.

Release History

During a review of the facility's inspection logs during the 2003 VSI, no evidence of unsatisfactory operating conditions was discovered.

For more details about the release potential and the risk from that see Appendix XI in the Permit Application Reference 5.

No additional release history for this unit was identified in the file material during the 2003 VSI.

Remedial Actions

No documented remedial actions have been performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There was at RF-1 low release potential directly to the soil and groundwater during its operation. The likelihood of release was reduced by the presence of a bermed concrete pad surrounding RF-1. The APCE reduced the contaminant emissions from the furnaces. Hence, although atmospheric deposition of contaminants to the soil was ongoing, it occurred in small amounts.

For more details about the release potential and the risk from that see Appendix XI in the Permit Application Reference 5.

(2) <u>Surface Water Release Potential</u>

The potential to release directly to surface water (which is 2 miles away) from the APCE was low. The likelihood of release was reduced by the bermed concrete pad beneath these units. The APCE reduced the contaminant emissions from the furnaces, and the distance to the nearest surface water body was greater than two miles. Hence, atmospheric deposition of contaminants from stack emissions to surface water was ongoing, but it occurred in small amounts due to the APCE. For more details about the release potential and the risk from that see Appendix XI in the Permit Application Reference 5.

3) <u>Air Release Potential</u>

According to testing conducted by the facility, RF-1 released small amounts of contaminants to the air through the APCE. For more details about the release potential and the risk from that see Appendix XI in the Permit Application Reference 5. The air pollution control equipment reduced emissions of contaminants to the air, and a CEMS for CO and O_2 that evaluated proper functioning of the furnace and alerted operators to potential upset conditions.

6.1.4 <u>HWMU 4 (Previously designated as HWMU 4): Air Pollution Control Equipment for RF-2</u>

<u>Unit Description</u>

New APCE was purchased for RF-2 when the unit was brought into operation in 1996. APCE on RF-2 is designed to remove hazardous constituents from the gases coming from RF-2. RF-2 and ancillary APCE are contained in a central tower structure. The APCE for RF-2 is comprised of an afterburner, a venturi scrubber, a packed bed scrubber, and a wet electrostatic precipitator.

The afterburner for RF-2 is a self-supporting vertical cylindrical chamber. It includes a baffle wall to route the off-gas from the furnace through the afterburner. The afterburner is designed to thermally oxidize greater than 99.99 percent of the organic material that enters the afterburner.

The venturi scrubber for RF-2 is of the adjustable throat vertical down flow type. A pneumatic cylinder actuator and electro pneumatic positioner adjust the throat area. The throat can be adjusted to maintain a constant pressure differential. The elbow incorporates a water-filled gas impact section directly beneath the throat to prevent erosion of the shell. The water supply for venturi irrigation is recirculated scrubber water. The venturi scrubber is located directly below a quench section and is connected by a flooded elbow to the packed bed scrubber. The venturi scrubber is designed to achieve an outlet particulate matter grain loading of less than 0.03 gr/dscf adjusted to 7 percent oxygen. The venturi scrubber differential pressure is used to determine proper operation of the venturi scrubber.

The packed bed scrubber for RF-2 consists of a vertical up flow and cylindrical disengaging section followed by a packed bed section and a mist eliminator. The bottom portion of the scrubber is used to de-entrain water droplets from the gas prior to entering the packed section of the scrubber. The packed bed scrubber is designed to remove a minimum of 99 percent of the incoming hydrogen chloride.

Scrubber water is supplied between the venturi scrubber and the packed bed scrubber via scrubber water supply lines and return lines.

The wet electrostatic precipitator for RF-2 is of a vertical tubular down-flow design with self-irrigating tubes. The wet electrostatic precipitator consists of inlet gas distribution and straightening devices, which are provided to distribute process gas flow entering the electrostatic precipitator, inlet and outlet plenums, a collecting electrode tube bundle, an intermittent flushing system, and a continuous drainage system. The electrostatic precipitator is also equipped with outboard high voltage insulator compartments. The wet electrostatic precipitator, in conjunction with the venturi scrubber, is designed to achieve a maximum outlet particulate matter grain loading of 0.015 gr/dscf adjusted to 7 percent oxygen.

The material of construction of the APCE for RF-2 is presented in Table 1 listing the units above.

Status and Wastes Managed

New APCE was purchased for RF-2. The start-up date for the APCE on RF-2 was July 1996, and it is currently active. As a component of the carbon regeneration system, the APCE on RF-2 is operating under RCRA interim status, and is subject to the RCRA permit decision.

Gases coming off the carbon regeneration furnace are managed in the APCE. Although the combustion process is expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents that may be in these gases includes, but is not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

An induced draft fan is provided to exhaust combustion gases from the furnace and afterburner and through the air pollution control system. A high-level alarm system, a high temperature alarm, and a low flow alarm for the scrubber water supply are installed on the packed bed scrubber.

Devices in the venturi, packed bed, and WESP scrubber systems continuously monitor pressure drop of the gases exhausted from the furnace. If these monitors detect readings outside prescribed levels, the carbon feed system is automatically shut off. The pressure monitors are designed to protect against the release of acid gases or particulate emissions beyond concentration limits specified in the MACT standards.

The system also contains a CEMS, which monitors CO and O_2. The CEMS helps determine whether complete combustion occurs in the furnace and afterburner.

A bermed concrete pad is present under the APCE. The area is paved and slopes to grated trenches that lead to a sump. The water collected in the sump is routed to recirculation tank, T-9.

Release History

During a review of the facility's inspection logs during both VSIs, no evidence of unsatisfactory operating conditions were discovered. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

No additional release history for this unit was identified in the file material during either VSIs.

Remedial Actions

No documented remedial actions have been performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

RF-2 has a low potential to release directly to the soil and groundwater. The likelihood of release is reduced by the bermed concrete pad beneath and around the unit. The APCE reduces the contaminant emissions from the furnaces. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

(2) Surface Water Release Potential

The potential to release directly to surface water from the APCE is low. The likelihood of release is reduced by the bermed concrete pad beneath the unit. The APCE reduces the contaminant emissions from the furnaces, and the distance to the nearest surface water body is greater than two miles. For more details about the release potential and the risk from this unit please see Appendix XI in the Permit Application Reference 5.

3) Air Release Potential

The air pollution control equipment reduces the potential of emissions of contaminants to the air, and a CEMS for CO and O_2 that evaluates proper functioning of the furnace alerts operators to potential upset conditions. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

6.1.5 HWMU 5 (Previously designated as SWMU 4): Spent Carbon Unloading Hopper H-1

Unit Description

Unloading hopper H-1 is located below-grade and is located at the north end of the facility adjacent to the spent carbon storage warehouse. The material of construction for H-1 is presented in Table 1 listing the units above.

Spent carbon is unloaded directly from trucks and large containers into H-1. Trucks are connected to a pipe that is adjacent to and outside of the roofed structure over the hopper. Spent carbon received in large containers such as roll-offs is typically transferred to the hopper by tipping the containers into feed hopper H-1.

The spent carbon flows by gravity through a grate into H-1. Water from Tank T-9 is added as the carbon passes through the hopper to facilitate the transfer of the spent carbon from the hopper via an eductor. The spent carbon slurry is then piped from H-1 to one of four slurry storage tanks (T-1, T-2, T-5, or T-6).

Eighty percent of the incoming spent carbon is handled at hopper H-1. The capacity of hopper H-1 is 5,000 pounds of spent carbon per unloading event.

<u>Status and Wastes Managed</u>

The start-up date for this unit was July 1996, and it is currently active. As a component of the spent carbon handling system, this unit is operating under RCRA interim status, and is subject to the RCRA permit decision.

Hazardous and nonhazardous spent carbon is managed in this unit. The list of hazardous constituents that may be adsorbed onto the spent carbon is very extensive and may include, but is not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

H-1 is located below-grade and is equipped with a roofed and three-sided metal structure. The fourth side of the structure is a roof-to-ground sheet of rubber strips approximately five inches wide through which bulk shipments of spent carbon are unloaded. The rubber strips are pushed aside during the unloading of roll-off containers. H-1 is located within a bermed concrete pad with grated trenches and sumps that recycle any water back to tank T-9.

The system is designed to control emissions of VOCs and particulates during the unloading process. A fan pulls air along with organic vapors and particulates from the space formed by the roofed metal structure and the rubber strips. The air is routed via stainless steel piping through a baghouse for particulate removal and then through a large carbon adsorption canister (WS-2) for removal of organic vapors before being vented to the atmosphere.

The carbon in the WS-2 canister is replaced before breakthrough. It was determined through engineering calculations that the carbon in WS-2 needs to be replaced every 100 days at a maximum. The facility operator visually inspects WS-2 for leaks and proper operation on a daily basis. The facility operator also visually inspects the bags in the baghouse on a weekly basis to ensure the bags are in good condition and are operating properly and that the pressure drop across the system is acceptable. The bags are replaced as necessary.

<u>Release History</u>

EPA's *Compliance Evaluation Inspection Report* for February 1994 presented one concern regarding the potential for release of hazardous carbon particulates during unloading of drums and bulk loads to the hoppers, H-1 and H-2. During the inspection, there appeared to be a potential for release of fugitive particulates due to the design of the hood/vacuum that pulls air from the receiving and unloading areas to one of the baghouses, which is located at ground level between the two hoppers. In response to the 1994 inspection, the facility representatives stated that the practice of watering down the spent carbon as it is unloaded effectively controls fugitive particulates.

The facility's quarterly visual inspection form for February 24, 1996, reviewed during the VSI, indicated that on February 1, 1996 "water accumulation" that had come in contact with benzene-contaminated spent carbon had occurred outside of unloading hopper H-1. On February 1, 1996, the water was collected and routed to the recycle water tank T-9. This water accumulation occurred within the bermed concrete pad.

The facility's daily inspection records reviewed during the VSI revealed that on three occasions the carbon adsorption canister was not hooked to the hoppers (on September 21, 2000; on December 18, 2000; and on March 9, 2001). The facility records did not indicate how long the hoppers were unhooked during these incidents or whether unloading occurred during this time. However, according to facility personnel, the hoppers were likely unhooked for 24 hours or less at each of these incidents, since daily inspections are conducted and work orders are written upon discovery of a problem.
Review of the more recent records didn't show that these issues have occurred in the more recent years.

During both VSIs, the concrete pad appeared to be in good condition, and no releases were observed at this unit. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

Remedial Actions

There are no documented remedial actions at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential directly to soil and groundwater from this unit. The likelihood of release is reduced by the bermed concrete pad beneath this unit. For more details about the release potential and the risk from this unit please see Appendix XI in the Permit Application Reference 5.

(2) Surface Water Release Potential

There is low release potential directly to the surface water from this unit. The likelihood of release is reduced by the bermed concrete pad beneath this unit. Although there was a release of contaminated water from H-1, it was contained by the bermed concrete pad. The distance to the nearest surface water is greater than two miles. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

(3) Air Release Potential

There is release potential to air from hopper H-1. Air releases are minimized by the roofed, three-sided structure with rubber strips on the fourth side that surrounds the unloading hopper. However, there is a potential for release of contaminants through the rubber strips while unloading occurs. Air releases are also minimized by the water spray system, the baghouse, and the carbon adsorption canister (WS-2). However, the facility's files indicate that the carbon adsorption canister was unhooked on three occasions. Releases of organic vapors may have occurred to the air if carbon was unloaded to the hopper during these occasions. Review of the more recent records showed that these issues have not occurred in more recent years.

During both VSIs, the bermed concrete pad appeared to be in good condition, and no releases were observed at this unit. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

6.1.6 HWMU 6 (Previously designated as SWMU 5): Spent Carbon Unloading Hopper H-2

Unit Description

Unloading hopper H-2 is located inside the spent carbon warehouse at the east wall. Twenty percent of all incoming spent carbon managed at the facility is handled at H-2. The capacity of H-2 is 500 lbs. per unloading event. The material of construction of this unit is presented in Table 1 listing the units above.

Various sized containers and drums containing spent carbon are removed from incoming trucks and stored in a bermed containment area within the spent carbon warehouse. The containers and drums are unloaded into H-2 by tipping the contents into the hopper. H-2 is equipped with a water spray system to wash out containers immediately following unloading. There is a lid on this hopper, which is kept closed except when spent carbon is being emptied into the hopper.

The spent carbon flows by gravity through a grate into the hopper. Water from Tank T-9 is added as the carbon passes through the hopper to facilitate the transfer of spent carbon from the hopper via an eductor. The spent carbon slurry is then piped from H-2 to one of four carbon slurry storage tanks (T-1, T-2, T-5, or T-6).

Status and Wastes Managed

The start-up date for this unit is 1992, and it is currently active. As a component of the spent carbon handling system, this unit is operating under RCRA interim status, and is subject to the RCRA permit decision.

Hazardous and nonhazardous spent carbon is managed in this unit. The list of hazardous constituents that may be adsorbed onto the spent carbon is very extensive and may include, but is not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

A collector system was installed at start-up in 1992 to control particulate and VOC emissions during the container unloading operation. VOCs and particulates, which are released during the unloading process at H-2, are drawn through a stainless steel pipe at the back of the hopper and routed to a baghouse designed to remove particulates and a carbon adsorption canister, WS-2, designed to remove VOCs.

This unit is located inside a warehouse. The floor of the warehouse is concrete with grated trenches that lead to a sump. Any liquids captured inside the warehouse are recycled to Tank T-9.

Release History

EPA's *Compliance Evaluation Inspection Report* for February 1994 presents one concern regarding the potential for release of hazardous carbon particulates during unloading of drums and bulk loads to the hoppers, H-1 and H-2. During the inspection, there appeared to be a potential for release of fugitive particulates due to the design of the hood/vacuum that pulls air from the receiving and unloading areas to one of the baghouses, which is located at ground level between the two hoppers. In response to the inspection, the facility representatives stated that the practice of watering down the waste carbon as it is unloaded effectively controls fugitive particulates.

The facility's daily inspection records reviewed during the VSI revealed that on three occasions the carbon adsorption canister was not hooked to the hoppers (on September 21, 2000; on December 18, 2000; and on March 9, 2001). The facility records did not indicate how long the hoppers were unhooked during these incidents or whether unloading occurred during this time. However, according to facility personnel, the hoppers were likely unhooked for 24 hours or less at each of these incidents, since daily inspections are conducted and work orders are written upon discovery of a problem.
Review of the more recent records didn't show that these issues have occurred in the more recent years.

There is low potential for a release from H-2 since a stainless steel pipe attached to H-2 draws vapors and particulates from the spent carbon as it is unloaded and routes them to a baghouse and carbon adsorption canister WS-2.

The carbon in the WS-2 canister is replaced before breakthrough. It was determined through engineering calculations that the carbon in WS-2 needs to be replaced every 100 days at a maximum. The facility operator visually inspects WS-2 for leaks and proper operation on a daily basis. The facility operator also visually inspects the bags in the baghouse on a weekly basis to ensure the bags are in good condition and are operating properly and that the pressure drop across the system is acceptable. The bags are replaced as necessary.

No releases were observed at this unit during both VSIs. During both VSIs, the bermed concrete pad appeared to be in good condition, and no releases were observed at this unit. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

Remedial Actions

No documented remedial actions have been performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low potential of a release from this unit directly to the soil or groundwater since the unit is located inside the spent carbon warehouse and the floor of the warehouse appears to be in good condition. There is low release potential to soils though deposition from air releases (see item 3 below).

(2) Surface Water Release Potential

There is low potential for release directly to the surface water since the unit is located inside the spent carbon warehouse and the floor of the warehouse appears to be in good condition as stated above. In addition, any spilled liquids are piped to on-site recycle water tank T-9 via a sump located near trenches in the floor. The distance to the nearest surface water is greater than two miles. There is low release potential to surface water through deposition from air releases (see item 3 below).

(3) Air Release Potential

There is low potential for a release to air since a stainless steel pipe attached to H-2 draws vapors and particulates from the spent carbon as it is unloaded and routes them to a baghouse and carbon adsorption canister WS-2.

The carbon in the WS-2 canister is replaced before breakthrough. It was determined through engineering calculations that the carbon in WS-2 needs to be replaced every 100 days at a maximum. The facility operator visually inspects WS-2 for leaks and proper operation on a daily basis. The facility operator also visually inspects the bags in the baghouse on a weekly basis to ensure the bags are in good condition and are operating properly and that the pressure drop across the system is acceptable. The bags are replaced as necessary.

The facility files indicate that the carbon adsorption canister was unhooked on three occasions. Releases of VOCs may have occurred to the air if spent carbon was unloaded to the hopper during these occasions. Review of the more recent records showed that these issues have not occurred in the more recent years. No releases were observed at this unit during both VSIs.

6.1.7 HWMU 7 (Previously designated as SWMU 6): Hopper Air Pollution Control

Equipment (Piping and Baghouse)

Unit Description

HWMU 7 is a particulate and organic vapor collection system made of steel piping. The system has been installed to collect the particulates and organic vapors from hoppers H-1 and H-2. Particulates and organic vapors, which are released during the unloading process at H-1 and H-2, are drawn through stainless steel pipes at the back of the hoppers and routed first to a baghouse designed to remove particulates and then to a carbon adsorption canister (WS-2) designed to remove VOCs. Treated air is exhausted to the atmosphere. The material of construction of this unit is presented in Table 1 listing the units.

Status and Waste Managed

The start-up date for this unit was 1992, and it is currently active. It is operated to meet the fugitive emission (benzene) NESHAPs standards under the CAA. As a component of the spent carbon handling system, this unit is operating under RCRA interim status, and is subject to the RCRA permit decision.

Air containing particulates and organic vapors is managed in this unit. The list of hazardous constituents that may be present in the air is very extensive and may include, but is not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The system is inspected weekly to ensure the particulate collection bags in the baghouse are in good condition and the pressure drop across the system is adequate. A bermed concrete pad is present under the piping that runs outdoors.

Release History

EPA's *Compliance Evaluation Inspection Report* for February 1994 presents one concern regarding the potential for release of hazardous carbon particulates during unloading of drums and bulk loads to the hoppers, H-1 and H-2. During the inspection, there appeared to be a potential for release of fugitive particulates due to the design of the hood/vacuum that pulls air from the receiving and unloading areas to one of the baghouses located on top of the carbon regeneration unit. In response to the results of the inspection, the facility representatives stated that the practice of watering down the waste carbon as it is unloaded effectively controls fugitive particulates.

No release was observed at this unit during both VSIs.

Remedial Actions

There were no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential
There is low release potential directly to soil and groundwater from this unit. The likelihood of release is reduced by the bermed concrete pad beneath this unit. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5. In addition, there is low release potential to soils through deposition from air releases (see item 3 below).

(2) Surface Water Release Potential

The potential to release from this unit directly to surface water is low because the unit is located over concrete pads and the distance to surface water is greater than two miles. In addition, there is low release potential to surface water through deposition from air releases (see item 3 below).

(3) Air Release Potential

The potential to release contaminants from this unit to air is low due to routine inspections of the air pollution control system including prompt replacement of any parts, particulate collection bags, and carbon in the carbon adsorber units as needed. The facility operator also visually inspects the bags in the baghouse on a weekly basis to ensure the bags are in good condition and are operating properly and that the pressure drop across the system is acceptable. The bags are replaced as necessary.

No releases were observed at this unit during either VSIs. During both VSIs, the bermed concrete pad appeared to be in good condition, and no releases were observed at this unit. For more details about the release potential and the risk from this unit see Appendix XI in the Permit Application Reference 5.

6.1.8 HWMU 8 (Previously designated as SWMU 7): Spent Carbon Slurry and Recycle Water Transfer System

Unit Description

This unit is used for transporting spent carbon slurry from unloading hoppers H-1 and H-2 to spent carbon slurry storage tanks T-1, T-2, T-5, and T-6, to reactivation feed tank T-18, and finally to reactivation furnace RF-2. The transfer equipment is located east of the spent carbon warehouse and includes eductor pumps, valves, steel piping, and flexible piping used to transfer the spent carbon slurry from unloading hoppers H-1 and H-2 to the spent carbon slurry storage tanks, from the spent carbon slurry storage tanks to reactivation furnace feed tank T-18, and from the reactivation furnace feed tank to reactivation furnace RF-2 (Appendix E).

The materials of construction for this system are presented in Table 1 listing the units above. The material for all valves is stainless steel. Spent carbon pipelines (inlets, outlets, and overflows) are also constructed of stainless steel. There is one flexible piping that is constructed of steel-reinforced rubber hose. The pipelines are not internally lined because they are compatible with the waste being handled at the facility.

During periodic inspections the pipelines were noted to be free from outside corrosion. All pipelines are supported throughout by hanger supports and steel bridge supports, and "U" bolts guide them.

Status and Wastes Managed

This transfer system was used for the RF-1 feed system from 1992 to 1996, and it has been used for RF-2 since 1996. The system is currently active. As a component of the spent carbon handling system, this unit is operating under RCRA interim status and is subject to the RCRA permit decision.

Hazardous waste in the form of spent carbon slurry, along with recycle water that has been in contact with the spent carbon, is managed in this unit. The list of hazardous constituents that may be present in slurry and recycle water is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

In the treatment and storage areas, the permanent piping used to transfer spent carbon is rated for at least 125 percent of the nominal operating pressure. All piping and pumps are compatible with the waste that they come in contact with. Pumps are located within a concrete pad to control releases in the event of a leak. The pump motors are Teflon® to minimize chances of electrical shorting if liquids contact the motors. All rotating parts of the pumps are fitted with guards.

The facility operator inspects all transfer equipment weekly for signs of corrosion and leaks and for proper operation. If a problem is found, it is taken care of upon discovery or as soon as possible.

Release History

Based on a review of inspection logs and file material during both VSIs, there are no known records or reports of past releases from this unit. No releases were observed at this SWMU during both VSIs.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low potential of a release from this unit to the soil and groundwater since routine inspections of the system are performed, and the unit is located within bermed concrete pads.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. There is low potential of release to the surface water from this unit since routine inspections of the system are performed, and the unit is located within bermed concrete pads.

(3) Air Release Potential

The air release potential is low because the unit is a closed-loop system that is inspected routinely for integrity to ensure that there are no leaks.

6.1.9 HWMU 9 (Previously designated as SWMU 8): Spent Carbon Storage Warehouse (Container Storage Area)

Unit Description

This warehouse is located in the northern portion of the facility. The hazardous waste storage portion of the warehouse has the capacity to store 100,000 gallons of containerized waste and 35,000 gallons of bulk hazardous waste. Currently, only containerized wastes (drums and filter canisters) are stored in the warehouse; the containers are stored on pallets. Samples collected from incoming spent carbon are also stored in the hazardous waste portion of the warehouse. The samples are stored in glass jars on metal shelves until the batch of spent carbon from which the samples were collected is reactivated. The samples are then poured into the hopper for processing, and the jars are triple-rinsed and reused.

The container storage area is designed to hold up to 100,000 gallons of RCRA spent carbon. The containment system is designed to hold a minimum of 10,000 gallons. The containment volume calculations are shown in Appendix VII of Permit Application Reference 5. The calculated containment volume is 19,418 gallons, which is larger than the minimum required 10,000 gallons. Because the container storage area is inside, run-on is not a consideration. If a container leaks, any liquids leaking from the container will drain into the sump via the trench system, where it will be transferred to recycle water tank T-9. Details of the container storage area floor, slope, sump, etc. can be found on the drawings contained in Appendix VII of the Permit Application Reference 5.

Facility history indicates that more than half of the containers received do not contain free liquids. All containers however are managed in the same manner, consistent with practices for containers with free liquids.

The warehouse slab-on-grade is designed for containment (prevention of release of any spills of hazardous waste to the environment). The slab is constructed of five-inch thick reinforced concrete (3,000 psi) on two-inch sand on a six-millimeter visqueen vapor barrier on a four-inch compacted gravel base. All construction and control joints in the slab are coated with a sealant. The slab is designed for warehouse storage use and light forklift traffic. The slab is sloped one-eighth of an inch per foot to trench drains, which flow into a concrete sump. The slab slope is from the perimeter to the interior trench drains (1 foot by 1 foot minimum). The trench drains slope to a sump (3 feet by 3 feet by 3 feet), where any liquids that enter may be stored for subsequent removal.

Any spills within the containment area of the warehouse will drain to the sump. The sump is equipped with a pump that removes any accumulation in the sump to the recycled water storage tank T-9. In addition, a continuous six-inch high concrete curb is provided around the entire building.

All drums and containers stored in this warehouse are managed as “Subpart FF-affected wastes” (meaning the containers are subject to the requirements of the Clean Air Act (“CAA”) air emission control provisions at 40 CFR Part 61, subpart FF) and meet DOT container requirements. The materials of construction of the spent carbon storage warehouse are presented in Tables 1 listing the units above.

Status and Wastes Managed

Use of the warehouse for container storage of hazardous waste began in 1992, and it remains active. The hazardous waste portion of the warehouse is operated under RCRA interim status and is subject to the RCRA permit decision.

Both hazardous and nonhazardous spent carbon is managed in this unit. The list of hazardous constituents that may be present on the spent carbon stored in the warehouse is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

Facility personnel inspect the hazardous waste container storage area on a daily basis. The containment system is inspected for cracks, surface erosion, and the integrity of the surface coating. Cracks in the concrete floor of the spent carbon storage warehouse have been sealed with a polyresin, Sikadur-35® or equivalent. On the hazardous waste storage side, the floor is divided by a sump system that collects any spills or wash waters. Liquids collected in the sump system are pumped into the recycle water system. The Container Storage Area is inspected daily. The storage pad is checked for cracks and gaps that would prevent a spill from being contained. Trenches and the sump are checked for standing liquids. Aisles are inspected to make sure they are not blocked and that they allow inspection.

Drums and containers used to store spent carbon that are stored in this facility are visually inspected daily by facility personnel to ensure the absence of corrosion and leaks. To ensure that they are closed during storage, and that they are not leaking and have the required labels.

Release History

Hazardous spent carbon was observed within the containment area on the warehouse floor during EPA’s October 1993 inspection, although the floor had been recently washed down. The spill was inside the containment area, and may have been indicative of sloppy unloading of spent carbon into hopper H-2.

A review of the facility's quarterly visual inspection logs during the 2003 VSI revealed that in February 1996, a vent scrub tank in the hazardous waste storage area of the warehouse did not have a bottom plug. (A vent scrub tank is a vessel filled with carbon that a generator uses on their site to filter air. When the carbon is ready to be changed out, the entire vessel containing the spent carbon is shipped to the facility for regeneration of the spent carbon.) The problem was resolved upon discovery. No release of any liquid or spent carbon was reported.

During an EPA inspection conducted in June 2001, an open barrel of sample jars, some closed and others without lids, was observed in the hazardous waste storage area within the warehouse. It appeared that the samples may have been dumped into a barrel for storage until disposal or processing for reuse. The facility operator has corrected the problem.

Records reviewed during the 2003 VSI indicate that only one leaking drum has ever been discovered in the warehouse (September 8, 2000); the drum was pulled from the pallet and the contents dumped into hopper H-2. No release was observed at this unit during the 2014 VSI.

Remedial Actions

A plug was installed at the vent scrub tank on February 1, 1996. Also, the barrel of sample jars was removed, and facility personnel now empty the sample jars into the hopper H-2 rather than storing them in a drum.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential for release from this unit to the soil and groundwater is low because the unit includes secondary containment and is routinely inspected.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. There is low release potential to surface water because the unit includes secondary containment and is routinely inspected.

(3) Air Release Potential

The potential for release is low from this unit to air. The containers of spent carbon are kept tightly closed except to unload into hopper H-2. There is low potential for a release to air since a stainless steel pipe attached to H-2 draws vapors and particulates from the spent carbon as it is unloaded and routes them to a baghouse and carbon adsorption canister WS-2. The carbon in the WS-2 canister is replaced before breakthrough. It was determined through engineering calculations that the carbon in WS-2 needs to be replaced every 100 days at a maximum. The facility operator visually inspects WS-2 for leaks and proper operation on a daily basis. The facility operator also visually inspects the bags in the baghouse on a weekly basis to ensure the bags are in good condition and are operating properly and that the pressure drop across the system is acceptable. The bags are replaced as necessary.

6.1.10 HWMU 10-13 (Previously designated as SWMUs 10-13): Spent Carbon Slurry Tank System

Units Descriptions

The spent carbon slurry storage tanks are located outside and east of the spent carbon storage warehouse. These tanks are used to store carbon slurry from unloading hoppers H-1 and H-2. From the spent carbon storage tanks the carbon slurry is pumped to reactivation furnace feed tank T-18. The material of construction for all four tanks is stainless steel, specific grade 300 series, and each tank has a design capacity of 8,319 gallons. All four tanks are staged on skirt supports on a steel platform structure. Information on the tanks is presented in Table 1 listing the units above.

The tanks were assessed by a professional engineer in April 2012. For more details about the conditions of the tank, please see the Appendix IX dated April 2012 in the Permit Application Reference 3. In addition the facility does daily inspections of the tanks as described in Appendix XII of Permit Application Reference 4. Each tank is inspected for signs of corrosion, leaks, proper operation, etc. The secondary containment underneath the tanks is inspected for gaps, cracks, standing water, etc. The containment sump is also checked for cracks and standing water. If water is found it is pumped to recycle water tank T-9.

Status and Wastes Managed

The tanks were purchased as used tanks that were new in 1956. The start-up date for the tanks was in 1992, and they are currently active. The tanks are managed and operated under RCRA interim status and are subject to the RCRA permit decision.

Hazardous spent carbon slurry is managed in these units. The list of hazardous constituents that may be adsorbed to the spent carbon slurry is very extensive and may include, but is not limited to: VOCs, PAHs, phthaates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The tanks are located on a secondary containment pad that has U-drains routed to recycle tank T-9. Piping systems and pumps for the four tanks are also located within the secondary containment area.

The tanks are directly attached to a carbon adsorber (for venting). Carbon adsorber WS-1 controls VOC emissions including potential benzene emissions from the tanks. WS-1 is designed to achieve control of benzene emissions by at least 98 percent, and the carbon is replaced before breakthrough on a calculated set schedule as described in the Subpart FF Compliance Plan, Appendix XXIII of the Permit Application Reference 5.

Typically, proper tank pressure will be maintained via tank "venting" through the carbon adsorber. However, should unacceptably high pressure build up in the tanks, it would be released through the three-inch diameter pressure relief valves with vacuum breaker installed on each tank. All the valves are set at eight ounces for pressure relief and at six ounces to break the vacuum. The pressure relief valves are not connected to a carbon adsorber and release directly to the air.

An overflow nozzle is installed on each tank, and the overflow lines are routed back to the recycle tank, T-9. High-level alarms for carbon levels are present on each of the tanks. The high-level alarm is used to alert operators to cease flow of spent carbon slurry to the tank.

The slurry storage tank system, including any valves and piping associated with these tank systems, are visually inspected daily by facility personnel for leaks, cracks, and external corrosion. The overfill protection systems, valve positions, and level monitoring systems are also visually inspected daily for proper operation. The facility operator also checks the tanks for markings indicating weathering, proper identification of tank contents, and signs of corrosion and pitting on external tank walls.

Release History

No evidence of a release from the tank system was observed during both VSIs, and the tanks were in good condition. Based on a review of inspection logs and file material during both VSIs, there is no known record or report of past release from the tank system. However, a review of the facility's carbon replacement logs revealed several instances historically, in which the carbon in WS-1 was not replaced within specified time periods [see WS-1 for details].

<u>Remedial Actions</u>
Documentation was found in the facility records that, subsequent to the February 1994 tank assessment, the facility operator has addressed the recommendation to install eight one-inch diameter bolts on the skirt supports of the tanks. Inspection of these tanks during both VSIs confirmed that the bolts were in place.

Migration Pathways

(1) <u>Soil to Groundwater Release Potential</u>

The potential for release from these units to the soil or groundwater is low due to the good condition of the tanks, daily inspection of the tanks, and the bermed secondary containment provided underneath the tanks.

(2) <u>Surface Water Release Potential</u>

The nearest surface water is greater than two miles away. The potential for release from these units to the surface water is low due to the good condition of the tanks, daily inspections of the tank systems, and the bermed secondary containment provided around the tanks.

(3) <u>Air Release Potential</u>

The potential for release from these units to the air is low due to the good condition of the tanks and daily inspection of the tanks. In addition, the tanks vent to carbon adsorber WS-1 to control emissions from the tank. The carbon in the WS-1 canister is replaced before breakthrough. It was determined through engineering calculations that the carbon in WS-1 needs to be replaced every 7.88 days at a maximum as described in the Subpart FF Compliance Plan, Appendix XXIII of Permit Application Reference 5. The facility operator visually inspects WS-1 for leaks and proper operation on a daily basis.

6.1.11 HWMU 14 (Previously designated as SWMU 14) RF-1 Furnace Feed System

HWMU 14 - RF-1 Furnace Feed System (RF-1 Feed Tank T-8, Dewatering Screw, and Weigh Belt Conveyor)

Unit Description

The furnace feed system is located in the RF-1 structures in the central process area of the facility. The RF-1 furnace feed system consists of the feed tank T-8 (capacity of 905 gallons), a dewatering screw, and a weigh belt conveyor. The furnace feed system for RF-1 was cleaned and has not been operated since RF-1 was shut down in 1996.

The materials of construction of this unit are presented in Table 1 listing the units above.

Status and Waste Managed

The feed tank to the reactivation furnace RF-1 (T-8) was new when it was installed. T-8 was operated from 1992 until 1996, when RF-1 was shut down.

Hazardous and spent carbon was managed in this unit. The list of hazardous constituents that may adsorbed to the spent carbon is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

Tank T-8 was located within a bermed concrete pad, which was visually inspected daily for cracks, surface erosion, and signs of leakage to determine whether any liquids had accumulated.

According to facility personnel, the integrity of Tank T-8 was tested upon installation. The pipe from T-8 was vertical and contained a full-open/full-closed valve, which controlled the flow of carbon slurry to the dewatering screw. Waste feed cut-off systems were used to stop the feed of spent carbon into the reactivation furnace; these systems were visually inspected daily.

Tank T-8 was also attached to a carbon adsorber for emissions control when RF-1 was operating, but it was removed when RF-1 was shut down in 1996. The carbon adsorber was designed to achieve control of benzene emissions by at least 98 percent, and the carbon was replaced before breakthrough.

Release History

In October 1993, during an EPA inspection, RF-1 was observed to fail to operate in a way that minimizes the possibility of a release of hazardous constituents/pollutants as evidenced by fugitive emissions observed coming from the top of the dewatering screw. The facility's inspection logs also indicated vapor emissions from above the dewatering screw on August 3, 1993. It is not known what, if any, corrective action occurred for the fugitive emissions for the dewatering screw for RF-1.

No evidence of a release from this SWMU was observed during 2003 VSI or during the 2014 VSI. None was expected since this unit has not been used since 1996.

Remedial Actions

It is not known what, if any, corrective action occurred for the fugitive emissions for the dewatering screw for RF-1 in October 1993. A fan was installed to the RF-2 dewatering screw in 1996 to add additional protection against potential releases of organic vapors. The fan routes gases and vapors into the afterburner rather than to the atmosphere. This helped prevent any future incidents similar to the RF-1 incident that happened in October 1993.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential is low for a release to the soil or groundwater from this unit due to the bermed concrete pad surrounding the unit.

(2) Surface Water Release Potential

The release potential from this unit to surface water was low due to the bermed concrete pad provided underneath the unit and the distance to the nearest surface water, which is greater than two miles.

(3) Air Release Potential

There is no current release potential to air from this unit since it has not been operated since 1996 and since it was cleaned. Past releases to the air from this unit occurred when fugitive emissions were released from the dewatering screw. The past release potential from Tank T-8 was low due to the controls that were in place to minimize fugitive emissions except for the incident that occurred in 1993 as was described above.

6.1.12 HWMU 15 (Previously designated as SWMU 15) RF-2 Furnace Feed System

HWMU 15 - RF-2 Furnace Feed System (RF-2 Feed Tank T-18, Dewatering Screw, and Weigh Belt Conveyor)

Unit Descriptions

The furnace feed system is located in the RF-2 structure in the central process area of the facility. The RF-2 furnace feed system consists of the feed tank T-18 (capacity of 5,000 gallons), a dewatering screw, and a weigh belt conveyor, and it is currently active. The RF-2 furnace feed system feeds the carbon slurry to the RF-2 reactivation furnace. Details on the operation of this unit are given below.

Prior to introduction into the reactivation furnace, the water-carbon slurry is fed from the feed tank, T-18, via a pipe system to a dewatering screw at the top of RF-2 where the carbon is dewatered. The water from the dewatering screw is routed to the recycle water tank T-9, where it is then recycled through the spent carbon slurry and recycled water transport system. The dewatered spent carbon is then fed into the top hearth of the reactivation furnace by a weigh belt conveyor.

The materials of construction of this unit is presented in Table 1 listing the units above.

Status and Waste Managed

The feed tank, T-18, was new when it was installed. The furnace feed system to RF-2 has been in operation since July 1996 and is still active. As a component of the spent carbon handling system, the furnace feed system operate under RCRA interim status and are subject to the RCRA permit decision.

Hazardous spent carbon is managed in this unit. The list of hazardous constituents that may adsorb to the spent carbon is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

Tank T-18 is located within a bermed concrete pad, which is visually inspected daily for cracks, surface erosion, and signs of leakage to determine whether any liquids have accumulated.

According to facility personnel, the integrity of this tank was tested upon installation.
Tank T-18 was replaced with a double walled tank in 2006 as a result of the Consent Agreement and Final Order dated June 30, 2006. The pipe from T-18 is vertical and contains a full-open/full-closed valve, which controls the flow of carbon slurry to the dewatering screw. Waste feed cut-off systems are used to stop the feed of spent carbon into the reactivation furnace; these systems are visually inspected daily.

Carbon adsorber WS-3 is attached to Tank T-18 to control volatile emissions. Air displaced from Tank T-18 passes through WS-3 prior to being vented to the atmosphere. WS-3 is designed to achieve control of benzene emissions by at least 98 percent, and the carbon is replaced on a pre-calculated interval (38 days maximum) before breakthrough. Please see Permit Application Reference 5 and Appendix XXIII, for more details.

A fan was installed to the dewatering screw in March 1999 to add additional protection against potential releases of organic vapors. The fan routes gases and vapors into the afterburner rather than to the atmosphere. This helped prevent any future incidents similar to the RF-1 incident that happened in October 1993.

Release History

During an EPA inspection in December 1998, a shallow pan containing residual drip material was observed on one level of the reactivation furnace structure. The facility representative stated the residue was from a valve and had accumulated over a period of weeks. The pan was used to prevent the material from dripping on workers below, as the material is possibly caustic. The inspector informed the facility representative that if this was hazardous waste, it could be considered satellite accumulation. No pan was present during both VSIs.

No evidence of a release from this unit was observed during both VSIs.

Remedial Actions

In March of 1999, equipment was ordered to vent potential emissions from the dewatering screw to the afterburner to prevent further fugitive emissions from the dewatering screw for RF-2. A review of the facility records during the 2003 VSI verified that a new fan had been ordered, received, and installed to vent emissions to the afterburner.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential is low for a release to the soil or groundwater from this unit due to the unit being a double walled tank.

(2) Surface Water Release Potential

The release potential from this unit to surface water is low due to the unit being double walled and the distance to the nearest surface water is greater than two miles.

(3) Air Release Potential

The release potential for this unit is low because controls are in place to minimize fugitive emissions. The fugitive emissions from the dewatering screw are now routed to the afterburner. Also Tank T-18 vents to carbon adsorber WS-3 before it vents to the atmosphere.

6.1.13 HWMU 16 (Previously designated as SWMU 27): Wastewater Conveyance Piping to Wastewater Treatment Tank

Unit Description

The conveyance piping system is located east of the RF-2 structure. The conveyance piping is made of polyvinyl chloride (PVC). Contaminated process water (slurry water/motive water), and other wastewaters are piped to the wastewater treatment tank, Tank T-11. The pipes are above ground. The materials of construction of the piping are presented above in Tables 1 listing the units above.

Status and Waste Managed

The conveyance piping system is located east of the RF-2 structure. The conveyance piping is made of polyvinyl chloride (PVC). Contaminated process water (slurry water/motive water), and other wastewaters are piped to the wastewater treatment tank, Tank T-11. The pipes are above ground. The list of hazardous constituents that may be adsorbed to the spent carbon, and thus may be in the wastewaters managed in this unit, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

This unit is located on a bermed concrete pad. The facility routinely inspects the piping system for any corrosion, leakage, cracking, or metal fatigue. Any leaks from the piping system would be captured within the bermed concrete pad area and flow to grated trenches and sumps where water or spills are pumped to the recycle water tank, T-9.

Release History

A review of the facility records during both VSIs revealed no records of any releases from this conveyance piping system. No release from the conveyance piping system to the wastewater treatment tank was observed during both VSIs.

Remedial Actions

There is no record of remedial action on the conveyance piping system.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low potential of a release from this unit to the soil and groundwater since routine inspections of the system are performed, and the unit is located within a bermed concrete pad.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. There is low potential of release to the surface water from this unit since routine inspections of the system are performed, and the unit is located within bermed concrete pads.

(3) Air Release Potential

The air release potential is low because the unit is a closed-loop system that is inspected routinely for integrity to ensure that there are no leaks.

6.1.14 HWMU 17 (Previously designated as SWMU 22): Spent Carbon Storage Warehouse Barrel Washer

Unit Description

The barrel washer is located in the Spent Carbon Storage Warehouse next to hopper H-2. The barrel washer is a rack used to support an empty container such as a drum or barrel, the contents of which has already been unloaded into hopper H-2. Clean water is used to rinse residual spent carbon or contamination from the container. The rinse water is flushed with clean wash-down water and drains to a nearby grated trench, which flows to the sump system. The rinse water is then pumped from the sump to the recycle water Tank, T-9. The materials of construction of this unit are presented in Table 1 listing the units above.

Status and Waste Managed

The use of this unit began in 1998, and it is currently active. As a component of the spent carbon handling system, this unit is operating under RCRA interim status, and is subject to RCRA permitting.

Any of the hazardous constituents found in the spent carbon may be present in the rinse water after cleaning out the empty containers at the barrel washer. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5 (see Appendix N).

Release Controls

The barrel washer is located within the Spent Carbon Storage Warehouse containment (the concrete floor), which is surrounded by a berm and drains to the grated trenches and sump.

Release History

There is no record of a release to the environment from the barrel washer area within the Spent Carbon Storage Warehouse. Residual rinse water was observed during the 2003 VSI around the barrel washer from a recent washout of barrels. This residual rinse water was within the containment area for the Spent Carbon Storage Warehouse. There was no residual rinse water observed during the 2014 VSI.

Remedial Actions

There is no record of remedial actions performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential from this unit to the soil and groundwater. The barrel washer is located indoors, and containment, trenches, and a sump are present to capture rinse water from the barrel washer.

(2) Surface Water Release Potential

There is low release potential from this unit to the surface water since containment, trenches, and a sump present to capture rinse water from the barrel washer. The distance to the nearest surface water is greater than two miles.

(3) Air Release Potential

There is low release potential from this unit to the air. Low concentrations of hazardous constituents may be present in the empty drums that are rinsed out at the barrel washer. However, most of the VOCs and particulates from the drums are released during unloading of the containers at Hopper H-2 and are controlled with the H-2 hopper air pollution control equipment.

6.1.15 HWMU 18 (Previously designated as SWMU 32): Carbon Adsorber PV-50 or PV-1000. This unit doesn't exist anymore.

Unit Description

The carbon adsorber PV50 was part of the process wastewater treatment system with piping to Tank T-11. The canister was located adjacent to Tank T-12, the old motive water and rainwater collection tank which is no longer in use. The unit was used periodically to filter recycle/motive water from tank T-12 before discharging to Tank T-11 to the POTW. This unit doesn't exist anymore.

According to facility representatives, the installation of this unit was not a regulatory requirement for compliance with the CAA or RCRA. It was installed as an additional measure of treatment for recycle water. The designed control of contaminants (% removal of incoming contaminants) was not available from facility reports. The material of construction of this unit is presented in Table 1 listing the units above.

Status and Waste Managed

The list of hazardous constituents that were filtered through the carbon adsorber was very extensive and may have included, but was not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

According to the facility, the carbon in the carbon adsorber canister was changed out or sometimes a new carbon adsorber canister was taken out of inventory for replacement to prevent breakthrough. Replacement logs were kept to verify replacement. PV50 was located on a concrete pad surrounded by a berm, and grated trenches and sumps provide for capture of any spills. The unit was sealed and kept closed except during change-out of carbon.

Release History

A review of the carbon replacement logs revealed no documentation of a breach in the container, visible leakage, or corrosion of any carbon canister.

There are ongoing low emissions of benzene from this unit of an estimated two percent of the benzene entering the filter, this is based on the 98% efficiency concept. There was no other record of any release from this unit. Staining on the exterior of the canister was observed during the 2003 VSI; further visual inspection indicated that leaking from the top of the canister was apparent.

Remedial Actions

A review of the records revealed no remedial actions at the carbon adsorber PV50.

Migration Pathways

(1) Soil to Groundwater Release Potential

There was low release potential from this unit to the soil or groundwater. The unit was located on a concrete pad surrounded by a berm. Any releases that might have occurred when this unit was in operation, such as the leak observed from the canister during the 2003 VSI, would have been contained in the bermed concrete pad. In addition, the unit was sealed, closed, and only opened for change-out prior to breakthrough.

(2) Surface Water Release Potential

There was low release potential to the surface water from this unit, since the closest surface water was greater than two miles away. Additionally, the carbon adsorber canister was located within the bermed area and was sealed closed except for change-out of carbon before breakthrough.

(3) Air Release Potential

There could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs were performed on

schedule, there could have been low release potential to air from this unit. This could have been higher if the change-outs were not done on schedule.

6.1.16 HWMU 19 (Previously designated as SWMU 29): Carbon Adsorber WS-1

Unit Description

Carbon adsorber canister WS-1 is located beside the spent carbon storage tanks, east of the warehouse. The spent carbon storage tanks (T-1, T-2, T-5, and T-6) and the recycle water tank (T-9) vent to the WS-1 adsorber. Air vents through the carbon adsorber, is filtered and then released to the outside air.

WS-1 contains approximately 4,000 lbs. of activated carbon and is designed to achieve control of benzene emissions by at least 98 percent. Emissions calculations supporting the design of WS-1 are contained in the facility's Benzene NESHAPs Subpart FF Compliance Plan (See Appendix XXIII of Part B Application Reference 5). The capacity and material of construction of this unit are presented in Table 1 listing the units above.

Status and Waste Managed

WS-1 has been in operation since 1992, and it is currently active. The carbon canister subject to both RCRA and CAA. The list of hazardous constituents that may be filtered through the carbon adsorber is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

This adsorber is changed out approximately every 7.88 days that the unit is in use at a maximum or more frequently (as described in the Table in Section 4.5 of Appendix XXIII of Permit Application Reference 5) to assure breakthrough does not occur. The spent carbon from WS-1 is unloaded into hopper H-1 for treatment in the reactivation furnace. Replacement logs are kept to verify replacement of spent carbon. WS-1 is located on a concrete pad surrounded by a berm, and grated trenches and sumps provide for capture of any spills. The unit is sealed and kept closed except for change-out of carbon.

Release History

During the 2003 VSI, a review was conducted of the carbon canister replacement log. This log is kept by the facility to ensure carbon replacement within specified time periods and to document any breach in the container, visible leakage, or corrosion. The review of the carbon replacement log revealed that the carbon unit (WS-1) was changed out on March 15, 2000, two days after the required date of March 13, 2000. Also, from July 9, 1996 to August 22, 1996, WS-1 was operated 13 days beyond the change-out period. No documentation of a breach in a canister, or visible leakage, or corrosion was observed in the logs from 1995 through 2000. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

The facility did periodic monitoring of the WS-1 adsorber vent from June 2011 till August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at 223 ppm. As per the logs, change-outs take place every 2-3 days which is more frequently than the 7.88 days required by the engineering calculations.

A review of quarterly visual inspection records for the period of 1995 to 2001 during the VSI, revealed that in 1996, a cracked hose was identified at the top of the WS-1 carbon canister. Records indicate that the hose was replaced on February 1, 1996. The delays in carbon change-out and the cracked hose may have resulted in releases of unfiltered air from the tanks and carbon filter.

There are ongoing low emissions of benzene (and possibly other organic constituents) from this unit of an estimated two percent of the benzene entering the filter. There is no other record of any release from this unit. No evidence of release was observed during either VSIs at this unit.

Remedial Actions

The only documented remedial actions for WS-1 were that the spent carbon in the canister was changed out on the day of discovery of being past due for change-out, and the cracked hose was replaced.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential from this unit to the soil or groundwater. The unit is located on a containment pad surrounded by a berm. In addition, the unit is sealed, closed, and only opened for change-out prior to breakthrough.

(2) Surface Water Release Potential

There is low release potential to surface water since the nearest surface water is greater than two miles away. Additionally, the carbon adsorber canister is located within secondary containment and is sealed closed except for change-out of carbon before breakthrough.

(3) Air Release Potential

Since the canister performs at a 98% efficiency, there could potentially have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 7.88 days have passed), there would be low release potential to air from this unit. This could be higher if the carbon from the unit is not changed-out on schedule.

The 2003 VSI file review showed that, in at least two incidents, change-out did not occur on schedule. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

The facility did periodic monitoring of the WS-1 adsorber vent from June 2011 till August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at 223 ppm. Most other results were much lower. The logs showed that change-outs normally take place every 2-3 days which is more frequently than the 7.88 days required by the engineering calculations.

6.1.17 HWMU 20 (Previously designated as SWMU 30): Carbon Adsorber WS-2

Unit Description

The WS-2 carbon adsorber canister is located east of the warehouse and on the process area bermed concrete pad. WS-2 controls VOC emissions from unloading hoppers H-1 and H-2. Until 1996, it also controlled VOC emissions from Tank T-8, the former feed tank to RF-1. The canister filters air collected from above the hoppers. This air flows through the carbon adsorber, is filtered, and then is released to the outside air.

WS-2 contains approximately 5,000 lbs. of activated carbon and is designed to achieve control of benzene emissions by at least 98 percent. The inlet concentration is 80 ppmv with a maximum flow rate of 2500 cfm. The engineering calculations are included in the facility's Benzene NESHAPs Subpart FF Compliance Plan (See Appendix XXIII of Part B Application Reference 5). The carbon adsorber is designed to achieve benzene control efficiency of at least 98 percent. The capacity and material of construction of this unit are presented in Table 1 listing the units above.

Status and Waste Managed

WS-2 began operating in 1992, and it is currently active. From 1992 until present, the unit has been used to control VOC emissions from the spent carbon unloaded into hoppers H-1 and H-2. From 1992 until 1996, it also controlled VOC emissions from Tank T-8. The carbon canister is subject to both RCRA and CAA.

The list of hazardous constituents that may be filtered through the carbon adsorber is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The carbon in the carbon adsorption canister is scheduled to be replaced before breakthrough as part of the facility's operation and maintenance procedures. The maximum number of days (100) before the carbon is replaced in the canister was determined by engineering calculations. The spent carbon from WS-2 is unloaded into hopper H-1 for treatment in the reactivation furnace. Replacement logs are kept to verify replacement of spent carbon. WS-2 is located on a containment pad surrounded by a berm, and grated trenches and sumps provide for capture of any spills. The unit is sealed and kept closed except for change-out of carbon.

Since the canister performs at a 98% efficiency, potentially, there could be ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 100 days have passed), there would be low release potential to air from this unit.

The 2003 VSI file review showed that, in at least two incidents, change-out was not done on schedule. In the 2014 VSI file review of the past 2 years of records, this was not repeated. In addition, the facility did periodic monitoring of the WS-2 adsorber vent from July 2011 to June 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm background threshold with the highest level recorded at less than 2 ppm. The logs showed that change-outs normally take place before 90 days which is more frequent than the 100 days required by the engineering calculations.

Release History

Daily inspection records reviewed during the VSI revealed that on three occasions carbon adsorption canister WS-2 was not hooked to the hoppers (on September 21, 2000; on December 18, 2000; and on March 9, 2001). The facility records did not indicate how long the hoppers were unhooked during these incidents or whether unloading occurred during this time. However, according to facility personnel, the hoppers were likely unhooked for 24 hours or less at each of these incidents, since daily inspections are conducted and work orders are written upon discovery of a problem.

The facility did periodic monitoring of the WS-2 adsorber vent from July 2011 till June 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at less than 2 ppm. As per the logs, change-outs take place every 91 days at the most which is more frequent than the 100 days required by the engineering calculations.

Since the canister performs at a 98% efficiency, potentially, there could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 100 days have passed), there would be low release potential to air from this unit. This could be higher if the change-outs are not done on schedule.

Remedial Actions

A review of the records revealed no remedial actions at WS-2. The facility logs do not indicate whether the canister was promptly re-hooked up to the hoppers on the dates noted above. The facility did periodic monitoring of the WS-2 adsorber vent from July 2011 to June 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm background threshold with the highest level recorded at less than 2 ppm. As per the logs, change-outs take place every 91 days at the most which is more frequent than the 100 days required by the engineering calculations.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential from this unit to the soil or groundwater. The unit is located on a concrete pad surrounded by a berm. In addition, the unit is sealed, closed, and only opened for change-out prior to breakthrough.

(2) Surface Water Release Potential

There is low release potential to surface water since the closest surface water body is greater than two miles away. Additionally, the carbon adsorber canister is located within a concrete pad surrounded by a berm and is sealed closed except for change-out of carbon before breakthrough.

(3) Air Release Potential

Since the canister performs at a 98% efficiency, potentially, there could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 100 days have passed), there would be low release potential to air from this unit. This could be higher if the change-outs are not done on schedule.

The 2003 VSI file review showed that, in at least two incidents, change-out was not done on schedule. In the 2014 VSI file review of the past 2 years of records, this was not repeated. In addition, the facility did periodic monitoring of the WS-2 adsorber vent from June 2011 to August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm background threshold with the highest level recorded at less than 2 ppm. Most other results were much lower. The logs showed that change-outs normally take place every 91 days which is more frequent than the 100 days required by the engineering calculations.

There could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air, since the canister performs at a 98% efficiency. If carbon change-outs are performed on schedule, there would be low release potential to air from this unit. This could be higher if the change-outs are not done on schedule.
There are ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (every 100 days at maximum), there is low release potential to air from this unit. If change-out is not done on schedule, there would be a higher potential for release to air. The 2003 VSI file review shows that WS-2 was not hooked up to the hoppers in several incidents. Releases of VOCs may have occurred to the air if carbon was unloaded to the hopper during these occasions. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

6.1.18 HWMU 21 (Previously designated as SWMU 31): Carbon Adsorber WS-3

Unit Description

Carbon adsorber unit WS-3 is located on a bermed concrete pad beside the RF-2 structure. WS-3 is used to control VOC emissions from Tank T-18, the feed tank for carbon slurry to RF-2. The tank is vented to the adsorber. The air flows through the carbon adsorber, is filtered, and then released to the outside air.

The WS-3 unit contains approximately 1,000 lbs. of activated carbon and is designed to achieve control of benzene emissions at least 98 percent. Under worst-case conditions, it is expected that the maximum daily inlet flow rate to adsorber WS-3 is approximately 5.9 cubic feet per minute with a maximum benzene concentration of 4,589 ppmv. See the Subpart FF Compliance Plan that can be found in Appendix XXIII of Part B Application Reference 5. The material of construction of this unit is presented in Table 1 listing the units above.

Status and Waste Managed

WS-3 began operating in 1996, and it is currently active. The carbon canister is not RCRA-regulated, but it is subject to the applicable Benzene NESHAP Subpart FF requirement.

The list of hazardous constituents that may be filtered through the carbon adsorber is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

This adsorber is changed out approximately every 38 days to assure breakthrough has not occurred. Replacement logs are kept to verify replacement of spent carbon. WS-3 is located on a concrete pad surrounded by a berm, and grated trenches and sumps provide for capture of any spills. The unit is sealed and kept closed except for change-out of carbon.

Release History

A review of the Carbon Canister Replacement Logs during the VSI revealed that WS-3 was changed out on December 3, 1997, which was on the 40th day instead of the 38th day as required by the facility's Subpart FF plan (Appendix XXIII of Permit Application Reference 5.) Records indicate that the plant was down for maintenance for 10 days during this period. Therefore, although the change-out period was exceeded, this calculation is based on full production, and minimal emissions would have occurred due to the shutdown. Further, records reviewed during the 2003 VSI revealed that WS-3 was changed out on January 12, 1998, which was the 40th day instead of the 38th day as required by the facility's Subpart FF plan (Appendix XXIII of Permit Application Reference 5.) The plant was running at less than 95 percent of capacity at that time, so the calculations on which the change-out time is based would have allowed for the extension in time with no emissions. In the 2014 VSI file review of the previous 2 years of records, the change-out period for the carbon canisters was within the allotted temporal range.

Since the canister performs at a 98% efficiency, potentially, there could be ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 38 days have passed), there would be low release potential to air from this unit.

Remedial Actions

The spent carbon was changed out on the day of discovery of being past due or on the day it was due because of plant shutdown.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential to release from this unit to the soil or groundwater is low. The unit is located on a bermed concrete pad. In addition, the unit is sealed, closed, and only opened for change-out prior to breakthrough.

(2) Surface Water Release Potential

The potential to release to the surface water is low since the surface water is greater than two miles away. Additionally, the carbon adsorber canister is located within bermed concrete pad and is sealed closed except for change-out of carbon before breakthrough.

(3) Air Release Potential

There are ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (every 38 days), the potential to release to air from this unit is low. If change-out is not done on schedule, there would be a higher potential for release to air.

6.1.19 HWMU 22 (Previously designated as SWMU 33): Slurry Transfer Inclined Plate Settler Tank. This unit was removed and doesn't exist anymore.

Unit Description

This tank was used to remove suspended solids from the scrubber water. It was located in the process area near the venturi scrubber and Tank T-11. The slurry transfer inclined plate settler tank was purchased new and installed in 1992. It was cleaned and removed two to three years later (around 1994 or 1995) because it never worked as advertised, according to facility representatives. The unit was a part of a wastewater treatment system and therefore was exempt from RCRA permitting requirements, with the exception of the fugitive emission requirements in Subpart CC of RCRA. The material of construction of the slurry transfer inclined plate settler tank is presented in Table 1 listing the units above.

Status and Waste Managed

The slurry transfer inclined plate settler tank was purchased new and installed in 1992. It was cleaned and removed two to three years later (around 1994 or 1995) because it never worked as advertised, according to facility representatives. The unit was a part of a wastewater treatment system and therefore was exempt from RCRA permitting requirements, with the exception of the fugitive emission requirements in Subpart CC of RCRA.

Any contaminants present in the combustion gases in the APCE may also be transferred to the scrubber water blowdown managed in this unit. Although the combustion process is expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents adsorbed to the spent carbon and transferred to wastewater managed in this unit may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5. Products of incomplete combustion could also be in the gases coming into contact with the scrubber water.

Release Controls

This tank was purchased new, and the equipment was monitored daily. It was located on a bermed concrete pad, and grated trenches and sumps were provided for capture of spills or leaks.

Release History

There is no record of any release from this unit.

Remedial Actions

There is no record of any remedial action at this unit.

Migration Pathways

(1) <u>Soil to Groundwater Release Potential</u>

There was low release potential to the soil and groundwater. The unit was located on a bermed concrete pad, and grated trenches and sumps provided for capture of any spills or leaks.

(2) <u>Surface Water Release Potential</u>

There was low release potential to the surface water. The unit was a closed system located on a bermed concrete pad, and surface water is greater than two miles away.

(3) <u>Air Release Potential</u>

There was low release potential to air since the unit was a closed system.

6.1.20 HWMU 23 (Previously designated as SWMU 34): Scrubber Recycle Settler Tank T-17. This unit has been removed and doesn't exist anymore.

Unit Description

This tank was the scrubber recirculation tank used on RF-1 as part of the wastewater treatment system. The scrubber recycle settler tank was installed new in 1992. It was cleaned and removed four years later in 1996 when RF-1 was shutdown. This unit was part of a wastewater treatment unit. According to facility representatives, this unit never worked as advertised. The material of construction of the scrubber recycle settler tank is presented in Table 1 listing the units above.

Status and Waste Managed

The scrubber recycle settler tank was installed new in 1992. It was cleaned and removed four years later in 1996 when RF-1 was shutdown. This unit was part of a wastewater treatment unit and therefore was exempt from RCRA regulation, with the exception of the fugitive emission requirements in the RCRA air emission control provisions at 40 CFR Part 264, Subpart CC.

Any contaminants present in the combustion gases in the APCE may also be transferred to the scrubber water blowdown that was managed in this tank. Although the combustion process is expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents adsorbed to the spent carbon and transferred to wastewater managed in this tank may have included, but was not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5. Products of incomplete combustion could also be in the gases coming into contact with the scrubber water.

Release Controls

This tank was purchased new, and the equipment was monitored daily. It was located on a bermed concrete pad, and grated trenches and sumps provide for capture of spills or leaks.

Release History
A review of the records revealed no releases from this unit.

Remedial Actions
A review of the records revealed no remedial actions for the scrubber recycle settler tank.

Migration Pathways

(1) Soil to Groundwater Release Potential

There was low release potential to the soil and groundwater. The unit was located on a bermed concrete pad, and grated trenches and sumps provide for capture of any spills or leaks.

(2) Surface Water Release Potential

There was low release potential to the surface water. The unit was located on a bermed concrete pad, and the distance to surface water is greater than two miles.

(3) Air Release Potential

There was low release potential to the air since the unit was a closed system.

6.1.21 HWMU 24 (Previously designated as SWMU 35): Filter Press. This unit has been removed and doesn't exist anymore.

Unit Description

The filter press, formerly located near RF-1 in the Process Area, was used to remove suspended solids from liquids in the scrubber system for RF-1. The filter press was installed new in 1992. It was cleaned and removed two years later in 1994 since it never worked as advertised, according to facility representatives. This unit was part of a wastewater treatment unit. The material of construction of this unit is presented in Table 1 listing the units above.

Status and Waste Managed

The filter press was installed new in 1992. It was cleaned and removed two years later in 1994 since it never worked as advertised, according to facility representatives. This unit was part of a wastewater treatment unit and therefore was exempt from RCRA regulation, with the exception of the fugitive emission requirements in the RCRA air emission control provisions at 40 CFR Part 264, Subpart CC.

The filter cakes made by the filter press may have contained hazardous constituents from the spent carbon. Although the combustion process is expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents adsorbed to the spent carbon and transferred to wastewater managed in this unit may have included, but was not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5. Products of incomplete combustion could also be in the gases coming into contact with the scrubber water.

Release Controls

The filter press was new when installed. The equipment was monitored and inspected daily. It was located on a bermed concrete pad, and grated trenches and sumps provided for capture of spills or leaks.

Release History

There is no record of any releases from this unit.

Remedial Actions

There is no record of any remedial action for this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There was low release potential to the soil and groundwater. The unit was located on a bermed concrete pad, and grated trenches and sumps provided for capture of any spills or leaks.

(2) Surface Water Release Potential

There was low release potential to the surface water. The surface water is greater than two miles away, and the unit was located on a bermed concrete pad.

(3) Air Release Potential

There was low release potential to the air. The filter press was a closed system.

6.1.22 HWMU 25: New Facility Discharge Piping System

Unit Description

This lift station was operated from 1992 until early 1996. The new piping was installed in 1996 to bypass the old lift station. The lift station and the old and new piping systems are part of the wastewater treatment system that discharges to the POTW and are exempt from RCRA regulation.

This new conveyance piping system bypasses the lift station to the Public Owned Treatment Works (POTW) which is the joint venture owned by CRIT and the city of Parker. The conveyance piping is made of polyvinyl chloride (PVC). The materials of construction of the piping are presented above in Table 1 listing the units above.

Status and Waste Managed

The piping system is part of the wastewater treatment system that bypasses the lift station and discharges to the POTW and is exempt from RCRA regulation. Changeover occurred in 1996 from the old piping system and the lift station to a new piping system, a gravity flow system, which did not require pumps.

The list of hazardous constituents that may be adsorbed to the spent carbon, and thus may be in the wastewaters managed in this unit, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

Scrubber blowdown from RF-2 air pollution control equipment is treated in the wastewater treatment unit, prior to discharge to the POTW. The discharge to the POTW is continuously monitored for pH, total dissolved solids, flow, and temperature to ensure compliance with the discharge limitations found in the facility's current industrial wastewater discharge permit. Because the new piping is located underground, it has not been physically inspected. No evidence of release, such as stained soil, was observed during the VSI. A review of file material during the VSI uncovered no indication of leaks from the new underground piping system.

Release History

On February 15, 1996, the facility experienced a spill from its new piping system and discharge line to the POTW. A contractor relocating the natural gas line to the facility inadvertently punctured the newly installed piping system to the POTW. Facility personnel immediately responded to the accident by shutting off all flow to the line and performing repairs and remediation.

A review of file materials during the VSI revealed that no release is known to have occurred from the new piping system, except when it was punctured in 1996, as described above. The volume of water discharged from the facility and the volume received by the POTW are monitored continuously. No discrepancies are known to have occurred that would indicate leaking pipes somewhere along the piping system to the POTW.

Remedial Actions

On February 15, 1996, the facility experienced a spill from its new piping system and discharge line to the POTW. A contractor relocating the natural gas line to the facility inadvertently punctured the newly installed piping system to the POTW. Facility personnel immediately responded to the accident by shutting off all flow to the line and performing repairs and remediation.

Following the incident, on February 15, 1996, the operator removed all wetted soil from the punctured new piping system and placed it in drums, and the punctured section of the piping system was replaced. A total of six drums of soil (3,681 lbs) that contacted discharged water were stored on site pending analytical results. The soil was sent for incineration at Aptus in Utah. The operator collected samples of residual soil at the spill sites. Based on analytical results of soil samples, the operator determined that there was no residual contamination of concern at the site.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low potential of a release from this unit to the soil and groundwater since the amount of flow discharged to the POTW is continuously monitored at both ends and any discrepancies are investigated. This unit will be further investigated at the time of closure and any contamination found will be remediated.

(2) Surface Water Release Potential

There is low release potential from the new underground piping system directly to the surface water since the distance to the nearest surface water is greater than two miles.

(3) Air Release Potential

There is low release potential from the new piping system since it is also underground and is not in contact with the atmosphere.

6.2 SOLID WASTE MANAGEMENT UNITS (SWMUs)

A SWMU is defined as any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released. A discernible unit in this context includes the types of units typically identified with the RCRA regulatory program, including landfills, surface impoundments, land treatment units, waste piles, tanks, container storage areas, incinerators, injection wells, wastewater treatment units, waste recycling units, and other physical, chemical or biological treatment units. [61 Fed. Reg. 19,432, 19,442-19,443 (May 1, 1996).]

In addition, EPA has interpreted the SWMU term to apply to areas contaminated by "routine, systematic, and deliberate discharges" of hazardous waste or hazardous constituents from process areas (a product may become a waste if it is discarded or abandoned). Routine and systematic releases constitute, in effect, management of wastes; the area at which this activity has taken place can thus reasonably be considered a SWMU. In addition to identifying releases from SWMUs, the RFA also investigates evidence of spills and/or other releases to any area resulting from waste management activities, which may not fit the definition of a SWMU release. The term “deliberate” is included in the SWMU definition to exclude from consideration under corrective action one-time accidental spills that cannot be linked to a discernible SWMU. An example of this type of release would be an accidental spill from a truck at a RCRA facility.

TABLE 2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
1	Bermed containment area	East of Warehouse	Approx. 180’ x 55’; concrete	August 1992	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
2	Sump by H-1	South of H-1	3’-4“ square; concrete	July 1996	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
3	Sump by storage tank, T–9	East of warehouse in between T-9 and RF-2	3’-4” square sump; U-drain 30’ long x 16”wide; concrete	August 1992 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
4	Recycled motive water storage tank, T–9	East of warehouse on containment	10,500 gal 316 series stainless steel	1996 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
5	Rainwater and motive water storage tank, T–12	East of warehouse on containment	25,080 gal Mild steel	1992. Removed from service in 2002.	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
6	Wastewater storage tank, T–11 System	East of the warehouse and south of RF -2	10' Dia x 20' H; Approx 12,000 gal fiberglass	August 1992 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
7	Sump by cooling screw under Venturi scrubber tank	East of warehouse beside RF-2	3'-4" square; concrete	July 1996 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
8	RF–2 scrubber water equalization tank, T-19	Under RF-2 Structure	Approx. 1000 gal Fiberglass	July 1996 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
9	Hazardous waste debris bin	North of warehouse on asphalt pavement	20 - 40 cubic yards Mild steel	August 1992 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
10	Spent carbon storage warehouse grated trenches and sump	Warehouse in containment area	Trench 3 ft, 4 in square sump U-drain 50 ft long, 16 in wide; cross drain sections 40 ft long 16 in wide Concrete	1992 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
11	Hopper concrete pad	Outside H-1 structure	Approx 60' x 44'; concrete	July 1996	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure

TABLE 2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
12	WWTP	Inside warehouse	Fiberglass, mild steel modular water treatment system. Separate containment.	October 2003 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
13	Wastewater lift station and piping system (old)	At the end of access road to plant. Old piping from Tank T-11 to the Lift Station	Approx. height 15 ft; outside diameter 5 ft Lift Station: mild steel/concrete/fiberglass Old piping system PVC.	1992 to 1996	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
14	Spent carbon unloading and transfer area asphalt pad	North area of facility	Approx. 44 ft by 80 ft	August 1996 to present	Spent activated carbon. See Part A Application for list of applicable waste codes	None. Will be further investigated at the time of closure
15	Satellite Accumulation Area	North side of warehouse	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None. Will be further investigated at the time of closure
16	Satellite Accumulation Area	South side of drum containment	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None. Will be further investigated at the time of closure
17	Satellite Accumulation Area	East of Control Room	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None. Will be further investigated at the time of closure

TABLE 2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
18	Satellite Accumulation Area	Laboratory in Admin Building	≤ 55 gallons (metal or plastic)	August 1996 to present	Laboratory Debris and laboratory Testing	None. Will be further investigated at the time of closure
19	Satellite Accumulation Area	Underneath Spent Carbon Baghouse	≤ 55 gallons (metal or plastic)	August 1992 to present	Spent Carbon Dust from Baghouse	None. Will be further investigated at the time of closure

6.2.1 SWMU 1 (Previously designated as SWMU 23): Bermed Concrete in Process Area (This includes the Secondary Containment Under the Spent Carbon Slurry Storage Tanks)

Unit Description

This bermed concrete pad in the process area is located east of the spent carbon storage warehouse and underlies the process (spent carbon treatment) area. Within this area is the secondary containment for the spent carbon slurry tanks. This bermed concrete pad is a large concrete pad that provides containment for numerous units that contain, transfer and regenerate hazardous and non-hazardous waste carbon.

The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

Use of this unit began in 1992, and it is currently active. The unit is operating under RCRA interim status and is subject to the RCRA permit decision.

Hazardous spent carbon slurry and wastewaters are managed in the units within this bermed concrete area. The hazardous constituents in the slurry and the wastewaters may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

This unit is constructed of concrete and surrounded by a berm. Within this area is the secondary containment for the spent carbon slurry tanks. Inspections by EPA of the secondary containment found numerous cracks in the pad. Visual inspection during the VSI and a review of file material reveal that cracks have been repaired and sealed by filling them in with a polyresin, Sikadur 35® or equivalent material. The facility routinely inspects and repairs the area, if necessary, upon discovery of a problem. On June 19-20, 2001, January 24, 2002, August 29, 2002, March 6-7, 2003, and February 12, 2004, EPA inspectors, accompanied by personnel from the Colorado River Indian Tribe Environmental Health Office, conducted RCRA compliance evaluation inspections at the Facility. Based upon the findings made during the inspections, and additional information obtained subsequent to the inspections the EPA entered with the facility in a Consent Agreement and Final Order (CAFO) in June 2006 to expand the size of the secondary containment to contain 100 percent of the capacity of the largest tank within its boundary and designed to have sufficient excess capacity to contain run-on or infiltration. The facility affirmed EPA that they continue to ensure that the secondary containment is free of cracks or gaps. So the facility periodically repairs cracks in the concrete of the bermed containment area with Sikadur 35® or equivalent material.

Release History

There is no record of a release from this concrete area. No evidence of a release was observed during both VSIs at this unit other than the cracks in the concrete which will be further investigated at the time of closure. Please see right column for AOC Table in Section 6.3 below which describes the sampling to be done at the time of closure. Please also see Appendices XV, XVI, & XVII in Permit Application Reference 5.

Remedial Actions

On June 19-20, 2001, January 24, 2002, August 29, 2002, March 6-7, 2003, and February 12, 2004, EPA inspectors, accompanied by personnel from the Colorado River Indian Tribe Environmental Health Office, conducted RCRA compliance evaluation inspections at the Facility. Based upon the findings made during the inspections, and additional information obtained subsequent to the inspections the EPA entered with the facility in a Consent Agreement and Final Order (CAFO) in June 2006 to expand the size of the secondary containment to contain 100 percent of the capacity of the largest tank within its boundary and designed to have sufficient excess capacity to contain run-on or infiltration. The facility must ensure that the secondary containment is free of cracks or gaps. So the facility periodically repairs cracks in the concrete of the bermed containment area with Sikadur 35® or equivalent material. The cracks in the concrete will be further investigated at the time of closure. Please see right column for AOC Table in Section 6.3 below which describes the sampling to be done at the time of closure. Please also see Appendices XV, XVI, & XVII in Permit Application Reference 5

Migration Pathways

(1) <u>Soil and Groundwater Release Potential</u>

There are grated trenches and sumps in the bermed concrete area to capture any spills and rainwater. This unit will be further investigated at the time of closure. Please see right column for AOC Table in Section 6.3 below which describes the sampling to be done at the time of closure. Please also see Appendices XV, XVI, & XVII in Permit Application Reference 5

(2) <u>Surface Water Release Potential</u>

The nearest surface water body is greater than two miles away. There is low release potential to surface water due to the design and construction of the pad and the routine inspections and repairs.

(3) <u>Air Release Potential</u>

The potential for release to the air is low because spills to the pad are immediately washed down upon discovery and water is pumped to the recycle tank T-9.

6.2.2 <u>SWMU 2 (Previously designated as SWMU 24): Sump by Unloading Hopper H-1</u>

<u>Unit Description</u>
The sump is located adjacent to the unloading hopper H-1. The sump collects water from activities such as washing trucks used to transport spent carbon slurry, and from the surrounding containment area. Metal-grated concrete trenches in the containment area collect the wash-down

water and rainwater that then drains into the in-ground, square concrete sump. A pump in the sump directs the water through piping to Tank T-9. The grated trenches and sump also serve to collect any spills in the area. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

The sump is currently operational. The startup date for the sump adjacent to hopper H-1 was in 1996 when construction of the unloading hopper was completed to serve the new reactivation furnace RF-2. Prior to 1996, the unloading hopper H-2, trenches, and sump inside the spent carbon storage warehouse served the reactivation furnace RF-1 until it was deactivated in 1996. As a component of the spent carbon handling system, this unit is operating under RCRA interim status and is subject to RCRA permitting.

Any of the hazardous constituents found in the spent carbon may be present in the wash-down water or any spill that drains into this sump. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The sump pump immediately pumps water that enters the sump via piping to the recycle water tank T-9. No cracks in the concrete sump were observed during both VSIs.

The integrity of the sump pump and concrete is ensured by routine inspections. Any cracks discovered in the concrete are promptly sealed with a polyresin, Sikadur-35® or equivalent. If any mechanical problem were to occur with the sump pump, repair would occur promptly upon discovery.

Release History

Review of file material during both VSIs revealed that there is no record of a release or overflow of this sump. No evidence of overflow at the sump was observed during both VSIs.

Remedial Actions

There is no record of remedial action for this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential to soil and groundwater from this unit. The sump is located within concrete pad area, the integrity of the concrete is monitored by routine inspections, and any observed cracks are sealed by the facility. No unsealed cracks were noted during both VSIs.

(2) Surface Water Release Potential

There is low release potential to surface water from this unit. The sump is located within a concrete pad area, and liquid collected in the sump is immediately directed via a sump pump and piping system to the recycle water tank, T-9. Also, surface water is greater than two miles away.

(3) Air Release Potential

There is low release potential to the air from this unit. Only very low concentrations of VOCs are expected in the liquids collected in this sump.

6.2.3 SWMU 3 (Previously designated as SWMU 25): Sump by Storage Tank T-9

Unit Description

The sump is located east of the spent carbon storage warehouse between Tank T-9 and RF-2. Metal-grated concrete trenches in the bermed concrete pad collect any spilled process water and rainwater that then drains into this in-ground, square concrete sump. A pump in the sump directs the water through piping to Tank T-9. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

The sump is currently operational. Use of the sump began in 1992 to serve the reactivation furnace RF-1. After RF-1 was shutdown and RF-2 was put in use the sump continues to be used to support RF-2 operations. As a component of the spent carbon handling system, this unit is operating under RCRA interim status, and is subject to RCRA permitting.

Any of the hazardous constituents described for concrete pad may be present in the liquids collected in this sump. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals, as well as products of incomplete combustion. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The sump is located within the bermed concrete pad. Any process water or rainwater that flows into the sump is immediately pumped by a sump pump to the recycle water tank T-9. No cracks in the sump were observed during both VSIs.

The integrity of the sump pump and concrete is ensured by routine inspections. Any cracks discovered in the concrete are promptly sealed with a polyresin, Sikadur-35® or equivalent. If any mechanical problem were to occur with the sump pump, repair would occur promptly upon discovery.

Release History

Review of file material during both VSIs revealed that there is no record of a release or overflow of this sump. No evidence of overflow from this sump was observed during both VSIs. During the 2003 VSI, a small amount of wash-down water was observed adjacent to the trench that leads to the sump. None were observed during the 2014 VSI.

Remedial Actions

There is no record of remedial action at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential to soil and groundwater from this unit. The sump is located within a bermed concrete pad area, the integrity of the concrete is monitored by routine inspections, and any observed cracks are sealed by the facility. No unsealed cracks were noted during both VSIs.

(2) Surface Water Release Potential

There is low release potential to surface water from this unit. The sump is located within a bermed concrete pad area, and liquid collected in the sump is immediately directed via a sump pump and piping system to the recycle water tank, T-9. Also, surface water is greater than two miles away.

(3) Air Release Potential

There is low release potential to the air from this unit. Only very low concentrations of VOCs are expected in the liquids collected in this sump.

6.2.4 SWMU 4 (Previously designated as SWMU 16): Recycled Motive Water Storage Tank T-9

Unit Description:

Tank T-9 is a water storage tank that stores motive water and water from several other sources. Tank T-9 is located east of the storage warehouse above a bermed concrete pad. The capacity of Tank T-9 is 10,500 gallons. The materials of construction of this unit are presented in Table 2 listing the units above.

Tank T-9 collects water from the following sources. Just prior to introduction into the reactivation process, the dewatering screw dewaters the spent carbon, and the motive water is returned to Tank T-9. Process water overflow from the process storage feed tanks is returned to T-9 via a closed loop piping. Rainwater that falls within the concrete pads, along with spills and wash-down, as noted for the sumps, may be pumped to Tank T-9.

Status and Wastes Managed

The start-up date for this unit was in 1992, and it remains active. The motive regulatory status was initially addressed in a 1993 facility inspection conducted by EPA. Additionally, in several revised Part A applications, and in the Part B permit applications submitted to EPA Region 9, the operator stated its position regarding the regulatory status of this tank that it is not a regulated unit under RCRA. EPA agrees with this analysis.

The list of hazardous constituents that may be adsorbed to the spent carbon, and thus may be in the motive water stored in this tank, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

According to facility personnel, the integrity of Tank T-9 was tested upon installation. The tank is inspected daily by the operator. A bermed concrete pad is present under Tank T-9, and a grated trench and sump are adjacent to Tank T-9. The T-9 tank overflow controls consist of a level sensor monitored by computer. An alarm notifies the operator if the tank level needs attention.

The tank has a pressure relief valve, which is vented to a carbon adsorber. Carbon adsorber WS-1 controls VOC emissions, including potential benzene emissions, from Tank T-9. WS-1 is designed to achieve control of benzene emissions by at least 98 percent. The spent carbon is changed out before breakthrough based on engineering calculations. The facility did periodic monitoring of the WS-1 adsorber vent from June 2011 till August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at 223 ppm. Most other results were much lower. The logs showed that change-outs normally take place every 2-3 days which is more frequent than the 7.88 days required by the engineering calculations.

The excess water from Tank T-9 is treated in a wastewater treatment plant prior to discharge to the POTW. The discharge to the POTW is continuously monitored for pH, total dissolved solids, flow and temperature to ensure compliance with the discharge limitations found in the facility's industrial wastewater discharge permit.

Release History

In February 1994, the recycled water pump located next to Tank T-9 was found to be leaking at the packing, which seals the pump shaft. The leak in the potable water line used for cooling and flushing the seal gland was repaired.

During the VSI, a review of the facility's carbon replacement logs revealed several instances in which the carbon in WS-1 was not replaced within specified time periods.
In the 2014 VSI file review of the past 2 years of records, this was not repeated.

The facility did periodic monitoring of the WS-1 adsorber vent from June 2011 till August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at 223 ppm.

As per the logs, change-outs take place every 2-3 days which is more frequent than the 7.88 days required by the engineering calculations. See WS-1 for more details.

No evidence of release was observed at this unit during both VSIs.

Remedial Actions

No remedial actions have occurred at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential for release from this tank to the soil or groundwater is low due to bermed concrete pad, grated trenches, and a sump present at the tank. In addition, routine inspections are performed.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. The potential for release from this tank to the surface water is low due to routine inspections for leaks and corrosion, and the bermed concrete pad that is present.

(3) Air Release Potential

There is low release potential to air from this tank due to the good condition of the tank, and to daily inspection of the tank. In addition, APCE is present to control emissions from the tank [carbon adsorption canister WS-1]. However, breakthrough may have occurred in WS-1 in several instances when the carbon was not replaced within specified time periods. Also, it is unknown whether releases have occurred through the pressure relief valves, which would release tank gases directly to the air. Since the canister performs at a 98% efficiency, potentially, there could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 7.88 days have passed), there would be low release potential to air from this unit. This could be higher if the change-outs are not done on schedule.
The 2003 VSI file review showed that, in at least two incidents, change-out was not done on schedule. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

6.2.5 SWMU 5 (Previously designated as SWMU 17): Rainwater, Dewatering Screw, and Motive Water Storage Tank T-12. This tank is no longer used.

Unit Description:

Tank T-12 is no longer used.

Status and Wastes Managed

The start-up date for this unit was in 1992. This unit is no longer in use and was removed in 1996.

The list of hazardous constituents that may be adsorbed to the spent carbon, and thus could have been in the motive water stored in this tank, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

According to facility personnel, the integrity of tank T-12 was tested upon installation. Facility personnel conducted daily inspections of Tank T-12 while it was in operation and its integrity (no corrosion or leaks) was documented on the inspection log sheets. Tank T-12 was on top of a bermed concrete pad.

Release History

According to facility personnel, no releases have occurred from Tank T-12. No evidence of any spill or release was observed during the 2003 VSI. Tank T-12 is no longer used.

During the 2003 VSI, a review of the facility's carbon replacement logs revealed several instances when the carbon in WS-1 was not replaced within specified time periods. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

The facility did periodic monitoring of the WS-1 adsorber vent from June 2011 till August 2013 prior to the carbon change-outs. The logs are attached in Appendix P. The results show that the levels were below the 500 ppm above background with the highest level recorded at 223 ppm. As per the logs, change-outs take place every 2-3 days which is more frequent than the 7.88 days required by the engineering calculations. See WS-1 for more details.

Remedial Actions

There have been no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential for release to the soil or ground water from this unit is low due to the bermed concrete pad provided underneath the unit, and routine inspections are performed.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. The potential for release to surface water from this unit is low because it is inspected routinely for leaks and corrosion, and a bermed concrete pad is present.

(3) Air Release Potential

There is low release potential to air from this tank due to the good condition of the tank, and to daily inspection of the tank. In addition, APCE is present to control emissions from the tank [carbon adsorption canister WS-1]. However, breakthrough may have occurred in WS-1 in several instances when the carbon was not replaced within specified time periods. Also, it is unknown whether releases have occurred through the pressure relief valves, which would release tank gases directly to the air. Since the canister performs at a 98% efficiency, potentially, there could have been ongoing low levels of benzene (and possibly other organic constituents) released from this unit to the air. If carbon change-outs are performed on schedule (before 7.88 days have passed), there would be low release potential to air from this unit. This could be higher if the change-outs are not done on schedule.
The 2003 VSI file review showed that, in at least two incidents, change-out was not done on schedule. In the 2014 VSI file review of the past 2 years of records, this was not repeated.

6.2.6 SWMU 6 (Previously designated as SWMU 18): Wastewater Storage Tank T-11

Unit Description:

Tank T-11 is an industrial wastewater treatment and storage tank located east of the warehouse and south of RF-2. Tank T-11 is used to collect process wastewater prior to discharge to the sewer system under a discharge permit from the local publicly owned treatment works (POTW) operated by the Colorado River Sewage System Joint Venture. The volume discharged from Tank T-11 to the local POTW averages about 140,000 gallons per day (gpd). Tank T-11 has a capacity of approximately 20,000 gallons. The materials of construction of this unit are presented in Table 2 listing the units above.

Process wastewaters collected in Tank T-11 are scrubber water blow down from Tank T-19, cooling water blow down, and boiler water blow down. Tank T-11 also occasionally collects wastewaters from Tank T-9.

Status and Wastes Managed

The start-up date for Tank T-11 was in 1992, and it is currently operational. T-11 and its ancillary equipment is a wastewater treatment unit and therefore is exempt from RCRA regulation., with the exception of the fugitive emission requirements in Subpart CC of RCRA (*i.e.*, the RCRA regulatory requirements contained in 40 CFR Part 264, Subpart CC). It is tested annually for Subpart CC applicability.

The list of hazardous constituents that may be adsorbed to the spent carbon, and thus may be in the wastewaters managed in Tank T-11, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

According to facility personnel, the integrity of this tank was tested upon installation. The facility operator inspects Tank T-11 daily. Tank T-11 is located on a bermed concrete pad. The plant computer continuously monitors the water level of T-11. Audible alarms alert the operator of potential problems.

The facility monitors the water discharged from Tank T-11 to the POTW continuously for total dissolved solids (TDS), temperature, flow, and pH. Two times per month the operator takes 24-hour composite samples for total suspended solids (TSS) and chemical oxygen demand (COD). Once per year, the operator analyzes the wastewater for total toxic organics (TTOs). All monitoring and analytical results are submitted on a monthly basis to the local POTW manager to demonstrate compliance with the facility's discharge permit. The facility operator has also conducted additional tests of wastewater it discharges to the POTW and has detected the following priority pollutants: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, zinc, chlorodibromomethane, dichlorobromomethane, 1,2-dichloroethane, 1,1,2-trichloroethane, phthalate (2-ethylhexyl).

Release History

The facility's test data from wastewater entering and exiting Tank T-11, demonstrate VOCs less than 500 ppmw (See Appendix XX of Part B Application Reference 5). The facility has also reported low inorganic concentrations for priority pollutants in their discharge to the POTW (Appendix R). Besides the facility's discharges, the POTW receives other industrial wastewater, as well as domestic sewage from Parker and portions of the Colorado River Indian Reservation. At the POTW, these wastewaters are combined, treated, and then released to a drainage canal, which in turn flows into the Colorado River. During treatment at the POTW, some of the contaminants contributed by Evoqua are likely to be removed from the wastewater (as well as contaminants from other dischargers to the POTW). The resulting concentrations of contaminants in the POTW's discharge to the drainage canal have been within the limits of the POTW's wastewater discharge permit.

During the VSI, condensation water was noted around Tank T-11, which the facility representative identified as a *de minimis* quantity of scrubber water blowdown. The facility representative explained that the scrubber water has tested to be nonhazardous (see most recent results in Appendix J). Since the outside temperature was 106° Fahrenheit during the 2003 VSI, the amount of water present would likely evaporate by the end of the day.

There is no other record of a release at this unit.

Remedial Actions

There is no record of remedial action at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential to soil and groundwater from this unit. The tank is inspected daily, and bermed concrete containment underlies the tank.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. The tank is inspected daily, and bermed concrete containment underlies the tank. Therefore, the release potential directly to the surface water from this unit is low. However, ongoing releases of small amounts of contaminants likely occur through discharge of water from this tank to the POTW, which then discharges to a drainage canal, which in turn flows to the Colorado River. Please see Appendix XI of Part B Permit Application Reference 5 for more details

(3) Air Release Potential

There is low release potential to the air from Tank T-11. Although Tank T-11 vents directly to the atmosphere, the wastewaters it manages are expected to have very low concentrations of VOCs. The other wastewaters entering Tank T-11 are expected to have low levels of organic compounds. Please see Appendix XI of Part B Permit Application Reference 5 for more details

6.2.7 SWMU 7 (Previously designated as SWMU 26): Sump by Cooling Screw Under Venturi Scrubber Tank

Unit Description:

The sump is located east of the storage warehouse beside the RF-2 structure within the bermed concrete pad area. The concrete sump collects spills from the cooling screw under the venturi scrubber tank and any other spills or rainwater in the process area and directs the liquid via a pump and piping to Tank T-9. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

Use of the sump began in 1996, and it is currently operational. As a component of the spent carbon handling system, this unit is operating under RCRA interim status and is subject to RCRA permitting.

Any of the hazardous constituents described for bermed concrete area may be present in the liquids collected in this sump. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals, as well as products of incomplete combustion. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The sump is located within a bermed concrete pad. Any process water or rainwater that flows into the sump is immediately pumped by a sump pump to the recycle water tank, T-9. No cracks in the sump were observed during both VSIs.

The integrity of the sump pump and concrete is ensured by routine inspections. Any cracks discovered in the concrete are promptly sealed with a polyresin, Sikadur-35® or equivalent. If any mechanical problem were to occur with the sump pump, repair would occur promptly upon discovery.

Release History

Review of file material during both VSIs revealed that there is no record of a release or overflow of this sump. No evidence of overflow from this sump was observed during both VSIs.

Remedial Actions

During both VSIs, no record was found of remedial action for this sump or sump pump.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential to soil and groundwater from this unit. The sump is located within a bermed concrete area, the integrity of the concrete is monitored by routine inspections, and any observed cracks are sealed by the facility. No unsealed cracks were noted during both VSIs.

(2) Surface Water Release Potential

There is low release potential to surface water from this unit. The sump is located within a bermed concrete pad area, and liquid collected in the sump is immediately directed via a sump pump and piping system to the recycle water tank, T-9. Also, surface water is greater than two miles away.

(3) Air Release Potential

There is low release potential to the air from this unit. Only very low concentrations of VOCs are expected in the liquids collected in this sump.

6.2.8 SWMU 8 (Previously designated as SWMU 19): RF-2 Scrubber Water Equalization Tank T-19

Unit Description:

Tank T-19 is located under the RF-2 structure. Scrubber water is supplied to the APCE from the scrubber water tank, Tank T-19. While moving through the APCE, the scrubber water removes contaminants from the furnace gases. From the air pollution control equipment, the scrubber water is returned to T-19. The pH of the scrubber water is controlled by the introduction of acid or sodium hydroxide via a scrubber-metering pump into the scrubber water line just prior to introduction into the venturi and packed bed scrubbers. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

This unit began operation in 1996 and is currently active as part of the wastewater treatment system. The facility operator analyzed the scrubber water from Tank T-19, and reported nondetection of VOCs, SVOCs, organochlorine pesticides, polychlorinated biphenyls, and alcohols. Please see Appendix J for the latest results. The pH of the scrubber water ranges between 2.5 and 12.5.

Any contaminants present in the combustion gases in the APCE may also be transferred to the scrubber water blowdown that is managed in Tank T-19. Although the combustion process is expected to destroy much of the organic contaminants originally on the spent carbon, the list of hazardous constituents adsorbed to the spent carbon and transferred to wastewater managed in Tank T-19 includes, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5. Products of incomplete combustion, are also in the gases coming into contact with the scrubber water. Please see Appendix XI of Part B Permit Application Reference 5 for more details.

Release Controls

According to facility personnel, the integrity of this tank was tested upon installation. A high and low alarm system was installed on the scrubber water equalization tank. The scrubber water blow down is discharged via piping to Tank T-11 and from T-11 it is sent through the Waste Water Treatment Plant before it is discharged to the POTW. The discharge to the POTW is continuously monitored for flow, pH, TDS, and temperature.

Release History

No documentation of releases from this unit was found in the facility records.

Remedial Actions

There is no record of remedial action at this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is low release potential to the soil and groundwater. Routine inspections and repairs are performed, and a bermed concrete pad is present underneath the unit.

(2) Surface Water Release Potential

The distance to the nearest surface water is greater than two miles. There is low release potential to the surface water from this unit. Routine inspections and repairs are performed as needed, and bermed concrete pad is present underneath the unit.

(3) Air Release Potential
There is low release potential to the air. The tank and ancillary equipment are inspected routinely.

6.2.9 SWMU 9 (Previously designated as SWMU 20): Hazardous Waste Debris Bin

Unit Description:

The hazardous waste debris bin is located north of the storage warehouse on the asphalt pavement. The location of this unit on the pavement is changed for convenience. Debris -- such as personal protective equipment, rags, spill cleanup wastes, and contaminated pallets -- is stored for less than 90 days in this hazardous waste debris bin. There are three areas inside the spent carbon storage warehouse where the debris is accumulated. This accumulated debris is then transferred to the debris bin. The debris bin is a roll-off container that is covered at all times except when debris is being added. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

This unit began operation in 1992 and is currently active. The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris bin is closed at all times except when waste is added. The hazardous waste debris is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during both VSIs.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater. Routine (daily) inspections are performed, and asphalt is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and asphalt is present underneath the unit. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from the hazardous waste debris bin.

6.2.10 SWMU 10 (Previously designated as SWMU 21): Spent Carbon Storage Warehouse Metal Grated Trenches and Sump

Unit Description:

The grated trenches and sump are located inside the storage warehouse facing the east wall in the containment area of the spent carbon storage warehouse. Metal grated trenches in the spent carbon storage warehouse collect rinse water that is used to wash out empty drums of spent carbon after unloading into Hopper H-2. The trenches drain into an in-ground square-shaped sump that is equipped with a sump pump to direct water through piping to the recycle water storage tanks, T-9.   The grated trenches and concrete sump also serve to collect any spills from leaking drums. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

This unit was constructed over a four-year time span, from 1992 to 1996, and it is currently active. As a component of the spent carbon handling system, this unit is operating under RCRA interim status and is subject to RCRA permitting.

Any of the hazardous constituents found in the spent carbon may be present in the rinse water or in spills from leaking containers in the spent carbon storage warehouse. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

No unsealed cracks in the trenches or sump were observed at this unit during both VSIs.   Water that enters the sump is pumped via piping to the recycle water tank, T-9.

The integrity of the sump pump, concrete trenches and sump is monitored by routine inspections by facility personnel. Any release draining to the unit would not be expected to exceed the capacity of the trenches and sump.

Release History

There is no record of overflow occurring from the grated trenches or sump. No history of build-up of liquid in the sump was found in the facility records. No evidence of overflow release was observed during both VSIs at the grated trenches and sump.

Records reviewed during the 2003 VSI indicated that only one leaking drum has ever been discovered in the hazardous waste storage warehouse (September 8, 2000); the drum was pulled from the pallet and the contents dumped into hopper H-2.

Remedial Actions

The hazardous material handlers cleaned up the area in the warehouse where the leak occurred on September 8, 2000, upon discovery; no contact occurred with soil or groundwater.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential to release to soil and groundwater is low. The integrity of the concrete is monitored by routine inspections. Any cracks in the concrete would be promptly repaired. No unsealed cracks were noted during both VSIs.

(2) Surface Water Release Potential

There is low release potential to surface water. The integrity of the concrete is monitored by routine inspections, and surface water is greater than two miles away.

(3) Air Release Potential

There is low release potential to the air. Only very low concentrations of VOCs are expected in the rinse water in the trenches and sump.

6.2.11 SWMU 11 (This is a New Unit Split from the Old SWMU 23): Hopper Concrete Pad (Outside H-1 Structure)

SWMU 11 Unit Description

The hopper pad area is a bermed concrete pad. There is a continuous six-inch high concrete berm around the pad, and it is equipped with a sump and transfer pump to remove any liquids collected on the pad.

This bermed concrete pad is protection in the event of spills of carbon or liquids during the unloading of waste carbon. The pad slopes to a sump, and liquids collected on the pad drain to the sump. The sump is pumped to the recycle water tank, T-9. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Wastes Managed

The start-up date for the unit was in 1992, and the unit is currently active. As a component of the spent carbon handling system, the concrete pad is operated under RCRA interim status, and is subject to the RCRA permit decision.

Both hazardous and nonhazardous spent carbon is managed at the units within this concrete area. The list of hazardous constituents that may be adsorbed to the spent carbon is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

This bermed concrete pad is protection in the event of spills of carbon or liquids during the unloading of waste carbon. The pad slopes to a sump, and liquids collected on the pad drain to the sump. The sump is pumped to the recycle water tank, T-9.

Release History

No evidence of release was observed at this unit during both VSIs. The concrete pad was in good condition. All cracks in the concrete have been sealed with an epoxy, Sikadur-35® or equivalent material.

Remedial Actions

The facility operator has repaired all cracks in the concrete pads and berm with an epoxy, Sikadur-35® or equivalent material and inspects the concrete pad and berm daily.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential for release is low from this unit to the soil and groundwater due to the design and construction of the pad and the routine (daily) inspections and repairs. At the time of closure this will be investigated further.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away. There is low release potential to surface water due to the design and construction of the bermed concrete pad and the routine inspections and repairs.

(3) Air Release Potential

The potential for release to the air is low because spills to the pad are immediately washed down upon discovery and water is pumped to the recycle tank T-9.

6.2.12 SWMU 12 (New Unit): WWTP (located inside the warehouse)

Unit Description:

The Waste Water Treatment Plant (WWTP) is located inside the warehouse. It is a fiberglass and mild steel modular water treatment system. It has its own separate containment. The WWTP treats the scrubber blowdown from RF-2 air pollution control equipment. The WWTP discharges to the POTW. The discharge to the POTW is continuously monitored for pH, total dissolved solids, flow and temperature to ensure compliance with the discharge limitations found in the facility's industrial wastewater discharge permit. The discharge used to go through a lift station.

The lift station is now bypassed using a new underground PVC piping system with direct discharge to the POTW. Facility personnel use a manhole located behind the administration building at the facility to sample the wastewater prior to discharge under Permit No. 1002-96 to the POTW. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

The lift station and the old and new piping systems are part of the wastewater treatment system that discharges to the POTW and are exempt from RCRA regulation.
The list of hazardous constituents that may adsorbed to the spent carbon, and thus may be in the wastewaters managed in this unit, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The WWTP is located inside the warehouse. It has its own separate secondary containment.

Release History

There is no history of release from the WWTP, other than what was described for the old piping with the overflow of the lift station. Please see the SWMU 13 for more details.

Remedial Actions

There were no remedial actions performed on this unit.

Migration Pathways

(1) Soil to Groundwater Release Potential

The WWTP is located inside the warehouse. It has its own separate secondary containment. The release potential to soil and groundwater is very low.

(2) Surface Water Release Potential

The WWTP is located inside the warehouse. It has its own separate secondary containment. The release potential to surface water from this unit is very low, since the distance to the nearest surface water is greater than two miles.

3) Air Release Potential

The WWTP is located inside the warehouse. The release potential air from this unit is very low.

6.2.13 SWMU 13 (Previously designated as SWMU 28): Wastewater Lift Station and Piping Systems (Old Piping)

Unit Description:

This lift station, located at the end of the access road to the facility off Mutahar Street, was formerly used to lift (pump) wastewater from WWTP via the old piping system to the local POTW collection line at the south edge of Evoqua property. The lift station also pumped domestic wastewater from the facility. The old piping system, which has not been removed, is made of either PVC or ductile iron.

The lift station is now bypassed using a new underground PVC piping system with direct discharge from the WWTP to the POTW. The new piping is discussed in Section 6.1.22 describing HWMU 25. Facility personnel use a manhole located behind the administration building at the facility to sample the wastewater prior to discharge under Permit No. 1002-96 to the POTW. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Waste Managed

This lift station was operated from 1992 until early 1996. The new piping was installed in 1996 to bypass the old lift station. The lift station and the old and new piping systems are part of the wastewater treatment system that discharges to the POTW and are exempt from RCRA regulation.

The list of hazardous constituents that maybe adsorbed to the spent carbon, and thus may be the wastewaters managed in this unit, is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lift station had two pumps which alternated operating. When operational, one ran until the low level probe switched it off, and as soon as the high level probe was reached the other pump began operating. Changeover occurred in 1996 from the old piping system and the lift station to a new piping system, a gravity flow system, which did not require pumps.

Release History

On November 10, 1994, the facility experienced an overflow episode from the lift station located on-site. The facility lost power during the evening of November 9, 1994. Operations at the facility ceased. When the power was restored, a breaker to one of two lift station pumps was tripped. After operations restarted there was no evidence of problems with the lift station pumps. However, in the morning on November 10, 1994, an electrician at the facility was arriving at the plant and noticed that the lift station was overflowing. He immediately reset the breaker and stopped the overflow. Wastewater that is normally pumped to the POTW spilled from the lift station; this wastewater consisted of domestic waste and scrubber (discharge) blowdown.

A similar incident occurred on April 17, 1995 with a release of domestic sewage and wastewater to the soil. Based on the latest analytical results of the wastewater managed in Tank T-11, the facility determined that neither overflow incident from the lift station constituted a threat to human health or the environment. Since the wastewater may have been in contact with hazardous constituents, the soil was treated as hazardous during the remedial action response.

Because the old piping is located underground, it has not been physically inspected. No evidence of release, such as stained soil, was observed at the lift station during the 2003 VSI.

Remedial Actions

During the overflow incident on November 10, 1994, the facility operator made a soil dike on Mutahar Street to stop flow from running north and to contain the spill. On November 11, 1994, the operator removed the impacted soil around the lift station (approximately six to twelve inches of top soil) and placed it in drums. Approximately 133 drums (55 gallons/each) or 15.4 cubic yards of soil were labeled as hazardous waste and stored within the facility containment pad pending analytical results. Facility personnel collected samples of residual soil at the spill site. Based on analytical results of soil samples, the facility determined that there was no residual contamination of concern at the site. The soil analytical data generated from the cleanup of impacted soil is included as Appendix I.

After the overflow incident on April 17, 1995, the facility operator excavated an estimated 30 cubic yards of soil and placed it in drums labeled as hazardous pending analytical results. The operator collected samples of residual soil at the spill site. Analytical results of soil samples documented no residual contamination of concern. The soil analytical data generated from the cleanup of impacted soil is included as Appendix I.

Migration Pathways

(1) Soil to Groundwater Release Potential

There is no current release potential to soil and ground water from the lift station and old piping system since they have been taken out of operation. The past releases to the soil that occurred were remediated.

(2) Surface Water Release Potential

There is currently no release potential to the surface water from the lift station and old piping system since they are no longer operational. The past release potential from the lift station and the old piping system directly to surface water was low due to the distance to surface water.

There is low release potential from the new underground piping system directly to the surface water since the distance to the nearest surface water is greater than two miles.

3) Air Release Potential

There is no current release potential to the air from the old piping system and the lift station because they are no longer operational. The old unit had low release potential to air when active because it was not in contact with the atmosphere.

6.2.14 SWMU 14 (Previously designated as SWMU 9): Spent Carbon Unloading and Transfer Area Asphalt Pavement

Unit Description

The transfer area asphalt pavement has a continuous six-inch high berm around the part of the asphalt pavement closest to the building.
This area is part of a larger continuous asphalt pavement area that borders the concrete process area. The materials of construction of this unit are presented in Table 2 listing the units above.

Status and Wastes Managed

The unit is currently active as a component of the spent carbon handling area.

Both hazardous and nonhazardous spent carbon are handled at this unit within this asphalt area. The list of hazardous constituents that may be adsorbed to the spent carbon is very extensive and may include, but is not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

There is a continuous six-inch high concrete berm around unloading and transfer area part of the asphalt pavement. The operators waste carbon management practices and timely responses to spills will be the first line of release control.

Release History

Two plausible release areas were identified during the Preliminary Report. The first is the land surrounding the spent carbon unloading and transfer area, where carbon dust/particulate deposition may have occurred and continue to occur, and the second is the area where a spill from a tank truck occurred in September 1998.

In August 1996, Evoqua conducted soil testing inside the fenced area of the facility, including areas where carbon dust and particulate deposition may have occurred prior to paving. Analytical results indicated that the soil had not been impacted or contaminated by the operations at the facility. No soil samples exhibited the toxicity characteristic, and no detectable levels of semi volatile, volatile, or organochlorine pesticides and PCBs were found in the soil. However, this whole area will be further investigated at the time of closure.

Regarding the second area, on September 26, 1998 a spill occurred from a truck on site that contained recycle water from the plant that was used to slurry hazardous spent carbon in the treatment process plant. The spill was caused by the driver opening a valve and accidentally discharging the recycle water onto the soil just outside the main gate of the plant. Approximately 100 gallons were released to the soil. The Facility Operator immediately started containment and cleanup procedures. Fifty-six drums of impacted rocks and soil were excavated and managed as hazardous waste and manifested (Manifest Document No. 12239) for shipment off site to be incinerated at APTUS in Aragonite, Utah. The Facility Operator tested the remaining soil for metals, VOCs, and SVOCs. Analytical results revealed no residual contamination above background concentrations at the spill site (Appendix I). A visual inspection of these areas on July 12, 2001, during the VSI, revealed no evidence of stained surface soil, and a review of facility records document cleanup of the past spills.

No evidence of release was observed at this unit during both VSIs.

Remedial Actions

Please see the discussion on the truck spill and cleanup discussed in the section above.

Migration Pathways

(1) Soil to Groundwater Release Potential

The potential for release is low from this unit because the carbon containers are not opened in this area. At the time of closure this unit and the soil underneath it will be investigated further as per the Closure Plan, Appendix XV in Permit Application Reference 5.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away. There is low release potential to surface water due to the carbon containers not being opened in this area.

(3) Air Release Potential

The potential for release to the air is low because the carbon containers are not opened in this area.

6.2.15 SWMU 15 (This is a New Unit): Satellite Accumulation Area (North Side of Warehouse)

Located at the north end of the container storage area and is used to accumulate various debris which may include respirator cartridges, gloves, PPE, trash and floor sweepings. The container is a drum containing less than or equal to 55 gallons.

Status and Waste Managed

The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris container is closed at all times except when waste is added. The hazardous waste debris is emptied periodically into the debris bin and is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during 2014 VSI.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater since this unit is located at the north end of the container storage area. Routine (daily) inspections are performed, and concrete is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and this unit is located at the north end of the container storage area. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from this unit.

6.2.16 SWMU 16 (This is a New Unit): Satellite Accumulation Area (South Side of Drum Containment)

Located at the south end of the container storage area and is used to accumulate various debris which may include respirator cartridges, gloves, PPE, trash and floor sweepings. The container is a drum containing less than or equal to 55 gallons.

Status and Waste Managed

The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris container is closed at all times except when waste is added. The hazardous waste debris is emptied periodically into the debris bin and is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during 2014 VSI.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater since this unit is located at the south end of the container storage area. Routine (daily) inspections are performed, and concrete is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and this unit is located at the south end of the container storage area. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from this unit.

6.2.17 SWMU 17 (This is a New Unit): Satellite Accumulation Area (East of Control Room)

Located outside the east end of the control room door. This is used to accumulate various debris which may include respirator cartridges, gloves, PPE, trash and floor sweepings. This is a container containing less than or equal to 55 gallons.

Status and Waste Managed

The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to: VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris container is closed at all times except when waste is added. The hazardous waste debris is emptied periodically into the debris bin and is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during 2014 VSI.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater since this unit is located outside the east end of the control room door. Routine (daily) inspections are performed, and concrete is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and this unit is located outside the east end of the control room door. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from this unit.

6.2.15 SWMU 18 (This is a New Unit): Satellite Accumulation Area (Lab in Admin Building)

Located in the testing lab in the administration building. This is used to accumulate debris from laboratory testing of samples and is a 5 gallon container.

Status and Waste Managed

The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris container is closed at all times except when waste is added. The hazardous waste debris is emptied periodically into the debris bin and is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during 2014 VSI.

Remedial Actions

There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater since this unit is located in the testing lab in the administration building. Routine (daily) inspections are performed, and concrete is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and this unit is located in the testing lab in the administration building. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from this unit.

6.2.19 SWMU 19 (This is a New Unit): Satellite Accumulation Area (Underneath Spent Carbon Baghouse)

Located under the baghouse that services H-1 and H-2 hoppers. This is used to accumulate spent carbon dust/fines captured by the baghouse. The container is a drum containing less than or equal to 55 gallons.

Status and Waste Managed

The unit stores hazardous waste for less than 90 days, and so is subject to generator requirements as per 40 CFR 262.

Hazardous waste debris may be contaminated with any of the hazardous constituents adsorbed to the spent carbon. These may include, but are not limited to, VOCs, PAHs, phthalates, amines, pesticides, and metals. The complete list of hazardous wastes and RCRA-regulated waste codes acceptable for reactivation at the facility is provided in Appendix I of Part B Permit Application Reference 5.

Release Controls

The lid on the debris container is closed at all times except when waste is added. The hazardous waste debris is emptied periodically into the debris bin and is shipped off-site in less than 90 days from the date of initial accumulation in the bin. The facility operator performs routine inspections at this unit.

Release History

No documented releases from this unit have occurred. No evidence of any spill or release of hazardous constituents was observed during 2014 VSI.

Remedial Actions
There are no documented remedial actions performed at this unit.

Migration Pathways

(1) Soil and Groundwater Release Potential

There is low release potential to the soil and groundwater since this unit is located under the baghouse that services H-1 and H-2 hoppers on top of a bermed concrete pad. Routine (daily) inspections are performed, and concrete is present underneath the unit.

(2) Surface Water Release Potential

The nearest surface water body is greater than two miles away, routine inspections are performed, and this unit is located under the baghouse that services H-1 and H-2 hoppers on top of a bermed concrete pad. Therefore, there is low release potential to the surface water.

(3) Air Release Potential

The lid is kept closed except to add debris to the container, and the unit is routinely inspected. Therefore, there is low release potential to air from this unit.

6.3 AOCs

Area of Concern (AOC): Any area of a facility under the control or ownership of an owner or operator where a release to the environment of hazardous wastes or hazardous constituents has occurred, is suspected to have occurred, or may occur, regardless of the frequency or duration. [63 Fed. Reg. 56710, n.1 (Oct.22, 1998).] Areas of concern include areas that have experienced one-time spills of hazardous waste or hazardous constituents that have not been adequately cleaned up. [61 Fed. Reg. 19,432, 19,443 (May 1, 1996).]

TABLE 3 - AREAS OF CONCERN (AOC) IDENTIFICATION TABLE, NEW UNIT NAME

No.	Description of AOC	Location	Management Requirements at Closure
1	Spent carbon unloading and transfer area.	AOC 1 is entirely contained within SWMU14.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 5 & 7.
2	Tank area concrete containment pad	AOC 2 is entirely contained within SWMU 1.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 3.
3	Receiving area/pad	AOC 3 is entirely contained within SWMU14.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 8.
4	Hopper H-1 loading/unloading area	See HWMU 5 for more detail on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 4 & 5.
5	Hopper H-2 loading/unloading area	See HWMU 6 for more detail on this unit	Sampling. See Closure Plan Container Area Sample Locations 1 & 2.
6	Spent carbon storage warehouse	See HWMU 9 for more detail on this unit	Sampling. See Closure Plan Container Area Sample Locations 1, 2, & 3.
7	Furnace feed systems	See HWMUs 14 and 15 for more details on these units	Sampling. See Closure Plan RF-1 and RF-2 Process Area Sample Locations 1 & 2
8	Recycled motive water tank T-9	See SWMU 4 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 6.
9	Rainwater, Dewatering Screw, and Motive Water Storage Tank T-12	See SWMU 5 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 2.
10	Spent carbon storage warehouse barrel washer	See HWMU 17 for more details on this unit	Sampling. See Closure Plan Container Area Sample Locations 1, 2, & 3.
11	Bermed concrete pad in process area	AOC 2 is entirely contained within SWMU 1. See SWMU 1 for more detail on this unit	Sampling. See Closure Plan RF-1 and RF-2 Process Area Sample Locations 1, 2, & 3.
12	Sump by unloading hopper H-1	See SWMU 2 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 4.
13	Sump by storage tank T-9	See SWMU 3 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 6.
14	Spent carbon storage tanks and carbon adsorbers	Please see HWMUs 10, 11, 12, & 13 and HWMUs 19, 20, & 21 for more details on these units	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 1, 2, & 3.

TABLE 4 – OLD SWMUs UNIT NAMES AND HOW THEY CORRESPOND WITH THE NEW UNIT NAMES FOR SWMUs AND HWMUs

(First column from the left uses the old unit name and the first column from the right corresponds it with the new unit name).

SWMU		New Name for the SWMUs as a result of splitting out HWMUs
1	Spent Carbon Reactivation Furnace RF-1 and Associated Equipment (Dewater screw)	HWMU 1
2	Spent Carbon Reactivation Furnace RF-2 and Associated Equipment (Dewater Screw and Weigh Belt)	HWMU 2
3	Air Pollution Control Equipment for RF-1 (Afterburner, Venturi scrubber, packed bed scrubber, and emissions stack)	HWMU 3
3	Air Pollution Control Equipment for RF-2 (Afterburner, Venturi scrubber, packed bed scrubber, wet electrostatic precipitator, induced draft fan, and emission stack)	HWMU 4
4	Spent Carbon Unloading Hopper H-1	HWMU 5
5	Spent Carbon Unloading Hopper H-2	HWMU 6
6	Hopper Air Pollution Control Equipment piping and baghouse	HWMU 7
7	Spent Carbon Slurry and Recycle Water Transfer System	HWMU 8
8	Spent Carbon Storage Warehouse	HWMU 9
9	Transfer Area Concrete Pad	SWMU 14
10	Spent Carbon Slurry Storage Tank T-1	HWMU 10
11	Spent Carbon Slurry Storage Tank T-2	HWMU 11
12	Spent Carbon Slurry Storage Tank T-5	HWMU 12
13	Spent Carbon Slurry Storage Tank T-6	HWMU 13
14	RF-1 Furnace Feed System (Tank T-8, Dewatering Screw, and Weigh Belt Conveyor)	HWMU 14
15	RF-2 Furnace Feed System (Tank T-18, Dewatering Screw, and Weigh Belt Conveyor)	HWMU 15
16	Recycled Motive Water Storage Tank T-9	SWMU 4
17	Rainwater, Dewatering Screw, and Motive Water Storage Tank T-12	SWMU 5
18	Wastewater Storage Tank T-11	SWMU 6
19	RF-2 Scrubber Water Equalization Tank T-19	SWMU 8
20	Hazardous Waste Debris Bin	SWMU 9
21	Spent Carbon Storage Warehouse Grated Trenches and Sump	SWMU 10
22	Spent Carbon Storage Warehouse Barrel Washer	HWMU 17
23	Bermed Containment Area Under Spent Carbon Slurry Storage Tanks	SWMU 1
24	Sump By Unloading Hopper H-1	SWMU 2
25	Sump By Storage Tank T-9	SWMU 3
26	Sump By Cooling Screw Under Venturi Scrubber Tank	SWMU 7

SWMU		New Name for the SWMUs as a result of splitting out HWMUs
27	Wastewater Conveyance Piping to Wastewater Treatment Tank	HWMU 16
28	Wastewater Lift Station and Piping System (Old and New)	SWMU 13
29	Carbon Adsorber WS-1	HWMU 19
30	Carbon Adsorber WS-2	HWMU 20
31	Carbon Adsorber WS-3	HWMU 21
32	Carbon Adsorber PV-1000	HWMU-18
33	Slurry Transfer Inclined Plate Settler Tank	HWMU 22
34	Scrubber Recycle Tank T-17	HWMU 23
35	Filter Press	HWMU 24
	New Facility Discharge Piping System	HWMU 25
9	Hopper Concrete Pad (Outside H-1 Structure). Used to be part of old SWMU 23	SWMU 11
	WWTP (located inside the warehouse)	SWMU 12

7.0 EXPOSURE PATHWAYS AND HUMAN AND ENVIRONMENTAL RECEPTORS

7.1 Surface Water

The Colorado River is the closest major surface water body to the site and is greater than two miles northwest of the facility. Due to the distance a release would have to travel to reach the Colorado River, and containment structures on site, there is a low potential for surface water impacts directly from the facility.

The facility discharges its wastewaters to the local POTW. At the POTW, the wastewater is treated along with industrial wastewater and domestic sewage from other sources, and is discharged to a nearby canal. The canal flows into the Colorado River.

The facility tests its wastewaters before discharge to the POTW, and submits the data to the POTW. The POTW Discharge Report is provided in Appendix L and demonstrates that POTW permit limits were not exceeded for TDS, temperature, pH, flow, COD, and TSS (Appendix L).

The potential for atmospheric deposition of airborne contaminants from stack emissions to the surface water is ongoing, but low due to the air pollution control equipment. The potential for atmospheric deposition of airborne contaminants from fugitive emissions from all operations to the surface water is also ongoing about low due to the waste management practices at the facility. For more details about the potential for adverse health impacts please see the Human Health and Ecological Risk Assessment Report provided in Permit Application Reference 5 and Appendix XI.

7.2 Groundwater

The depth to groundwater at the facility is 80 to 100 feet. The drinking water from four wells within four miles of the facility meets all primary water quality standards in the CWA. These four wells are on CRIT property. The Town of Parker's water source is groundwater. The depth to the surface of the groundwater is approximately 75 feet near the center of town (90 feet at the well in the northeast corner of town, which is on higher ground). The 2000 water quality testing yielded only one non-acute violation for distribution system water quality.

Although spills within and outside secondary containment areas have occurred in the past or may occur in the future at the facility, the potential for exposure of human or environmental receptors to hazardous constituents via groundwater is unlikely, due to the depth of groundwater, the high evaporation rate, the promptness in the facility's response and clean up, and the distance to the drinking water wells.

The release potential from the former underground piping system to the lift station is unknown because documentation of the integrity of the piping system was not provided or found in the facility files during the VSI. There is low release potential from the new underground piping due to the age of the piping system.

7.3 On-site Surface Soil

There are no documented releases to the surface soil at the facility with the exception of the three spills in 1994, 1995, and 1996, and the punctured pipe in the piping system to the POTW in 1998. The spills and release from the piping system were documented as cleaned up, and tests on remaining soils showed no contamination (Appendix I).

In August 1996, according to the Sample Plan formulated on August 7, 1996 for sampling soils inside the fence of the facility prior to paving, the facility operator collected samples from 10 separate 10 foot by 10 foot grids chosen at random. Based on the soil analytical results for metals, SVOCs, VOCs, organochlorine pesticides, PCBs, and alcohol, and the comparison of concentration levels to risk-based screening levels, the soil within the fenced area of the facility has not been impacted or contaminated by the operations of the facility (Appendix I). Atmospheric deposition of airborne contaminants to the soil may occur from fugitive emissions of dust/particulates from unloading spent carbon at hopper H-1. However, there is low potential that residual soil contamination could pose an exposure threat to on-site human or environmental receptors. For more details about potential health impacts please see the Human Health and Ecological Risk Assessment Report provided in Permit Application Reference 5 and Appendix XI.

The potential for atmospheric deposition of airborne contaminants from stack emissions to the soil is ongoing, but low due to the air pollution control equipment. The potential for atmospheric deposition of airborne contaminants from fugitive emissions from all operations to the soil is also ongoing about low due to the waste management practices at the facility. For more details about potential health impacts please see the Human Health and Ecological Risk Assessment Report provided in Permit Application Reference 5 and Appendix XI.

7.4 Air

The facility has installed air pollution control equipment on the reactivation furnace. This equipment considerably reduces the level of hazardous pollutants emitted to the air from the reactivation furnace through the stack. However, stack emissions are ongoing during operations at the facility.

Records from the daily inspections performed by the facility operator of the thermal treatment equipment, tanks, sumps, piping, and other equipment indicate mechanical integrity of all equipment has been maintained except on a few occasions where problems with hoses, hook-ups, and insufficient draft have occurred. Carbon adsorption canisters on equipment also minimize the release of volatile organics at the facility. Occasionally, a delay in change-out of carbon in accordance with the schedule to avoid breakthrough has occurred. Low level, intermittent releases to the air from tanks, sumps, hoppers, carbon canisters, and the piping systems are likely to occur. However, there appear to be sufficient controls in place to keep such fugitive emissions from the facility at a minimum. Therefore, there are ongoing fugitive emissions to the air at fairly low levels from operations at the facility. For more details about potential health impacts please see the Human Health and Ecological Risk Assessment Report provided in Permit Application Reference 5 and Appendix XI.

7.5 Facility Emissions

For more details about potential health impacts from the facility emissions please see the Human Health and Ecological Risk Assessment Report provided in Permit Application Reference 5 and Appendix XI.

8.0 VISUAL SITE INSPECTION

8.1 Purpose of the Visual Site Inspections

A Visual Site Inspection (VSI) is conducted after the initial information-gathering step of the RFA process is complete. The purpose of the VSI is to visit the facility to obtain site characterization information that was not completely disclosed in the file review. During the VSI, the focus is to identify SWMUs and AOCs, to collect visual evidence of releases at the facility, and to identify exposure pathways. The site characterization information gathered during the VSI is evaluated along with the information gathered during the Preliminary Review step to determine the probability that a release has occurred or could occur at the facility. A VSI was conducted at the facility in Parker, Arizona on July 12, 2001. Photo documentation of the 2001 VSI can be found in Appendix B.

8.1.1 Visual Site Inspection Participants

The following personnel were present during the VSI:

Andrea L. Austin — Booz Allen Hamilton, Environmental Scientist
Monte McCue — Plant Manager, Evoqua Water Technologies

Roy Provins Environmental Health & Safety Manager,
Evoqua Water Technologies
Karen Scheuermann EPA Region 9, USEPA, Environmental Engineer/Project Manager

8.1.2 Summary of the Visual Site Inspection

The RFA VSI included a visual inspection of present and former (where possible) waste streams, identification of SWMUs and AOCs, and collection of information necessary to assess the potential for release of hazardous constituents to the environment. The inspection was conducted on an extremely hot, sunny day. The temperature was approximately 106° Fahrenheit.

The VSI included the following activities:

Development of a detailed site base map which depicts site features and SWMU locations;
A facility visual inspection and photographic documentation of all SWMUs and a search for related releases and identification of exposure pathways;
An interview with facility representatives and a review of specific documents and file records on-site to fill the site characterization gaps identified during the preliminary review.

8.2 Purpose of the Second Visual Site Inspections

A second VSI was conducted by the USEPA Project manager in March 2014 (Appendix A). EPA invited the CRIT Environmental Protection Office (EPO) to participate in the VSI, however the CRIT EPO office declined and requested a debriefing, of the EPA findings, on the last day of the VSI. The debriefing took place at the EPO office on Friday, March 14, 2014.

The purpose of the second VSI was to verify and document the conditions of all the units at this facility (HWMUs, SWMUs, and AOCs) since the last VSI was over twelve years old.

8.2.1 Visual Site Inspection Participants

The following personnel were present during the VSI:

Monte McCue Plant Manager, Evoqua Water Technologies
Roy Provins Environmental Health & Safety Manager,
Evoqua Water Technologies
"Mike" Mahfouz Zabaneh EPA Region 9, USEPA, Environmental Engineer/Project Manager

8.2.2 Summary of the Visual Site Inspection

During the second VSI, EPA inspected the facility and documented the conditions of the SWMUs, HWMUs, and AOCs. The Project Manager reviewed the last three (3) years of the facility's operating records, inspection records, and calibration records. The new VSI photographic documentation can be found in Appendix A.

9.0 SUGGESTIONS FOR FURTHER ACTION

The findings of this RFA show that there is no need for immediate corrective action at this facility. The waste management units and AOCs at this facility will be further investigated and if need be and cleaned up at the time of the facility closure.

10.0 REFERENCES

Inspection Records Reviewed During the VSI

1995 to 2001: Benzene NESHAP Quarterly Visual Inspection Records for Process Equipment Assessment for Potential Emissions (Documentation of Mechanical Integrity and Corrective Actions); the Carbon Adsorbers; Drums, Vessels, or Bags in Storage; Recycle and Spent Carbon Tank; Dewater Screw; Afterburner; and the Slurry Piping

1995 to 2001: Daily Inspection Checklist of Structural Features and Storage Facilities; Operating Equipment Except Thermal Treatment; Thermal Treatment System; and Safety Equipment; Satisfactory and Unsatisfactory Categories; Unsatisfactory Checks Require a Work Order; Work Orders 4/26/01 for Cut-off Valve Above Waste Feed Tank T-5 and Oxygen Analyzer for the CEMS

1995 to 2001: Weekly Inspection Checklist of Structural Features and Storage Facilities; Operating Equipment Except Thermal Treatment; Thermal Treatment System; and Safety Equipment; Work Order 09/08/00, Pallet Containing Leaking Drum was Pulled and Dumped into H-2 to Feed Process

1995 to 2001: Monthly Inspection Checklist for Safety Equipment; Pumps and Valves Plant-Wide; and Dust Collection System; Monthly Inspection 12/10/99 and Work Order 12-16-99 for Berm in Hazardous Waste Storage Area—Repaired

1995 to 2001: Carbon Adsorber Replacement Logs for WS- 1, WS-2, and WS-3

Other File Material and Facility Records Reviewed for the RFA

April 1, 1990: Business Lease, Lease No. B-1122-CR, Colorado Indian Tribes, U.S. Department of Interior, Bureau of Indian Affairs, and Evoqua Water Technologies

February 1991: Final Environmental Assessment (EA), Carbon Reactivation Plant at the Colorado River Indian Tribes Industrial Park, Parker, Arizona.

April 30, 1991: EPA Form 8700-12, First Notification of Regulated Waste Activity

August 12, 1991: EPA Form 8700-23, Hazardous Waste Permit Application

July 1, 1992: Coating Inspection Services Report on Tank T-8

September 21, 1992: Preliminary Assessment Summary Memorandum submitted to EPA Region 9

February 4, 1993: *RCRA* Closure Plan for RF-1 and RF-2, Evoqua Carbon-Arizona, Inc.

August 18, 1993: Memorandum from Ray Fox to Larry Bowerman

December 8, 1993: Letter from Evoqua to USEPA Region XI Re: EPA Inspection

February 15, 1994: Determination of Violation, Compliance Order and Notice of Right to Request a Hearing ("Complaint")

February 24, 1994: Inspection Report and Certification Signed by a Registered Professional Engineer for the Spent Carbon Storage Tank and the Furnace Feed Tank and their Ancillary Equipment; That These Tank Systems Have Sufficient Structural Integrity and are Capable of Handling Hazardous Waste

March 1994: RCRA Compliance Evaluation Inspection Report, Westates Carbon-Arizona, Inc., for the October 27, 1993 inspection

June 3, 1994: Letter from EPA Region 9 to Westates Carbon-Arizona Inc., Re: Westates Carbon Hazardous Waste Treatment Facility, in Response to Questions Raised at a Meeting Held on January 6, 1994; Attached Application for Approval, Modification of the Westates-Carbon-Arizona, Inc., Parker Facility

June 17, 1994: Screening Human Health Risk Assessment for the Westates Carbon-Arizona, Inc. Carbon Reactivation Facility in Parker, Arizona with Wind Rose

July 13, 1994: Warning Letter, from Greg Czajkowski, Chief, EPA Region IX, to Jeffery Walsh, Westates Carbon-Arizona, Inc., regarding hazardous waste investigation on March 15, 1994

October 21, 1994: Compliance Evaluation Inspection Report (for October 27, 1993 CEI) March 1994 and Cover Letter from SAIC to EPA Region 9

November 22, 1994: Letter from Westates Carbon-Arizona, Inc. to EPA Region IX; Re: Notice of Implementation of Contingency Plan (spill from the lift station (domestic sewage and scrubber water blowdown, November 10, 1994)

March 9, 1995: RCRA Compliance Evaluation Inspection Report

April 27, 1995: Letter from Westates Carbon-Arizona, Inc. to EPA Region IX Re: Notice of Implementation of Contingency Plan (spill from the lift station (domestic sewage and scrubber water blowdown, April 17, 1995)

July 1995: Consent Agreement and Final Order, Westates Carbon-Arizona, Inc., Docket No. RCRA-09-04-0001, July 1995

May 31, 1995: RCRA Compliance Evaluation Inspection Report

November 1995: RCRA Part B Permit Application, Westates Carbon, Parker, Arizona

September 19, 1995: RCRA Compliance Evaluation Inspection Report

February 20, 1996: Letter from Westates Carbon-Arizona, Inc., to EPA Region IX, Re: Notice of Implementation of Contingency Plan (spill at lift station, ruptured pipe, facility discharge line to the POTW February 15, 1996)

May 8, 1996: Cover letter, Permit and Fact Sheet for the Colorado River Sewage System Joint Venture for the Industrial Wastewater Discharge Permit No.: 1002-96

October 16, 1996: Letter from Westates Carbon-Arizona, Inc. ,to EPA Region 9, Re: Notice of Change of Ownership and Hazardous Waste Permit Application, Part A, Form 8700-23

December 3, 1996: Subpart CC Compliance Plan, Westates Carbon-Arizona, Inc. Facility, Parker, Arizona

December 19, 1996: Letter from Arlene Kabei, Chief Compliance Monitoring and Enforcement Section, EPA Region IX to Monte McCue, Plant Manager, Westates Carbon-Arizona, Inc. with Appendix of RCRA Compliance Evaluation Inspection Report, December 18, 1996

August 7, 1996: Memorandum from Westates Carbon to Soil Testing File Re: Sampling Plan Prior to Paving “Inside the Fence Area” of the Facility; Testing of Soil Samples Will Consist of Metals, Semi-Volatile Organics, Volatile Organics, Organochlorine Pesticides and PCB’s, and Alcohol Scan

August 23, 1996: Memorandum from Westates Carbon to Soil Testing File; Summary of Analytical Results

October 5, 1998: Letter from Monte McCue, Plant Manager, to Felicia Marcus, Regional Administrator, EPA Region IX Re: Westates Carbon-Notice of Implementation of Contingency Plan

January 20, 1999: Purchase Requisition for Fan (Cook #12 CVB, ¾ HP, 460/3 Phase TEFC with Weather Cover, Epoxy Coat, and Spring Hangers) for Ventilation to Afterburner

1999: Letter and EPCRA Form R for 1999, from Roy Provins, EH & S Manager to Daniel Eddy, Jr., Colorado River Indian Tribes

January 26, 2000: Letter from Monte McCue, Plant Manager, US Filter/Westates Carbon to USEPA Region IX; Re: 1999 Air Emission Report for Westates Carbon-Arizona, Inc. Under EPA Potential to Emit Transition Policy for Part 71 Implementation in Indian Country; Applicability of 40 CFR Part 63 Subpart EEE for RCRA Permitting Requirements at Westates

January 31, 2000: Letter from Frances Schultz, Chief, RCRA Enforcement Section to Monte

McCue, Plant Manager, Westates Carbon-Arizona, Inc. and a Copy of the Inspection Report for December 9-10, 1998

June 26, 2000: Letter from Roy Provins to Daniel Eddy, Jr., Chairman, Colorado River Indian Tribes with Attachment of the toxic Release Inventory Report (Form R) for Reporting Year 1999; also furnished to EPCRA Reporting Center

August 22, 2000: Letter from Karen Scheuermann, Permits and Technical Assistance Office, Waste Management Division, EPA Region IX to Bradley Angel, Greenaction; Re: Biennial Reporting System data from 1993, 1995, and 1997 for Westates Carbon

October 19, 2000: Letter from EPA Region IX to Westates Carbon, Re: Applicability of Title V of the Clean Air Act to the Westates Carbon facility

November 8, 2000: DelMar Analytical Laboratory Report for Scrubber Water Blowdown; Documentation for Determining Nonhazardous Waste

November 9, 2000: Open House Questions and Answers about Westates

January 16, 2001, Wastewater Permit Application, Submitted by Westates Carbon to the Colorado River Sewage System Joint Venture, Priority Pollutant Information

January 18, 2001: Letter from Jeff Scott, Acting Director, Waste Management Division, to Monte McCue, Plant Manager, Westates Carbon-Arizona, Inc., and Re: Applicability of 40 CFR Part 63 Subpart EEE for RCRA Permitting Requirements at Westates

February 2001: Enclosure to Letter from Karen Scheuermann, EPA Region IX to Dave Harper, Mojave Elders and Bradley Angel, Greenaction: Westates Carbon Emission Tests, Draft

February 21, 2001: Letter from Monte McCue, Director, Plant Operations, US Filter/Westates Carbon, to Mr. Daniel Eddy, Chairman, Colorado River Indian Tribes, Re: US Filter Westates Carbon RCRA Part B Permit Application

February 22, 2001: Letter from Monte McCue, Director, Plant Operations, US Filter/Westates Carbon, to Karen Scheuermann, USEPA Region IX, Re: Preliminary Internal RF-2 Stack Test Data October 25-26, 2000

February 26, 2001: Letter from US Filter/Westates Carbon, Roy Provins, EH and S Manager to Karen Scheuermann, USEPA Region IX with Appendix of analytical documentation for spills that occurred at Westates Carbon

February 28, 2001: Response Letter with Enclosure from Karen Scheuermann, EPA to Dave Harper, Mojave Elders and Bradley Angel, Director of Greenaction; Summary of Emissions Data From Tests Conducted in 1993/1994 and in 2000

March 13, 2001: Letter from Monte McCue, Director of Plan Operations to Karen Scheuermann, EPA: Clarification of Statements Attached to EPA's Letter dated February 28, 2001 to David Harper, Mojave Elders and Bradley Angel, Greenaction, Regarding the Summary of 1993/1994 Emissions Tests

Spring 2001, covering Year 2000 Water Quality Testing: Third Annual Drinking Water Quality Report, Town of Parker, Public Water System #15-013

July 20, 2001, Baseline Report required per the Centralized Waste Treatment discharge regulations with Appendices of analytical results (pending) for wastewater

August 21, 2001: Letter with Enclosures from EPA to Westates Carbon-Arizona, Inc. requesting submittal of Westates' Air Emissions Test Plan and Risk Assessment Work Plan

September 7, 2001: Letter with enclosures from EPA to the Director of the Environmental Protection Office of the Colorado River Indian Tribes (Elena Etcitty) regarding Superfund wastes received at Westates

September 17, 2001: Letter from Monte McCue to EPA, response to EPA's August 21, 2001 letter requesting submittal of Westates' Air Emissions Test Plan and Risk Assessment Work plan

September 26, 2001: Letter from EPA to Westates Carbon-Arizona, US Filter, Inc., applicability of the centralized waste treatment rules under the Clean Water Act (CWA) 40 CFR 437.2 (c)

November 15, 2001: Letter from EPA to the Chairman of the Colorado River Indian Tribes (Daniel Eddy, Jr.), invitation to Meeting regarding Westates Carbon, November 19, 2001

December 3, 2001: Andrea Austin, Booz Allen Hamilton, personal communication with Karen Scheuermann, EPA Region 9, Environmental Engineer, regarding emissions tests results in 1993 and 1994, and October 2000 for Westates Carbon

December 17, 2001: Letter from EPA to U.S. Filter Westates Carbon with Inspection Report for June 2001 enclosed

January 16, 2002: Newspaper article, Parker Pioneer, Water Use Down In Parker

February 4, 2002: Letter from the EPA Contractor, Booz Allen Hamilton, to Eric Shepard, Attorney General's Office, Colorado River Indian Tribes and to Elena Etcitty, Director Environmental Protection Office, Colorado River Indian Tribes requesting information and data from the CRIT files relevant to the RFA

February 01, 2002 - February 28, 2002: Westates Carbon-Arizona, Inc. POTW Discharge Report

February 19, 2002: Phone Response from Eric Shepard, Attorney General's Office, Colorado Indian Tribes, to EPA Contractor, Booz Allen Hamilton: No additional information or data relevant to the RFA is in the CRIT files

March 12, 2001: E-mail Response from Monte McCue. Additional information and data relevant to the RFA

August 9, 2002: E-mail Response from Monte McCue. Additional information relevant to the RFA

September 6, 2002: E-mail Response from Monte McCue. Additional information relevant to the RFA

Appendix A

2014 VSI Photographic Documentation with New Unit Names

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
1	Bermed concrete in process area (this includes the secondary containment for slurry storage tanks) – LOCATION: East of Warehouse	
2	Sump by Hopper H-1 LOCATION: South of H-1	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
3	Sump by storage tank, T–9 LOCATION: East of warehouse in between T-9 and RF-2	
4	Recycled motive water storage tank, T–9 LOCATION: East of warehouse on containment	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

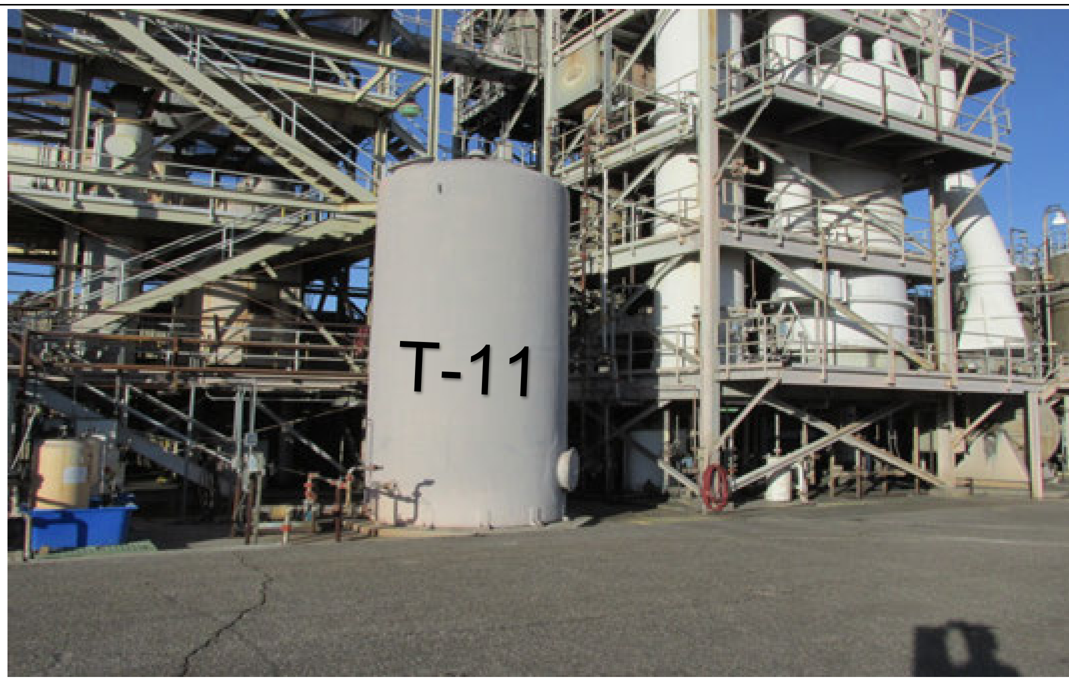
SWMU No.	SWMU Type/Designation	Picture of Unit
5	Rainwater and motive water storage tank, T–12 LOCATION: East of warehouse on containment	This Tank was removed from service in 2002
6	Wastewater storage tank, T–11 System LOCATION: East of the warehouse and south of RF -2	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
7	Sump by cooling screw under Venturi scrubber tank LOCATION: East of warehouse beside RF-2 NOTES: Used for washdown and rainwater drainage	
8	RF–2 scrubber water equalization tank, T-19 LOCATION: Under RF-2 Structure	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
9	Hazardous waste debris bin LOCATION: North of warehouse on asphalt pavement. Location of this unit on the asphalt changes for convenience	
10	Spent carbon storage warehouse grated trenches and sump LOCATION: Warehouse in containment area	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
	Picture of the sump inside the spent carbon storage warehouse (This is part of SWMU 10)	
11	Hopper H-1 concrete pad LOCATION: Outside Hopper H-1 structure	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
12	WWTP LOCATION: Inside warehouse	
13	Wastewater lift station and piping system (old) LOCATION: At the end of access road to plant. Old piping from Tank T-11 to the Lift Station	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
14	Spent carbon unloading/transfer area asphalt pavement LOCATION: North area of facility	
15	Satellite Accumulation Area LOCATION: North Side of warehouse	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
16	Satellite Accumulation Area LOCATION: South Side of drum containment	
17	Satellite Accumulation Area LOCATION: East of Control Room	

TABLE - SOLID WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

SWMU No.	SWMU Type/Designation	Picture of Unit
18	Satellite Accumulation Area LOCATION: Laboratory in Admin Building	
19	Satellite Accumulation Area LOCATION: Underneath the Spent Carbon Baghouse	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
1	Spent carbon reactivation furnace - RF-1 and Associated Equipment (Dewater screw) LOCATION: South of RF-2	
	Dewatering Screw for RF-1 (A component of HWMU 1)	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
2	Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt) LOCATION: East of warehouse	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Dewatering Screw (A component of HWMU 2)	
	Weigh Belt (A component of HWMU 2)	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
3	3 RF–1 Air pollution control equipment	
	Afterburner (A component of HWMU 3)	
	Venturi scrubber (A component of HWMU 3)	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Packed bed scrubber	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Emissions stack (was removed. This is a picture of where it was.)	
4	RF–2 Air pollution control equipment	
	Afterburner	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Venturi scrubber	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Packed bed scrubber and Wet electrostatic precipitator (WESP)	
	Induced draft fan	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
	Emissions stack	
5	Spent carbon unloading hopper H-1 LOCATION: North end of facility on containment	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
6	Spent carbon unloading hopper H-2 LOCATION: Inside warehouse facing east wall	
7	Hopper air pollution control equipment piping and baghouse LOCATION: North end of facility on containment	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
8	Spent carbon slurry and recycle water transfer system LOCATION: Inside warehouse on containment LOCATION: Outside on concrete pad	

<u>TABLE - HAZARDOUS WASTE MANAGEMENT UNITS</u>
<u>VISUAL SITE INSPECTION</u>
<u>BY MIKE ZABANEH</u>
<u>MARCH 11, 2014</u>

HWMU No.	HWMU Type/Designation	Pictures
9	Spent carbon storage warehouse LOCATION: Inside warehouse	
10	Spent carbon slurry storage tank, T–1 LOCATION: East of warehouse within secondary containment	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
11	Spent carbon slurry storage tank, T–2 LOCATION: East of warehouse within secondary containment	
12	Spent carbon slurry storage tank, T–5 LOCATION: East of warehouse within secondary containment NOTES:	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
13	Spent carbon slurry storage tank, T–6 LOCATION: East of warehouse within secondary containment NOTES:	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
14	Furnace Feed System Tank T-8 and Ancillary Equipment LOCATION: RF–1 Structure	
15	T-18 and Ancillary Equipment LOCATION: RF-2 structure	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
16	Wastewater conveyance piping to wastewater treatment tank LOCATION: East of RF-2 structure	
17	Spent carbon storage warehouse barrel washer LOCATION: Next to H-2 in warehouse	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
18	Carbon adsorber - PV1000 LOCATION:	Equipment does not exist anymore
19	Carbon adsorber WS-1. These are two adsorbers in series (lead – lag configuration) LOCATION: Beside spent carbon storage tank	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
20	Carbon adsorber WS-2 LOCATION: Beside Hopper H-1	
21	Carbon adsorber WS-3 LOCATION: Beside RF–2	

TABLE - HAZARDOUS WASTE MANAGEMENT UNITS
VISUAL SITE INSPECTION
BY MIKE ZABANEH
MARCH 11, 2014

HWMU No.	HWMU Type/Designation	Pictures
22	Slurry transfer inclined plate settler tank LOCATION: Adjacent to the venturi scrubber	Equipment doesn't exist anymore
23	Scrubber recycle tank T-17 LOCATION: Beside RF-1	Equipment doesn't exist anymore
24	Filter press LOCATION: Next to scrubber system for RF-1	Equipment doesn't exist anymore
25	New Facility Discharge Piping System LOCATION: New piping bypasses Lift Station to POTW	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
1	Spent carbon unloading and transfer area. LOCATION:	
2	Tank area concrete containment pad LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
3	Receiving area/pad LOCATION:	
4	Hopper H-1 loading/unloading area LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
5	Hopper H-2 loading/unloading area LOCATION:	
6	Spent carbon storage warehouse LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
7A	Furnace feed system – Dewatering screw LOCATION:	
7B	Furnace feed system – Weigh Belt LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
8	Recycled motive water tank T-9 LOCATION:	
9	Rainwater, dewatering screw, and motive water tank T-12 LOCATION: Was removed. Doesn't exist anymore	Tank was removed. Doesn't exist anymore.

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
10	Spent carbon storage warehouse barrel washer LOCATION:	
11	Bermed containment area in process area LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
12	Sump by unloading hopper H-1 LOCATION:	
13	Sump by tank T-9 LOCATION:	

TABLE - AREA OF CONCERN IDENTIFICATION

No.	AOC Type/Designation/Location	Management Requirements at Closure
14	Spent carbon storage tanks and carbon adsorbers LOCATION:	

Appendix B

2003 VSI Photographic Documentation with Old Unit Names

Photograph No.: F-1
Photographer: Andrea Austin
SWMU No.: 9
SWMU Name: Transfer Area Containment Pad
Date: 07/12/2001
SWMU Description: Concrete loading pad with secondary containment berm adjacent to the spent carbon storage warehouse (SWMU8). No evidence of spills.

Photograph No.: F-2
Photographer: Andrea Austin
SWMU No.: 9
SWMU Name: Transfer Area Containment Pad
Date: 07/12/2001
SWMU Description: Concrete loading pad adjacent to the spent carbon storage warehouse (SWMU 8). No evidence of spills.

Photograph No.: F-3
Photographer: Andrea Austin
SWMU No.: 20
SWMU Name: Hazardous Waste Debris Bin
Date: 07/12/2001
SWMU Description: Debris bin at spent carbon transfer area containment (SWMU 9); cracks in concrete filled in with a polyresin, Sikadur 35. Debris such as personal protective equipment is stored for less than 90 days. There are three areas inside the spent carbon storage warehouse where the debris is accumulated before putting into the dumpster. Debris bin is closed at all times except to add debris. No evidence of any spill.

Photograph No.: F-4
Photographer: Andrea Austin
SWMU No.: 8
SWMU Name: Spent Carbon Storage Warehouse
Date: 07/12/2001
SWMU Description: About 10 rows plus 10-20 bag filter canisters. Tightly closed / labeled 55-gallon drums of hazardous and non-hazardous waste. Authorized to store 100,000 gallons (approximately 1,818 drums of <u>hazardous</u> waste). Drums are stacked on and separated by wooden pallets. There are four drums per pallet therefore using a total of twenty-four pallets. Crack in floor repaired with a polyresin, Sikadur 35®. Grated trenches collect any spill.

Photograph No.: F-5
Photographer: Andrea Austin
SWMU No.: 8
SWMU Name: Spent Carbon Storage Warehouse
Date: 07/12/2001
SWMU Description: Storage area for spent carbon. Spills are washed into trenches that drain to a sump and vault (SWMU 21). Water in sump is recycled to T-9 (SWMU 16) and T-12 (SWMU 17), the water recycle storage tank. Water was observed on the floor from recent wash-out of empty drums. White vessels are filter canisters, each containing approximately 1000 (?) lbs of spent carbon.

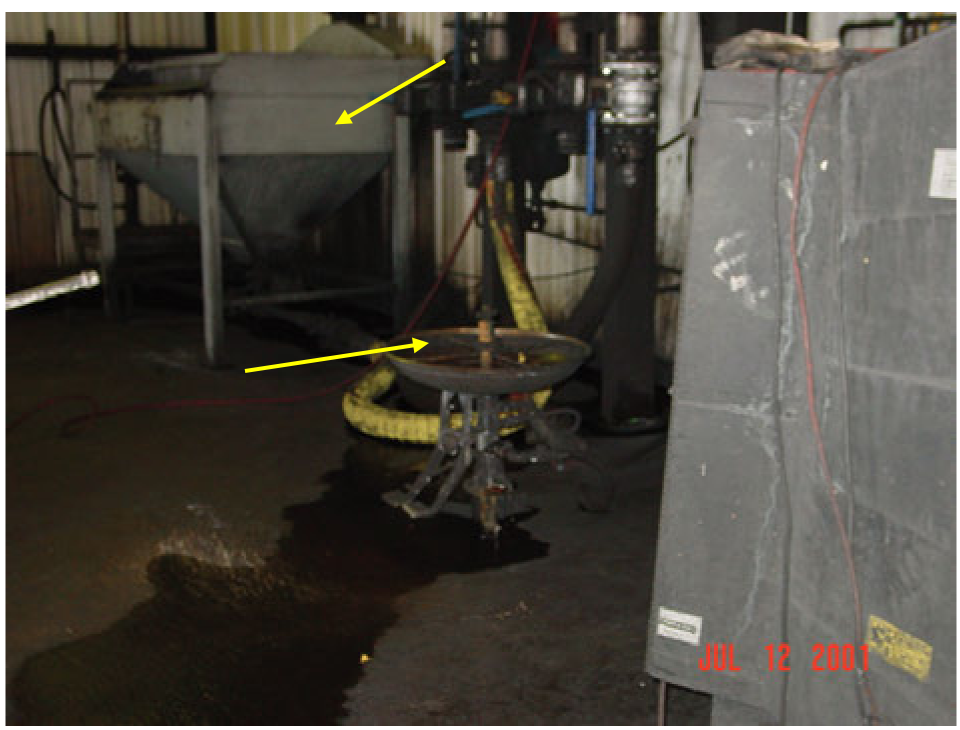
Photograph No.: F-6
Photographer: Andrea Austin
SWMU No.: 5
SWMU Name: Spent Carbon Unloading Hopper (H-2)
Date: 07/12/2001
SWMU Description: Drums of spent carbon are emptied into this feed hopper. Forty percent of waste is handled at H-2. The capacity of H-2 is 500 lbs. No evidence of spills were observed.

Photograph No.: F-7
Photographer: Andrea Austin
SWMU No.: 7
SWMU Name: Carbon Slurry and Recycle Water Transfer System
Date: 07/12/2001
SWMU Description: Piping conveyance system from unloading hopper (H-2) (SWMU 5) to spent carbon slurry storage tanks (SWMUs 10 through 13).

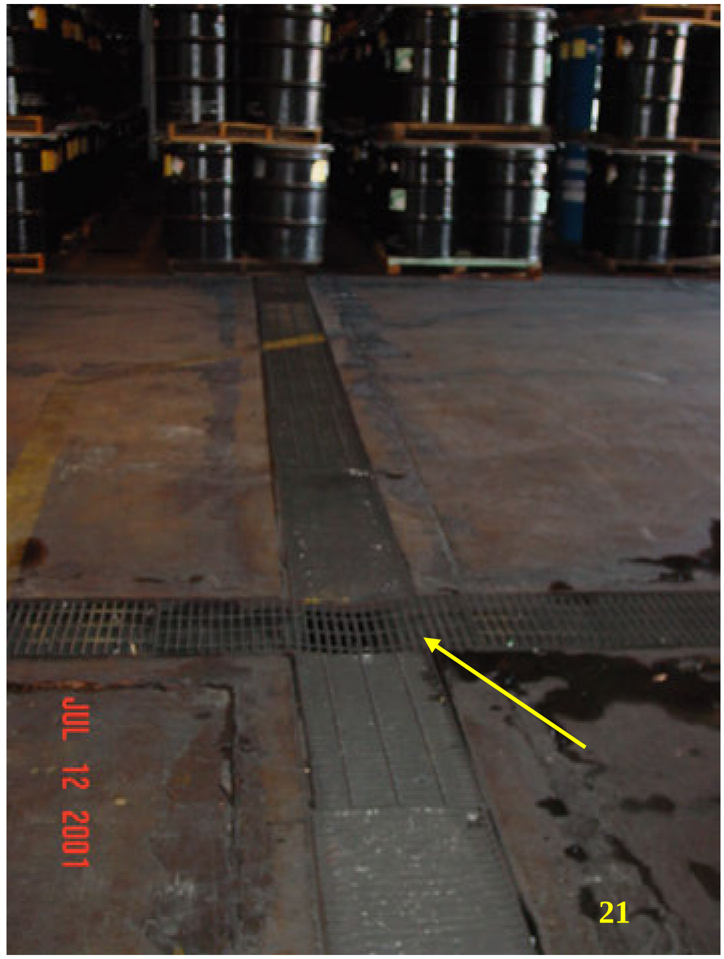
Photograph No.: F-8
Photographer: Andrea Austin
SWMU No.: 5
SWMU Name: Spent Carbon Unloading Hopper (H-2)
Date: 07/12/2001
SWMU Description: Piping behind H-2 that draws organic vapors and particulates from spent carbon. The pipe leads to the baghouse and carbon adsorber WS-2 (SWMU 30).

Photograph No.: F-9
Photographer: Andrea Austin
SWMU No.: 21
SWMU Name: Spent Carbon Storage Warehouse: Metal Grated Trenches, Sump, and Vault.
Date: 07/12/2001
SWMU Description: Grating over trenches for collecting water used to wash out empty drums at the barrel washer (SWMU 22). Also the collection point for washdown of the spent carbon transfer area containment pad (SWMU 9) just outside the warehouse entrance. The liquid is collected in the sump, then pumped to Tank T-9 (SWMU 16) or Tank T-12 (SWMU 17). Crack in concrete has been sealed with a polyresin, Sikadur 35®. No history of build-up of liquid in the sump and vault. No evidence of release around the sump and vault in the warehouse.

Photograph No.: F-10
Photographer: Andrea Austin
SWMU No.: 22
SWMU Name: Spent Carbon Storage Warehouse Barrel Washer
Date: 07/12/2001
SWMU Description: Barrel washer adjacent to H-2 (SWMU 5). Water used to rinse empty drums drains into trenches and flows to the sump and vault (SWMU 21) (Photograph No. F-9). From there the water is recycled to tank T-9 (SWMU 16) or (SWMU 17) T-12. Water observed on the floor from recent wash-out of empty drums.

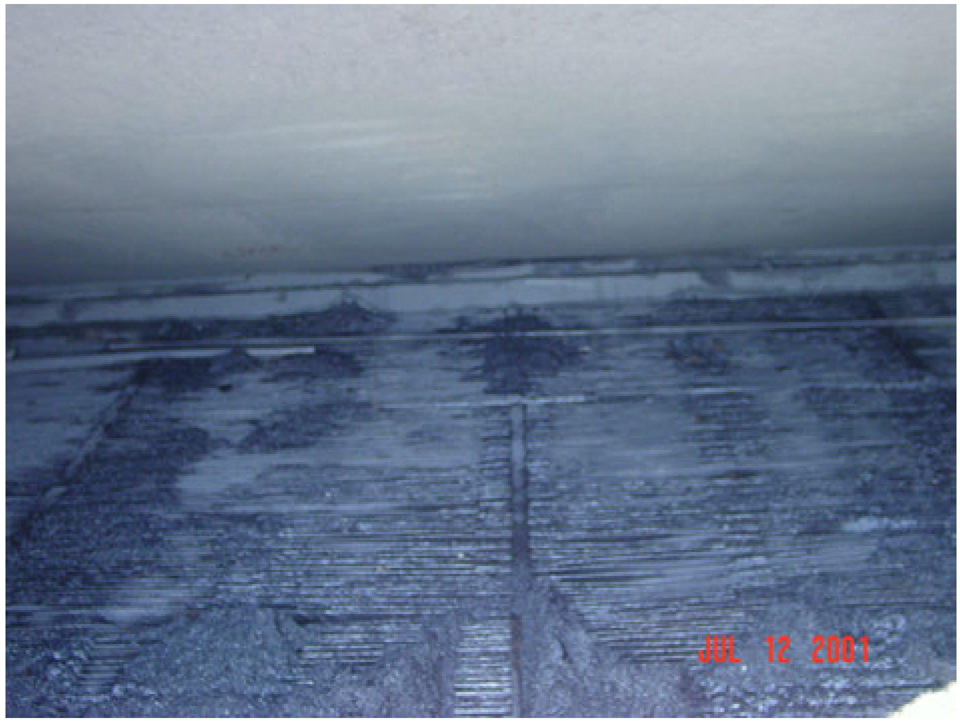


Photograph No.: F-11
Photographer: Andrea Austin
SWMU No.: 21
SWMU Name: Spent Carbon Storage Warehouse: Grated Trenches
Date: 07/12/2001
SWMU Description: The grated trenches in the spent carbon storage warehouse are present to capture any spills. The dark wet area on the concrete is water from recently washing out empty drums. The trenches lead to the sump and vault and transport the wastewater via a pipe system to Tank T-9 (SWMU 16) and T-12 (SWMU 17) where water is recycled.



Photograph No.: F-12
Photographer: Andrea Austin
SWMU No.: 8
SWMU Name: Spent Carbon Storage Warehouse
Date: 07/12/2001
SWMU Description: Containment berm separating the container storage area from the maintenance area.

Photograph No.: F-13
Photographer: Andrea Austin
SWMU No.: 4
SWMU Name: Unloading Hopper (H-1)
Date: 07/12/2001
SWMU Description: Inside unloading hopper (H-1); the grate onto which spent carbon is unloaded. Approximately sixty percent of the spent carbon is handled at H-1. The capacity of H-1 is 5,000 lbs. Residual spent carbon was observed on the grate of H-1.



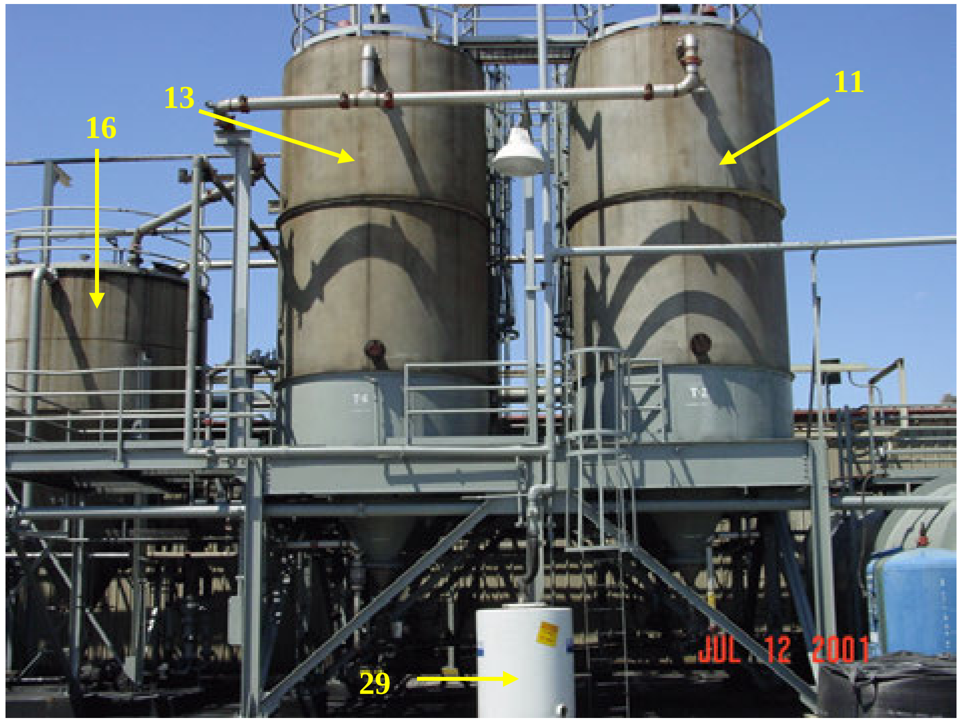
Photograph No.: F-14
Photographer: Andrea Austin
SWMU No.: 4
SWMU Name: Connection Pipe for Slurry Trucks to Unload to
Date: 07/12/2001
SWMU Description: Slurry Trucks unload by connecting to pipe. Spent carbon falls through grate into the hopper; eductor at the bottom moves the carbon into slurry transfer system (SWMU 7).

Photograph No.: F-15
Photographer: Andrea Austin
SWMU No.: 4 and 6
SWMU Name: Hopper Air Pollution Equipment
Date: 07/12/2001
SWMU Description: Outside of unloading hopper (H-1). Heavy rubber strips/curtain minimizes escape of dust/particulates and organic vapors during unloading of spent carbon. Water was observed on the transfer area containment pad (SWMU 9). There is a fan that pulls air off H-1, drawing organic vapors and particulates from spent carbon in the hopper. Air pollution control equipment draws particulates and organic vapors; piping leads to the baghouse and then to a carbon adsorber. Silver pipes draw from H-1; white pipes draw from H-2.

Photograph No.: F-16
Photographer: Andrea Austin
SWMU No.: 4
SWMU Name: Air Pollution Control Equipment and Piping to the Baghouse for H-1 and H-2
Date: 07/12/2001
SWMU Description: Unloading hopper H-1 showing silver piping leading to air pollution control equipment (SWMU 6). Bags of reactivated carbon (nonhazardous) are staged adjacent to H-1; used for on-site carbon adsorber canisters.

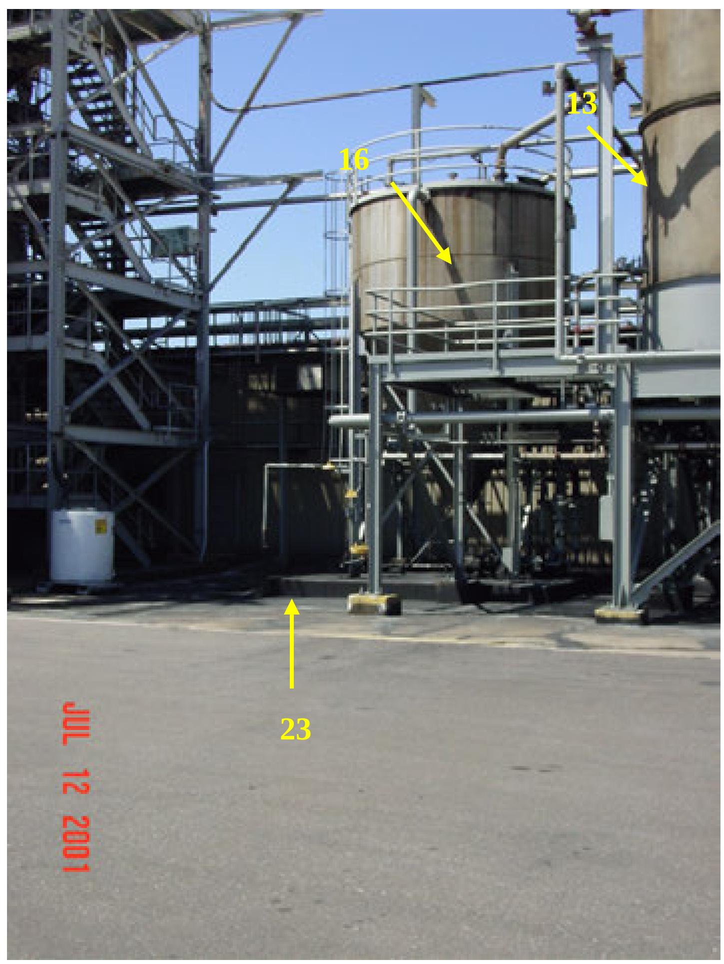
Photograph No.: F-17
Photographer: Andrea Austin
Location: Paved Area Outside Process Area. Not a SWMU.
Date: 07/12/2001
Description: Staging area for empty filter canisters to be recycled offsite. No evidence of any spills. This area is not used to store waste, and is not within a containment pad. White filter canisters have 1000 lb. spent carbon capacity; blue filter canisters have 2000 lb. spent carbon capacity.

Photograph No.: F-18
Photographer: Andrea Austin
SWMU No.: 17
SWMU Name: Motive Water and Rainwater Collection Tank (T-12)
Date: 07/12/2001
SWMU Description: Tank T-12 receives excess recycle water, rain water, and washdown water. The water from this tank is recirculated to the slurry piping system. No evidence of release. Tank and pipe system is close-looped. Blue tank is carbon adsorber PV 50. This adsorber filters recycle water that is discharged to the POTW.

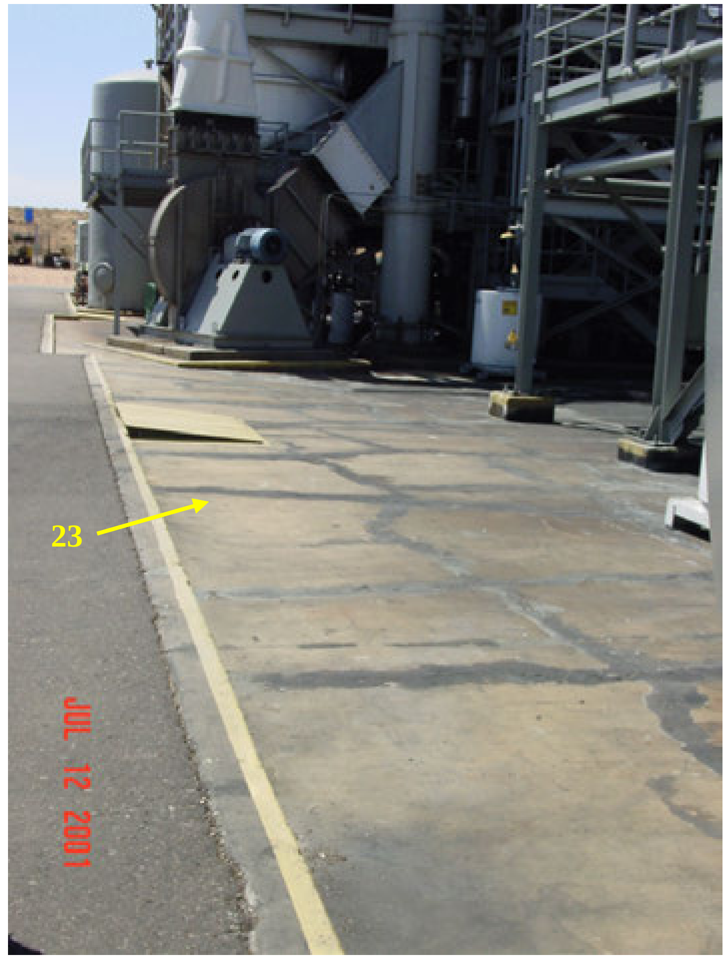


Photograph No.: F-19
Photographer: Andrea Austin
SWMU Nos.: 10, 11, 12, 13, and 29
SWMU Name: Spent Carbon Slurry Storage Tanks: T-1, T-2, T-5, T-6, and Carbon Adsorber WS-1 (SWMU 29).
Date: 07/12/2001
SWMU Description: Four spent storage tanks; Tank T-1 (SWMU 10) is behind Tank T-2 (SWMU 11); Tank T-5 (SWMU 12) is behind Tank T-6 (SWMU 13). Carbon adsorber tank (WS-1) [the white carbon canister], used to control volatile emissions from tanks T-1, T-2, T-5, T-6, T-9 (SWMU 16), and T-12 (SWMU 17). WS-1 is emptied into the spent carbon unloading hopper (H-1) (SWMU 4) when the carbon inside reaches its adsorption capacity. Tank T-9 (SWMU 16) also appears in the photo.

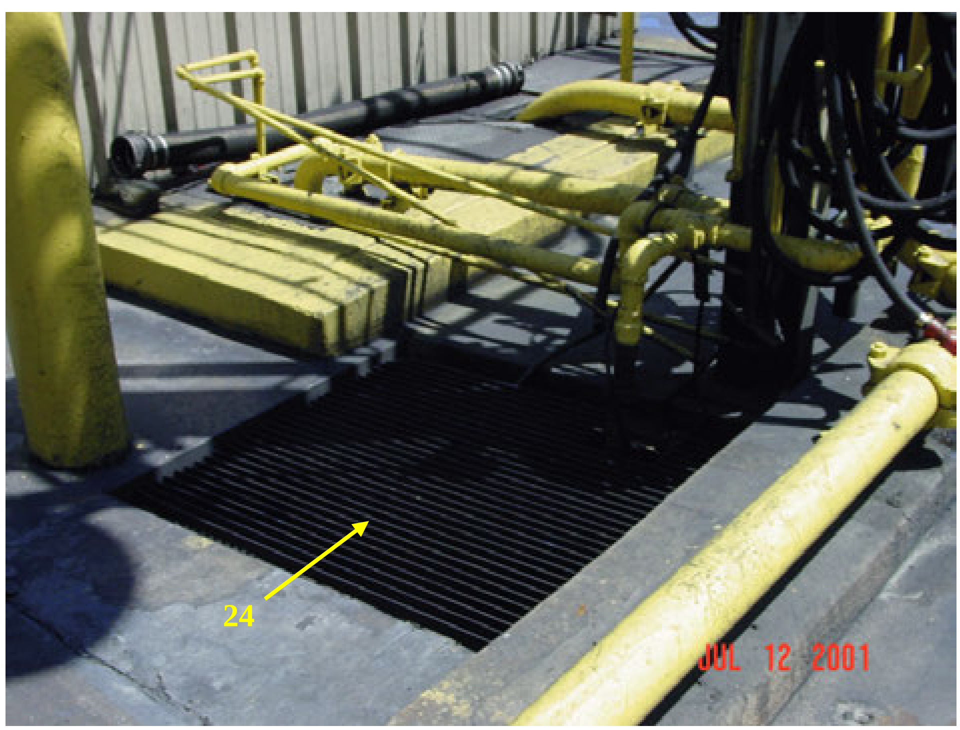
Photograph No.: F-20
Photographer: Andrea Austin
SWMU No.: 16
SWMU Name: Recycled Motive Water Storage Tank (T-9)
Date: 07/12/2001
SWMU Description: Motive water for creating a carbon slurry is supplied from Tank T-9 and moves the spent carbon through the pipe conveyance system. Bermed containment area in the Process Area (SWMU 23) is interconnected with the bermed area for the Transfer Containment Area (SWMU 9). No evidence of release to the ground/concrete. Tank T-6 (SWMU 13) also appears in the photo.



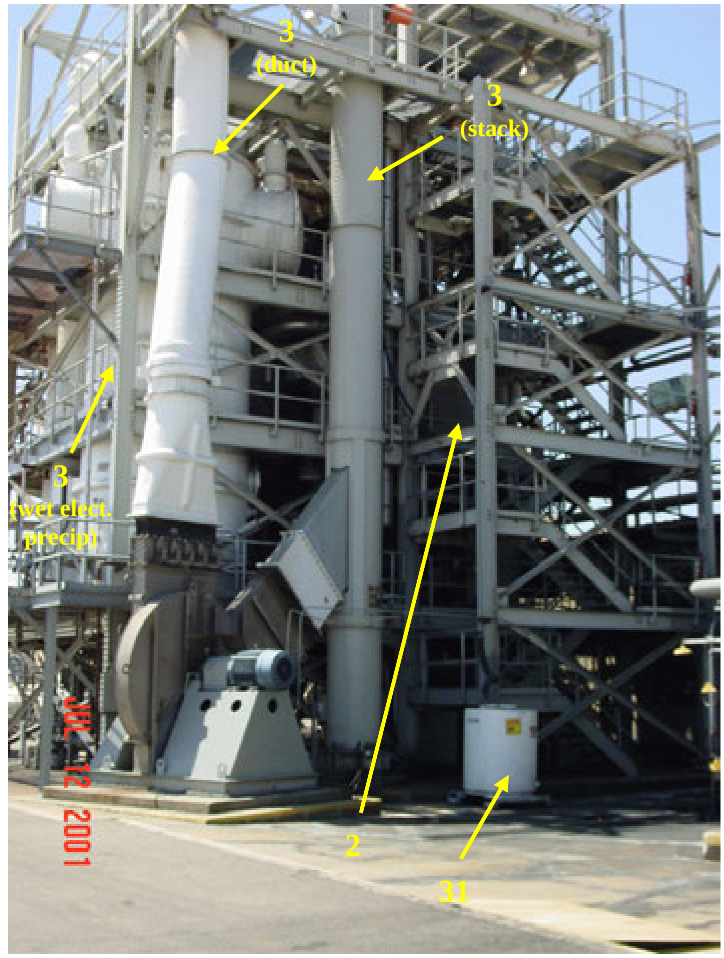
Photograph No.: F-21
Photographer: Andrea Austin
SWMU No.: 23
SWMU Name: Bermed Containment Area in Process Area
Date: 07/12/2001
SWMU Description: Concrete pad and bermed secondary containment area under platforms for the reactivation furnaces. Cracks have been sealed with a polyresin, Sikadur 35®. No evidence of a spill.



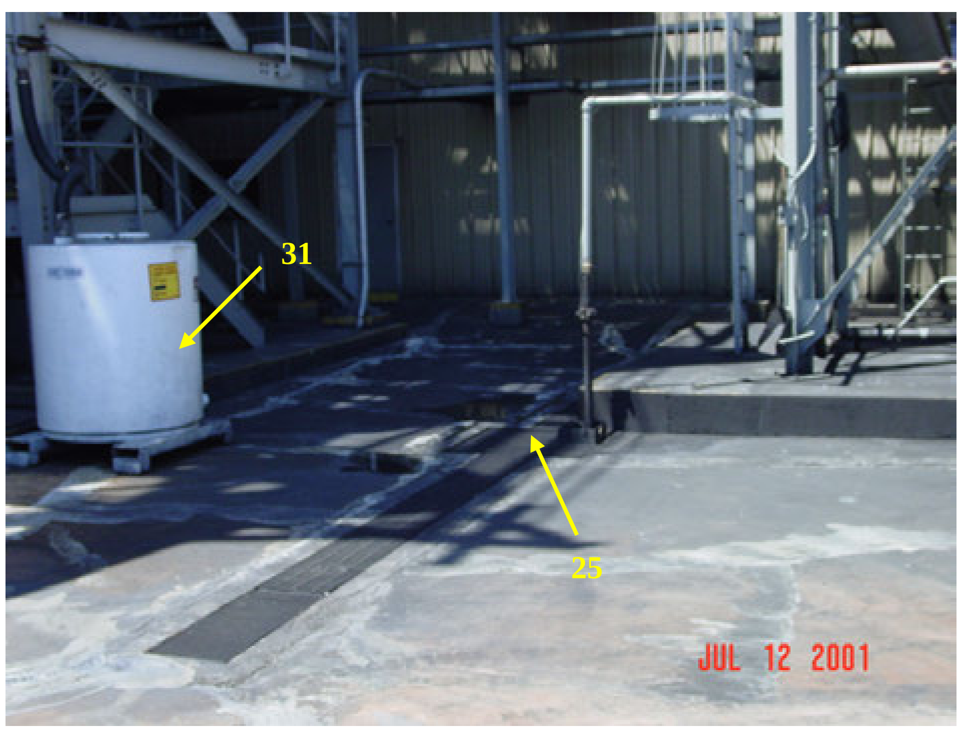
Photograph No.: F-22
Photographer: Andrea Austin
SWMU No.: 24
SWMU Name: Sump by Unloading Hopper No. 1 (H-1)
Date: 07/12/2001
SWMU Description: Sump collects wastewater such as washdown water from trucks unloading spent carbon into unloading hopper (H-1) (SWMU 4), and from (SWMU 9). Captured liquid is then transferred to Tank T-9 (SWMU 16) and T-12 (SWMU 17) via a closed piping system. No evidence of overflow release to the ground.



Photograph No.: F-23
Photographer: Andrea Austin
SWMU No.: 2, 3, and 31
SWMU Name: SWMU 2: Reactivation Furnace No. 2 (RF-2)
SWMU 3: Air Pollution Control Equipment
SWMU 31: Carbon Adsorber No. 3 (WS-3)
Date: 07/12/2001
SWMU Description: RF-2 (SWMU 2) is the gray vessel at the center of the photograph, inside the platform. On the left-hand side is the wet electrostatic precipitator. The wide white duct comes from the top of the wet electrostatic precipitator and goes to the bottom of the stack for RF-2. The small carbon canister (SWMU 31) at the foot of the platform is the carbon adsorber used to control volatile emissions from Tank T-18 (SWMU 15), the feed tank to the reactivation furnace, RF-2. No evidence of release was observed.

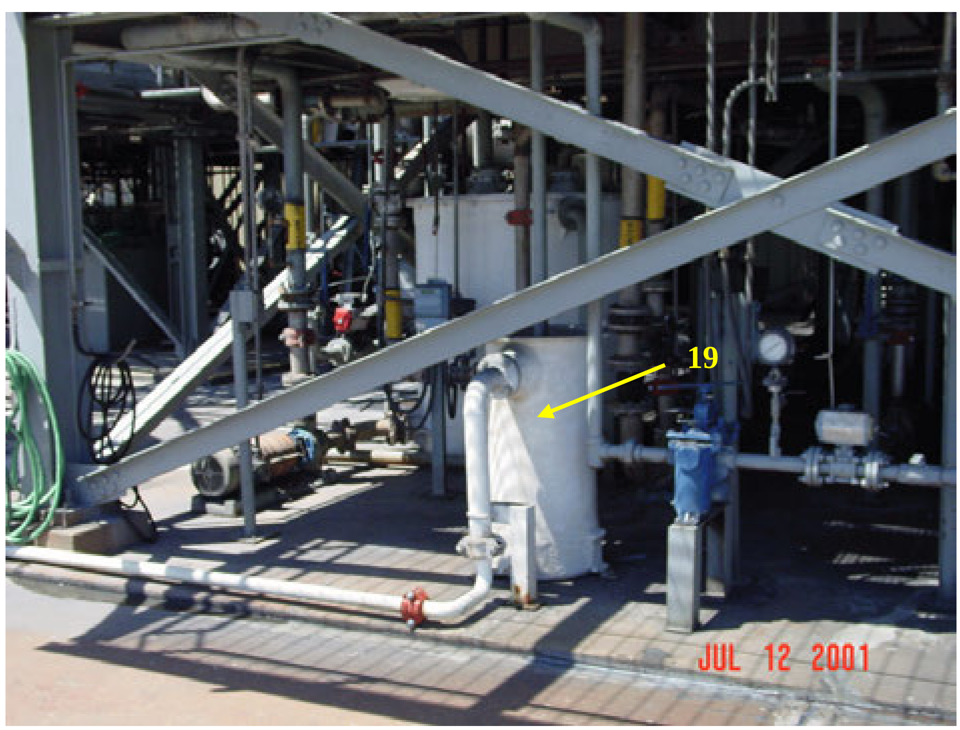


Photograph No.: F-24
Photographer: Andrea Austin
SWMU No.: 25 and 31
SWMU Name: Sump by Tank T-9 and Carbon Adsorber No. 3 (WS-3)
Date: 07/12/2001
SWMU Description: The trench and sump drain the bermed containment area (SWMU 23) of water or spills. Small pools of water were observed adjacent to trench. Rainwater also flows into trench and sump to be conveyed to Tank T-12 (SWMU 16) or T-9 (SWMU17).

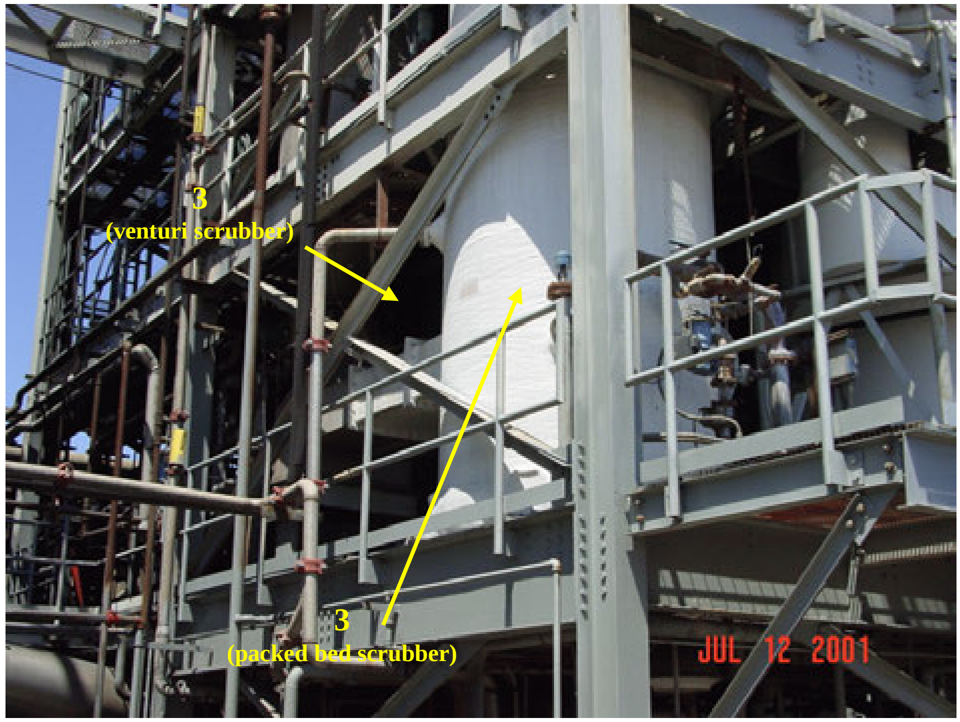


Photograph No.: F-25
Photographer: Andrea Austin
SWMU No.: 23
SWMU Name: Repaired Containment Area
Date: 07/12/2001
SWMU Description: Cracks in the Process Area have been filled in and patched with a polyresin, Sikadur 35®.

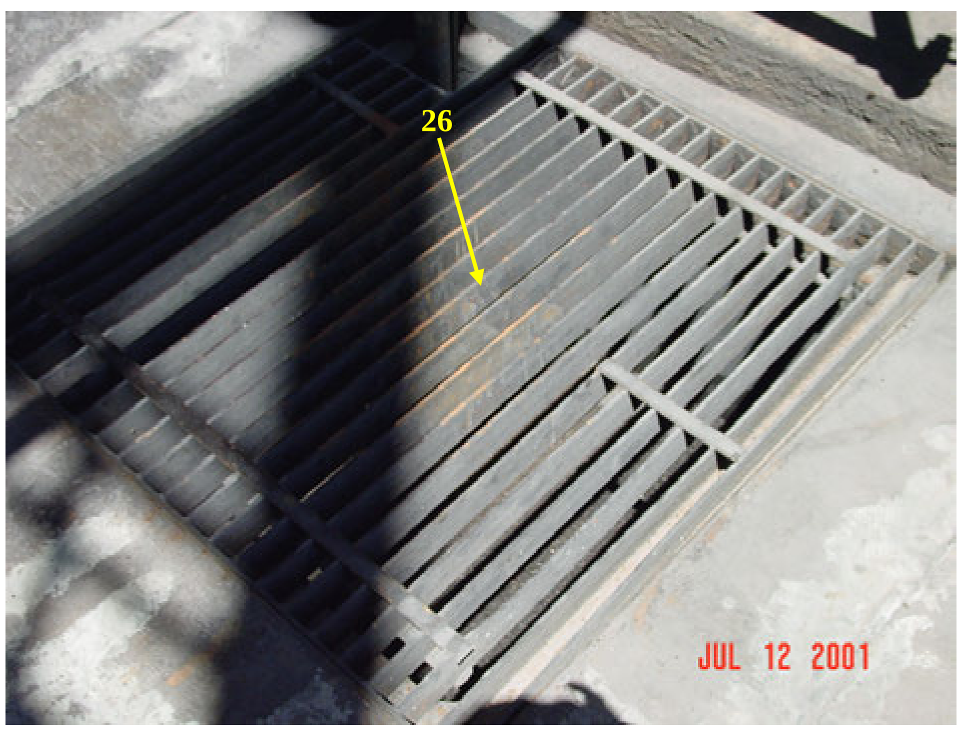
Photograph No.: F-26
Photographer: Andrea Austin
SWMU No.: 19
SWMU Name: RF-2 Scrubber Water Equalization Tank T-19
Date: 07/12/2001
SWMU Description: Treatment of scrubber water from air pollution equipment. Cracks near Tank T-19 have been sealed with a polyresin, Sikadur 35®. No evidence of a release.



Photograph No.: F-27
Photographer: Andrea Austin
SWMU No.: 3
SWMU Name: Air Pollution Control Equipment (RF-2)
Date: 07/12/2001
SWMU Description: Left vessel (brown/gray) is the venturi scrubber. White vessel on the right is the packed bed scrubber. The venturi scrubber is designed to remove particulates, and the packed bed scrubber is designed to remove acid gases from the gases leaving the afterburner. Equipment in excellent condition. No evidence of leaks in the air pollution control equipment.



Photograph No.: F-28
Photographer: Andrea Austin
SWMU No.: 26
SWMU Name: Sump under the Venturi Scrubber by cooling screw
Date: 07/12/2001
SWMU Description: Collects spilled process water and rain water from the process containment area. Water is recycled via piping back to Tank T-9 (SWMU 16) or T-12 (SWMU 17). No evidence of overflow from the sump.



Photograph No.: F-29
Photographer: Andrea Austin
SWMU No.: 18
SWMU Name: Wastewater Storage Tank (T-11)
Date: 07/12/2001
SWMU Description: Wastewater going to the Publicly Owned Treatment Works (POTW) goes through Tank T-11. All cracks in secondary containment have been repaired with a polyresin, Sikadur 35®.

Photograph No.: F-30
Photographer: Andrea Austin
SWMU No.: 1
SWMU Name: Reactivation Furnace No. 1 (RF-1)
Date: 07/12/2001
SWMU Description: The idle RF-1 within the platform structure on secondary containment in the Process Area. No evidence of release of hazardous constituents to the containment area under the platform.

Photograph No.: F-31
Photographer: Andrea Austin
SWMU No.: 27
SWMU Name: Wastewater Conveyance Piping to Wastewater Treatment Tank
Date: 07/12/2001
SWMU Description: Heat Exchanger, cooling tower, and piping for wastewater discharged to the local POTW. The water originates from T-11 (SWMU 18).

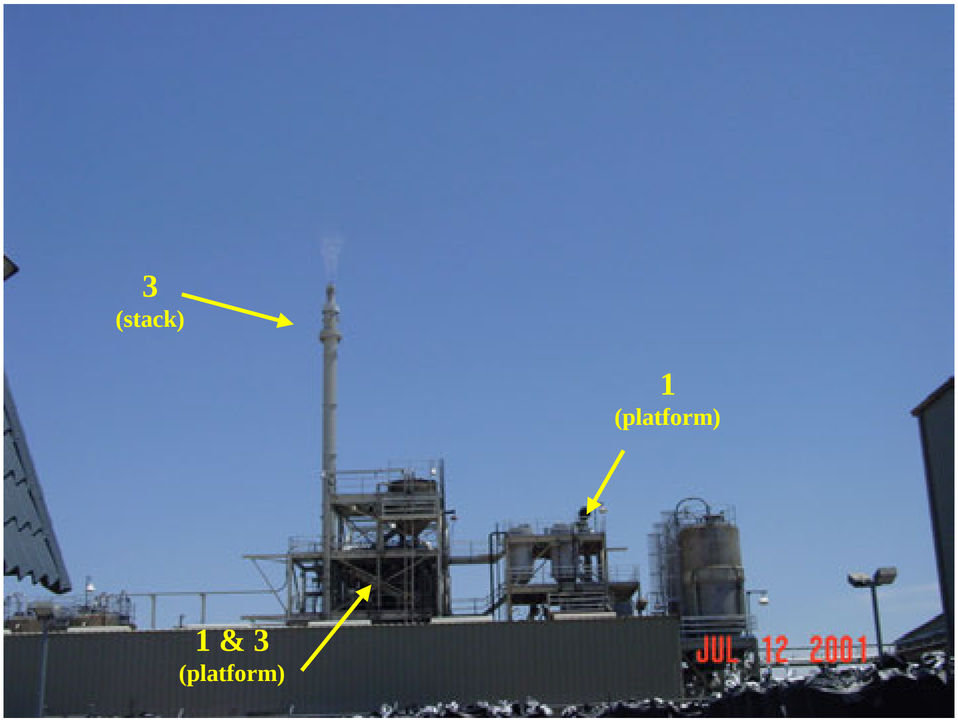
Photograph No.: F-32
Photographer: Andrea Austin
SWMU No.: 28
SWMU Name: Wastewater Lift Station
Date: 07/12/2001
SWMU Description: At entrance road to the facility on the eastside. Wastewater treated onsite was conveyed by piping system to this lift station where the wastewater was lifted/ pumped to the POTW. No evidence of release, such as stained soil, was observed. Lift station not used since early 1996.

Photograph No.: F-33
Photographer: Andrea Austin
Location: Entrance to Facility. Not a SWMU.
Date: 07/12/2001
Description: At road entering plant (off Mutahar Street), monitoring well for POTW testing for discharge limits, located adjacent to the Lift Station.

Photograph No.: F-34
Photographer: Andrea Austin
Location: Eastside of the Facility.
Date: 07/12/2001
SWMU Description: Facility at entrance gate, off of Mutahar Street (road entering plant).

Photograph No.: F-35
Photographer: Andrea Austin
Direction: Northeast
Name: Main Office
Date: 07/12/2001
Description: Entrance to the Westates Carbon Reactivation Facility. Black bags at right (background) contain reactivated carbon.

Photograph No.: F-36
Photographer: Andrea Austin
SWMU No.: 1, 2, 3
SWMU Name: Air Pollution Control Equipment
Date: 07/12/2001
SWMU Description: Facing Northwest, platform structures for RF-1 and RF-2 and air pollution control equipment. (SWMUs 1, 2, and 3 not clearly visible.) Exhaust from the stack is barely visible. Tanks to the right of RF-1 platform hold reactivated carbon. Black Bags of reactivated carbon visible in foreground.

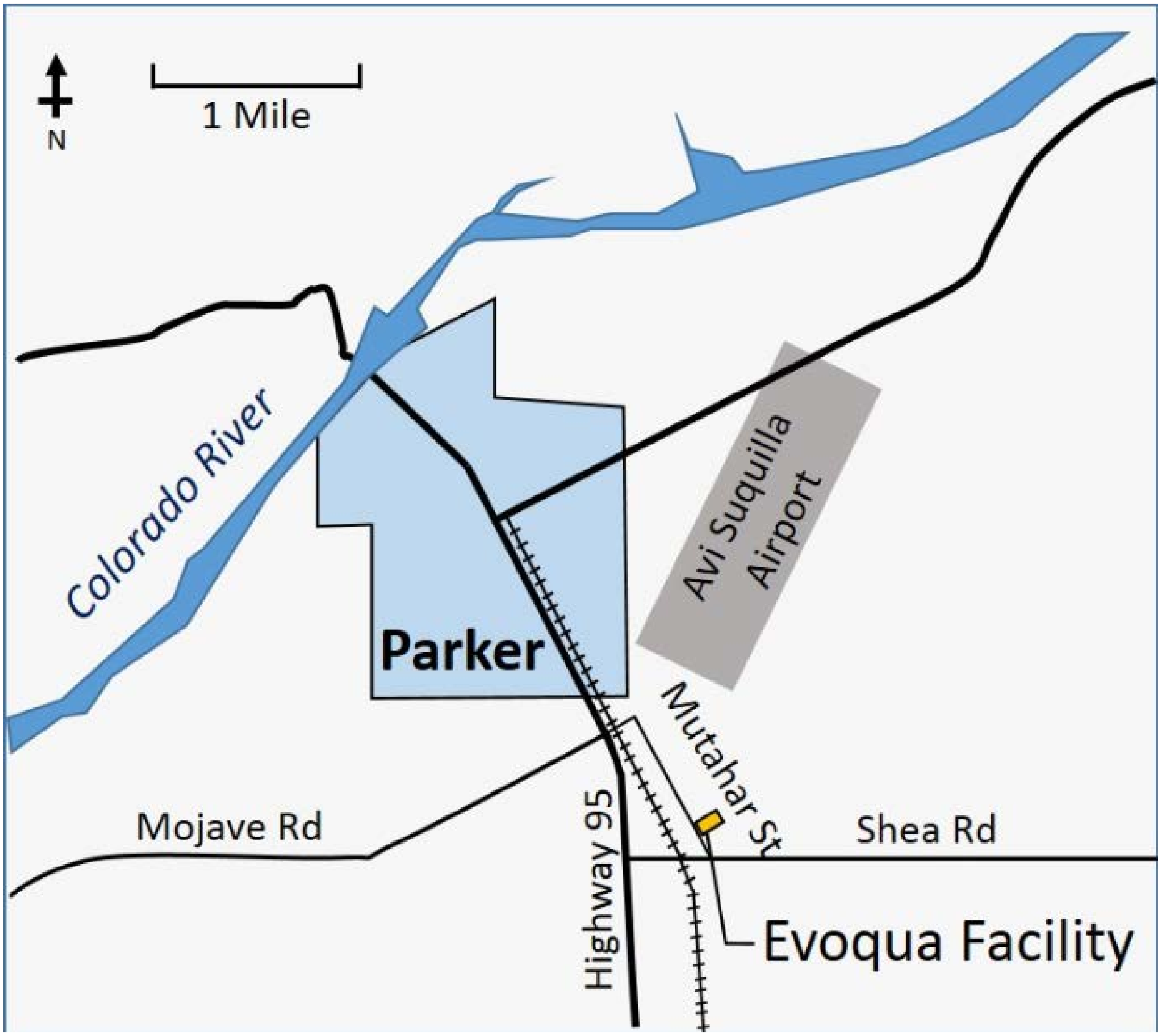


Photograph No.: F-37
Photographer: Andrea Austin
SWMU No.: 1, 2, and 3 (not visible)
SWMU Name: Platform structure for RF-2 and RF-1 and air pollution control equipment (SWMU 3) Stack on the Reactivation Furnace No. 2 (RF-2).
Date: 07/12/2001
SWMU Description: Exhaust emitted from RF-2 air pollution control equipment via the stack is barely visible.

END OF PHOTOGRAPHIC DOCUMENTATION

Appendix C

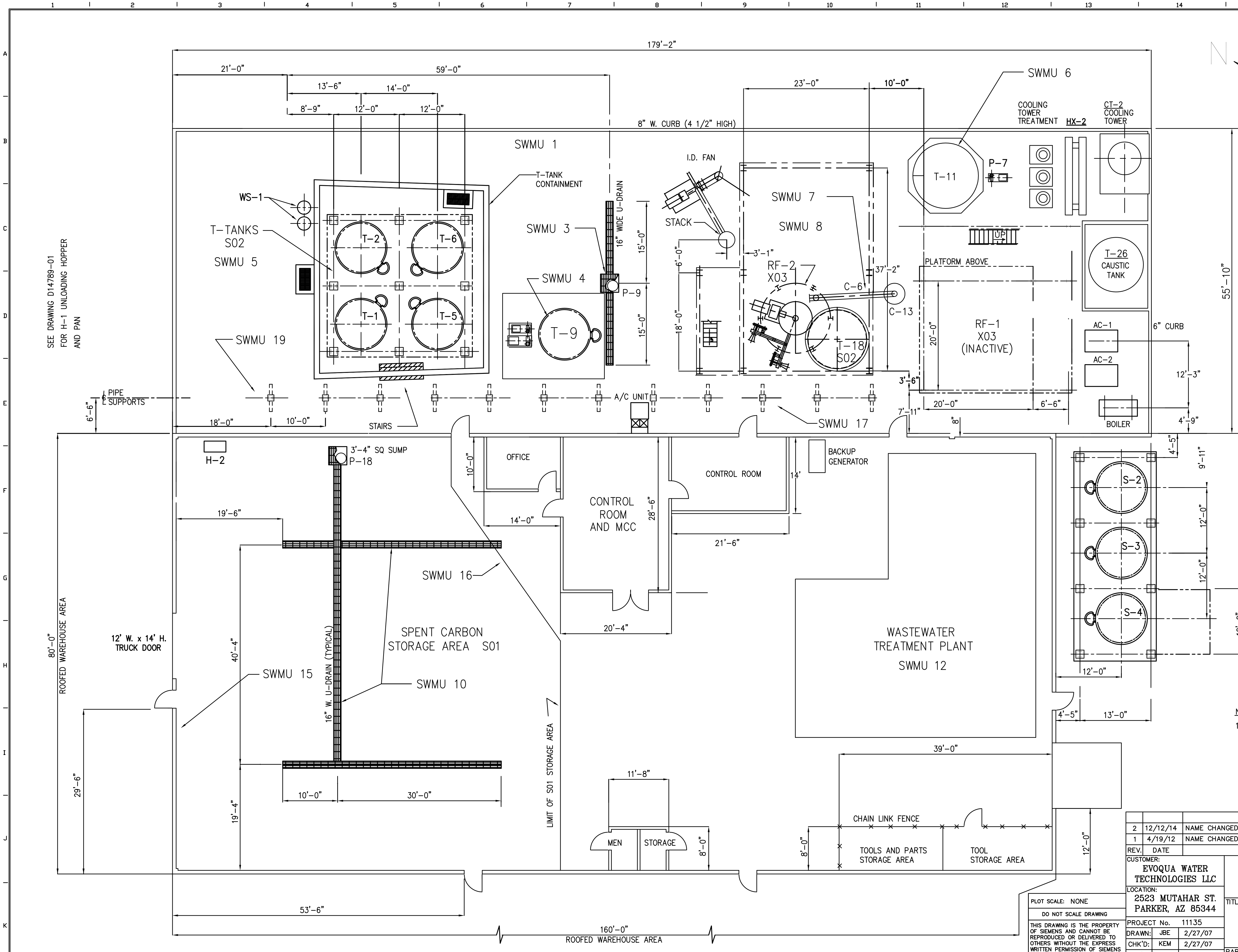
Site Location Map



Evoqua Facility Map

Appendix D1

HWMUs, SWMUs, and AOC Location Map
(New Unit Names)
(Figures J-1 to J-7 of Application Section J)



Solid Waste Management Units

1. Bermed containment in process area.
2. Sump by H-1.
3. Sump by storage tank, T-9.
4. Recycle water tank, T-9.
5. Rainwater/Recycle water tank, T-12.
6. Wastewater tank, T-11 system.
7. Sump by cooling screw.
8. RF-2 Scrubber water equalization tank, T-19.
9. Hazardous waste debris bin.
10. Spent carbon storage warehouse grated trenches and sump.
11. Hopper containment pad
12. WWTP.
13. Wastewater lift station and piping ayatem (old).
14. Spent carbon unloading area containment pad.
15. Satellite Accumulation Area
16. Satellite Accumulation Area
17. Satellite Accumulation Area
18. Satellite Accumulation Area
19. Satellite Accumulation Area

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
2	12/12/14	NAME CHANGED TO EVOQUA WATER TECH., UPDATE SWMUs	JBE		
1	4/19/12	NAME CHANGED TO SIEMENS INDUSTRY, INC., UPDATE SWMUs	JBE	KEM	

PLOT SCALE: NONE

DO NOT SCALE DRAWING

CUSTOMER: EVOQUA WATER TECHNOLOGIES LLC

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No. 11135

DRAWN: JBE 2/27/07

CHK'D: KEM 2/27/07

ENG'R:

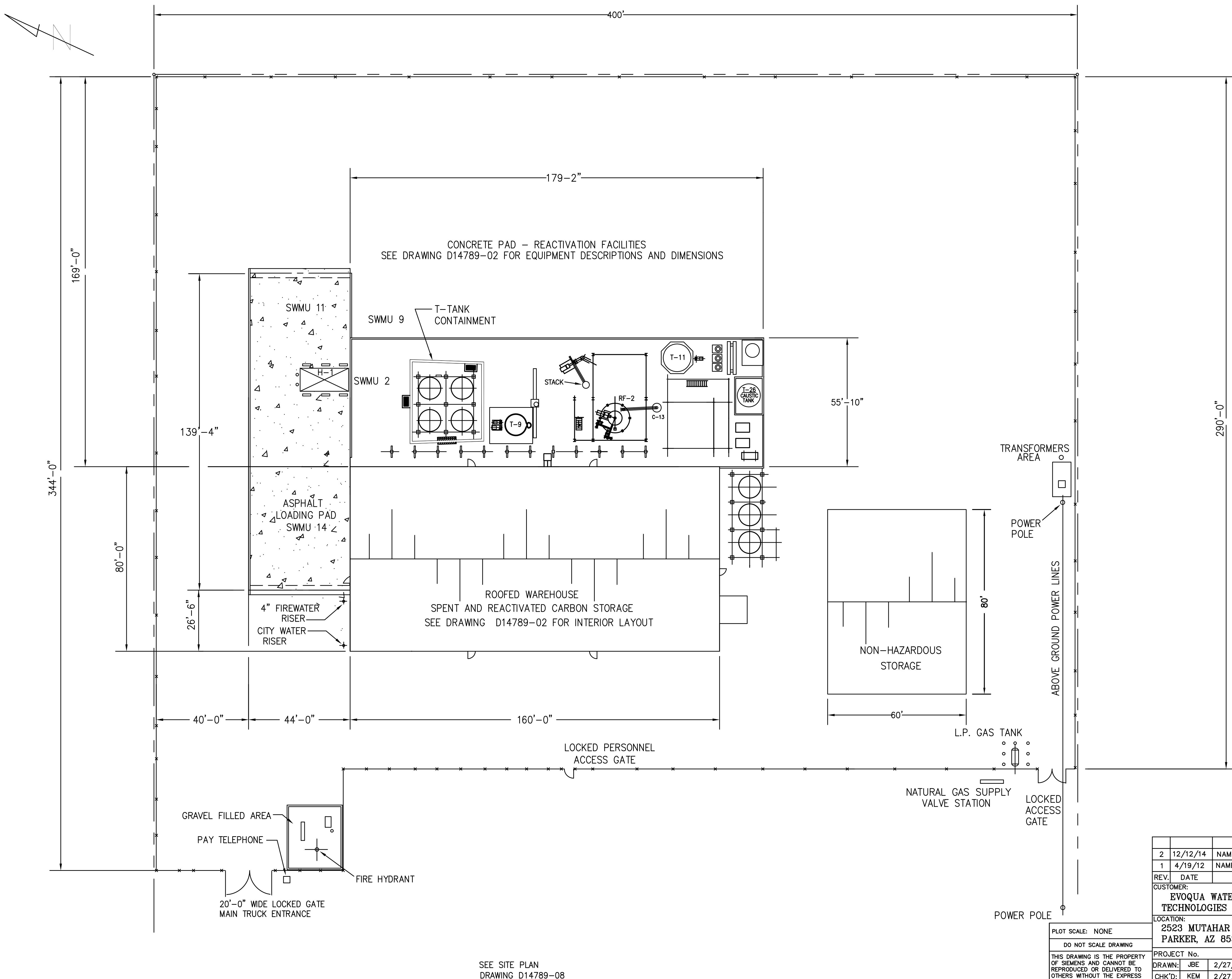
EVOQUA WATER TECHNOLOGIES LLC
Parker, AZ

TITLE: REACTIVATION FACILITY SWMU LOCATION - FIGURE J-1

PART No.

DWG No. D14789-10 REV. 2

PRINT DATE: 12/15/14



DWG: D14789-11

Solid Waste Management Units

1. Bermed containment in process area.
2. Sump by H-1.
3. Sump by storage tank, T-9.
4. Recycle water tank, T-9.
5. Rainwater/Recycle water tank, T-12.
6. Wastewater tank, T-11 system.
7. Sump by cooling screw.
8. RF-2 Scrubber water equalization tank, T-19.
9. Hazardous waste debris bin.
10. Spent carbon storage warehouse grated trenches and sump.
11. Hopper containment pad
12. WWTP.
13. Wastewater lift station and piping ayatem (old).
14. Spent carbon unloading area containment pad.
15. Satellite Accumulation Area
16. Satellite Accumulation Area
17. Satellite Accumulation Area
18. Satellite Accumulation Area
19. Satellite Accumulation Area

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
2	12/12/14	NAME CHANGED TO EVOQUA WATER TECH., UPDATE SWMUs	JBE		
1	4/19/12	NAME CHANGED TO SIEMENS INDUSTRY, INC., UPDATE SWMUs	JBE	KEM	

PLOT SCALE: NONE

DO NOT SCALE DRAWING

CUSTOMER: EVOQUA WATER TECHNOLOGIES LLC

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.

DRAWN:	JBE	2/27/07
CHK'D:	KEM	2/27/07
ENG'R:		

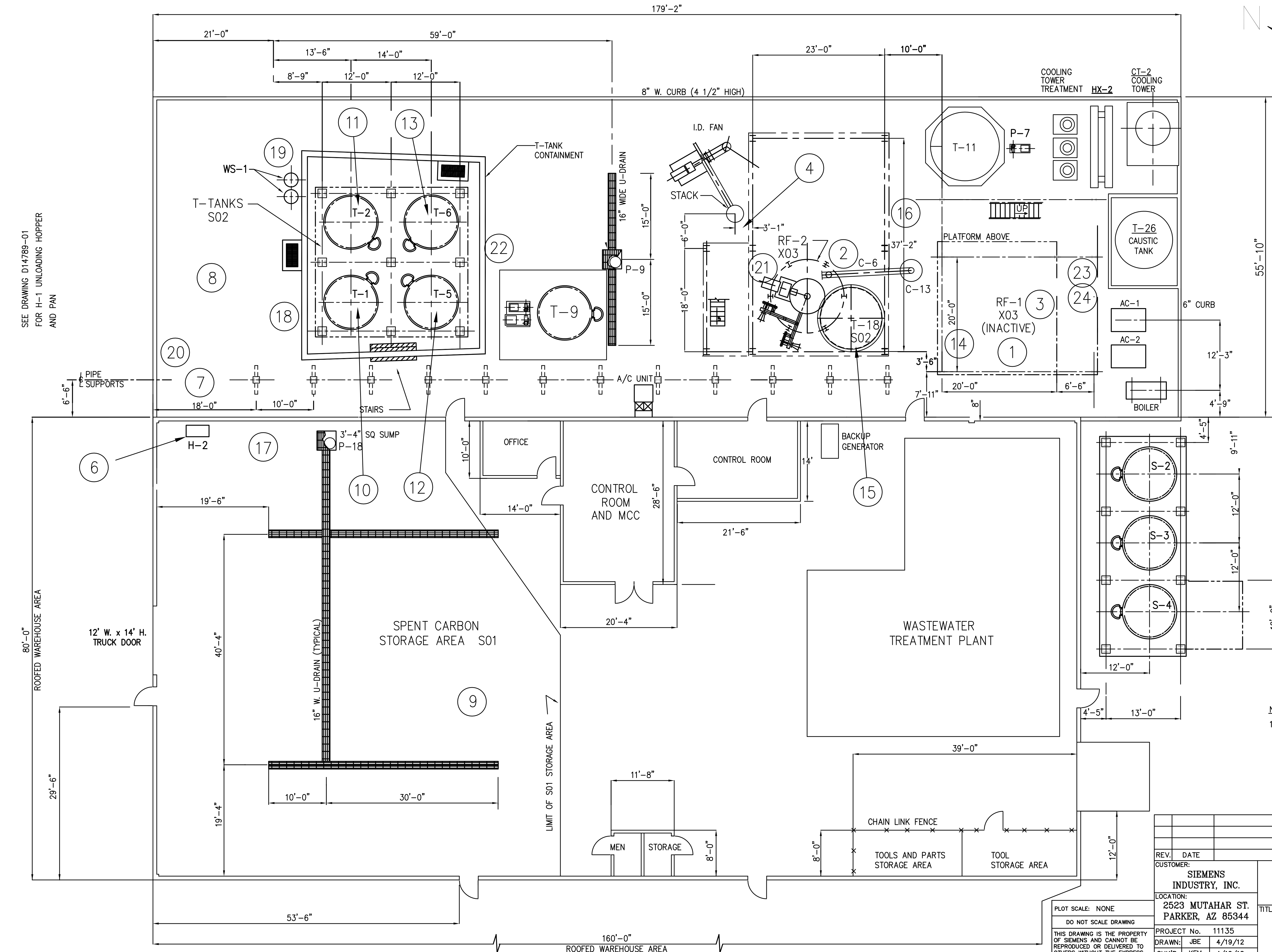
EVOQUA WATER TECHNOLOGIES LLC
Parker, AZ

TITLE: REACTIVATION FACILITY
SWMU LOCATION – FIGURE J-2

PART No. DWG No. D14789-11 REV. 2

PRINT DATE: 12/15/14

DWG: D14789-12



Hazardous Waste Management Units

1. Spent carbon reactivation furnace – RF-1 and Associated Equipment (Dewater screw).
2. Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt).
3. Afterburner, Venturi scrubber, Packed bed scrubber, Emissions stack.
4. Afterburner, Venturi scrubber, Packed bed scrubber,Wet electrostatic precipitator, Induced draft fan, Emissions stack.
5. Spent carbon unloading hopper H-1.
6. Spent carbon unloading hopper H-2.
7. Hopper air pollution control equipment piping and baghouse.
8. Spent carbon slurry and recycle water transfer system.
9. Spent carbon storage warehouse.
10. Spent carbon slurry storage tank, T-1.
11. Spent carbon slurry storage tank, T-2.
12. Spent carbon slurry storage tank, T-5.
13. Spent carbon slurry storage tank, T-6.
14. Furnace Feed System Tank T-8, and Ancillary Equipment
15. T-18 and Ancillary Equipment.
16. Wastewater conveyance piping to wastewater treatment tank.
17. Spent carbon storage warehouse barrel washer.
18. Carbon adsorber – PV1000.
19. Carbon adsorber WS-1.
20. Carbon adsorber WS-2.
21. Carbon adsorber WS-3.
22. Slurry transfer inclined plate settler tank.
23. Scrubber recycle tank T-17
24. Filter press.
25. New Facility Discharge Piping System.

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

PLOT SCALE: NONE
DO NOT SCALE DRAWING

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R

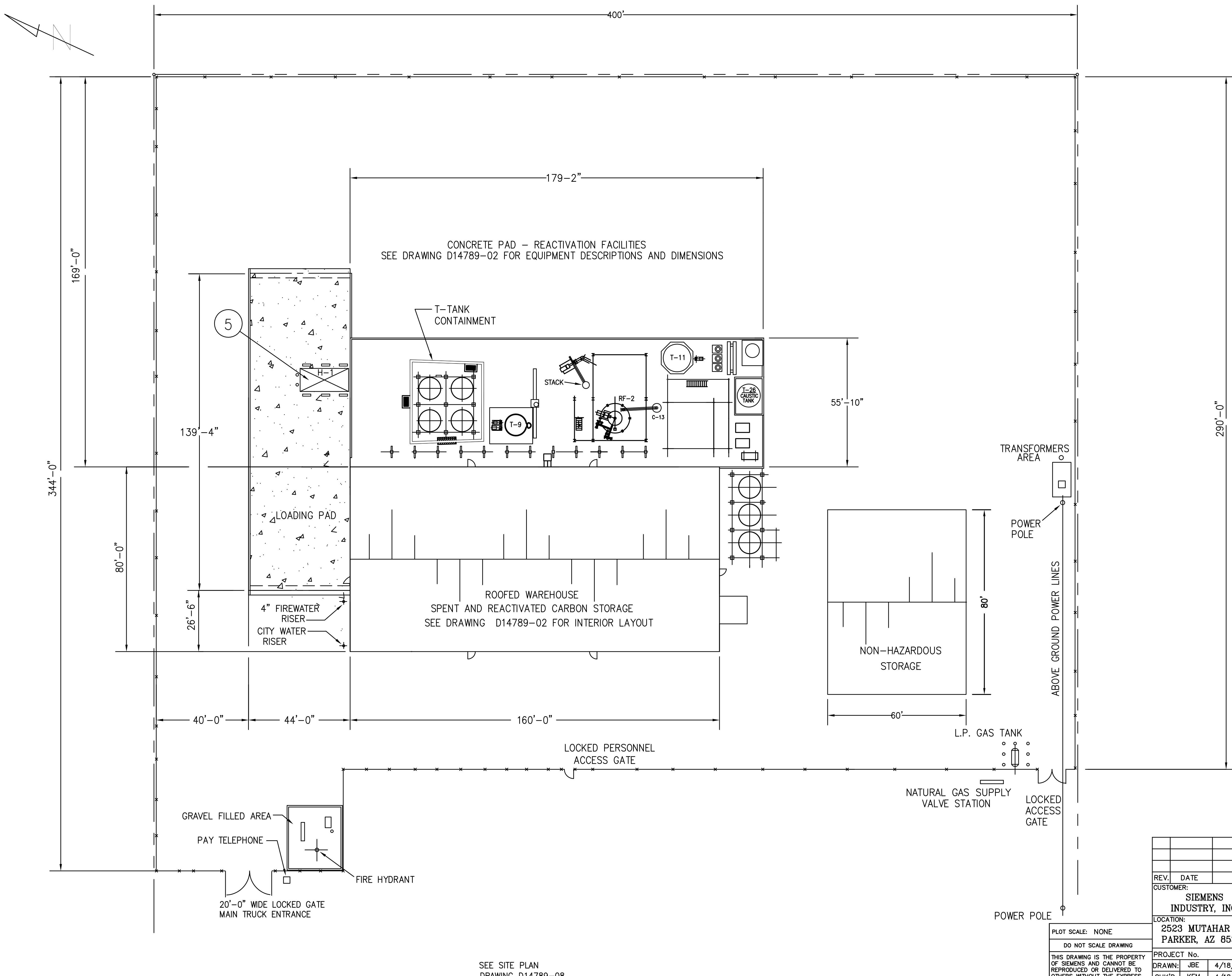
CUSTOMER: SIEMENS INDUSTRY, INC.
LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344
PROJECT No. 11135
DRAWN: JBE 4/19/12
CHK'D: KEM 4/19/12
ENG'R:

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: REACTIVATION FACILITY
HWMU LOCATION – FIGURE J-3

PART No.
DWG No. D14789-12 REV. 0

PRINT DATE: 4/19/12



Hazardous Waste Management Units

1. Spent carbon reactivation furnace – RF-1 and Associated Equipment (Dewater screw).
2. Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt).
3. Afterburner, Venturi scrubber, Packed bed scrubber, Emissions stack.
4. Afterburner, Venturi scrubber, Packed bed scrubber,Wet electrostatic precipitator, Induced draft fan, Emissions stack.
5. Spent carbon unloading hopper H-1.
6. Spent carbon unloading hopper H-2.
7. Hopper air pollution control equipment piping and baghouse.
8. Spent carbon slurry and recycle water transfer system.
9. Spent carbon storage warehouse.
10. Spent carbon slurry storage tank, T-1.
11. Spent carbon slurry storage tank, T-2.
12. Spent carbon slurry storage tank, T-5.
13. Spent carbon slurry storage tank, T-6.
14. Furnace Feed System Tank T-8, and Ancillary Equipment
15. T-18 and Ancillary Equipment.
16. Wastewater conveyance piping to wastewater treatment tank.
17. Spent carbon storage warehouse barrel washer.
18. Carbon adsorber – PV1000.
19. Carbon adsorber WS-1.
20. Carbon adsorber WS-2.
21. Carbon adsorber WS-3.
22. Slurry transfer inclined plate settler tank.
23. Scrubber recycle tank T-17
24. Filter press.
25. New Facility Discharge Piping System.

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R

PLOT SCALE: NONE

DO NOT SCALE DRAWING

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

SIEMENS INDUSTRY, INC..
Parker, AZ

PROJECT No.

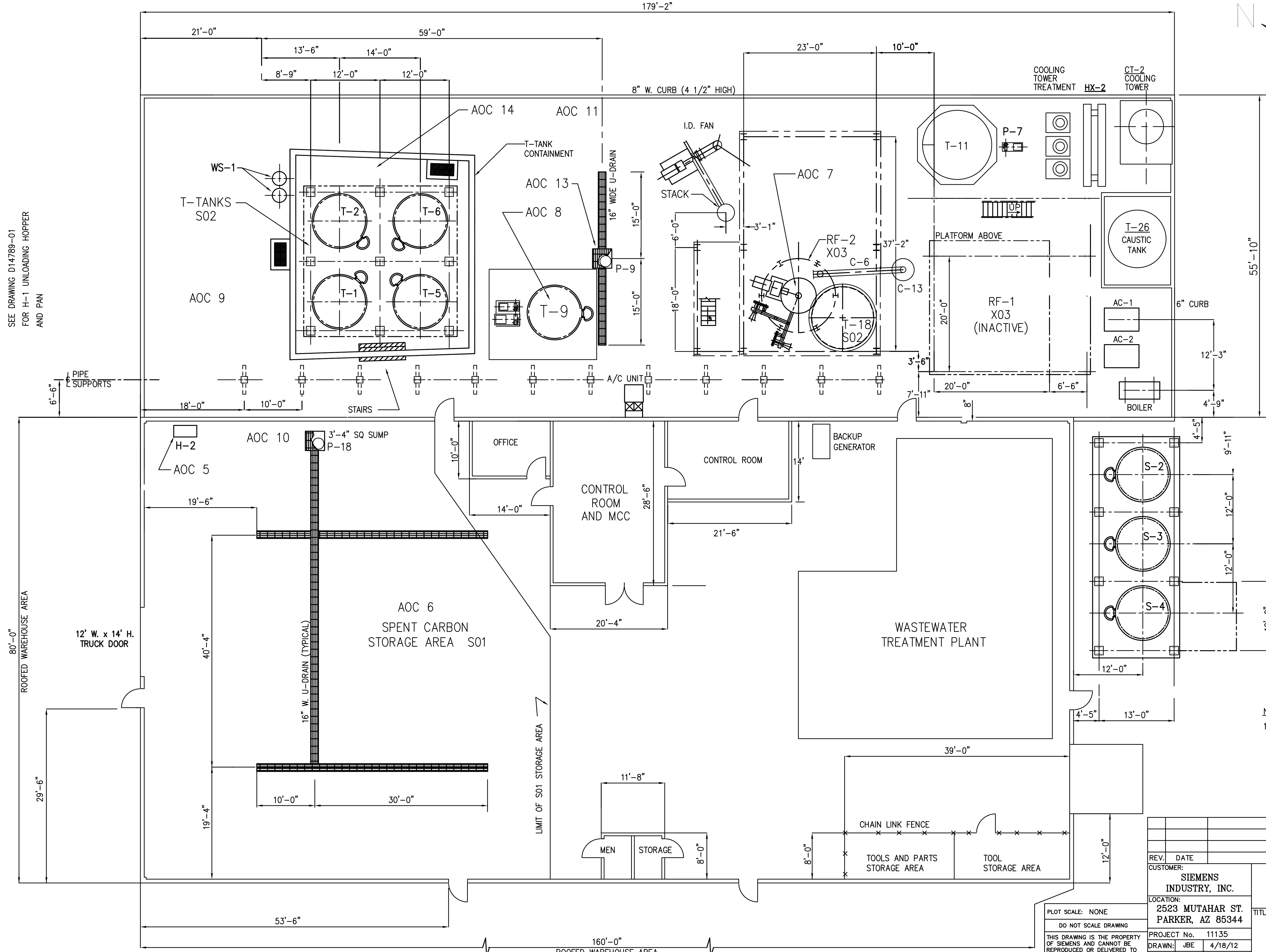
DRAWN:	JBE	4/18/12
CHK'D:	KEM	4/18/12
ENG'R:		

TITLE: REACTIVATION FACILITY
HWMU LOCATION – FIGURE J-4

PART No.

DWG No. D14789-13 REV. 0

PRINT DATE: 4/18/12



Areas of Concern

1. Spent carbon unloading and transfer area.
2. Tank area concrete containment pad.
3. Receiving area/pad.
4. Hopper H-1 loading/unloading area.
5. Hopper H-2 loading/unloading area.
6. Spent carbon storage warehouse.
7. Furnace feed systems.
8. Recycled motive water tank T-9.
9. Rainwater, dewatering screw, and motive water tank T-12.
10. Spent carbon storage warehouse barrel washer.
11. Bermed containment area in process area.
12. Sump by unloading hopper H-1.
13. Sump by tank T-9.
14. Spent carbon storage tanks and carbon adsorbers.

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R

PLOT SCALE: NONE

DO NOT SCALE DRAWING

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.	11135	
DRAWN:	JBE	4/18/12
CHK'D:	KEM	4/18/12
ENG'R:		

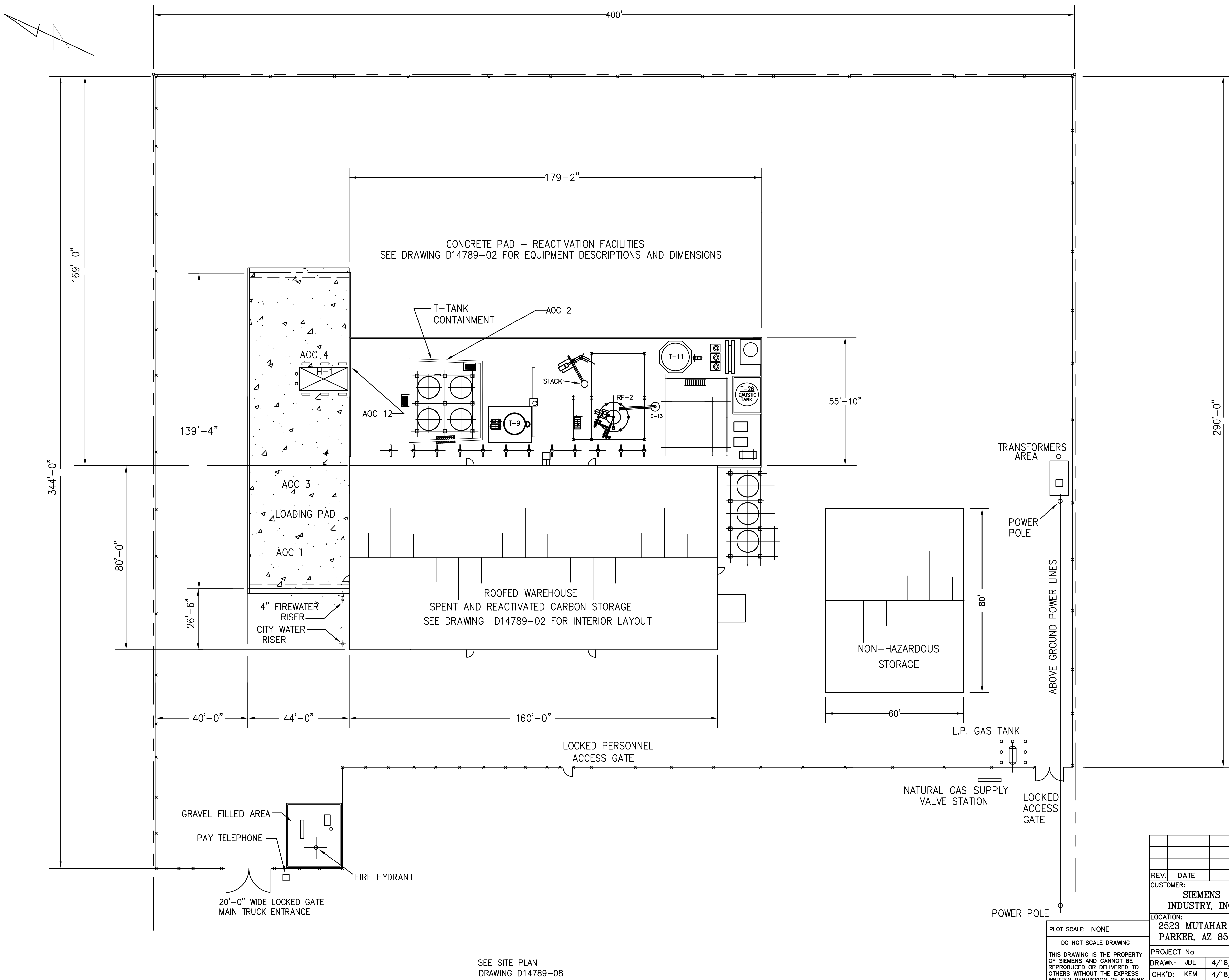
SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: REACTIVATION FACILITY
AOC LOCATION – FIGURE J-5

PART No.

DWG No. D14789-14 REV. 0

PRINT DATE: 4/18/12



SEE SITE PLAN
DRAWING D14789-08

DWG: D14789-15

Areas of Concern

1. Spent carbon unloading and transfer area.
2. Tank area concrete containment pad.
3. Receiving area/pad.
4. Hopper H-1 loading/unloading area.
5. Hopper H-2 loading/unloading area.
6. Spent carbon storage warehouse.
7. Furnace feed systems.
8. Recycled motive water tank T-9.
9. Rainwater, dewatering screw, and motive water tank T-12.
10. Spent carbon storage warehouse barrel washer.
11. Bermed containment area in process area.
12. Sump by unloading hopper H-1.
13. Sump by tank T-9.
14. Spent carbon storage tanks and carbon adsorbers.

NOTES:

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REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R

PLOT SCALE: NONE
DO NOT SCALE DRAWING

CUSTOMER: SIEMENS INDUSTRY, INC.
LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344
PROJECT No.

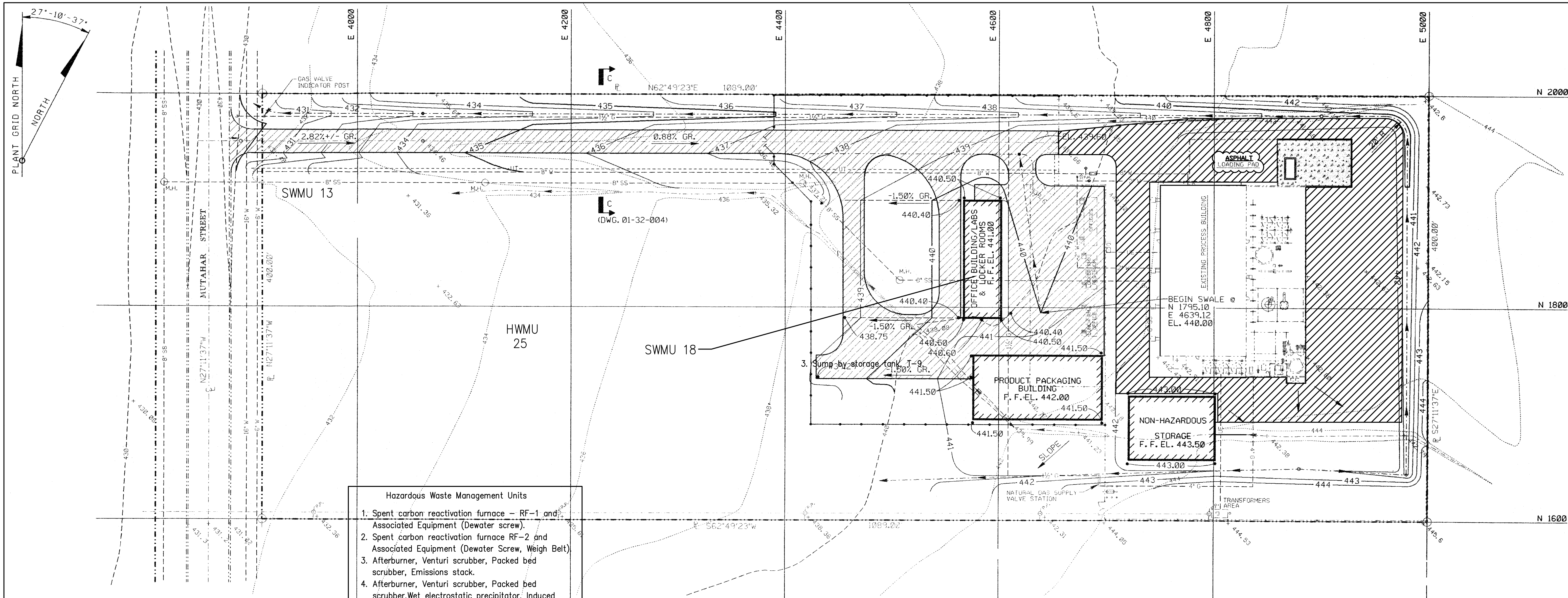
DRAWN:	JBE	4/18/12
CHK'D:	KEM	4/18/12
ENG'R:		

SIEMENS INDUSTRY, INC..
Parker, AZ

TITLE:
REACTIVATION FACILITY
AOC LOCATION – FIGURE J-6

PART No. DWG No. D14789-15 REV. 0

PRINT DATE: 4/18/12



Solid Waste Management Units

1. Bermed containment in process area.
2. Sump by H-1.
3. Sump by storage tank, T-9.
4. Recycle water tank, T-9.
5. Rainwater/Recycle water tank, T-12.
6. Wastewater tank, T-11 system.
7. Sump by cooling screw.
8. RF-2 Scrubber water equalization tank, T-19.
9. Hazardous waste debris bin.
10. Spent carbon storage warehouse grated trenches and sump.
11. Hopper containment pad
12. WWTP.
13. Wastewater lift station and piping system (old).
14. Spent carbon unloading area containment pad.
15. Satellite Accumulation Area
16. Satellite Accumulation Area
17. Satellite Accumulation Area
18. Satellite Accumulation Area
19. Satellite Accumulation Area

Hazardous Waste Management Units

1. Spent carbon reactivation furnace – RF-1 and Associated Equipment (Dewater screw).
2. Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt).
3. Afterburner, Venturi scrubber, Packed bed scrubber, Emissions stack.
4. Afterburner, Venturi scrubber, Packed bed scrubber,Wet electrostatic precipitator, Induced draft fan, Emissions stack.
5. Spent carbon unloading hopper H-1.
6. Spent carbon unloading hopper H-2.
7. Hopper air pollution control equipment piping and baghouse.
8. Spent carbon slurry and recycle water transfer system.
9. Spent carbon storage warehouse.
10. Spent carbon slurry storage tank, T-1.
11. Spent carbon slurry storage tank, T-2.
12. Spent carbon slurry storage tank, T-5.
13. Spent carbon slurry storage tank, T-6.
14. Furnace Feed System Tank T-8, and Ancillary Equipment
15. T-18 and Ancillary Equipment.
16. Wastewater conveyance piping to wastewater treatment tank.
17. Spent carbon storage warehouse barrel washer.
18. Carbon adsorber – PV1000.
19. Carbon adsorber WS-1.
20. Carbon adsorber WS-2.
21. Carbon adsorber WS-3.
22. Slurry transfer inclined plate settler tank.
23. Scrubber recycle tank T-17
24. Filter press.
25. New Facility Discharge Piping System.

Areas of Concern

1. Spent carbon unloading and transfer area.
2. Tank area concrete containment pad.
3. Receiving area/pad.
4. Hopper H-1 loading/unloading area.
5. Hopper H-2 loading/unloading area.
6. Spent carbon storage warehouse.
7. Furnace feed systems.
8. Recycled motive water tank T-9.
9. Rainwater, dewatering screw, and motive water tank T-12.
10. Spent carbon storage warehouse barrel washer.
11. Bermed containment area in process area.
12. Sump by unloading hopper H-1.
13. Sump by tank T-9.
14. Spent carbon storage tanks and carbon adsorbers.

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.
2. THIS DRAWING IS BASED ON PARKER FACILITY DRAWING 01-32-002P

100'
SCALE

NO	DWN	CK'D	APP	REVISIONS	DATE
1	JBE			CHANGE TO EVOQUA, UPDATE SWMUs	12/12/14

CBE CHAVOND-BARRY ENGINEERING CORP.
400 Route 518 • P.O. Box 205 • Blawenburg, New Jersey 08504

EVOQUA WATER TECHNOLOGIES LLC
PARKER, AZ

REACTIVATION FACILITY
SWMU, HWMU, AND AOC LOCATION
FIGURE J-7

DRAWN	DATE	CHECKED	DATE	APPROVED	DATE
JBE	4/18/12	KEM	4/18/12		

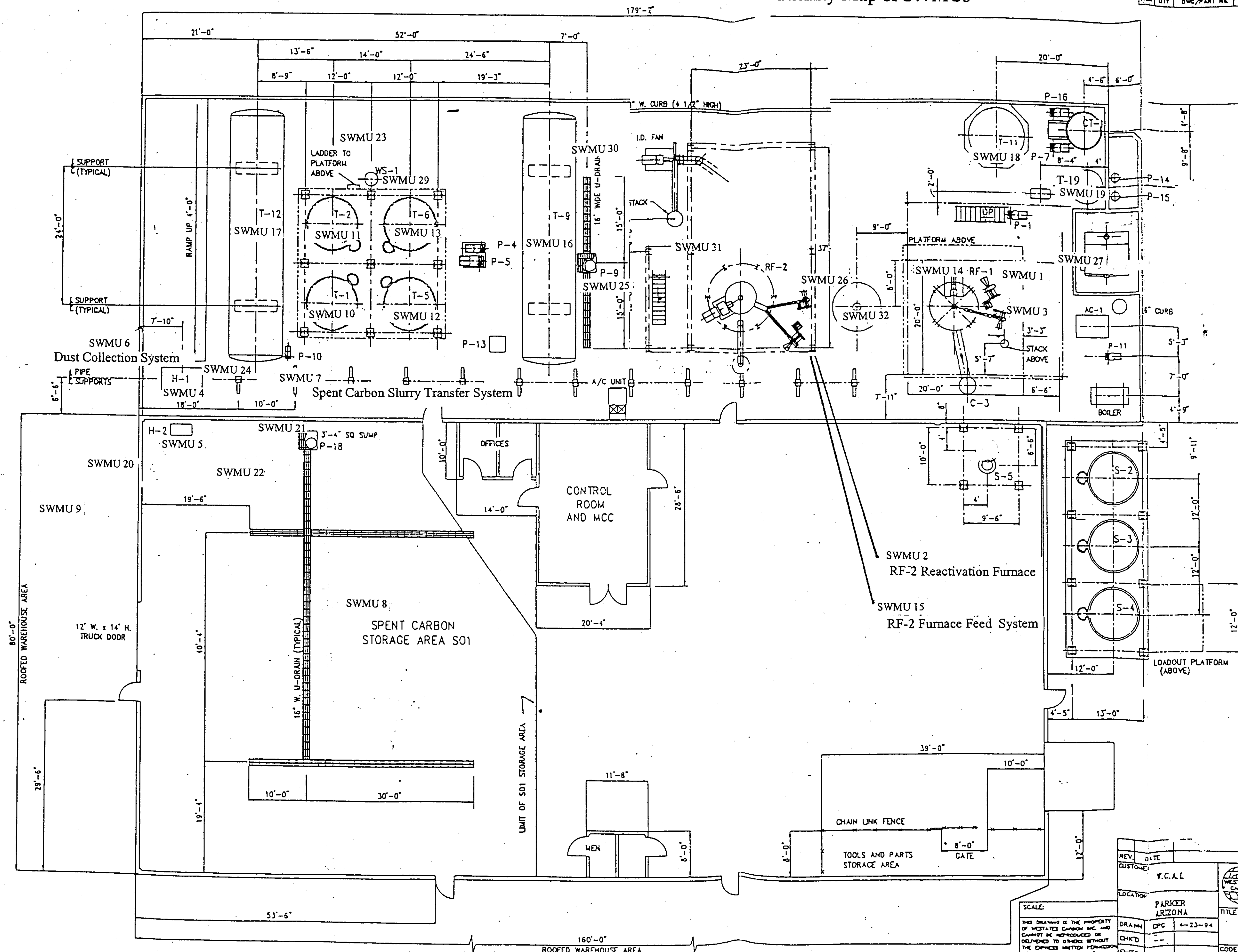
SCALE	DWG. NO.	REV.
AS SHOWN	D14789-16	1

PRINT DATE: 12/15/14

Appendix D2

SWMUs Location Map (Old Unit Names)

Facility Map of SWMUs



LIST OF COMPONENTS — DWG.# D11139-02

ITEM	QTY	DWG/PART No.	DESCRIPTION

SWMUs

1 Spent Carbon Reactivation Furnace No. 1
2 Spent Carbon Reactivation Furnace No. 2
3 RF-2 Air Pollution Control Equipment
4 Spent Carbon Unloading Hopper No. 1 (H-1)
5 Spent Carbon Unloading Hopper No. 2 (H-2)
6 Hopper Air Pollution Control Equipment
7 Spent Carbon Slurry Transfer System
8 Spent Carbon Storage Warehouse
9 Spent Carbon Transfer Area Containment Pad
10 Spent Carbon Slurry Storage Tank T-1
11 Spent Carbon Slurry Storage Tank T-2
12 Spent Carbon Slurry Storage Tank T-5
13 Spent Carbon Slurry Storage Tank T-6
14 RF-1 Feed Tank T-8
15 RF-2 Furnace Feed System
16 Recycled Motive Water Storage Tank T-9
17 Rinsewater, Dewatering Screw, and Motive Water Storage Tank T-12
18 Scrubber, Recycle, Boiler, Cooling Tower Blowdown Water Storage Tank T-11
19 RF-2 Scrubber Water Equalization Tank T-19
20 Hazardous Waste Debris Bin
21 Spent Carbon Storage Warehouse Grated Trenches, Sump, and Vault
22 Spent Carbon Storage Warehouse Barrel Washer
23 Bermed Secondary Containment Area Under Spent Carbon Slurry Storage Tanks
24 Sump By Unloading Hopper H-1
25 Sump By Storage Tank T-9
26 Sump By Cooling Screw Under Venturi Scrubber
27 Wastewater Conveyance Piping to Wastewater Treatment Tank
28 Wastewater Lift Station
29 Carbon Adsorber No. 1 (WS-1)
30 Carbon Adsorber No. 2 (WS-2)
31 Carbon Adsorber No. 3 (WS-3)
32-35 Cleaned and Removed by 1996

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

SCALE:

THIS DRAWING IS THE PROPERTY OF WESTATES CARBON INC. AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF WESTATES CARBON INC.

DO NOT SCALE DRAWING

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R	MGR.

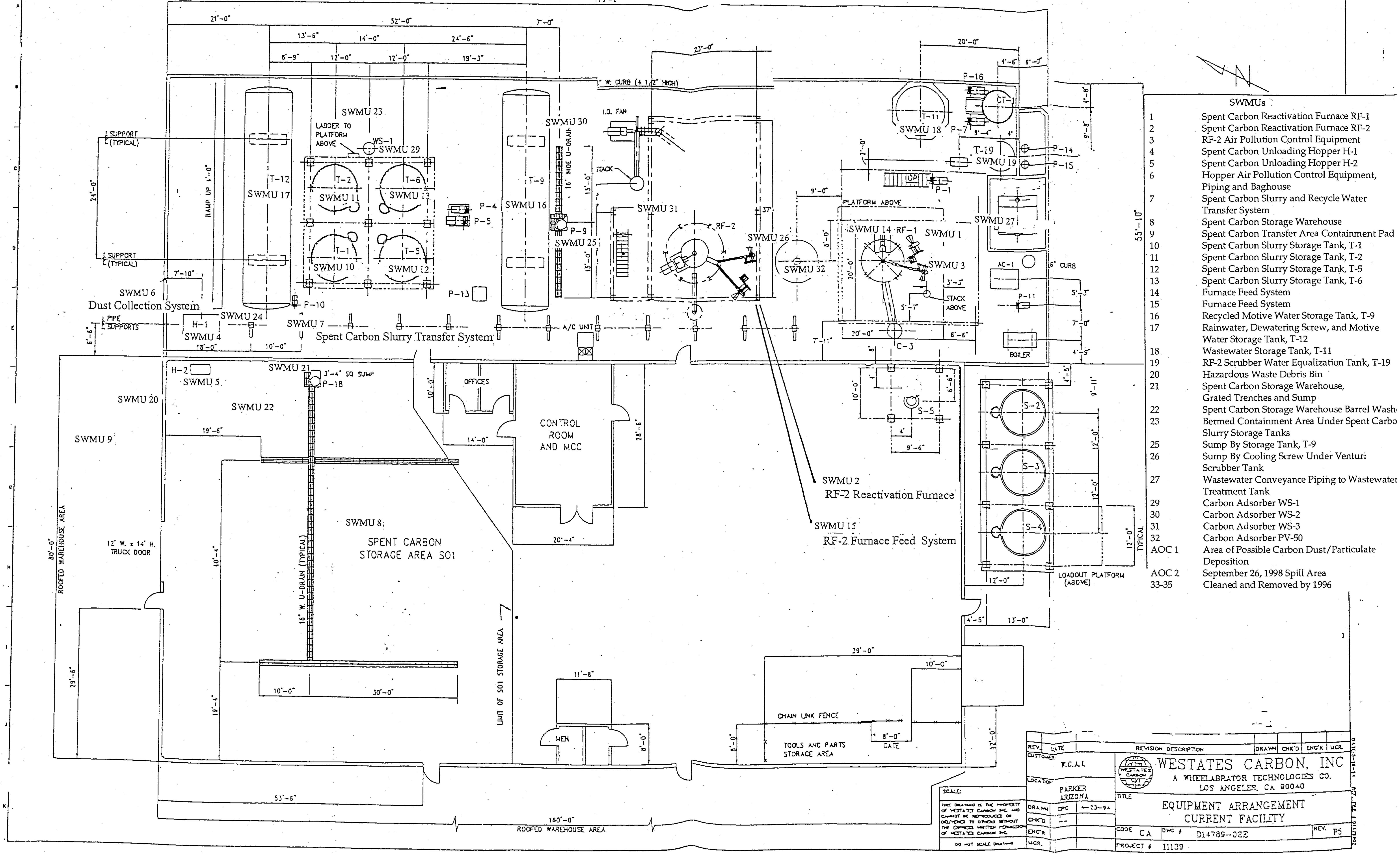
CUSTOMER: W.C.A.I.
LOCATION: PARKER ARIZONA
DRAWN: CPC 4-23-94
CHK'D: --
ENG'R:
MGR.:

WESTATES CARBON, INC
A WHEELABRATOR TECHNOLOGIES CO.
LOS ANGELES, CA 90040

TITLE: EQUIPMENT ARRANGEMENT CURRENT FACILITY

CODE: CA | DWG # D14789-02E | REV. P5
PROJECT # 11139

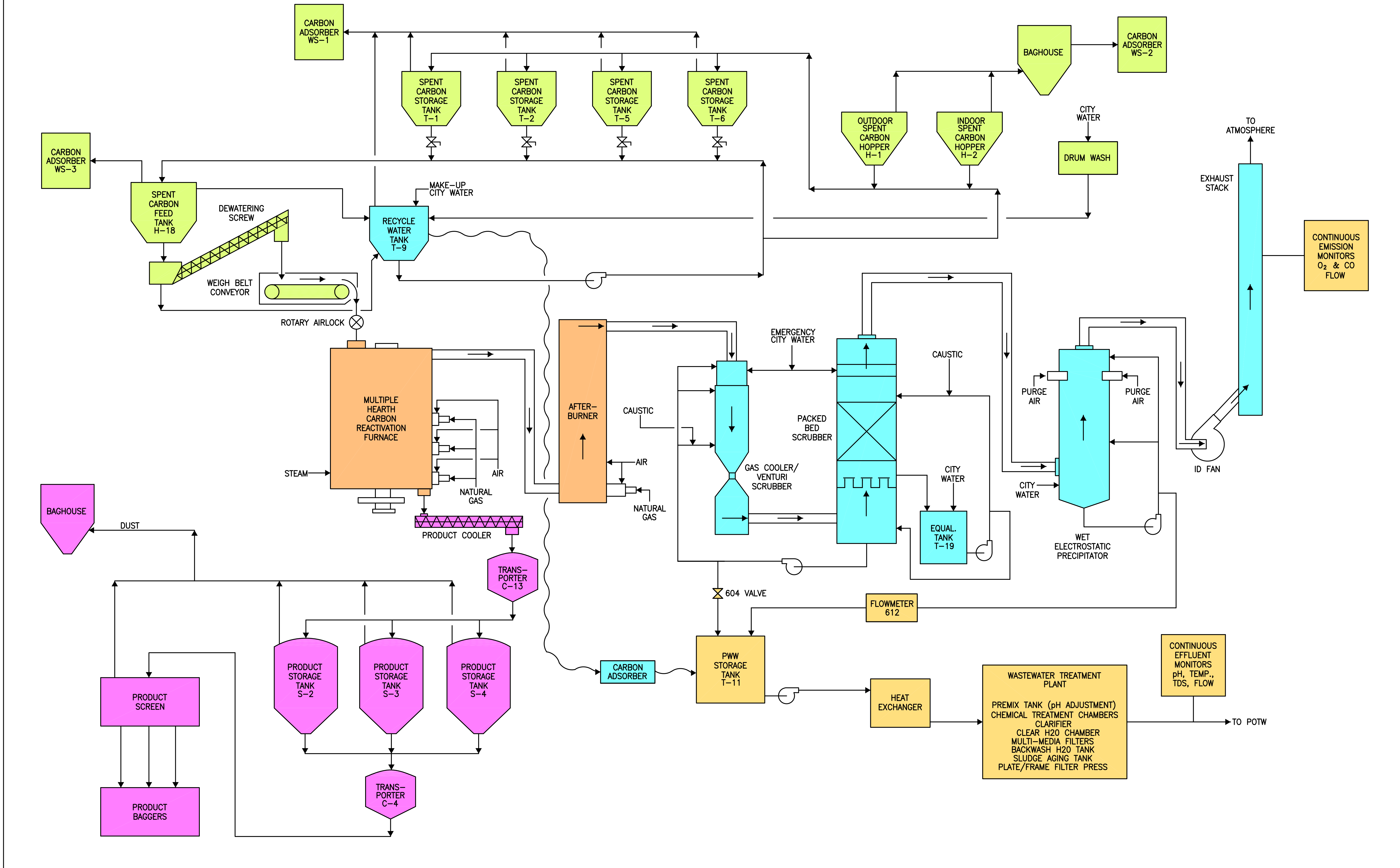
Facility Map of SWMUs



Appendix E

Carbon Reactivation Flow Diagrams

USFILTER WESTATES
CARBON REACTIVATION DIAGRAM



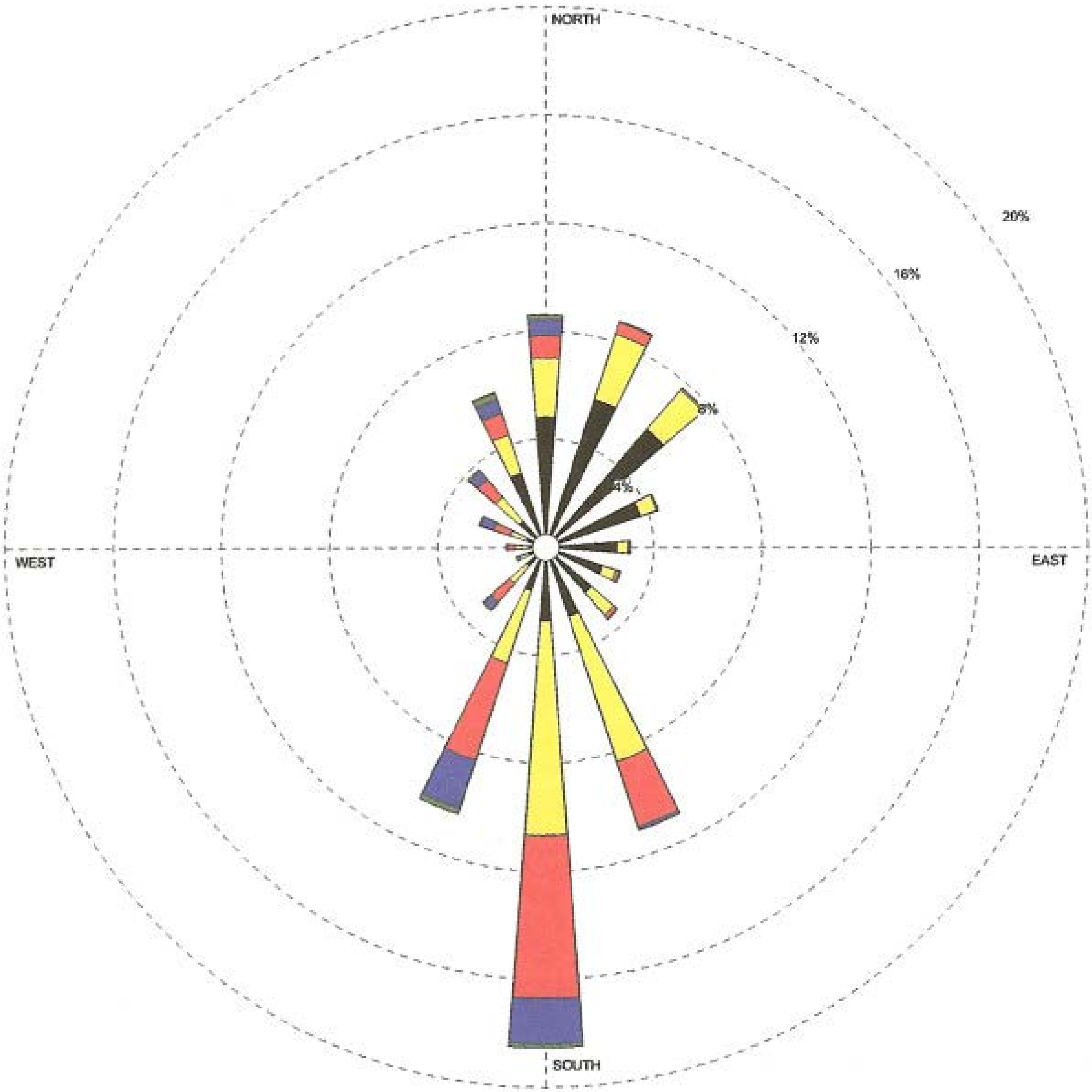
DRAWN BY: DWH DATE: 8/4/05 REF. FILE: Emachines\Archive\ajl_c\WESTATES\Schematic\schematic 07-05\24X36ACAD05.dwg

Appendix F

Wind Rose – From Appendix II of Application Reference 5

WIND ROSE PLOT

FIGURE 2. Windrose for Parker, Arizona 1997 - 2001



MODELER
CHV

COMPANY NAME
Focus Environmental, Inc.

DISPLAY
Wind Speed

UNIT
m/s

SOURCE
Arizona Meteorological Network (AZMET) - Parker, Arizona

AVG. WIND SPEED
2.64 m/s

CALM WINDS
2.01%

ORIENTATION
Direction (blowing from)

PLOT YEAR-DATE-TIME
97 98 99 00 01
January 1 - December 31
Midnight - 11 PM

PROJECT/PLOT NO.

FIGURE 2

Appendix G

August 1996 Soil Testing and Analytical
Results Prior to Paving "Inside the Fence
Area" of the Facility

FILE COPY

Date: August 7, 1996

To: File

From: Monte McCue

Re: **Sampling Plan Prior To Paving**

A sampling plan has been developed for the "inside the fence" area of the facility prior to paving.

The plan consists of taking ten (10) samples from randomly chosen grids. Attachment A reflects the random numbers generated on a Lotus spreadsheet.

Attachment B shows grids which are 10' x 10' in size and cover all areas that are currently indigenous soil but will be paved.

Attachment C, Drawing 01-32-001, is a more detailed arrangement of the grids

Testing on each of the ten (10) soil samples will consist of:

1. **Metals (6010)**

   a. Barium
   b. Cadmium
   c. Chromium, total
   d. Lead
   e. Arsenic

2. **Semi-Volatile Organics (EPA 8270)**

3. **Volatile Organics (EPA 8260)**

4. **Organochlorine Pesticides and PCB's (EPA 8080)**

5. **Alcohol Scan (EPA 8015 Modified)**

ATT:CHMENT A

WESTATES CARBON-ARIZONA, INC.
RANDOM NUMBER GENERATOR
FOR SOIL SAMPLES

FILE COPY

MNC
8/7/96

NUMBER OF10' SQUARES: 715

DATE: 8/7/96

Number generated on Lotus spreadsheet using the formula - @INT(@RAN*+G7)

RANDOM NUMBERS FOR 10' GRIDS

*	136	211	166
*	67	415	661
*	84	76	251
*	6	473	534
*	620	55	608
*	239	393	692
*	203	23	538
*	236	188	379
*	267	392	635
*	568	690	212
	707	171	320
	515	715	518
	442	154	619
	521	559	39
	498	702	468
	617	399	98
	560	368	5
	634	402	423
	656	30	641

Westates Carbon-/ 'zona, Inc.

2523 Mutahar Street
Post Office Box E
Parker, AZ 85344
Tel. 520-669-5758
Fax. 520-669-5775/5776

Date: August 23, 1996

To: August 8, 1996 Soil Testing File

cc: Bill Carlson (w/o attachments)
Matt Killeen (w/o attachments)
Steve Richmond (w/o attachments)

From: Monte McCue MMcC

FILE COPY

Re: *Summary Of August 8, 1996 Soil Analyses*

According to the *Sample Plan* formulated on August 7, 1996 for sampling soils "inside the fence" prior to paving, samples were taken from 10 separate 10'x10' grids chosen at random. The following is a summary of the results which were analyzed by Del-Mar Analytical in Irvine, California and the conclusions based on those results:

1. *Metals (Method 6010)*

Sample Description	Arsenic (D.L.= 1.0 ppm)	Barium (D.L.=0.5 ppm)	Cadmium (D.L.=0.1 ppm)	Chromium, Total (D.L.=0.5 ppm)	Lead (D.L.=1.0 ppm
Grid 006	2.1	120	<0.10	4.8	4.9
Grid 067	3.1	140	<0.10	4.2	3.6
Grid 084	6.9	140	<0.10	9.0	7.1
Grid 136	3.1	120	<0.10	5.7	4.1
Grid 203	4.4	100	<0.10	5.7	4.1
Grid 236	8.1	130	<0.10	7.3	4.4
Grid 239	1.8	52	<0.10	3.1	2.6
Grid 267	4.2	150	<0.10	6.7	6.2
Grid 568	1.8	48	<0.10	2.8	3.1
Grid 620	1.8	61	<0.10	3.5	3.5

Metals Conclusion:

A. The highest result for each metal clearly falls below the TCLP levels (using the divide by 20 rule --- see USEPA December 31, 1987 letter from Gail Ann Hansen - Methods Section WR-562B to Ms. Joanna Cole) found in 40 CFR 261.24:

ATTACHMENT P

Westates Carbon-Arizona, Inc.
Sample Plan Prior To Paving

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	n/s	n/s	n/s	n/s	n/s
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	n/s	n/s	n/s	n/s	n/s
69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	n/s	n/s	n/s	n/s	n/s
103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	n/s	n/s	n/s	n/s	n/s
137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	n/s	n/s	n/s	n/s	n/s
171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	n/s	n/s	n/s	n/s	n/s
205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	n/s	n/s	n/s	n/s	n/s
239	240	241	242						243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	n/s	n/s	n/s	n/s	n/s
268	269	270	271						272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	n/s	n/s	n/s	n/s	n/s
297	298	299	300						301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	n/s	n/s	n/s	n/s	n/s
326	327	328	329						330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	n/s	n/s	n/s	n/s	n/s
355	356	357	358																								359	360	361	362	363	364	365	n/s	n/s	n/s	n/s	n/s
366	367	368	369																								370	371	372	373	374	375	376	n/s	n/s	n/s	n/s	n/s
377	378	379	380																								381	382	383	384	385	386	387	n/s	n/s	n/s	n/s	n/s
388	389	390	391																								392	393	394	395	396	397	398	n/s	n/s	n/s	n/s	n/s
399	400	401	402																								403	404	405	406	407	408	409	n/s	n/s	n/s	n/s	n/s
410	411	412	413																								414	415	416	417	418	419	420	n/s	n/s	n/s	n/s	n/s
421	422	423	424																								425	426	427	428	429	430	431	n/s	n/s	n/s	n/s	n/s
432	433	434	435																								436	437	438							n/s	n/s	n/s
439	440	441	442																								443	444	445							n/s	n/s	n/s
446	447	448	449																								450	451	452							n/s	n/s	n/s
453	454	455	456																								457	458	459							n/s	n/s	n/s
460	461	462	463	464	465	466	467																				468	469	470							n/s	n/s	n/s
471	472	473	474	475	476	477	478																				479	480	481							n/s	n/s	n/s
482	483	484	485	486	487	488	489																				490	491	492							n/s	n/s	n/s
493	494	495	496	497	498	499	500																				501	502	503							n/s	n/s	n/s
504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533							n/s	n/s	n/s
534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563							n/s	n/s	n/s
564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593							n/s	n/s	n/s
594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
684	685	686	687	688	689	690	691																															
692	693	694	695	696	697	698	699																															
700	701	702	703	704	705	706	707																															
708	709	710	711	712	713	714	715																															

FILE COPY

1. Grids measure 10' x 10' and are an approximation - see Drawing 01-32-001 for details.
2. Bold outline denotes grid sampled per random number generator.
3 n/s denotes no sample taken due to the area is not paved .

Metal	Highest August 8, 1996 Result (6010) (ppm)	Result Divided By 20 (For TCLP) (ppm)	RCRA TCLP (ppm) 40 CFR 261.24
Arsenic	8.1	0.40	5.0
Barium	150	7.70	100.0
Cadmium	<0.10	<0.005	1.0
Chromium	9.0	0.45	5.0
Lead	7.1	0.36	5.0

It is clear from the above table that, at worse case, no soil exhibits the toxicity characteri Additionally, the WCAI facility has not accepted, to date, any wastes that were listed hazardous wastes due to metal contents and therefore none of the analytical results suggests that the soil samples contained any listed hazardous wastes.

B. The attached calculations, performed by Jay Berry (WTI-Hampton), show that statistically the level of *chromium* and *lead* are similar (using the National Bureau of Standards' Experimental Statistics Handbook) to the non-impacted samples of soil collected and analyzed in November 1994 and April 1995. Consequently, the chromium and lead levels in the sampled soils are consistent with background levels detected previously at this site.

C. The following comparisons were made using the state of New York's *Determination of Soil Cleanup Objectives and Cleanup Levels*, the state of Connecticut's *Remediation Standard*, EPA's *Proposed RCRA Corrective Action Guidelines* and EPA Region IX *Preliminary Remediation Goals (PRG's) 1996:*

Metal	WCAI Highest Result Aug 8, 1996 (EPA 6010)) (ppm)	State Of New York *Determination Of Soil Cleanup Objectives And Cleanup Levels* (ppm)	State Of Connecticut *Remediation Standard*		*Proposed RCRA Corrective Action Guidelines* (ppm) FR 30865-66 July 27, 1990	EPA Region IX Preliminary Remediation Goals (PRG's) 1996 (ppm)
			Residential (ppm)	Commercial (ppm)		
Arsenic	8.1	7.5 or SB*	10	10	80	220
Barium	150	300 or SB*	4,700	140,000	4000	100,000
Cadmium	<0.10	1 or SB*	34	1000	40	8,500
Chromium	9.0	10 or SB*	100	100	400 (Cr VI)	450
Lead	7.1	4-61 or 200-500	500	1000	None Listed	1,000

Notes: SB is Site Background In PPM
SB's - Arsenic -3-12, Barium-15-600, Cadmium-0.1-1, Chromium 1.5-40, Lead 4-61.

The August 1996 analytical results establish for each analyte either there has been no change from background metal levels or that the metal levels are considerably less than the required levels of soil cleanup objectives.

2. Semi-Volatile Organics (EPA Method 8270)

Conclusion: The attached analytical reflects no detectable levels of semi-volatile organics in the soil.

3. Volatile Organics (EPA 8260)

Conclusion: The attached analytical reflects no detectable levels of volatile organics in the soil.

4. Organochlorine Pesticides and PCB's (EPA Method 8080)

The only organochlorine pesticides and PCB's analyte that was detected was 4,4'-DDE (5.3 ppb (0.0053 ppm) which is 0.3 ppb above the detection limit). This occurred in Sample Grid - 267.

Conclusion: 4,4'-DDE is neither a toxicity characteristic nor a listed waste and WCAI has no record of receiving 4,4'-DDE. The surrounding community does have intensive agricultural activities and it appears that the soil did not contain the analyte as a result of WCAI's operation. The following is a comparison of the levels of 4,4'-DDE found in WCAI's soil, the state of New York's Recommended Soil Cleanup Objectives, EPA's Proposed RCRA Corrective Action Guidelines and EPA Region IX Preliminary Remediation Goals (PRG's) 1996: :

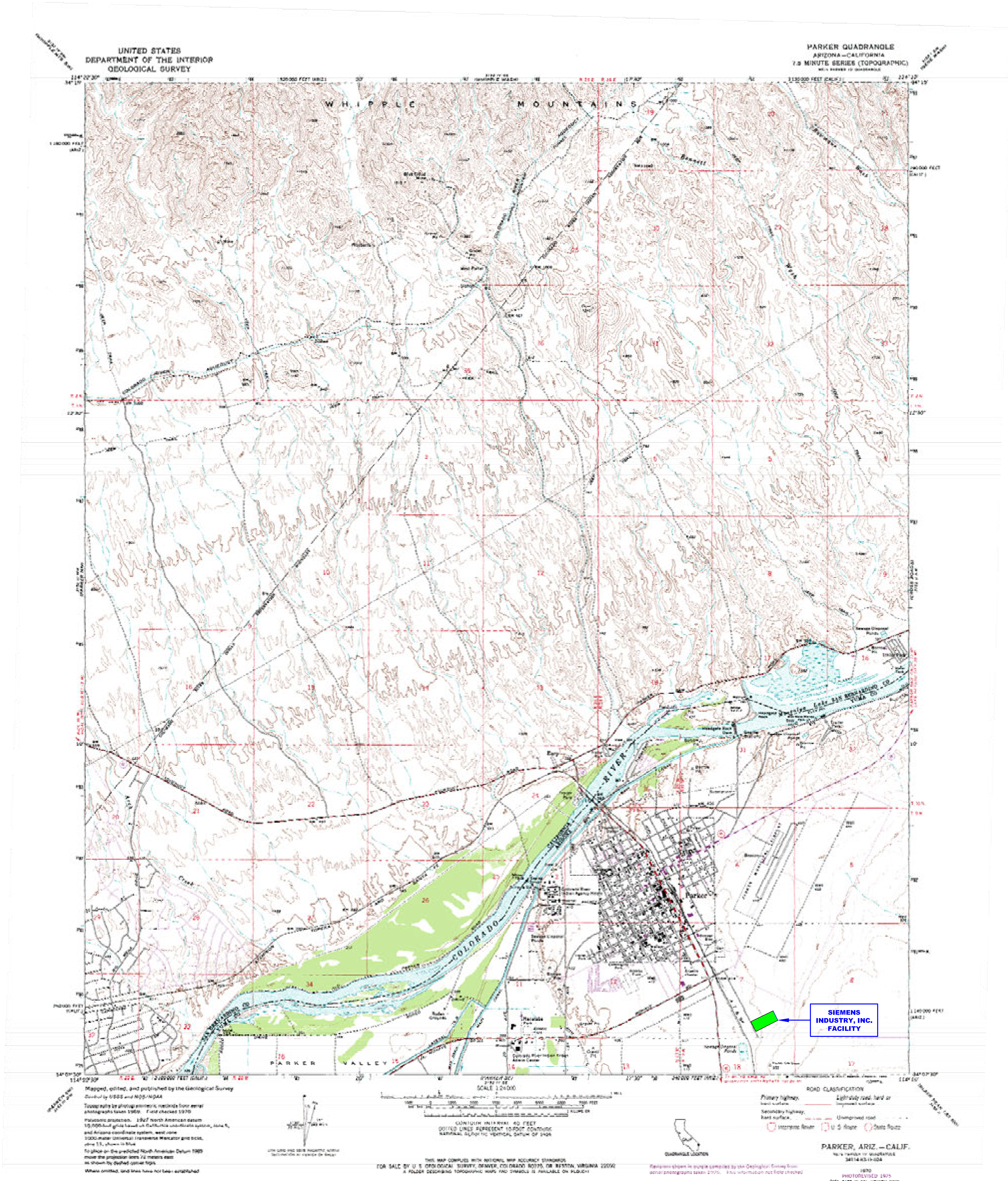
Analyte	WCAI Sample Result (ppm)	New York's January 24, 1994 Recommended Soil Cleanup Objectives (ppm)	EPA's July 27,1990 Proposed RCRA Corrective Action Guidelines (FR 30866) (ppm)	EPA Region IX Preliminary Remediation Goals (PRG's) 1996 (ppm)
4,4'-DDE	0.0053	2.1	2.0	5.6

Final Conclusion

Based on the analytical results received and the above comparisons and conclusions, the soil at the WCAI facility ("inside the fence") has not been impacted or contaminated by the operations of WCAI.

Appendix H

Surface Flow Diagram and Topographic Map



NOTES:

1. SEE ATTACHED SIEMENS INDUSTRY, INC. DRAWING D–14789–02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

PLOT SCALE: AS NOTED

DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS INDUSTRY, INC.

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

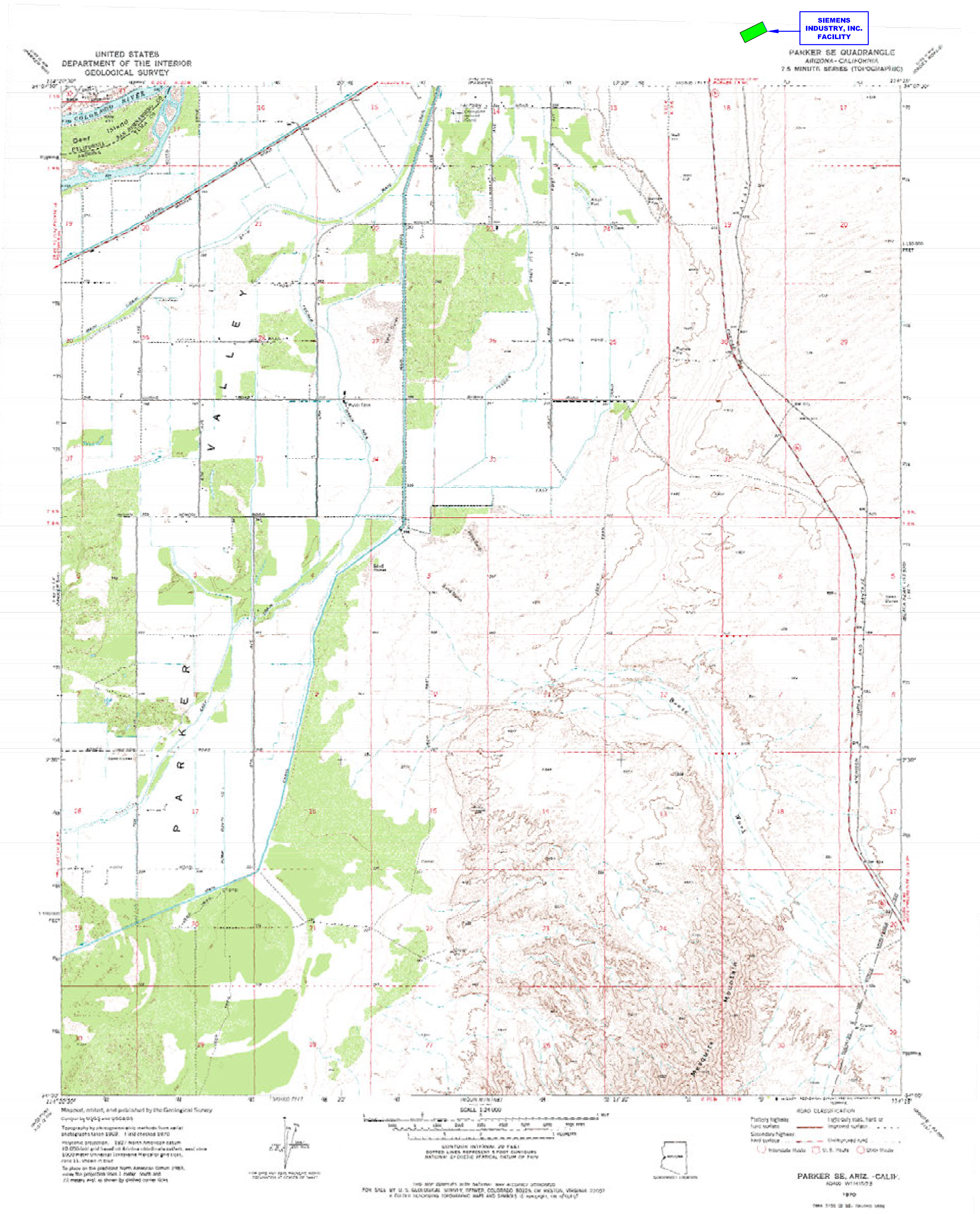
PROJECT No.		
DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER, AZ
TOPOGRAPHIC MAP

DWG No. C–100604 | SHEET No. 1 of 2 | REV. 1

PRINT DATE: 4/19/12



NOTES:

1. SEE ATTACHED SIEMENS WATER TECHNOLOGIES CORP. DRAWING D-14789-02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

PLOT SCALE: AS NOTED

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CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.

DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER SE, AZ TOPOGRAPHIC MAP

DWG No. C-100604 SHEET No. 2 of 2 REV. 1

PRINT DATE: 4/19/12

Appendix I

Lift Station and Facility Motive Water Spill Responses

USFilter

2523 MUTAHAR STREET
P.O. BOX 3308
PARKER, AZ 85344

TELEPHONE 520-669-5758
FACSIMILE 520-669-5775

February 26, 2001

VIA Certified Mail – 7099 3400 0017 6279 6347

Ms. Karen Scheuermann
USEPA Region IX
Mail Code WST-4
75 Hawthorne Street
San Francisco, CA 94105

Ms. Scheuermann:

Attached please find the analytical documentation you requested for the following two spills which occurred at Westates Carbon:

- November 10th , 1994

- April 17th, 1995

Please note that the analytical covers impacted and non-impacted soils which is noted on the analytical sheets.

If you have any questions please call me at (520)669-5758.

Sincerely,

Roy Provins

Roy Provins
EH and S Manager

11-16-1994 05:03PM FR[redacted] DEL MAR ANALYTICAL/TEMPE TO [redacted] 16026695775 P.04

Del Mar Analytical

28[redacted]on Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Westates Carbon
Sample Descript: Soil, Background
Lab Number: 4110611

Sampled: Nov 10, 1994
Received: Nov 10, 1994
Analyzed: Nov 14, 1994
Reported: Nov 14, 1994

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	200	N.D.	Dimethyl phthalate	200	N.D.
Acenaphthylene	200	N.D.	4,6-Dinitro-2-methylphenol	500	N.D.
Aniline	300	N.D.	2,4-Dinitrophenol	500	N.D.
Anthracene	200	N.D.	2,4-Dinitrotoluene	200	N.D.
Azobenzene	300	N.D.	2,6-Dinitrotoluene	200	N.D.
Benzidine	2,000	N.D.	Di-N-octyl phthalate	1,000	N.D.
Benzoic Acid	1,000	N.D.	Fluoranthene	200	N.D.
Benz(a)anthracene	200	N.D.	Fluorene	200	N.D.
Benzo(b)fluoranthene	400	N.D.	Hexachlorobenzene	200	N.D.
Benzo(k)fluoranthene	400	N.D.	Hexachlorobutadiene	200	N.D.
Benzo(g,h,i)perylene	300	N.D.	Hexachlorocyclopentadiene	1,000	N.D.
Benzo(a)pyrene	400	N.D.	Hexachloroethane	400	N.D.
Benzyl alcohol	400	N.D.	Indeno(1,2,3-cd)pyrene	400	N.D.
Bis(2-chloroethoxy)methane	200	N.D.	Isophorone	200	N.D.
Bis(2-chloroethyl)ether	200	N.D.	2-Methylnaphthalene	200	N.D.
Bis(2-chloroisopropyl)ether	200	N.D.	2-Methylphenol	300	N.D.
Bis(2-ethylhexyl)phthalate	500	N.D.	4-Methylphenol	300	N.D.
4-Bromophenyl phenyl ether	300	N.D.	Naphthalene	300	N.D.
Butyl benzyl phthalate	1,000	N.D.	2-Nitroaniline	400	N.D.
4-Chloroaniline	200	N.D.	3-Nitroaniline	400	N.D.
2-Chloronaphthalene	200	N.D.	4-Nitroaniline	1,000	N.D.
4-Chloro-3-methylphenol	200	N.D.	Nitrobenzene	1,000	N.D.
2-Chlorophenol	500	N.D.	2-Nitrophenol	200	N.D.
4-Chlorophenyl phenyl ether	200	N.D.	4-Nitrophenol	1,000	N.D.
Chrysene	200	N.D.	N-Nitrosodiphenylamine	400	N.D.
Dibenz(a,h)anthracene	500	N.D.	N-Nitroso-di-N-propylamine	300	N.D.
Dibenzofuran	200	N.D.	Pentachlorophenol	1,000	N.D.
Di-N-butyl phthalate	500	N.D.	Phenanthrene	200	N.D.
1,3-Dichlorobenzene	200	N.D.	Phenol	300	N.D.
1,4-Dichlorobenzene	200	N.D.	Pyrene	300	N.D.
1,2-Dichlorobenzene	200	N.D.	1,2,4-Trichlorobenzene	200	N.D.
3,3-Dichlorobenzidine	1,000	N.D.	2,4,5-Trichlorophenol	300	N.D.
2,4-Dichlorophenol	200	N.D.	2,4,6-Trichlorophenol	300	N.D.
Diethyl phthalate	200	N.D.			
2,4-Dimethylphenol	500	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	56%
Phenol-d6 (24-113)	58%
2,4,6-Tribromophenol (19-122)	68%
Nitrobenzene-d5 (23-120)	66%
2-Fluorobiphenyl (30-115)	69%
Terphenyl-d14 (18-137)	85%

Michael R. Giles
Laboratory Manager

Del Mar Analytical

285[redacted]n Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1

Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled:	Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received:	Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Background	Analyzed:	Nov 14, 1994
Attention: Marcia Going	Lab Number: 4110611	Reported:	Nov 14, 1994

SEMI-VOLATILE ORGANICS by GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

No additional peaks > 250 µg/kg were identified by the Mass Spectral Library.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Please Note:
All identifications are tentative and concentrations are estimates based upon spectral comparison to the EPA/NIH library. Positive identification or specification between isomers cannot be made without retention time standards.

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 | (602) 968-8272 | FAX (602) 968-1338

Del Mar Analytical

Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled: Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received: Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed: Nov 14, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported: Nov 14, 1994

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.	Dimethyl phthalate	100	N.D.
Acenaphthylene	100	N.D.	4,6-Dinitro-2-methylphenol	250	N.D.
Aniline	150	N.D.	2,4-Dinitrophenol	250	N.D.
Anthracene	100	N.D.	2,4-Dinitrotoluene	100	N.D.
Azobenzene	150	N.D.	2,6-Dinitrotoluene	100	N.D.
Benzidine	1,000	N.D.	Di-N-octyl phthalate	500	N.D.
Benzoic Acid	500	N.D.	Fluoranthene	100	N.D.
Benz(a)anthracene	100	N.D.	Fluorene	100	N.D.
Benzo(b)fluoranthene	200	N.D.	Hexachlorobenzene	100	N.D.
Benzo(k)fluoranthene	200	N.D.	Hexachlorobutadiene	100	N.D.
Benzo(g,h,i)perylene	150	N.D.	Hexachlorocyclopentadiene	500	N.D.
Benzo(a)pyrene	200	N.D.	Hexachloroethane	200	N.D.
Benzyl alcohol	200	N.D.	Indeno(1,2,3-cd)pyrene	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.	Isophorone	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.	2-Methylnaphthalene	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.	2-Methylphenol	150	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.	4-Methylphenol	150	N.D.
4-Bromophenyl phenyl ether	150	N.D.	Naphthalene	150	N.D.
Butyl benzyl phthalate	500	N.D.	2-Nitroaniline	200	N.D.
4-Chloroaniline	100	N.D.	3-Nitroaniline	200	N.D.
2-Chloronaphthalene	100	N.D.	4-Nitroaniline	500	N.D.
4-Chloro-3-methylphenol	100	N.D.	Nitrobenzene	500	N.D.
2-Chlorophenol	250	N.D.	2-Nitrophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.	4-Nitrophenol	500	N.D.
Chrysene	100	N.D.	N-Nitrosodiphenylamine	200	N.D.
Dibenz(a,h)anthracene	250	N.D.	N-Nitroso-di-N-propylamine	150	N.D.
Dibenzofuran	100	N.D.	Pentachlorophenol	500	N.D.
Di-N-butyl phthalate	250	N.D.	Phenanthrene	100	N.D.
1,3-Dichlorobenzene	100	N.D.	Phenol	150	N.D.
1,4-Dichlorobenzene	100	N.D.	Pyrene	150	N.D.
1,2-Dichlorobenzene	100	N.D.	1,2,4-Trichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.	2,4,5-Trichlorophenol	150	N.D.
2,4-Dichlorophenol	100	N.D.	2,4,6-Trichlorophenol	150	N.D.
Diethyl phthalate	100	N.D.			
2,4-Dimethylphenol	250	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	58%
Phenol-d6 (24-113)	63%
2,4,6-Tribromophenol (19-122)	73%
Nitrobenzene-d5 (23-120)	64%
2-Fluorobiphenyl (30-115)	66%
Terphenyl-d14 (18-137)	64%

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled: Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received: Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed: Nov 11, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported: Nov 14, 1994

SEMI-VOLATILE ORGANICS by GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)

No additional peaks > 250 µg/kg were identified by the Mass Spectral Library.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Please Note:
All identifications are tentative and concentrations are estimates based upon spectral comparison to the EPA/NIH library. Positive identification or specification between isomers cannot be made without retention time standards.

11-16-1994 05:02PM FR[redacted] DEL MAR ANALYTICAL/TEMPE TO [redacted] 16026695775 P.02

Del Mar Analytical

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Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled:	Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received:	Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Background	Analyzed:	Nov 11, 1994
Attention: Marcia Going	Lab Number: 4110611	Reported:	Nov 14, 1994

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.	Isopropylbenzene	2.0	N.D.
Bromobenzene	5.0	N.D.	p-Isopropyltoluene	2.0	N.D.
Bromochloromethane	5.0	N.D.	Methylene chloride	10	N.D.
Bromodichloromethane	2.0	N.D.	Naphthalene	5.0	N.D.
Bromoform	2.0	N.D.	n-Propylbenzene	2.0	N.D.
Bromomethane	5.0	N.D.	Styrene	2.0	N.D.
n-Butylbenzene	5.0	N.D.	1,1,1,2-Tetrachloroethane	5.0	N.D.
sec-Butylbenzene	5.0	N.D.	1,1,2,2-Tetrachloroethane	2.0	N.D.
tert-Butylbenzene	5.0	N.D.	Tetrachloroethene	2.0	N.D.
Carbon tetrachloride	5.0	N.D.	Toluene	2.0	N.D.
Chlorobenzene	2.0	N.D.	1,2,3-Trichlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.	1,2,4-Trichlorobenzene	5.0	N.D.
Chloroform	2.0	N.D.	1,1,1-Trichloroethane	2.0	N.D.
Chloromethane	5.0	N.D.	1,1,2-Trichloroethane	2.0	N.D.
2-Chlorotoluene	5.0	N.D.	Trichloroethene	2.0	N.D.
4-Chlorotoluene	5.0	N.D.	Trichlorofluoromethane	5.0	N.D.
Dibromochloromethane	2.0	N.D.	1,2,3-Trichloropropane	10	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.	1,2,4-Trimethylbenzene	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.	1,3,5-Trimethylbenzene	2.0	N.D.
Dibromomethane	2.0	N.D.	Vinyl chloride	5.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.	o-Xylene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.	m,p-Xylenes	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.			
Dichlorodifluoromethane	5.0	N.D.			
1,1-Dichloroethane	2.0	N.D.			
1,2-Dichloroethane	2.0	N.D.			
1,1-Dichloroethene	5.0	N.D.			
cis-1,2-Dichloroethene	2.0	N.D.			
trans-1,2-Dichloroethene	2.0	N.D.			
1,2-Dichloropropane	2.0	N.D.			
1,3-Dichloropropane	2.0	N.D.			
2,2-Dichloropropane	2.0	N.D.			
1,1-Dichloropropene	2.0	N.D.			
Ethylbenzene	2.0	N.D.			
Hexachlorobutadiene	5.0	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ # AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	95%
Toluene-d8 (81-117)	93%
4-Bromofluorobenzene (74-121)	105%

Michael R. Giles
Laboratory Manager

Results pertain only to samples tested in the laboratory. This report shall not be

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-

Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled:	Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received:	Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Background	Analyzed:	Nov 11, 1994
Attention: Marcia Going	Lab Number: 4110611	Reported:	Nov 14, 1894

VOLATILE ORGANICS by GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

No additional peaks > 250 µg/kg were identified by the Mass Spectral Library.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Please Note:
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Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled: Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received: Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed: Nov 11, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported: Nov 14, 1994

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.	Isopropylbenzene	2.0	N.D.
Bromobenzene	5.0	N.D.	p-Isopropyltoluene	2.0	N.D.
Bromochloromethane	5.0	N.D.	Methylene chloride	10	N.D.
Bromodichloromethane	2.0	N.D.	Naphthalene	5.0	N.D.
Bromoform	2.0	N.D.	n-Propylbenzene	2.0	N.D.
Bromomethane	5.0	N.D.	Styrene	2.0	N.D.
n-Butylbenzene	5.0	N.D.	1,1,1,2-Tetrachloroethane	5.0	N.D.
sec-Butylbenzene	5.0	N.D.	1,1,2,2-Tetrachloroethane	2.0	N.D.
tert-Butylbenzene	5.0	N.D.	Tetrachloroethene	2.0	N.D.
Carbon tetrachloride	5.0	N.D.	Toluene	2.0	N.D.
Chlorobenzene	2.0	N.D.	1,2,3-Trichlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.	1,2,4-Trichlorobenzene	5.0	N.D.
Chloroform	2.0	N.D.	1,1,1-Trichloroethane	2.0	N.D.
Chloromethane	5.0	N.D.	1,1,2-Trichloroethane	2.0	N.D.
2-Chlorotoluene	5.0	N.D.	Trichloroethene	2.0	N.D.
4-Chlorotoluene	5.0	N.D.	Trichlorofluoromethane	5.0	N.D.
Dibromochloromethane	2.0	N.D.	1,2,3-Trichloropropane	10	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.	1,2,4-Trimethylbenzene	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.	1,3,5-Trimethylbenzene	2.0	N.D.
Dibromomethane	2.0	N.D.	Vinyl chloride	5.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.	o-Xylene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.	m,p-Xylenes	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.			
Dichlorodifluoromethane	5.0	N.D.			
1,1-Dichloroethane	2.0	N.D.			
1,2-Dichloroethane	2.0	N.D.			
1,1-Dichloroethene	5.0	N.D.			
cis-1,2-Dichloroethene	2.0	N.D.			
trans-1,2-Dichloroethene	2.0	N.D.			
1,2-Dichloropropane	2.0	N.D.			
1,3-Dichloropropane	2.0	N.D.			
2,2-Dichloropropane	2.0	N.D.			
1,1-Dichloropropene	2.0	N.D.			
Ethylbenzene	2.0	N.D.			
Hexachlorobutadiene	5.0	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ # AZ0426)

Michael R. Giles
Laboratory Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	92%
Toluene-d8 (81-117)	92%
4-Bromofluorobenzene (74-121)	108%

Results pertain only to samples tested in the laboratory. This report shall not be

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Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled:	Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received:	Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed:	Nov 14, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported:	Nov 14, 1994

SEMI-VOLATILE ORGANICS by GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)

No additional peaks > 250 µg/kg were identified by the Mass Spectral Library.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Please Note:
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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Westates Carbon

Sample Descript: Soil, Background
Lab Number: 4110611

Sampled: Nov 10, 1994
Received: Nov 10, 1994
Analyzed: Nov 14, 1994
Reported: Nov 14, 1994

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Del Mar Analytical

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Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled: Nov 10, 1994
2523 Mutahar St., P.O. Box E		Received: Nov 10, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed: Nov 14, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported: Nov 14, 1994

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Del Mar Analytical

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Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: WCAI
Sample Descript: Soil
First Sample #: DL01185

Sampled: Dec 6, 1994
Received: Dec 7, 1994
Analyzed: Dec 19, 1994
Reported: Dec 20, 1994

LEAD (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01185	Impacted I	0.50	1.2
DL01186	Impacted II	0.50	1.6
DL01187	Impacted III	0.50	2.0
DL01188	Impacted IV	0.50	1.0
DL01189	Impacted V	0.50	1.8
DL01190	Impacted VI	0.50	1.3
DL01191	Soil I	0.50	1.3
DL01192	Soil II	0.50	1.5
DL01193	Soil III	0.50	1.7
DL01194	Soil IV	0.50	1.2

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Gary Steube
Laboratory Director

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: WCAI
Sample Descript: Soil
First Sample #: DL01195

Sampled: Dec 6, 1994
Received: Dec 7, 1994
Analyzed: Dec 19, 1994
Reported: Dec 20, 1994

LEAD (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01195	Soil V	0.50	N.D.
DL01196	Soil VI	0.50	1.8

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Gary Steube
Laboratory Director

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.	Client Project ID: WCAI	Sampled:	Dec 6, 1994
2523 Mutahar Street		Received:	Dec 7, 1994
Parker, AZ 85344	Sample Descript: Soil	Analyzed:	Dec 19, 1994
Attention: Marcia Going	First Sample #: DL01185	Reported:	Dec 20, 1994

CHROMIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01185	Impacted I	0.50	4.8
DL01186	Impacted II	0.50	2.5
DL01187	Impacted III	0.50	2.8
DL01188	Impacted IV	0.50	3.8
DL01189	Impacted V	0.50	3.8
DL01190	Impacted VI	0.50	4.6
DL01191	Soil I	0.50	5.0
DL01192	Soil II	0.50	3.9
DL01193	Soil III	0.50	2.6
DL01194	Soil IV	0.50	4.0

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.	Client Project ID: WCAI	Sampled:	Dec 6, 1994
2523 Mutahar Street		Received:	Dec 7, 1994
Parker, AZ 85344	Sample Descript: Soil	Analyzed:	Dec 19, 1994
Attention: Marcia Going	First Sample #: DL01195	Reported:	Dec 20, 1994

CHROMIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01195	Soil V	0.50	4.2
DL01196	Soil VI	0.50	4.7

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

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Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: WCAI

Sample Descript: Soil
First Sample #: DL01185

Sampled: Dec 6, 1994
Received: Dec 7, 1994
Analyzed: Dec 19, 1994
Reported: Dec 20, 1994

BARIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01185	Impacted I	0.50	78
DL01186	Impacted II	0.50	46
DL01187	Impacted III	0.50	66
DL01188	Impacted IV	0.50	57
DL01189	Impacted V	0.50	64
DL01190	Impacted VI	0.50	58
DL01191	Soil I	0.50	73
DL01192	Soil II	0.50	71
DL01193	Soil III	0.50	60
DL01194	Soil IV	0.50	71

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

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Laboratory Director

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.	Client Project ID: WCAI	Sampled:	Dec 6, 1994
2523 Mutahar Street		Received:	Dec 7, 1994
Parker, AZ 85344	Sample Descript: Soil	Analyzed:	Dec 19, 1994
Attention: Marcia Going	First Sample #: DL01195	Reported:	Dec 20, 1994

BARIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
DL01195	Soil V	0.50	63
DL01196	Soil VI	0.50	73

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

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Laboratory Director

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Westates Carbon

Sample Descript: Soil, Background
Lab Number: 4110611

Sampled: Nov 10, 1994
Received: Nov 10, 1994
Analyzed: Nov 14, 1994
Reported: Nov 14, 1994

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Westates Carbon
Sample Descript: Soil, Spill Soil
Lab Number: 4110526

Sampled: Nov 10, 1994
Received: Nov 10, 1994
Analyzed: Nov 14, 1994
Reported: Nov 14, 1994

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

Del Mar Analy[redacted]ical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Westates Carbon

Sample Descript: Soil, Background
Lab Number: 4110611

Sampled: Nov 10, 1994
Relogged: Nov 21, 1994
Analyzed: Nov 23, 1994
Reported: Dec 1, 1994

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	41
Cadmium	6010	0.10	N.D.
Chromium	6010	0.50	3.1
Lead	6010	1.0	3.9

Analysis was completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

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Westates Carbon Arizona	Client Project ID: Westates Carbon	Sampled:	Nov 10, 1994
2523 Mutahar St., P.O. Box E		Relogged:	Nov 21, 1994
Parker, AZ 85344	Sample Descript: Soil, Spill Soil	Analyzed:	Nov 23, 1994
Attention: Marcia Going	Lab Number: 4110526	Reported:	Dec 1, 1994

LABORATORY ANALYSIS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	83
Cadmium	6010	0.10	N.D.
Chromium	6010	0.50	4.4
Lead	6010	1.0	4.2

Analysis was completed at Del Mar Analytical-Irvine (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Michael R. Giles
Laboratory Manager

FINAL CONCLUSIONS FOR NOVEMBER 10, 1994
LIFT STATION INCIDENT

It is very apparent, based on the analysis of organics and metals for both the impacted and non-impacted soil are statistically the same. Therefore, there is no supporting evidence of contamination to the soil due to the spill which occurred at the Westates Carbon-Arizona, Inc. lift station on November 10, 1994.

Attached to this conclusion are two methods of statistic evaluation for the metals which show the hypothesis is accepted.

The soil will be handled as a clean material.

12/23/94

(1) CHOOSE α

LET $\alpha = 0.05$ (95% CONFIDENCE INTERVAL, i.e. THE INTERVAL INCLUDES THE TRUE AVERAGE "95% OF THE TIME."

(2) $N = 7$

$\phi'_{1-\alpha/2} = 0.347$ (FROM TABLE A-13)

(3) $\bar{X}_A = 13.1/7 = 1.87$ = IMPACTED

$\bar{X}_B = 11.9/7 = 1.70$ = NON-IMPACTED

(4) $W_A = 4.2 - 1 = 3.2$

$W_B = 3.9 - .5 = 3.4$

(5) $$\phi' = \frac{\bar{X}_A - \bar{X}_B}{\frac{1}{2}(W_A + W_B)} = \frac{(1.87 - 1.70)}{\frac{1}{2}(3.2 + 3.4)} = \frac{0.17}{3.3} = 0.0515$$

(6) IF $|\phi'| > \phi_{-\alpha/2}$, CONCLUDE THAT THE AVERAGES OF THE TWO PRODUCTS DIFFER; OTHERWISE THERE IS NO REASON TO BELIEVE THAT THE AVERAGES OF A AND B DIFFER.

(7) SINCE 0.0515 IS NOT LARGER THAN 0.306 THERE IS NO REASON TO BELIEVE THAT THE AVERAGE OF THE IMPACTED SAMPLES VARIES FROM THE NON-IMPACTED.

MPK [signature]

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 18' non	Analyzed:	Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040625	Reported:	Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	83
Chromium	6010	0.50	6.2
Lead	6010	0.50	4.6

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

FILE COPY

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release

Sample Descript: Soil, 59' non
Lab Number: 5040627

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	63
Chromium	6010	0.50	3.5
Lead	6010	0.50	3.0

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 483' non	Analyzed:	Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040628	Reported:	Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	53
Chromium	6010	0.50	6.3
Lead	6010	0.50	2.5

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

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Project Manager

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Non	Analyzed:	Apr 26, 1995
Attention: Marcia Going	Lab Number: 5040630	Reported:	Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	28
Chromium	6010	0.50	1.9
Lead	6010	1.0	2.1

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Debise Van Rooy
Project Manager

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968 8272 FAX (602) 968 1338

Westates Carbon Arizona 2523 Mutahar St., P.O. Box E Parker, AZ 85344 Attention: Marcia Going	Client Project ID: Lift Station Release Sample Descript: Soil, 20' impacted Lab Number: 5040626	Sampled: Apr 17, 1995 Received: Apr 17, 1995 Analyzed: Apr 20, 1995 Reported: Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	97
Chromium	6010	0.50	9.5
Lead	6010	0.50	5.4

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, Road End Impacted
Lab Number: 5040629

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
Barium	6010	0.50	54
Chromium	6010	0.50	3.5
Lead	6010	0.50	2.1

Analysis was completed at Del Mar AnalyticaHRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Water, 483' impacted	Analyzed:	Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040631	Reported:	Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Barium	200.7	0.050	0.24
Chromium	200.7	0.0050	0.013
Lead	239.2	0.0050	0.029

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Results pertain only to samples tested in the laboratory. This report shall not be

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Water, Road End Impacted
Lab Number: 5040629

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

TOTAL METALS

Analyte	EPA Method	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
Barium	200.7	0.050	0.33
Chromium	200.7	0.0050	N.D.
Lead	239.2	0.0050	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 18' non
Lab Number: 5040625

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 21-22, 1995
Reported: Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release

Sample Descript: Soil, 59' non
Lab Number: 5040627

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 21-22, 1995
Reported: Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968 1338

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 483' non	Analyzed:	Apr 21-22, 1995
Attention: Marcia Going	Lab Number: 5040628	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Non	Analyzed:	Apr 26, 1995
Attention: Marcia Going	Lab Number: 5040630	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	37
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	25
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-13[illegible]

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 20' Impacted	Analyzed:	Apr 21-22, 1995
Attention: Marcia Going	Lab Number: 5040626	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Impacted	Analyzed:	Apr 21-22, 1995
Attention: Marcia Going	Lab Number: 5040629	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Gary Steube
Laboratory Director

Del Mar Analytical

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Water, 483' impacted	Analyzed:	Apr 21-22, 1995
Attention: Marcia Going	Lab Number: 5040631	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133[illegible]

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Water, Road End Impacted	Analyzed:	Apr 21-22, 1995
Attention: Marcia Going	Lab Number: 5040629	Reported:	Apr 28, 1995

ALCOHOL SCAN by GC/FID (EPA 8015 Modified)

Analyte	Detection Limit mg/L (ppm)	Sample Result mg/L (ppm)
1-Butanol	5.0	N.D.
2-Butanol	5.0	N.D.
Ethanol	5.0	N.D.
Isobutanol (2-Methyl-1-Propanol)	5.0	N.D.
Isopropanol	5.0	N.D.
Methanol	5.0	N.D.
2-Methyl-1-Butanol	5.0	N.D.
2-Methyl-2-Butanol	5.0	N.D.
3-Methyl-1-Butanol (Isoamyl Alcohol)	5.0	N.D.
2-Methyl-2-Propanol	5.0	N.D.
1-Pentanol	5.0	N.D.
3-Pentanol	5.0	N.D.
1-Propanol	5.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968 8272 FAX (602) 968 133

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 18' Non
Lab Number: 5040625

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	150	N.D.
Anthracene	100	N.D.
Azobenzene	150	N.D.
Benzidine	1,000	N.D.
Benzoic Acid	500	N.D.
Benz(a)anthracene	100	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	150	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.
4-Bromophenyl phenyl ether	150	N.D.
Butyl benzyl phthalate	500	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	250	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	250	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	250	N.D.
2,4-Dinitrophenol	250	N.D.
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	500	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	150	N.D.
4-Methylphenol	150	N.D.
Naphthalene	150	N.D.
2-Nitroaniline	200	N.D.
3-Nitroaniline	200	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	500	N.D
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	150	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	150	N.D.
Pyrene	150	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	150	N.D.
2,4,6-Trichlorophenol	150	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2 Fluorophenol (25-121)	72%
Phenol-d6 (24-113)	68%
2,4,6-Tribromophenol (19-122)	76%
Nitrobenzene-d5 (23-120)	66%
2-Fluorobiphenyl (30-115)	73%
Terphenyl-d14 (18-137)	85%

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 59' Non
Lab Number: 5040627

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.	Dimethyl phthalate	100	N.D.
Acenaphthylene	100	N.D.	4,6-Dinitro-2-methylphenol	250	N.D.
Aniline	150	N.D.	2,4-Dinitrophenol	250	N.D.
Anthracene	100	N.D.	2,4-Dinitrotoluene	100	N.D.
Azobenzene	150	N.D.	2,6-Dinitrotoluene	100	N.D.
Benzidine	1,000	N.D.	Di-N-octyl phthalate	500	N.D.
Benzoic Acid	500	N.D.	Fluoranthene	100	N.D.
Benz(a)anthracene	100	N.D.	Fluorene	100	N.D.
Benzo(b)fluoranthene	200	N.D.	Hexachlorobenzene	100	N.D.
Benzo(k)fluoranthene	200	N.D.	Hexachlorobutadiene	100	N.D.
Benzo(g,h,i)perylene	150	N.D.	Hexachlorocyclopentadiene	500	N.D.
Benzo(a)pyrene	200	N.D.	Hexachloroethane	200	N.D.
Benzyl alcohol	200	N.D.	Indeno(1,2,3-cd)pyrene	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.	Isophorone	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.	2-Methylnaphthalene	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.	2-Methylphenol	150	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.	4-Methylphenol	150	N.D.
4-Bromophenyl phenyl ether	150	N.D.	Naphthalene	150	N.D.
Butyl benzyl phthalate	500	N.D.	2-Nitroaniline	200	N.D.
4-Chloroaniline	100	N.D.	3-Nitroaniline	200	N.D.
2-Chloronaphthalene	100	N.D.	4-Nitroaniline	500	N.D.
4-Chloro-3-methylphenol	100	N.D.	Nitrobenzene	500	N.D.
2-Chlorophenol	250	N.D.	2-Nitrophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.	4-Nitrophenol	500	N.D.
Chrysene	100	N.D.	N-Nitrosodiphenylamine	200	N.D.
Dibenz(a,h)anthracene	250	N.D.	N-Nitroso-di-N-propylamine	150	N.D.
Dibenzofuran	100	N.D.	Pentachlorophenol	500	N.D.
Di-N-butyl phthalate	250	N.D.	Phenanthrene	100	N.D.
1,3-Dichlorobenzene	100	N.D.	Phenol	150	N.D.
1,4-Dichlorobenzene	100	N.D.	Pyrene	150	N.D.
1,2-Dichlorobenzene	100	N.D.	1,2,4-Trichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.	2,4,5-Trichlorophenol	150	N.D.
2,4-Dichlorophenol	100	N.D.	2,4,6-Trichlorophenol	150	N.D.
Diethyl phthalate	100	N.D.			
2,4-Dimethylphenol	250	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	71%
Phenol-d6 (24-113)	65%
2,4,6-Tribromophenol (19-122)	82%
Nitrobenzene-d5 (23-120)	65%
2-Fluorobiphenyl (30-115)	76%
Terphenyl-d14 (18-137)	91%

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Del Mar Analytical

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 483' Non	Analyzed:	Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040628	Reported:	Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	150	N.D.
Anthracene	100	N.D.
Azobenzene	150	N.D.
Benzidine	1,000	N.D.
Benzoic Acid	500	N.D.
Benz(a)anthracene	100	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	150	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.
4-Bromophenyl phenyl ether	150	N.D.
Butyl benzyl phthalate	500	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	250	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	250	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	250	N.D.
2,4-Dinitrophenol	250	N.D.
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	500	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	150	N.D.
4-Methylphenol	150	N.D.
Naphthalene	150	N.D.
2-Nitroaniline	200	N.D.
3-Nitroaniline	200	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	500	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	150	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	150	N.D.
Pyrene	150	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	150	N.D.
2,4,6-Trichlorophenol	150	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2 Fluorophenol (25-121)	80%
Phenol-d6 (24-113)	77%
2,4,6-Tribromophenol (19-122)	88%
Nitrobenzene-d5 (23-120)	76%
2-Fluorobiphenyl (30-115)	81%
Terphenyl-d14 (18-137)	95%

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, Road End Non
Lab Number: 5040630

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 26, 1995
Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.
Acenaphthylene	100	N.D.
Aniline	150	N.D.
Anthracene	100	N.D.
Azobenzene	150	N.D.
Benzidine	1,000	N.D.
Benzoic Acid	500	N.D.
Benz(a)anthracene	100	N.D.
Benzo(b)fluoranthene	200	N.D.
Benzo(k)fluoranthene	200	N.D.
Benzo(g,h,i)perylene	150	N.D.
Benzo(a)pyrene	200	N.D.
Benzyl alcohol	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.
4-Bromophenyl phenyl ether	150	N.D.
Butyl benzyl phthalate	500	N.D.
4-Chloroaniline	100	N.D.
2-Chloronaphthalene	100	N.D.
4-Chloro-3-methylphenol	100	N.D.
2-Chlorophenol	250	N.D.
4-Chlorophenyl phenyl ether	100	N.D.
Chrysene	100	N.D.
Dibenz(a,h)anthracene	250	N.D.
Dibenzofuran	100	N.D.
Di-N-butyl phthalate	250	N.D.
1,3-Dichlorobenzene	100	N.D.
1,4-Dichlorobenzene	100	N.D.
1,2-Dichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.
2,4-Dichlorophenol	100	N.D.
Diethyl phthalate	100	N.D.
2,4-Dimethylphenol	250	N.D.
Dimethyl phthalate	100	N.D.
4,6-Dinitro-2-methylphenol	250	N.D.
2,4-Dinitrophenol	250	N.D.
2,4-Dinitrotoluene	100	N.D.
2,6-Dinitrotoluene	100	N.D.
Di-N-octyl phthalate	500	N.D.
Fluoranthene	100	N.D.
Fluorene	100	N.D.
Hexachlorobenzene	100	N.D.
Hexachlorobutadiene	100	N.D.
Hexachlorocyclopentadiene	500	N.D.
Hexachloroethane	200	N.D.
Indeno(1,2,3-cd)pyrene	200	N.D.
Isophorone	100	N.D.
2-Methylnaphthalene	100	N.D.
2-Methylphenol	150	N.D.
4-Methylphenol	150	N.D.
Naphthalene	150	N.D.
2-Nitroaniline	200	N.D.
3-Nitroaniline	200	N.D.
4-Nitroaniline	500	N.D.
Nitrobenzene	500	N.D.
2-Nitrophenol	100	N.D.
4-Nitrophenol	500	N.D.
N-Nitrosodiphenylamine	200	N.D.
N-Nitroso-di-N-propylamine	150	N.D.
Pentachlorophenol	500	N.D.
Phenanthrene	100	N.D.
Phenol	150	N.D.
Pyrene	150	N.D.
1,2,4-Trichlorobenzene	100	N.D.
2,4,5-Trichlorophenol	150	N.D.
2,4,6-Trichlorophenol	150	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	83%
Phenol-d6 (24-113)	87%
2,4,6-Tribromophenol (19-122)	90%
Nitrobenzene-d5 (23-120)	80%
2-Fluorobiphenyl (30-115)	86%
Terphenyl-d14 (18-137)	82%

Denise Van Rooy
Project Manager

Del Mar Analytical

2852 ... Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-122?
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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-184?
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-153?

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled: Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received: Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 20' Impacted	Analyzed: Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040626	Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.	Dimethyl phthalate	100	N.D.
Acenaphthylene	100	N.D.	4,6-Dinitro-2-methylphenol	250	N.D.
Aniline	150	N.D.	2,4-Dinitrophenol	250	N.D.
Anthracene	100	N.D.	2,4-Dinitrotoluene	100	N.D.
Azobenzene	150	N.D.	2,6-Dinitrotoluene	100	N.D.
Benzidine	1,000	N.D.	Di-N-octyl phthalate	500	N.D.
Benzoic Acid	500	N.D.	Fluoranthene	100	N.D.
Benz(a)anthracene	100	N.D.	Fluorene	100	N.D.
Benzo(b)fluoranthene	200	N.D.	Hexachlorobenzene	100	N.D.
Benzo(k)fluoranthene	200	N.D.	Hexachlorobutadiene	100	N.D.
Benzo(g,h,i)perylene	150	N.D.	Hexachlorocyclopentadiene	500	N.D.
Benzo(a)pyrene	200	N.D.	Hexachloroethane	200	N.D.
Benzyl alcohol	200	N.D.	Indeno(1,2,3-cd)pyrene	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.	Isophorone	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.	2-Methylnaphthalene	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.	2-Methylphenol	150	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.	4-Methylphenol	150	N.D.
4-Bromophenyl phenyl ether	150	N.D.	Naphthalene	150	N.D.
Butyl benzyl phthalate	500	N.D.	2-Nitroaniline	200	N.D.
4-Chloroaniline	100	N.D.	3-Nitroaniline	200	N.D.
2-Chloronaphthalene	100	N.D.	4-Nitroaniline	500	N.D.
4-Chloro-3-methylphenol	100	N.D.	Nitrobenzene	500	N.D.
2-Chlorophenol	250	N.D.	2-Nitrophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.	4-Nitrophenol	500	N.D.
Chrysene	100	N.D.	N-Nitrosodiphenylamine	200	N.D.
Dibenz(a,h)anthracene	250	N.D.	N-Nitroso-di-N-propylamine	150	N.D
Dibenzofuran	100	N.D.	Pentachlorophenol	500	N.D.
Di-N-butyl phthalate	250	N.D.	Phenanthrene	100	N.D.
1,3-Dichlorobenzene	100	N.D.	Phenol	150	N.D.
1,4-Dichlorobenzene	100	N.D.	Pyrene	150	N.D.
1,2-Dichlorobenzene	100	N.D.	1,2,4-Trichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.	2,4,5-Trichlorophenol	150	N.D.
2,4-Dichlorophenol	100	N.D.	2,4,6-Trichlorophenol	150	N.D.
Diethyl phthalate	100	N.D.			
2,4-Dimethylphenol	250	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	73%
Phenol-d6 (24-113)	69%
2,4,6-Tribromophenol (19-122)	78%
Nitrobenzene-d5 (23-120)	65%
2-Fluorobiphenyl (30-115)	70%
Terphenyl-d14 (18-137)	83%

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Del Mar Analytical

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Impacted	Analyzed:	Apr 20, 1995
Attention: Marcia Going	Lab Number: 5040629	Reported:	Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Acenaphthene	100	N.D.	Dimethyl phthalate	100	N.D.
Acenaphthylene	100	N.D.	4,6-Dinitro-2-methylphenol	250	N.D.
Aniline	150	N.D.	2,4-Dinitrophenol	250	N.D.
Anthracene	100	N.D.	2,4-Dinitrotoluene	100	N.D.
Azobenzene	150	N.D.	2,6-Dinitrotoluene	100	N.D.
Benzidine	1,000	N.D.	Di-N-octyl phthalate	500	N.D.
Benzoic Acid	500	N.D.	Fluoranthene	100	N.D.
Benz(a)anthracene	100	N.D.	Fluorene	100	N.D.
Benzo(b)fluoranthene	200	N.D.	Hexachlorobenzene	100	N.D.
Benzo(k)fluoranthene	200	N.D.	Hexachlorobutadiene	100	N.D.
Benzo(g,h,i)perylene	150	N.D.	Hexachlorocyclopentadiene	500	N.D.
Benzo(a)pyrene	200	N.D.	Hexachloroethane	200	N.D.
Benzyl alcohol	200	N.D.	Indeno(1,2,3-cd)pyrene	200	N.D.
Bis(2-chloroethoxy)methane	100	N.D.	Isophorone	100	N.D.
Bis(2-chloroethyl)ether	100	N.D.	2-Methylnaphthalene	100	N.D.
Bis(2-chloroisopropyl)ether	100	N.D.	2-Methylphenol	150	N.D.
Bis(2-ethylhexyl)phthalate	250	N.D.	4-Methylphenol	150	N.D.
4-Bromophenyl phenyl ether	150	N.D.	Naphthalene	150	N.D.
Butyl benzyl phthalate	500	N.D.	2-Nitroaniline	200	N.D.
4-Chloroaniline	100	N.D.	3-Nitroaniline	200	N.D.
2-Chloronaphthalene	100	N.D.	4-Nitroaniline	500	N.D.
4-Chloro-3-methylphenol	100	N.D.	Nitrobenzene	500	N.D.
2-Chlorophenol	250	N.D.	2-Nitrophenol	100	N.D.
4-Chlorophenyl phenyl ether	100	N.D.	4-Nitrophenol	500	N.D.
Chrysene	100	N.D.	N-Nitrosodiphenylamine	200	N.D.
Dibenz(a,h)anthracene	250	N.D.	N-Nitroso-di-N-propylamine	150	N.D.
Dibenzofuran	100	N.D.	Pentachlorophenol	500	N.D.
Di-N-butyl phthalate	250	N.D.	Phenanthrene	100	N.D.
1,3-Dichlorobenzene	100	N.D.	Phenol	150	N.D.
1,4-Dichlorobenzene	100	N.D.	Pyrene	150	N.D.
1,2-Dichlorobenzene	100	N.D.	1,2,4-Trichlorobenzene	100	N.D.
3,3-Dichlorobenzidine	500	N.D.	2,4,5-Trichlorophenol	150	N.D.
2,4-Dichlorophenol	100	N.D.	2,4,6-Trichlorophenol	150	N.D.
Diethyl phthalate	100	N.D.			
2,4-Dimethylphenol	250	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (25-121)	78%
Phenol-d6 (24-113)	88%
2,4,6-Tribromophenol (19-122)	81%
Nitrobenzene-d5 (23-120)	65%
2-Fluorobiphenyl (30-115)	77%
Terphenyl-d14 (18-137)	125%

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Water, 483' Impacted
Lab Number: 5040631

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 21, 1995
Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)	Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene	20	N.D.	Dimethyl phthalate	20	N.D.
Acenaphthylene	20	N.D.	4,6-Dinitro-2-methylphenol	80	N.D.
Aniline	20	N.D.	2,4-Dinitrophenol	200	N.D.
Anthracene	20	N.D.	2,4-Dinitrotoluene	20	N.D.
Azobenzene	40	N.D.	2,6-Dinitrotoluene	20	N.D.
Benzidine	200	N.D.	Di-N-octyl phthalate	80	N.D.
Benzoic Acid	200	N.D.	Fluoranthene	20	N.D.
Benz(a)anthracene	20	N.D.	Fluorene	20	N.D.
Benzo(b)fluoranthene	20	N.D.	Hexachlorobenzene	20	N.D.
Benzo(k)fluoranthene	20	N.D.	Hexachlorobutadiene	20	N.D.
Benzo(g,h,i)perylene	20	N.D.	Hexachlorocyclopentadiene	80	N.D.
Benzo(a)pyrene	20	N.D.	Hexachloroethane	20	N.D.
Benzyl alcohol	40	N.D.	Indeno(1,2,3-cd)pyrene	40	N.D.
Bis(2-chloroethoxy)methane	20	N.D.	Isophorone	20	N.D.
Bis(2-chloroethyl)ether	20	N.D.	2-Methylnaphthalene	20	N.D.
Bis(2-chloroisopropyl)ether	20	N.D.	2-Methylphenol	20	N.D.
Bis(2-ethylhexyl)phthalate	40	N.D.	4-Methylphenol	20	N.D.
4-Bromophenyl phenyl ether	20	N.D.	Naphthalene	20	N.D.
Butyl benzyl phthalate	40	N.D.	2-Nitroaniline	40	N.D.
4-Chloroaniline	20	N.D.	3-Nitroaniline	40	N.D.
2-Chloronaphthalene	20	N.D.	4-Nitroaniline	200	N.D.
4-Chloro-3-methylphenol	40	N.D.	Nitrobenzene	80	N.D.
2-Chlorophenol	20	N.D.	2-Nitrophenol	20	N.D.
4-Chlorophenyl phenyl ether	20	N.D.	4-Nitrophenol	200	N.D.
Chrysene	20	N.D.	N-Nitrosodiphenylamine	20	N.D.
Dibenz(a,h)anthracene	40	N.D.	N-Nitroso-di-N-propylamine	20	N.D.
Dibenzofuran	20	N.D.	Pentachlorophenol	80	N.D.
Di-N-butyl phthalate	40	N.D.	Phenanthrene	20	N.D.
1,3-Dichlorobenzene	20	N.D.	Phenol	20	N.D.
1,4-Dichlorobenzene	20	N.D.	Pyrene	20	N.D.
1,2-Dichlorobenzene	20	N.D.	1,2,4-Trichlorobenzene	20	N.D.
3,3-Dichlorobenzidine	80	N.D.	2,4,5-Trichlorophenol	40	N.D.
2,4-Dichlorophenol	20	N.D.	2,4,6-Trichlorophenol	40	N.D.
Diethyl phthalate	20	N.D.			
2,4-Dimethylphenol	40	N.D.			

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (21-100)	63%
Phenol-d6 (10-94)	62%
2,4,6-Tribromophenol (10-123)	81%
Nitrobenzene-d5 (35-114)	61%
2-Fluorobiphenyl (43-116)	72%
Terphenyl-d14 (33-141)	86%

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-13

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Water, Road End Impacted
Lab Number: 5040629

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 21, 1995
Reported: Apr 28, 1995

SEMI-VOLATILE ORGANICS by GC/MS (EPA 8270)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Acenaphthene	21	N.D.
Acenaphthylene	21	N.D.
Aniline	21	N.D.
Anthracene	21	N.D.
Azobenzene	43	N.D.
Benzidine	210	N.D.
Benzoic Acid	210	N.D.
Benz(a)anthracene	21	N.D.
Benzo(b)fluoranthene	21	N.D.
Benzo(k)fluoranthene	21	N.D.
Benzo(g,h,i)perylene	21	N.D.
Benzo(a)pyrene	21	N.D.
Benzyl alcohol	43	N.D.
Bis(2-chloroethoxy)methane	21	N.D.
Bis(2-chloroethyl)ether	21	N.D.
Bis(2-chloroisopropyl)ether	21	N.D.
Bis(2-ethylhexyl)phthalate	43	N.D.
4-Bromophenyl phenyl ether	21	N.D.
Butyl benzyl phthalate	43	N.D.
4-Chloroaniline	21	N.D.
2-Chloronaphthalene	21	N.D.
4-Chloro-3-methylphenol	43	N.D.
2-Chlorophenol	21	N.D.
4-Chlorophenyl phenyl ether	21	N.D.
Chrysene	21	N.D.
Dibenz(a,h)anthracene	43	N.D.
Dibenzofuran	21	N.D.
Di-N-butyl phthalate	43	N.D.
1,3-Dichlorobenzene	21	N.D.
1,4-Dichlorobenzene	21	N.D.
1,2-Dichlorobenzene	21	N.D.
3,3-Dichlorobenzidine	85	N.D.
2,4-Dichlorophenol	21	N.D.
Diethyl phthalate	21	N.D.
2,4-Dimethylphenol	43	N.D.
Dimethyl phthalate	21	N.D.
4,6-Dinitro-2-methylphenol	85	N.D.
2,4-Dinitrophenol	210	N.D.
2,4-Dinitrotoluene	21	N.D.
2,6-Dinitrotoluene	21	N.D.
Di-N-octyl phthalate	85	N.D.
Fluoranthene	21	N.D.
Fluorene	21	N.D.
Hexachlorobenzene	21	N.D.
Hexachlorobutadiene	21	N.D.
Hexachlorocyclopentadiene	85	N.D.
Hexachloroethane	21	N.D.
Indeno(1,2,3-cd)pyrene	43	N.D.
Isophorone	21	N.D.
2-Methylnaphthalene	21	N.D.
2-Methylphenol	21	N.D.
4-Methylphenol	21	N.D.
Naphthalene	21	N.D.
2-Nitroaniline	43	N.D.
3-Nitroaniline	43	N.D.
4-Nitroaniline	210	N.D.
Nitrobenzene	85	N.D.
2-Nitrophenol	21	N.D.
4-Nitrophenol	210	N.D.
N-Nitrosodiphenylamine	21	N.D.
N-Nitroso-di-N-propylamine	21	N.D.
Pentachlorophenol	85	N.D.
Phenanthrene	21	N.D.
Phenol	21	N.D.
Pyrene	21	N.D.
1,2,4-Trichlorobenzene	21	N.D.
2,4,5-Trichlorophenol	43	N.D.
2,4,6-Trichlorophenol	43	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection. Due to matrix effects and/or other factors, the sample required dilution. Detection limits for this sample have been raised by a factor of 2.128.

Surrogate Standard Recoveries (Accept. Limits):	
2-Fluorophenol (21-100)	63%
Phenol-d6 (10-94)	64%
2,4,6-Tribromophenol (10-123)	89%
Nitrobenzene-d5 (35-114)	67%
2-Fluorobiphenyl (43-116)	75%
Terphenyl-d14 (33-141)	92%

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 18' non
Lab Number: 5040625

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 19, 1995
Reported: Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 59' non	Analyzed:	Apr 19, 1995
Attention: Marcia Going	Lab Number: 5040627	Reported:	Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 483' non
Lab Number: 5040628

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 19, 1995
Reported: Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-0272 FAX (602) 968-1338

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Non	Analyzed:	Apr 26, 1995
Attention: Marcia Going	Lab Number: 5040630	Reported:	Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, 20' impacted	Analyzed:	Apr 19, 1995
Attention: Marcia Going	Lab Number: 5040626	Reported:	Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

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Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled: Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received: Apr 17, 1995
Parker, AZ 85344	Sample Descript: Soil, Road End Impacted	Analyzed: Apr 19, 1995
Attention: Marcia Going	Lab Number: 5040629	Reported: Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Aldrin	5.0	N.D.
alpha-BHC	5.0	N.D.
beta-BHC	5.0	N.D.
delta-BHC	10	N.D.
gamma-BHC (Lindane)	5.0	N.D.
Chlordane	10	N.D.
4,4'-DDD	10	N.D.
4,4'-DDE	5.0	N.D.
4,4'-DDT	10	N.D.
Dieldrin	5.0	N.D.
Endosulfan I	10	N.D.
Endosulfan II	5.0	N.D.
Endosulfan sulfate	50	N.D.
Endrin	10	N.D.
Endrin aldehyde	15	N.D.
Heptachlor	5.0	N.D.
Heptachlor epoxide	5.0	N.D.
Methoxychlor	150	N.D.
Toxaphene	180	N.D.
PCB-1016	50	N.D.
PCB-1221	50	N.D.
PCB-1232	50	N.D.
PCB-1242	50	N.D.
PCB-1248	50	N.D.
PCB-1254	50	N.D.
PCB-1260	50	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Water, 483' Impacted
Lab Number: 5040631

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 20, 1995
Reported: Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin	0.10	N.D.
alpha-BHC	0.050	N.D.
beta-BHC	0.050	N.D.
delta-BHC	0.40	N.D.
gamma-BHC (Lindane)	0.050	N.D.
Chlordane	0.15	N.D.
4,4'-DDD	0.10	N.D.
4,4'-DDE	0.050	N.D.
4,4'-DDT	0.10	N.D.
Dieldrin	0.10	N.D.
Endosulfan I	0.15	N.D.
Endosulfan II	0.10	N.D.
Endosulfan sulfate	0.75	N.D.
Endrin	0.10	N.D.
Endrin aldehyde	0.25	N.D.
Heptachlor	0.10	N.D.
Heptachlor epoxide	0.10	N.D.
Methoxychlor	10	N.D.
Toxaphene	0.50	N.D.
PCB-1016	1.0	N.D.
PCB-1221	1.0	N.D.
PCB-1232	1.0	N.D.
PCB-1242	1.0	N.D.
PCB-1248	1.0	N.D.
PCB-1254	1.0	N.D.
PCB-1260	1.0	N.D.

Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona 2523 Mutahar St., P.O. Box E Parker, AZ 85344 Attention: Marcia Going	Client Project ID: Lift Station Release Sample Descript: Water, Road End Impacted Lab Number: 5040629	Sampled: Apr 17, 1995 Received: Apr 17, 1995 Analyzed: Apr 20, 1995 Reported: Apr 28, 1995

ORGANOCHLORINE PESTICIDES AND PCBs (EPA 8080)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Aldrin	0.10	N.D.
alpha-BHC	0.050	N.D.
beta-BHC	0.050	N.D.
delta-BHC	0.40	N.D.
gamma-BHC (Lindane)	0.050	N.D.
Chlordane	0.15	N.D.
4,4'-DDD	0.10	N.D.
4,4'-DDE	0.050	N.D.
4,4'-DDT	0.10	N.D.
Dieldrin	0.10	N.D.
Endosulfan I	0.15	N.D.
Endosulfan II	0.10	N.D.
Endosulfan sulfate	0.75	N.D.
Endrin	0.10	N.D.
Endrin aldehyde	0.25	N.D.
Heptachlor	0.10	N.D.
Heptachlor epoxide	0.10	N.D.
Methoxychlor	10	N.D.
Toxaphene	0.50	N.D.
PCB-1016	1.0	N.D.
PCB-1221	1.0	N.D.
PCB-1232	1.0	N.D.
PCB-1242	1.0	N.D.
PCB-1248	1.0	N.D.
PCB-1254	1.0	N.D.
PCB-1260	1.0	N.D.

Analysis completed at Del Mar Analytical-IRVINE (AZ0428)

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 18' non
Lab Number: 5040625

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	100%
Toluene-d8 (81-117)	101%
4-Bromofluorobenzene (74-121)	98%

Del Mar Analytical

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Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 59' non
Lab Number: 5040627

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.	Isopropylbenzene	2.0	N.D.
Bromobenzene	5.0	N.D.	p-Isopropyltoluene	2.0	N.D.
Bromochloromethane	5.0	N.D.	Methylene chloride	10	N.D.
Bromodichloromethane	2.0	N.D.	Naphthalene	5.0	N.D.
Bromoform	2.0	N.D.	n-Propylbenzene	2.0	N.D.
Bromomethane	5.0	N.D.	Styrene	2.0	N.D.
n-Butylbenzene	5.0	N.D.	1,1,1,2-Tetrachloroethane	5.0	N.D.
sec-Butylbenzene	5.0	N.D.	1,1,2,2-Tetrachloroethane	2.0	N.D.
tert-Butylbenzene	5.0	N.D.	Tetrachloroethene	2.0	N.D.
Carbon tetrachloride	5.0	N.D.	Toluene	2.0	N.D.
Chlorobenzene	2.0	N.D.	1,2,3-Trichlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.	1,2,4-Trichlorobenzene	5.0	N.D.
Chloroform	2.0	N.D.	1,1,1-Trichloroethane	2.0	N.D.
Chloromethane	5.0	N.D.	1,1,2-Trichloroethane	2.0	N.D.
2-Chlorotoluene	5.0	N.D.	Trichloroethene	2.0	N.D.
4-Chlorotoluene	5.0	N.D.	Trichlorofluoromethane	5.0	N.D.
Dibromochloromethane	2.0	N.D.	1,2,3-Trichloropropane	10	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.	1,2,4-Trimethylbenzene	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.	1,3,5-Trimethylbenzene	2.0	N.D.
Dibromomethane	2.0	N.D.	Vinyl chloride	5.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.	o-Xylene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.	m,p-Xylenes	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.			
Dichlorodifluoromethane	5.0	N.D.			
1,1-Dichloroethane	2.0	N.D.			
1,2-Dichloroethane	2.0	N.D.			
1,1-Dichloroethene	5.0	N.D.			
cis-1,2-Dichloroethene	2.0	N.D.			
trans-1,2-Dichloroethene	2.0	N.D.			
1,2-Dichloropropane	2.0	N.D.			
1,3-Dichloropropane	2.0	N.D.			
2,2-Dichloropropane	2.0	N.D.			
1,1-Dichloropropene	2.0	N.D.			
Ethylbenzene	2.0	N.D.			
Hexachlorobutadiene	5.0	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	99%
Toluene-d8 (81-117)	100%
4-Bromofluorobenzene (74-121)	86%

Del Mar Analytical

2852 Al... c., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., ... A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968 1338

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 483' non
Lab Number: 5040628

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	101%
Toluene-d8 (81-117)	99%
4-Bromofluorobenzene (74-121)	85%

Del Mar Analytical

285[illegible] Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-122[illegible]
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-104[illegible]
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-184[illegible]
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968 8272 FAX (602) 968 133[illegible]

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, Road End Non
Lab Number: 5040630

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 27, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	104%
Toluene-d8 (81-117)	100%
4-Bromofluorobenzene (74-121)	87%

Denise Van Rooy
Project Manager

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, 20' impacted
Lab Number: 5040626

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	107%
Toluene-d8 (81-117)	99%
4-Bromofluorobenzene (74-121)	84%

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-122[illegible]
1014 E. Cooley [illegible] A, Colton, CA 92324 (909) 370 4667 FAX (909) 370 164[illegible]
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-184[illegible]
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-133[illegible]

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Soil, Road End Impacted
Lab Number: 5040629

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)	Analyte	Detection Limit µg/Kg (ppb)	Sample Result µg/Kg (ppb)
Benzene	2.0	N.D.	Isopropylbenzene	2.0	N.D.
Bromobenzene	5.0	N.D.	p-Isopropyltoluene	2.0	N.D.
Bromochloromethane	5.0	N.D.	Methylene chloride	10	N.D.
Bromodichloromethane	2.0	N.D.	Naphthalene	5.0	N.D.
Bromoform	2.0	N.D.	n-Propylbenzene	2.0	N.D.
Bromomethane	5.0	N.D.	Styrene	2.0	N.D.
n-Butylbenzene	5.0	N.D.	1,1,1,2-Tetrachloroethane	5.0	N.D.
sec-Butylbenzene	5.0	N.D.	1,1,2,2-Tetrachloroethane	2.0	N.D.
tert-Butylbenzene	5.0	N.D.	Tetrachloroethene	2.0	N.D.
Carbon tetrachloride	5.0	N.D.	Toluene	2.0	N.D.
Chlorobenzene	2.0	N.D.	1,2,3-Trichlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.	1,2,4-Trichlorobenzene	5.0	N.D.
Chloroform	2.0	N.D.	1,1,1-Trichloroethane	2.0	N.D.
Chloromethane	5.0	N.D.	1,1,2-Trichloroethane	2.0	N.D.
2-Chlorotoluene	5.0	N.D.	Trichloroethene	2.0	N.D.
4-Chlorotoluene	5.0	N.D.	Trichlorofluoromethane	5.0	N.D.
Dibromochloromethane	2.0	N.D.	1,2,3-Trichloropropane	10	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.	1,2,4-Trimethylbenzene	2.0	N.D.
1,2-Dibromoethane	2.0	N.D.	1,3,5-Trimethylbenzene	2.0	N.D.
Dibromomethane	2.0	N.D.	Vinyl chloride	5.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.	o-Xylene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.	m,p-Xylenes	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.			
Dichlorodifluoromethane	5.0	N.D.			
1,1-Dichloroethane	2.0	N.D.			
1,2-Dichloroethane	2.0	N.D.			
1,1-Dichloroethene	5.0	N.D.			
cis-1,2-Dichloroethene	2.0	N.D.			
trans-1,2-Dichloroethene	2.0	N.D.			
1,2-Dichloropropane	2.0	N.D.			
1,3-Dichloropropane	2.0	N.D.			
2,2-Dichloropropane	2.0	N.D.			
1,1-Dichloropropene	2.0	N.D.			
Ethylbenzene	2.0	N.D.			
Hexachlorobutadiene	5.0	N.D.			

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (80-120)	103%
Toluene-d8 (81-117)	101%
4-Bromofluorobenzene (74-121)	84%

Del Mar Analytical

2852 [illegible] Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1[illegible]
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1[illegible]
16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779 1[illegible]
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968 1[illegible]

Westates Carbon Arizona
2523 Mutahar St., P.O. Box E
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Lift Station Release
Sample Descript: Water, 483' impacted
Lab Number: 5040631

Sampled: Apr 17, 1995
Received: Apr 17, 1995
Analyzed: Apr 18, 1995
Reported: Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)
DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (86-118)	103%
Toluene-d8 (88-110)	99%
4-Bromofluorobenzene (86-115)	87%

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1228
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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Arizona	Client Project ID: Lift Station Release	Sampled:	Apr 17, 1995
2523 Mutahar St., P.O. Box E		Received:	Apr 17, 1995
Parker, AZ 85344	Sample Descript: Water, Road End Impacted	Analyzed:	Apr 18, 1995
Attention: Marcia Going	Lab Number: 5040629	Reported:	Apr 28, 1995

VOLATILE ORGANICS by GC/MS (EPA 8260)

Analyte	Detection Limit µg/L (ppb)	Sample Result µg/L (ppb)
Benzene	2.0	N.D.
Bromobenzene	5.0	N.D.
Bromochloromethane	5.0	N.D.
Bromodichloromethane	2.0	N.D.
Bromoform	2.0	N.D.
Bromomethane	5.0	N.D.
n-Butylbenzene	5.0	N.D.
sec-Butylbenzene	5.0	N.D.
tert-Butylbenzene	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	2.0	N.D.
Chloroethane	5.0	N.D.
Chloroform	2.0	N.D.
Chloromethane	5.0	N.D.
2-Chlorotoluene	5.0	N.D.
4-Chlorotoluene	5.0	N.D.
Dibromochloromethane	2.0	N.D.
1,2-Dibromo-3-chloropropane	5.0	N.D.
1,2-Dibromoethane	2.0	N.D.
Dibromomethane	2.0	N.D.
1,2-Dichlorobenzene	2.0	N.D.
1,3-Dichlorobenzene	2.0	N.D.
1,4-Dichlorobenzene	2.0	N.D.
Dichlorodifluoromethane	5.0	N.D.
1,1-Dichloroethane	2.0	N.D.
1,2-Dichloroethane	2.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	2.0	N.D.
trans-1,2-Dichloroethene	2.0	N.D.
1,2-Dichloropropane	2.0	N.D.
1,3-Dichloropropane	2.0	N.D.
2,2-Dichloropropane	2.0	N.D.
1,1-Dichloropropene	2.0	N.D.
Ethylbenzene	2.0	N.D.
Hexachlorobutadiene	5.0	N.D.
Isopropylbenzene	2.0	N.D.
p-Isopropyltoluene	2.0	N.D.
Methylene chloride	10	N.D.
Naphthalene	5.0	N.D.
n-Propylbenzene	2.0	N.D.
Styrene	2.0	N.D.
1,1,1,2-Tetrachloroethane	5.0	N.D.
1,1,2,2-Tetrachloroethane	2.0	N.D.
Tetrachloroethene	2.0	N.D.
Toluene	2.0	N.D.
1,2,3-Trichlorobenzene	5.0	N.D.
1,2,4-Trichlorobenzene	5.0	N.D.
1,1,1-Trichloroethane	2.0	N.D.
1,1,2-Trichloroethane	2.0	N.D.
Trichloroethene	2.0	N.D.
Trichlorofluoromethane	5.0	N.D.
1,2,3-Trichloropropane	10	N.D.
1,2,4-Trimethylbenzene	2.0	N.D.
1,3,5-Trimethylbenzene	2.0	N.D.
Vinyl chloride	5.0	N.D.
o-Xylene	2.0	N.D.
m,p-Xylenes	2.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.
Analysis was completed at Del Mar Analytical-IRVINE (AZ0428)

DEL MAR ANALYTICAL, PHOENIX (AZ0426)

Denise Van Rooy
Project Manager

Surrogate Standard Recoveries (Accept. Limits):	
Dibromofluoromethane (86-118)	104%
Toluene-d8 (88-110)	102%
4-Bromofluorobenzene (86-115)	88%

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Soil Samples & Monthly Monitoring
Sample Descript: Soil, Non-Impacted Soil
Lab Number: EE03525

Sampled: May 24, 1995
Received: May 26, 1995
Extracted: Jun 6, 1995
Analyzed: Jun 6, 1995
Reported: Jun 12, 1995

LABORATORY ANALYSIS

Analyte	EPA Method	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	Detection Limit mg/Kg (ppm)		TTLC Sample Result mg/Kg (ppm)
Barium	6010	100	10000	0.50	....	33
Cadmium	6010	1.0	100	0.10	....	N.D.
Chromium, total	6010	560	2500	0.50	....	2.1
Lead	6010	5.0	1000	1.0	....	3.4

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Jon Butler

Jon Butler
Project Manager

Del Mar Analytical

2852 Alt[illegible] Irvine, CA 92714 (714) 261-1022 FAX (714) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc. 2523 Mutahar Street Parker, AZ 85344 Attention: Marcia Going	Client Project ID: Soil Samples & Monthly Monitoring Sample Descript: Soil, Impacted Soil Lab Number: EE03524	Sampled: May 24, 1995 Received: May 26, 1995 Extracted: Jun 6, 1995 Analyzed: Jun 6, 1995 Reported: Jun 12, 1995

LABORATORY ANALYSIS

Analyte	EPA Method	STLC Max. Limit mg/L (ppm)	TTLC Max. Limit mg/Kg (ppm)	Detection Limit mg/Kg (ppm)		TTLC Sample Result mg/Kg (ppm)
Barium	6010	100	10000	0.50	....	60
Cadmium	6010	1.0	100	0.10	....	N.D.
Chromium, total	6010	560	2500	0.50	....	3.1
Lead	6010	5.0	1000	1.0	....	4.0

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Jon Butler

Jon Butler
Project Manager

Del Mar Analytical

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Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Soil Samples & Montly Monitoring

Sample Descript: Soil
First Sample #: EF01710

Sampled: May 22, 1995
Received: May 26, 1995
Extracted: Jun 15, 1995
Analyzed: Jun 16, 1995
Reported: Jun 16, 1995

BARIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
EF01710	Non-Impacted 18'	0.50	69
EF01711	Non-Impacted 60'	0.50	66
EF01712	Non-Impacted 40'	0.50	190
EF01713	Impacted 1	0.50	53
EF01714	Impacted 2	0.50	68
EF01715	Impacted 3	0.50	61
EF01716	Impacted 4	0.50	72

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Dan Harbs

Dan Harbs
Project Manager

Del Mar Analytical

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Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Soil Samples & Montly Monitoring
Sample Descript: Soil
First Sample #: EF01710

Sampled: May 22, 1995
Received: May 26, 1995
Extracted: Jun 15, 1995
Analyzed: Jun 16, 1995
Reported: Jun 16, 1995

CADMIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
EF01710	Non-Impacted 18'	0.10	N.D.
EF01711	Non-Impacted 60'	0.10	N.D.
EF01712	Non-Impacted 40'	0.10	N.D.
EF01713	Impacted 1	0.10	N.D.
EF01714	Impacted 2	0.10	N.D.
EF01715	Impacted 3	0.10	N.D.
EF01716	Impacted 4	0.10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Dan Harbs

Dan Harbs
Project Manager

Del Mar Analytical

2852 Alton [illegible]vine, CA 92714 (714) 261-1022 FAX (714) 261-1228
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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc.
2523 Mutahar Street
Parker, AZ 85344
Attention: Marcia Going

Client Project ID: Soil Samples & Montly Monitoring

Sample Descript: Soil
First Sample #: EF01710

Sampled: May 22, 1995
Received: May 26, 1995
Extracted: Jun 15, 1995
Analyzed: Jun 16, 1995
Reported: Jun 16, 1995

CHROMIUM (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
EF01710	Non-Impacted 18'	0.50	6.1
EF01711	Non-Impacted 60'	0.50	5.3
EF01712	Non-Impacted 40'	0.50	5.9
EF01713	Impacted 1	0.50	4.5
EF01714	Impacted 2	0.50	4.4
EF01715	Impacted 3	0.50	5.1
EF01716	Impacted 4	0.50	7.2

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Dan Harbs

Dan Harbs
Project Manager

Del Mar Analytical

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2465 W. 12th St., Suite 1, Tempe, AZ 85281 (602) 968-8272 FAX (602) 968-1338

Westates Carbon Inc. 2523 Mutahar Street Parker, AZ 85344 Attention: Marcia Going	Client Project ID: Soil Samples & Montly Monitoring Sample Descript: Soil First Sample #: EF01710	Sampled: May 22, 1995 Received: May 26, 1995 Extracted: Jun 15, 1995 Analyzed: Jun 16, 1995 Reported: Jun 16, 1995

LEAD (EPA 6010)

Laboratory Number	Sample Description	Detection Limit mg/Kg (ppm)	Sample Result mg/Kg (ppm)
EF01710	Non-Impacted 18'	0.50	3.3
EF01711	Non-Impacted 60'	0.50	3.6
EF01712	Non-Impacted 40'	0.50	15
EF01713	Impacted 1	0.50	2.7
EF01714	Impacted 2	0.50	2.8
EF01715	Impacted 3	0.50	2.8
EF01716	Impacted 4	0.50	3.6

Analytes reported as N.D. were not present above the stated limit of detection.

DEL MAR ANALYTICAL, IRVINE (ELAP #1197)

Dan Harbs

Dan Harbs
Project Manager

U.S. FILTER

U.S. FILTER/WESTATES
2523 MUTAHAR STREET
POST OFFICE BOX E
PARKER, AZ 85344

TELEPHONE 520-669-5758
FACSIMILE 520-669-5775

October 5, 1998

La Paz County Emergency Services
1112 Joshua Avenue
Suite 207
Parker Arizona 85344
Attn. Larry Riesland
Acting Local Emergency Planning Coordinator

RE: WESTATES CARBON-ARIZONA, INC. – NOTICE OF IMPLEMENTATION OF CONTINGENCY PLAN IN ACCORDANCE WITH THE EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT

To Larry Riesland:

On September 26th 1998, Westates Carbon-Arizona, Inc. experienced a spill from a truck on site that contained recycle water from the plant that is used to slurry hazardous spent carbon in the treatment process.

The occurrence was caused by a truck driver turning the valve to air out his lines and accidently discharging the water onto the soil just outside the main gate of the plant.

As a requirement of The Emergency Planning and Community Right to Know Act Westates Carbon-Arizona, Inc. is submitting the following attached report.

Please do not hesitate to call me at (520)-669-5758 if you have any questions.

Sincerely,

Monte McCue
Plant Manager

US Filter/Westates
September 26, 1998 Incident Report

REPORT REQUIREMENT	INFORMATION ON THE INCIDENT
1. The identity of any substance in the release	Motive water used in the treatment process.
2.Indication of whether the substances are extremely hazardous substances	The motive water is not an extremely hazardous substance, but could contain trace quantities of some such substances.
3. An estimate of the quantity of each substance that was released into the environment	Approximately 100 gallons of motive water were released.
4. The time and duration of the release	The release occurred at approximately 2:00 pm and lasted <5 minutes.
5. The medium or media into which the release occurred	The media included soil and rocks just outside the receiving gate for the plant.
6. Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed materials.	There is no evidence there should be a health hazard to anyone coming in contact with the impacted soil or the water.
7. Proper precautions to take as a result of the release.	The impacted soil was removed immediately and stored at the facility warehouse. All precautions were taken during the cleanup. There is no evidence that there should be any special precautions taken by any individual.
8. The name and telephone number of the person or persons to be contacted for further information.	Monte McCue (520)-669-5758.
9. Actions taken to respond to and contain the release.	Several properly trained USF/Westates employees immediately responded with contents of the spill kit to absorb and contain the released material.

I 0008   990060

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
AZD982441263	12239	1 of 1	

3. Generator's Name and Mailing Address
Westates Carbon Arizona, Inc.
P.O. Box E
Parker, AZ 85344

4. Generator's Phone (520) 669-5758

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Allwaste Transportation/Remediation
6. US EPA ID Number: CAD980584510
C. State Transporter's ID
D. Transporter's Phone (602) 252-1186

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
APTUS (Laidlaw Env. Servs.)
11600 North Aptus Road
Aragonite, UT 84029

10. US EPA ID Number: UTD981552177

G. State Facility's ID: UTD981552177

H. Facility's Phone (801)531-4200

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. HAZARDOUS WASTE, SOLID, N.O.S. (F001,F003),, 9, NA3077, PGIII	X	056	DM	03080	G	See Attached
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
11(A) - Profile Number AP406947
P.O. Number 980756
Additonal EPA Waste Codes are attached with manifest.
(VAN 383970)

K. Handling Codes for Wastes Listed Above
07

15. Special Handling Instructions and Additional Information
Wear Appropriate Safty Equipment - Use Guide #171 The Waste Identified in Line 11(A) must
24 - Hour Emergency Number (520) 669-5758 Ext. 16 be managed in accordance with subpart FF Regulations. (Per 40 CFR Part 61)

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
Roy Provins	Roy Provins	11 23 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
John Dorman	John Dorman	12 23 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Kevin E. Swan	Kevin E Swand	01 04 99

Style F15 Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

PRINTED ON RECYCLED PAPER

MATERIAL PROFILE

safety-kleen

3008812

Safety-Kleen (SK) Use Only	Bill To: ☐ Same as "A" or ☐ Service Center	Customer Number:	SK Line Of Business #:	Facility Profile #:

A. GENERATOR INFORMATION

☒ *Check if Billing Information is same as Generator Information*

Generator Name: Westotes Carbon
Facility Address (No P.O. Box): 2523 mutahar St.
City/State/Zip: Parker Arizona 85344
Technical Contact: Roy Prouins
Phone: 520-669-5758 Fax: 520-669-5775
Generator Location (*If different from Facility Address*):
☐ CESQG ☐ SQG US EPA ID #: AZD982441263
SIC Code: 4953 Origin Code: ☐1 ☐2 ☐3 ☐4 ☐5 Source Code: A 74 Form Code: B 301 System Code: M 043

Billing Company:
Billing Address:
City/State/Zip:
Billing Contact:
Phone: Fax:
State Generating ID #:

B. SHIPPING INFORMATION

☐ *DOT Assistance Requested* ☐ *Check if SK Transportation Services are requested*

US DOT Proper Shipping Name: RQ Hazardous waste solid n.o.s.
Hazard Class / Division #: 9 ID # (UN / NA): 3077 Packing Group (PG): III RQ:

Non-Bulk Shipping Containers

Size		Steel	Poly	Fiber	Quantity	Frequency
55	Gal	☒	☐	☐	66	1 time
	Gal	☐	☐	☐		
	Gal	☐	☐	☐		
	Gal	☐	☐	☐		
Other						

Bulk Shipping Containers

Container Type	Quantity & Size	Frequency
☐ Yd.' Box or ☐ Super Sack		
☐ Hard Top or ☐ Tarped Bin		
☐ End Dump (Tarped) Trailer		
☐ Tank or ☐ Vacuum Trailer		
Other		

C. GENERAL MATERIAL & REGULATORY INFORMATION

Name of Material: Soil + rocks
Process Generating The Material: Spill of facility motive water

Yes	No	
☐	☒	Regulated or Licensed Radioactive Waste
☐	☒	Regulated Medical / Infectious Waste
☒	☐	Waste Subject To Benzene NESHAP Regulations
☐	☒	TSCA Regulated PCB Waste (*List any PCB level in Sec. D*)
☐	☒	Regulated Subpart CC Waste (VOC's ≥ 500 ppm)
☐	☒	Regulated Ozone Depleting Substance
☐	☒	CERCLA Regulated (Superfund) Waste
☐	☒	Hazardous Debris (Subject to alternative LDR treatment standards)

Yes	No	
☐	☒	Exempt Waste; If Yes, list reference 40 CFR
☐	☒	State Hazardous Waste; State Code
☐	☒	Commingled Waste (Two or more hazardous wastes mixed as one)
☐	☒	Meets LDR Standards or ☐ Partially Meets (For Landfill Only)
☒	☐	EPA Hazardous Waste

EPA Waste Codes (including any LDR subcategories, e.g., D003 Water Reactive): See attached list (Recieves all facility received codes)

D. MATERIAL COMPOSITION

Note: List ALL DETECTABLE COMPONENTS by chemical name; e.g., acetone, asbestos, trichloroethylene; list specific dioxins, OSHA carcinogens, PCB's, pesticides, VOC's by chemical name; plus any other material, e.g., sorbent, specific debris type & size.

Material Components & Composition	ppm	☐ wt % ☐ Vol %	Material Components & Composition	ppm	☐ wt % ☐ Vol %
Soil + rocks		100%			
(About 2/3 of the drums					
contain soil 1/3 rocks)					
No detectable					
contamination					

☐ Check if you have attached Material Safety Data Sheets (MSDS) and/or additional information concerning this waste. Range Total ≥ 100 %

DWALKER.SK.MATERIAL.PROFILE.06.16.98

SALES REPRESENTATIVE

3008812

E. REACTIVE CHARACTERISTICS ☐ *Check if this waste exhibits No Reactive Characteristics*

Yes	No		Yes	No		Yes	No		Yes	No	
☐	☒	Explosive	☐	☒	Oxidizer	☐	☒	Acid Reactive	☐	☒	Reactive Sulfide ______ ppm
☐	☒	Shock Sensitive	☐	☒	Water Reactive	☐	☒	Alkaline Reactive	☐	☒	Polymerizable
☐	☒	Pyrophoric	☐	☒	Air Reactive	☐	☒	Reactive Cyanide ______ ppm	☐	☒	Other Incompatibles List Below

F. MATERIAL PHYSICAL CHARACTERISTICS @ 70°F.

# of Phases: 1
Liquid %: 0
Sludge %: 0
Solid %: 100
Powder %: 0
Gas %: 0

Color: Brown
Odor: None
Specific Gravity: ______
Viscosity: ______
Density: ______ ☐ lbs./ gal. ☐ lbs./ cu. ft.

Flash Point ______ °F (if < 73°F)
☐ 73 - < 100°F ☐ 100 - 141°F
☐ 142°F - < 200°F ☒ ≥ 200°F
Boiling Point (if < 130°F) ______
Ash % (Bridgeport Only) ______

pH ☐ Liquids >20% H_2O *or* pH ☒ Non-Aqueous
☐ ≤ 2 pH ☐ > 2 - 4 pH ☒ > 4 - 10 pH
☐ > 10 - < 12.5 pH ☐ ≥ 12.5 pH
Sorbent Added: ☒ None Biodegradable? ☐ Yes ☐ No
BTU's / lb. or Range ______

Comments ______

G. ELEMENTAL INFORMATION ☒ *Check if this waste contains No Detectable Elements / Metals, unless listed below.*

Check either; ☐ Total Analysis *or* ☐ TCLP Method, then enter data below.

Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm	Constituent	ppm
Aluminum		Cadmium		Fluorine		Nickel		Sodium	
Antimony		Chlorine		Lead		Phosphorous		Sulfur	
Arsenic		Chromium		Lithium		Potassium		Thallium	
Barium		Cobalt		Manganese		Selenium		Titanium	
Beryllium		Copper		Mercury		Silicon		Vanadium	
Bromine		Iodine		Molybdenum		Silver		Zinc	

H. MATERIAL DISPOSITION OPTIONS ☐ *Check if No Requirement*

1 Recycling / Recovering # 2 Fuels Blending # 3 Incineration # 4 Wastewater Treatment # 5 Landfill # 6 Deepwell Injection

List disposition # in order of preference if more than one. Customer Preference # #3 Other Disposition ______

I. GENERATOR PROFILE CERTIFICATION

I hereby certify that I am an authorized agent of the generator, and warrant on behalf of the generator that the information supplied on this form and on any attachments or supplements hereto is complete and accurate, and that all known or suspected hazards of the material(s) described herein have been disclosed.

[signature] — Generator's Authorized Signature
EH&S Manager — Name & Title (Printed or Typed)
10 / 08 / 98 — Date

Comments ~~Son~~ Waste will carry all facility codes although detectable contamination should be nil.

Safety-Kleen Use Only ☐ SKOS ☐ SKVS ☐ Non-haz Evaluation ☐ Standard Industry Profile: SIP Index # ______

SK Sales Rep. Name ______ Employee # ______ Territory/Branch # ______

Waste Approval & Certification

We certify acceptability of this waste stream and that all appropriate permits have been obtained, as indicated by Safety-Kleen's facility approval below:

Safety-Kleen's Authorized Facility Signature ______ Name & Title (Printed or Typed) ______ Date ___ / ___ / ___

Form No. 585-0733 (8/98)

U.S. FILTER

U.S. FILTER/WESTATES
2523 MUTAHAR STREET
POST OFFICE BOX E
PARKER, AZ 85344

TELEPHONE 520-669-5758
FACSIMILE 520-669-5775

VIA CERTIFIED MAIL P 162 444 064
October 5, 1998

Felicia Marcus, Regional Administrator
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

RE: WESTATES CARBON-ARIZONA, INC. – NOTICE OF IMPLEMENTATION OF CONTINGENCY PLAN IN ACCORDANCE WITH 40 CFR 265.56

Dear Ms. Marcus

On September 26, 1998 Westates Carbon-Arizona Inc. experienced a spill from a truck on site that contained recycle water from the plant that is used to slurry hazardous spent carbon in the treatment process.

The occurrence was caused by the driver opening a valve and accidently discharging the water on the soil just outside the main gate of the plant. The spill happened at 2:00 P.M. and a Westates Carbon employee immediately started containment and clean up procedures.

Per CFR 265.56 Westates Carbon-Arizona, Inc. is submitting the following information to EPA Region IX.:

FACILITY OWNER

Westates Carbon-Arizona
P.O. Box E
Parker, Arizona 85344
Phone: (520) 669-5758

FACILITY ADDRESS

Westates Carbon-Arizona
2523 Mutaher Street
Parker, Arizona 85344
Phone: (520)669-5758

ENDER:
Co.nplete items 1 and/or 2 for additi... .ervices.
Complete items 3, 4a, and 4b.
Print your name and address on the reverse of this form so that we can return this card to you.
Attach this form to the front of the mailpiece, or on the back if space does not permit.
Write "*Return Receipt Requested*" on the mailpiece below the article number.
The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to re... the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

. Article Addressed to:

PA Region IX
5 Hawthorne Street
an Francisco, CA 94105-3901

ttention: Felicia Marcus
egional Administrator

4a. Article Number
P-162-444-064

4b. Service Type
☐ Registered ■ Certified
☐ Express Mail ☐ Insured
■ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
OCT 09 1998

Received By: (*Print Name*)
E.P.A. MAILROOM

8. Addressee's Address (*Only if requested and fee is paid*)

Signature: (*Addressee or Agent*)
X

RECEIVED OCT 13 1998

S Form **3811**, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 162 444 06

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to EPA Region IX	
Street & Number 75 Hawthorne Street	
Post Office, State, & ZIP Code San Francisco Ca 94105	
Postage	$ .55
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$ 3.00
Postmark or Date	

PS Form **3800**, April 1995

85344

ENDER:
Complete items 1 and/or 2 for add... services.
Complete items 3, 4a, and 4b.
Print your name and address on the reverse of this form so that we can return this card to you.
Attach this form to the front of the mailpiece, or on the back if space does not permit.
Write "*Return Receipt Requested*" on the mailpiece below the article number.
The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

Article Addressed to:

ttention: Larry Reisland
a Paz County Emergency Services
112 Joshua Ave., Ste. 207
arker, Arizona 85344

4a. Article Number
P-162-444-065

4b. Service Type
☐ Registered ■ Certified
☐ Express Mail ☐ Insured
■ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
10/7/98

Received By: (*Print Name*)
MONICA RAMIREZ

8. Addressee's Address (*Only if requested and fee is paid*)

Signature: (*Addressee or Agent*)
X Monica Ramirez

RECEIVED OCT 08 1998

Form **3811**, December 1994 Domestic Return Receipt

Thank you for using Return Receipt Service.

P 162 444 06

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to La Paz County Emergency Services	
Street & Number 1112 Joshua Avenue Suite 207	
Post Office, State, & ZIP Code Parker Arizona 85344	
Postage	$ 3.00
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.10
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$ 5.45
Postmark or Date	

PS Form **3800**, April 1995

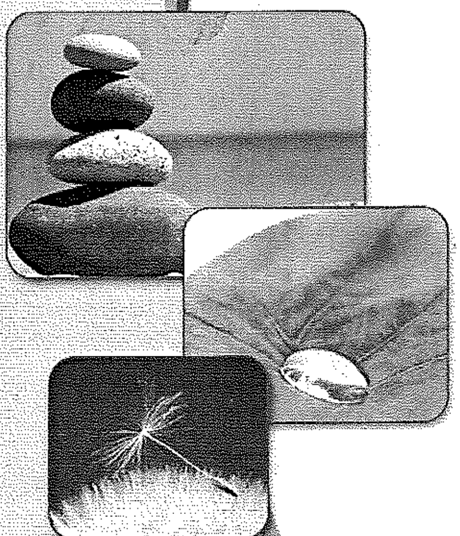
PARKER AZ 85344

Appendix J

Scrubber Water Analytical Results before T-11
For Subpart CC

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-125619-1
Client Project/Site: Subpart CC

For:
Evoqua Water Technologies eProcurement
PO BOX 3308 IMA065
Parker, Arizona 85344

Attn: Roy Provins

Authorized for release by:
11/6/2015 3:12:30 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through Total Access

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-125619-1	Subpart CC (A) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00
440-125619-2	Subpart CC (B) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00
440-125619-3	Subpart CC (C) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00
440-125619-4	Subpart CC (D) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00
440-125619-5	Subpart CC (E) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00
440-125619-6	Subpart CC (F) 1L AMB	Water	10/27/15 08:00	10/28/15 10:00

Job ID: 440-125619-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-125619-1

Comments
No additional comments.

Receipt
The samples were received on 10/28/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 1.0° C and 2.4° C.

GC/MS Semi VOA
Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-290473. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 440-290473 recovered outside control limits for the following analytes: 3-nitroaniline; 3,3'-dichlorobenzidine; 4-chloroaniline; aniline; and 4-nitroaniline.

Method(s) 8270C: The laboratory control sample duplicate (LCSD) for preparation batch 290473 failed below lower acceptance limits for the following analytes: 3-nitroaniline; 3,3'-dichlorobenzidine; 4-chloroaniline; and 4-nitroaniline. These analytes are known historically to be poor performers. The affected samples could not be reextracted within hold times.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 440-290855 recovered above the upper control limit for 4,4'-DDD, alpha-BHC, delta-BHC, Endosulfan sulfate, Endrin ketone, Endrin aldehyde, gamma-BHC (Lindane) and Heptachlor. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Subpart CC (A) 1L AMB (440-125619-1), Subpart CC (B) 1L AMB (440-125619-2), Subpart CC (C) 1L AMB (440-125619-3), Subpart CC (D) 1L AMB (440-125619-4), Subpart CC (E) 1L AMB (440-125619-5), Subpart CC (F) 1L AMB (440-125619-6), (CCV 440-290855/29) and (CCVRT 440-290855/6).

Method(s) 8081A: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 440-290131 recovered outside control limits for the following analyte: Endosulfan sulfate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8081A/8082: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 440-290131. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (A) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-1
Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
1,2-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
1,3-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
1,4-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4,5-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4,6-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4-Dichlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4-Dimethylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4-Dinitrophenol	ND		39		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,4-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2,6-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Chloronaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Chlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Methylnaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
2-Nitrophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
3,3'-Dichlorobenzidine	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:02	1
3-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:02	1
4,6-Dinitro-2-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Bromophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Chloro-3-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Chloroaniline	ND	*	9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Chlorophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
3-Methylphenol + 4-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:02	1
4-Nitrophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Acenaphthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Acenaphthylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Aniline	ND	*	9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzidine	ND		39		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzo[a]anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzo[a]pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzo[b]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzo[g,h,i]perylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzo[k]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzoic acid	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Benzyl alcohol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Bis(2-chloroethoxy)methane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Bis(2-chloroethyl)ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Bis(2-ethylhexyl) phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Butyl benzyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Chrysene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Dibenz(a,h)anthracene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Dibenzofuran	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Diethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (A) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-1

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Di-n-butyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Di-n-octyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Fluorene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Hexachlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Hexachlorobutadiene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Hexachlorocyclopentadiene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Hexachloroethane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Indeno[1,2,3-cd]pyrene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Isophorone	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Naphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Nitrobenzene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
N-Nitrosodi-n-propylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
N-Nitrosodiphenylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Pentachlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:02	1
Phenanthrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Phenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
Pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1
bis (2-chloroisopropyl) ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*56*		*50 - 120*	*10/30/15 08:55*	*11/03/15 18:02*	*1*
2-Fluorophenol (Surr)	*53*		*30 - 120*	*10/30/15 08:55*	*11/03/15 18:02*	*1*
2,4,6-Tribromophenol (Surr)	*72*		*40 - 120*	*10/30/15 08:55*	*11/03/15 18:02*	*1*
Nitrobenzene-d5 (Surr)	*58*		*45 - 120*	*10/30/15 08:55*	*11/03/15 18:02*	*1*
Terphenyl-d14 (Surr)	*71*		*10 - 150*	*10/30/15 08:55*	*11/03/15 18:02*	*1*
Phenol-d6 (Surr)	*54*		*35 - 120*	*10/30/15 08:55*	*11/03/15 18:02*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
4,4'-DDE	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
4,4'-DDT	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Aldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
alpha-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 17:37	1
beta-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Chlordane (technical)	ND		0.97		ug/L		10/29/15 06:30	11/01/15 17:37	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 17:37	1
Dieldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endosulfan I	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endosulfan II	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endrin aldehyde	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Endrin ketone	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
gamma-BHC (Lindane)	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
gamma-Chlordane	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Heptachlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1

5

Client Sample ID: Subpart CC (A) 1L AMB

Lab Sample ID: 440-125619-1
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Methoxychlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:37	1
Toxaphene	ND		4.8		ug/L		10/29/15 06:30	11/01/15 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*10 - 150*	*10/29/15 06:30*	*11/01/15 17:37*	*1*
DCB Decachlorobiphenyl (Surr)	*119*		*18 - 134*	*10/29/15 06:30*	*11/01/15 17:37*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1221	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1232	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1242	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1248	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1254	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1
Aroclor 1260	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*34*		*29 - 115*	*10/29/15 06:30*	*10/30/15 15:29*	*1*

Client Sample ID: Subpart CC (B) 1L AMB

Lab Sample ID: 440-125619-2
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
1,2-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
1,3-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
1,4-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4,5-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4,6-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4-Dichlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4-Dimethylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4-Dinitrophenol	ND		39		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,4-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2,6-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Chloronaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Chlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Methylnaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
2-Nitrophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
3,3'-Dichlorobenzidine	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:25	1
3-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:25	1
4,6-Dinitro-2-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
4-Bromophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
4-Chloro-3-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (B) 1L AMB
Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-2
Matrix: Water

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	ND	*	9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
4-Chlorophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
3-Methylphenol + 4-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
4-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:25	1
4-Nitrophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Acenaphthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Acenaphthylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Aniline	ND	*	9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzidine	ND		39		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzo[a]anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzo[a]pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzo[b]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzo[g,h,i]perylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzo[k]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzoic acid	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Benzyl alcohol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Bis(2-chloroethoxy)methane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Bis(2-chloroethyl)ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Bis(2-ethylhexyl) phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Butyl benzyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Chrysene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Dibenz(a,h)anthracene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Dibenzofuran	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Diethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Dimethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Di-n-butyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Di-n-octyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Fluorene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Hexachlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Hexachlorobutadiene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Hexachlorocyclopentadiene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Hexachloroethane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Indeno[1,2,3-cd]pyrene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Isophorone	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Naphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Nitrobenzene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
N-Nitrosodi-n-propylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
N-Nitrosodiphenylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Pentachlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:25	1
Phenanthrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Phenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
Pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1
bis (2-chloroisopropyl) ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*50 - 120*	*10/30/15 08:55*	*11/03/15 18:25*	*1*
2-Fluorophenol (Surr)	*58*		*30 - 120*	*10/30/15 08:55*	*11/03/15 18:25*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*40 - 120*	*10/30/15 08:55*	*11/03/15 18:25*	*1*

Client Sample ID: Subpart CC (B) 1L AMB

Lab Sample ID: 440-125619-2

Date Collected: 10/27/15 08:00

Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*45 - 120*	*10/30/15 08:55*	*11/03/15 18:25*	*1*
Terphenyl-d14 (Surr)	*81*		*10 - 150*	*10/30/15 08:55*	*11/03/15 18:25*	*1*
Phenol-d6 (Surr)	*57*		*35 - 120*	*10/30/15 08:55*	*11/03/15 18:25*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
4,4'-DDE	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
4,4'-DDT	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Aldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
alpha-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 17:51	1
beta-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Chlordane (technical)	ND		0.97		ug/L		10/29/15 06:30	11/01/15 17:51	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 17:51	1
Dieldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endosulfan I	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endosulfan II	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endrin aldehyde	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Endrin ketone	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
gamma-BHC (Lindane)	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
gamma-Chlordane	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Heptachlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Heptachlor epoxide	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Methoxychlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 17:51	1
Toxaphene	ND		4.9		ug/L		10/29/15 06:30	11/01/15 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*10 - 150*	*10/29/15 06:30*	*11/01/15 17:51*	*1*
DCB Decachlorobiphenyl (Surr)	*120*		*18 - 134*	*10/29/15 06:30*	*11/01/15 17:51*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1221	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1232	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1242	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1248	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1254	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1
Aroclor 1260	ND		0.97		ug/L		10/29/15 06:30	10/30/15 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*31*		*29 - 115*	*10/29/15 06:30*	*10/30/15 15:43*	*1*

Client Sample Results

Client: Evoqua Water Technologies eProcurement | TestAmerica Job ID: 440-125619-1
Project/Site: Subpart CC

Client Sample ID: Subpart CC (C) 1L AMB | Lab Sample ID: 440-125619-3

Date Collected: 10/27/15 08:00 | Matrix: Water
Date Received: 10/28/15 10:00

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
1,2-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
1,3-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
1,4-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4,5-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4,6-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4-Dichlorophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4-Dimethylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4-Dinitrophenol	ND		38		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,4-Dinitrotoluene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2,6-Dinitrotoluene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Chloronaphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Chlorophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Methylnaphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Methylphenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
2-Nitrophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
3,3'-Dichlorobenzidine	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:48	1
3-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:48	1
4,6-Dinitro-2-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Bromophenyl phenyl ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Chloro-3-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Chloroaniline	ND	*	9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Chlorophenyl phenyl ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
3-Methylphenol + 4-Methylphenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 18:48	1
4-Nitrophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Acenaphthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Acenaphthylene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Aniline	ND	*	9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Anthracene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzidine	ND		38		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzo[a]anthracene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzo[a]pyrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzo[b]fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzo[g,h,i]perylene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzo[k]fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzoic acid	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Benzyl alcohol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Bis(2-chloroethoxy)methane	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Bis(2-chloroethyl)ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Bis(2-ethylhexyl) phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Butyl benzyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Chrysene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Dibenz(a,h)anthracene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Dibenzofuran	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Diethyl phthalate	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Dimethyl phthalate	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1

TestAmerica Irvine

Client Sample ID: Subpart CC (C) 1L AMB

Lab Sample ID: 440-125619-3

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Di-n-octyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Fluorene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Hexachlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Hexachlorobutadiene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Hexachlorocyclopentadiene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Hexachloroethane	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Indeno[1,2,3-cd]pyrene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Isophorone	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Naphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Nitrobenzene	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
N-Nitrosodi-n-propylamine	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
N-Nitrosodiphenylamine	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Pentachlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 18:48	1
Phenanthrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Phenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
Pyrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1
bis (2-chloroisopropyl) ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*50 - 120*	*10/30/15 08:55*	*11/03/15 18:48*	*1*
2-Fluorophenol (Surr)	*60*		*30 - 120*	*10/30/15 08:55*	*11/03/15 18:48*	*1*
2,4,6-Tribromophenol (Surr)	*69*		*40 - 120*	*10/30/15 08:55*	*11/03/15 18:48*	*1*
Nitrobenzene-d5 (Surr)	*59*		*45 - 120*	*10/30/15 08:55*	*11/03/15 18:48*	*1*
Terphenyl-d14 (Surr)	*76*		*10 - 150*	*10/30/15 08:55*	*11/03/15 18:48*	*1*
Phenol-d6 (Surr)	*62*		*35 - 120*	*10/30/15 08:55*	*11/03/15 18:48*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
4,4'-DDE	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
4,4'-DDT	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Aldrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
alpha-BHC	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:05	1
beta-BHC	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Chlordane (technical)	ND		0.95		ug/L		10/29/15 06:30	11/01/15 18:05	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:05	1
Dieldrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endosulfan I	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endosulfan II	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endrin aldehyde	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Endrin ketone	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
gamma-BHC (Lindane)	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
gamma-Chlordane	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Heptachlor	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Heptachlor epoxide	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (C) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-3
Matrix: Water

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:05	1
Toxaphene	ND		4.8		ug/L		10/29/15 06:30	11/01/15 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*10 - 150*	*10/29/15 06:30*	*11/01/15 18:05*	*1*
DCB Decachlorobiphenyl (Surr)	*95*		*18 - 134*	*10/29/15 06:30*	*11/01/15 18:05*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1221	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1232	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1242	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1248	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1254	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1
Aroclor 1260	ND		0.95		ug/L		10/29/15 06:30	10/30/15 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*41*		*29 - 115*	*10/29/15 06:30*	*10/30/15 15:57*	*1*

Client Sample ID: Subpart CC (D) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-4
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
1,2-Dichlorobenzene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
1,3-Dichlorobenzene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
1,4-Dichlorobenzene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4,5-Trichlorophenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4,6-Trichlorophenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4-Dichlorophenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4-Dimethylphenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4-Dinitrophenol	ND		39		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,4-Dinitrotoluene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2,6-Dinitrotoluene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Chloronaphthalene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Chlorophenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Methylnaphthalene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Methylphenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
2-Nitrophenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
3,3'-Dichlorobenzidine	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
3-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
4,6-Dinitro-2-methylphenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
4-Bromophenyl phenyl ether	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
4-Chloro-3-methylphenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
4-Chloroaniline	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (D) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-4
Matrix: Water

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
3-Methylphenol + 4-Methylphenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
4-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
4-Nitrophenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Acenaphthene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Acenaphthylene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Aniline	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Anthracene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzidine	ND		39		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzo[a]anthracene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzo[a]pyrene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzo[b]fluoranthene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzo[g,h,i]perylene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzo[k]fluoranthene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzoic acid	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Benzyl alcohol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Bis(2-chloroethoxy)methane	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Bis(2-chloroethyl)ether	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Butyl benzyl phthalate	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Chrysene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Dibenz(a,h)anthracene	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Dibenzofuran	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Diethyl phthalate	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Dimethyl phthalate	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Di-n-butyl phthalate	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Di-n-octyl phthalate	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Fluoranthene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Fluorene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Hexachlorobenzene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Hexachlorobutadiene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Hexachlorocyclopentadiene	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Hexachloroethane	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Indeno[1,2,3-cd]pyrene	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Isophorone	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Naphthalene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Nitrobenzene	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
N-Nitrosodi-n-propylamine	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
N-Nitrosodiphenylamine	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Pentachlorophenol	ND		20		ug/L		10/30/15 08:55	11/03/15 00:22	1
Phenanthrene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Phenol	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
Pyrene	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1
bis (2-chloroisopropyl) ether	ND		9.8		ug/L		10/30/15 08:55	11/03/15 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*50 - 120*	*10/30/15 08:55*	*11/03/15 00:22*	*1*
2-Fluorophenol (Surr)	*62*		*30 - 120*	*10/30/15 08:55*	*11/03/15 00:22*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*40 - 120*	*10/30/15 08:55*	*11/03/15 00:22*	*1*
Nitrobenzene-d5 (Surr)	*69*		*45 - 120*	*10/30/15 08:55*	*11/03/15 00:22*	*1*

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (D) 1L AMB

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125619-4
Matrix: Water

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*78*		*10 - 150*	*10/30/15 08:55*	*11/03/15 00:22*	*1*
Phenol-d6 (Surr)	*67*		*35 - 120*	*10/30/15 08:55*	*11/03/15 00:22*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
4,4'-DDE	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
4,4'-DDT	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Aldrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
alpha-BHC	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:19	1
beta-BHC	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Chlordane (technical)	ND		0.95		ug/L		10/29/15 06:30	11/01/15 18:19	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:19	1
Dieldrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endosulfan I	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endosulfan II	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endrin	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endrin aldehyde	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Endrin ketone	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
gamma-BHC (Lindane)	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
gamma-Chlordane	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Heptachlor	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Heptachlor epoxide	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Methoxychlor	ND		0.095		ug/L		10/29/15 06:30	11/01/15 18:19	1
Toxaphene	ND		4.8		ug/L		10/29/15 06:30	11/01/15 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*10 - 150*	*10/29/15 06:30*	*11/01/15 18:19*	*1*
DCB Decachlorobiphenyl (Surr)	*102*		*18 - 134*	*10/29/15 06:30*	*11/01/15 18:19*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1221	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1232	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1242	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1248	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1254	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1
Aroclor 1260	ND		0.95		ug/L		10/29/15 06:30	10/30/15 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*30*		*29 - 115*	*10/29/15 06:30*	*10/30/15 16:10*	*1*

Client Sample Results

Client: Evoqua Water Technologies eProcurement TestAmerica Job ID: 440-125619-1
Project/Site: Subpart CC

Client Sample ID: Subpart CC (E) 1L AMB Lab Sample ID: 440-125619-5

Date Collected: 10/27/15 08:00 Matrix: Water
Date Received: 10/28/15 10:00

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Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
1,2-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
1,3-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
1,4-Dichlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4,5-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4,6-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4-Dichlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4-Dimethylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4-Dinitrophenol	ND		39		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,4-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2,6-Dinitrotoluene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Chloronaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Chlorophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Methylnaphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
2-Nitrophenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
3,3'-Dichlorobenzidine	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
3-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
4,6-Dinitro-2-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Bromophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Chloro-3-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Chloroaniline	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Chlorophenyl phenyl ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
3-Methylphenol + 4-Methylphenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
4-Nitrophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Acenaphthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Acenaphthylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Aniline	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzidine	ND		39		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzo[a]anthracene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzo[a]pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzo[b]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzo[g,h,i]perylene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzo[k]fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzoic acid	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Benzyl alcohol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Bis(2-chloroethoxy)methane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Bis(2-chloroethyl)ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Bis(2-ethylhexyl) phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Butyl benzyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Chrysene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Dibenz(a,h)anthracene	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Dibenzofuran	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Diethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Dimethyl phthalate	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (E) 1L AMB

Lab Sample ID: 440-125619-5

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Di-n-octyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Fluoranthene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Fluorene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Hexachlorobenzene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Hexachlorobutadiene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Hexachlorocyclopentadiene	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Hexachloroethane	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Indeno[1,2,3-cd]pyrene	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Isophorone	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Naphthalene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Nitrobenzene	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
N-Nitrosodi-n-propylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
N-Nitrosodiphenylamine	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Pentachlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 00:44	1
Phenanthrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Phenol	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
Pyrene	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1
bis (2-chloroisopropyl) ether	ND		9.7		ug/L		10/30/15 08:55	11/03/15 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*50 - 120*	*10/30/15 08:55*	*11/03/15 00:44*	*1*
2-Fluorophenol (Surr)	*50*		*30 - 120*	*10/30/15 08:55*	*11/03/15 00:44*	*1*
2,4,6-Tribromophenol (Surr)	*66*		*40 - 120*	*10/30/15 08:55*	*11/03/15 00:44*	*1*
Nitrobenzene-d5 (Surr)	*49*		*45 - 120*	*10/30/15 08:55*	*11/03/15 00:44*	*1*
Terphenyl-d14 (Surr)	*67*		*10 - 150*	*10/30/15 08:55*	*11/03/15 00:44*	*1*
Phenol-d6 (Surr)	*51*		*35 - 120*	*10/30/15 08:55*	*11/03/15 00:44*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
4,4'-DDE	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
4,4'-DDT	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Aldrin	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
alpha-BHC	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:33	1
beta-BHC	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Chlordane (technical)	ND		0.96		ug/L		10/29/15 06:30	11/01/15 18:33	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:33	1
Dieldrin	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endosulfan I	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endosulfan II	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endrin	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endrin aldehyde	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Endrin ketone	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
gamma-BHC (Lindane)	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
gamma-Chlordane	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Heptachlor	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Heptachlor epoxide	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (E) 1L AMB

Lab Sample ID: 440-125619-5

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methoxychlor	ND		0.096		ug/L		10/29/15 06:30	11/01/15 18:33	1
Toxaphene	ND		4.8		ug/L		10/29/15 06:30	11/01/15 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*10 - 150*	*10/29/15 06:30*	*11/01/15 18:33*	*1*
DCB Decachlorobiphenyl (Surr)	*88*		*18 - 134*	*10/29/15 06:30*	*11/01/15 18:33*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1221	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1232	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1242	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1248	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1254	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1
Aroclor 1260	ND		0.96		ug/L		10/29/15 06:30	10/30/15 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*49*		*29 - 115*	*10/29/15 06:30*	*10/30/15 16:24*	*1*

Client Sample ID: Subpart CC (F) 1L AMB

Lab Sample ID: 440-125619-6

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
1,2-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
1,3-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
1,4-Dichlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4,5-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4,6-Trichlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4-Dichlorophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4-Dimethylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4-Dinitrophenol	ND		38		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,4-Dinitrotoluene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2,6-Dinitrotoluene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Chloronaphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Chlorophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Methylnaphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Methylphenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Nitroaniline	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
2-Nitrophenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
3,3'-Dichlorobenzidine	ND	*	19		ug/L		10/30/15 08:55	11/03/15 19:11	1
3-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 19:11	1
4,6-Dinitro-2-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
4-Bromophenyl phenyl ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
4-Chloro-3-methylphenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
4-Chloroaniline	ND	*	9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1

Client Sample ID: Subpart CC (F) 1L AMB

Lab Sample ID: 440-125619-6

Date Collected: 10/27/15 08:00
Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
3-Methylphenol + 4-Methylphenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
4-Nitroaniline	ND	*	19		ug/L		10/30/15 08:55	11/03/15 19:11	1
4-Nitrophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Acenaphthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Acenaphthylene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Aniline	ND	*	9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Anthracene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzidine	ND		38		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzo[a]anthracene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzo[a]pyrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzo[b]fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzo[g,h,i]perylene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzo[k]fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzoic acid	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Benzyl alcohol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Bis(2-chloroethoxy)methane	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Bis(2-chloroethyl)ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Bis(2-ethylhexyl) phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Butyl benzyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Chrysene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Dibenz(a,h)anthracene	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Dibenzofuran	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Diethyl phthalate	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Dimethyl phthalate	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Di-n-butyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Di-n-octyl phthalate	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Fluoranthene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Fluorene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Hexachlorobenzene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Hexachlorobutadiene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Hexachlorocyclopentadiene	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Hexachloroethane	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Indeno[1,2,3-cd]pyrene	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Isophorone	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Naphthalene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Nitrobenzene	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
N-Nitrosodi-n-propylamine	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
N-Nitrosodiphenylamine	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Pentachlorophenol	ND		19		ug/L		10/30/15 08:55	11/03/15 19:11	1
Phenanthrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Phenol	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
Pyrene	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1
bis (2-chloroisopropyl) ether	ND		9.6		ug/L		10/30/15 08:55	11/03/15 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*50 - 120*	*10/30/15 08:55*	*11/03/15 19:11*	*1*
2-Fluorophenol (Surr)	*61*		*30 - 120*	*10/30/15 08:55*	*11/03/15 19:11*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*40 - 120*	*10/30/15 08:55*	*11/03/15 19:11*	*1*
Nitrobenzene-d5 (Surr)	*64*		*45 - 120*	*10/30/15 08:55*	*11/03/15 19:11*	*1*

Client Sample ID: Subpart CC (F) 1L AMB
Lab Sample ID: 440-125619-6

Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14 (Surr)	*75*		*10 - 150*	*10/30/15 08:55*	*11/03/15 19:11*	*1*
Phenol-d6 (Surr)	*66*		*35 - 120*	*10/30/15 08:55*	*11/03/15 19:11*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
4,4'-DDE	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
4,4'-DDT	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Aldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
alpha-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
alpha-Chlordane	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:46	1
beta-BHC	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Chlordane (technical)	ND		0.97		ug/L		10/29/15 06:30	11/01/15 18:46	1
delta-BHC	ND		0.19		ug/L		10/29/15 06:30	11/01/15 18:46	1
Dieldrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endosulfan I	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endosulfan II	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endosulfan sulfate	ND	*	0.19		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endrin	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endrin aldehyde	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Endrin ketone	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
gamma-BHC (Lindane)	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
gamma-Chlordane	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Heptachlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Heptachlor epoxide	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Methoxychlor	ND		0.097		ug/L		10/29/15 06:30	11/01/15 18:46	1
Toxaphene	ND		4.8		ug/L		10/29/15 06:30	11/01/15 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*10 - 150*	*10/29/15 06:30*	*11/01/15 18:46*	*1*
DCB Decachlorobiphenyl (Surr)	*112*		*18 - 134*	*10/29/15 06:30*	*11/01/15 18:46*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1221	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1232	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1242	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1248	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1254	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1
Aroclor 1260	ND		0.97		ug/L		10/29/15 06:30	10/30/15 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*36*		*29 - 115*	*10/29/15 06:30*	*10/30/15 16:38*	*1*

Method Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8081A	Organochlorine Pesticides (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: Subpart CC (A) 1L AMB

Lab Sample ID: 440-125619-1
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1035 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1035 mL	2 mL	291233	11/03/15 18:02	DF	TAL IRV
Total/NA	Prep	3510C			1035 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1035 mL	2 mL	290855	11/01/15 17:37	KS	TAL IRV
Total/NA	Prep	3510C			1035 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1035 mL	2 mL	290503	10/30/15 15:29	CN	TAL IRV

Client Sample ID: Subpart CC (B) 1L AMB

Lab Sample ID: 440-125619-2
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1030 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1030 mL	2 mL	291233	11/03/15 18:25	DF	TAL IRV
Total/NA	Prep	3510C			1030 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1030 mL	2 mL	290855	11/01/15 17:51	KS	TAL IRV
Total/NA	Prep	3510C			1030 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1030 mL	2 mL	290503	10/30/15 15:43	CN	TAL IRV

Client Sample ID: Subpart CC (C) 1L AMB

Lab Sample ID: 440-125619-3
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1040 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1040 mL	2 mL	291233	11/03/15 18:48	DF	TAL IRV
Total/NA	Prep	3510C			1050 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1050 mL	2 mL	290855	11/01/15 18:05	KS	TAL IRV
Total/NA	Prep	3510C			1050 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1050 mL	2 mL	290503	10/30/15 15:57	CN	TAL IRV

Client Sample ID: Subpart CC (D) 1L AMB

Lab Sample ID: 440-125619-4
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1025 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1025 mL	2 mL	291064	11/03/15 00:22	AI	TAL IRV
Total/NA	Prep	3510C			1050 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1050 mL	2 mL	290855	11/01/15 18:19	KS	TAL IRV
Total/NA	Prep	3510C			1050 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1050 mL	2 mL	290503	10/30/15 16:10	CN	TAL IRV

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Lab Chronicle

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Client Sample ID: Subpart CC (E) 1L AMB

Lab Sample ID: 440-125619-5
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1035 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1035 mL	2 mL	291064	11/03/15 00:44	AI	TAL IRV
Total/NA	Prep	3510C			1045 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1045 mL	2 mL	290855	11/01/15 18:33	KS	TAL IRV
Total/NA	Prep	3510C			1045 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1045 mL	2 mL	290503	10/30/15 16:24	CN	TAL IRV

Client Sample ID: Subpart CC (F) 1L AMB

Lab Sample ID: 440-125619-6
Date Collected: 10/27/15 08:00
Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1040 mL	2 mL	290473	10/30/15 08:55	IVA	TAL IRV
Total/NA	Analysis	8270C		1	1040 mL	2 mL	291233	11/03/15 19:11	DF	TAL IRV
Total/NA	Prep	3510C			1035 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8081A		1	1035 mL	2 mL	290855	11/01/15 18:46	KS	TAL IRV
Total/NA	Prep	3510C			1035 mL	2 mL	290131	10/29/15 06:30	FTD	TAL IRV
Total/NA	Analysis	8082		1	1035 mL	2 mL	290503	10/30/15 16:38	CN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-290473/1-A **Client Sample ID: Method Blank**
Matrix: Water **Prep Type: Total/NA**
Analysis Batch: 291064 **Prep Batch: 290473**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
1,2-Dichlorobenzene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
1,3-Dichlorobenzene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
1,4-Dichlorobenzene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4,5-Trichlorophenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4,6-Trichlorophenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4-Dichlorophenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4-Dimethylphenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4-Dinitrophenol	ND		40		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,4-Dinitrotoluene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2,6-Dinitrotoluene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Chloronaphthalene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Chlorophenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Methylnaphthalene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Methylphenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
2-Nitrophenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
3,3'-Dichlorobenzidine	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
3-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
4,6-Dinitro-2-methylphenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Bromophenyl phenyl ether	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Chloro-3-methylphenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Chloroaniline	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
3-Methylphenol + 4-Methylphenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Nitroaniline	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
4-Nitrophenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Acenaphthene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Acenaphthylene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Aniline	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Anthracene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzidine	ND		40		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzo[a]anthracene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzo[a]pyrene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzo[b]fluoranthene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzo[g,h,i]perylene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzo[k]fluoranthene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzoic acid	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Benzyl alcohol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Bis(2-chloroethyl)ether	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Butyl benzyl phthalate	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Chrysene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Dibenz(a,h)anthracene	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Dibenzofuran	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1

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Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-290473/1-A
Matrix: Water
Analysis Batch: 291064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Dimethyl phthalate	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Di-n-butyl phthalate	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Di-n-octyl phthalate	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Fluoranthene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Fluorene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Hexachlorobenzene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Hexachlorobutadiene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Hexachlorocyclopentadiene	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Hexachloroethane	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Indeno[1,2,3-cd]pyrene	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Isophorone	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Naphthalene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Nitrobenzene	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
N-Nitrosodiphenylamine	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Pentachlorophenol	ND		20		ug/L		10/30/15 08:55	11/02/15 19:26	1
Phenanthrene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Phenol	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
Pyrene	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		10/30/15 08:55	11/02/15 19:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*50 - 120*	*10/30/15 08:55*	*11/02/15 19:26*	*1*
2-Fluorophenol (Surr)	*66*		*30 - 120*	*10/30/15 08:55*	*11/02/15 19:26*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*40 - 120*	*10/30/15 08:55*	*11/02/15 19:26*	*1*
Nitrobenzene-d5 (Surr)	*74*		*45 - 120*	*10/30/15 08:55*	*11/02/15 19:26*	*1*
Terphenyl-d14 (Surr)	*80*		*10 - 150*	*10/30/15 08:55*	*11/02/15 19:26*	*1*
Phenol-d6 (Surr)	*67*		*35 - 120*	*10/30/15 08:55*	*11/02/15 19:26*	*1*

Lab Sample ID: LCS 440-290473/2-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	59.0		ug/L		59	25 - 84
1,2-Dichlorobenzene	100	56.3		ug/L		56	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	71.8		ug/L		71	44 - 113
1,3-Dichlorobenzene	100	53.4		ug/L		53	20 - 80
1,4-Dichlorobenzene	100	53.2		ug/L		53	22 - 81
2,4,5-Trichlorophenol	100	72.7		ug/L		73	24 - 121
2,4,6-Trichlorophenol	100	76.1		ug/L		76	20 - 121
2,4-Dichlorophenol	100	62.2		ug/L		62	23 - 113
2,4-Dimethylphenol	100	61.7		ug/L		62	39 - 94
2,4-Dinitrophenol	200	154		ug/L		77	23 - 134
2,4-Dinitrotoluene	100	77.3		ug/L		77	54 - 115
2,6-Dinitrotoluene	100	79.2		ug/L		79	50 - 115

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-290473/2-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	100	75.3		ug/L		75	34 - 102
2-Chlorophenol	100	59.9		ug/L		60	20 - 106
2-Methylnaphthalene	100	62.2		ug/L		62	34 - 98
2-Methylphenol	100	63.9		ug/L		64	36 - 103
2-Nitroaniline	100	80.0		ug/L		80	48 - 111
2-Nitrophenol	100	67.1		ug/L		67	20 - 117
3,3'-Dichlorobenzidine	100	66.0		ug/L		66	22 - 97
3-Nitroaniline	100	82.4		ug/L		82	51 - 116
4,6-Dinitro-2-methylphenol	200	182		ug/L		91	28 - 139
4-Bromophenyl phenyl ether	100	75.8		ug/L		76	42 - 113
4-Chloro-3-methylphenol	100	66.1		ug/L		66	44 - 110
4-Chloroaniline	100	72.2		ug/L		72	42 - 109
4-Chlorophenyl phenyl ether	100	75.0		ug/L		75	38 - 115
3-Methylphenol + 4-Methylphenol	100	65.7		ug/L		66	35 - 106
4-Nitroaniline	100	66.1		ug/L		66	50 - 116
4-Nitrophenol	200	142		ug/L		71	26 - 132
Acenaphthene	100	72.2		ug/L		72	37 - 107
Acenaphthylene	100	72.7		ug/L		73	39 - 107
Aniline	100	73.7		ug/L		74	27 - 115
Anthracene	100	78.1		ug/L		78	42 - 120
Benzidine	100	87.3		ug/L		87	5 - 150
Benzo[a]anthracene	100	83.8		ug/L		84	42 - 115
Benzo[a]pyrene	100	75.2		ug/L		75	41 - 117
Benzo[b]fluoranthene	100	71.8		ug/L		72	36 - 113
Benzo[g,h,i]perylene	100	74.7		ug/L		75	37 - 115
Benzo[k]fluoranthene	100	80.6		ug/L		81	42 - 122
Benzoic acid	100	68.3		ug/L		68	15 - 121
Benzyl alcohol	100	69.0		ug/L		69	39 - 106
Bis(2-chloroethoxy)methane	100	68.1		ug/L		68	47 - 104
Bis(2-chloroethyl)ether	100	65.5		ug/L		66	42 - 99
Bis(2-ethylhexyl) phthalate	100	83.6		ug/L		84	43 - 124
Butyl benzyl phthalate	100	85.0		ug/L		85	44 - 122
Chrysene	100	81.4		ug/L		81	42 - 118
Dibenz(a,h)anthracene	100	74.4		ug/L		74	40 - 114
Dibenzofuran	100	73.3		ug/L		73	37 - 113
Diethyl phthalate	100	75.9		ug/L		76	51 - 120
Dimethyl phthalate	100	76.1		ug/L		76	49 - 113
Di-n-butyl phthalate	100	84.8		ug/L		85	47 - 125
Di-n-octyl phthalate	100	87.0		ug/L		87	42 - 125
Fluoranthene	100	81.4		ug/L		81	44 - 119
Fluorene	100	71.7		ug/L		72	39 - 116
Hexachlorobenzene	100	77.8		ug/L		78	43 - 112
Hexachlorobutadiene	100	54.6		ug/L		55	14 - 77
Hexachlorocyclopentadiene	100	33.2		ug/L		33	10 - 77
Hexachloroethane	100	55.6		ug/L		56	13 - 75
Indeno[1,2,3-cd]pyrene	100	74.2		ug/L		74	35 - 116
Isophorone	100	68.3		ug/L		68	48 - 107
Naphthalene	100	61.8		ug/L		62	33 - 95

8

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-290473/2-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	100	65.6		ug/L		66	42 - 99
N-Nitrosodi-n-propylamine	100	69.2		ug/L		69	44 - 111
N-Nitrosodiphenylamine	200	156		ug/L		78	46 - 116
Pentachlorophenol	200	146		ug/L		73	26 - 136
Phenanthrene	100	78.4		ug/L		78	43 - 120
Phenol	100	57.4		ug/L		57	25 - 99
Pyrene	100	82.1		ug/L		82	43 - 119
bis (2-chloroisopropyl) ether	100	68.6		ug/L		69	38 - 104

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*50 - 120*
2-Fluorophenol (Surr)	*54*		*30 - 120*
2,4,6-Tribromophenol (Surr)	*80*		*40 - 120*
Nitrobenzene-d5 (Surr)	*70*		*45 - 120*
Terphenyl-d14 (Surr)	*82*		*10 - 150*
Phenol-d6 (Surr)	*62*		*35 - 120*

Lab Sample ID: LCSD 440-290473/3-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290473

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	54.7		ug/L		55	25 - 84	8	35
1,2-Dichlorobenzene	100	55.7		ug/L		56	24 - 85	1	35
1,2-Diphenylhydrazine(as Azobenzene)	101	72.1		ug/L		71	44 - 113	0	35
1,3-Dichlorobenzene	100	51.6		ug/L		52	20 - 80	3	35
1,4-Dichlorobenzene	100	51.8		ug/L		52	22 - 81	3	35
2,4,5-Trichlorophenol	100	75.1		ug/L		75	24 - 121	3	35
2,4,6-Trichlorophenol	100	75.0		ug/L		75	20 - 121	1	35
2,4-Dichlorophenol	100	63.3		ug/L		63	23 - 113	2	35
2,4-Dimethylphenol	100	65.2		ug/L		65	39 - 94	5	35
2,4-Dinitrophenol	200	157		ug/L		79	23 - 134	2	35
2,4-Dinitrotoluene	100	78.6		ug/L		79	54 - 115	2	35
2,6-Dinitrotoluene	100	81.8		ug/L		82	50 - 115	3	35
2-Chloronaphthalene	100	75.3		ug/L		75	34 - 102	0	35
2-Chlorophenol	100	60.6		ug/L		61	20 - 106	1	35
2-Methylnaphthalene	100	66.8		ug/L		67	34 - 98	7	35
2-Methylphenol	100	64.6		ug/L		65	36 - 103	1	35
2-Nitroaniline	100	80.4		ug/L		80	48 - 111	1	35
2-Nitrophenol	100	65.4		ug/L		65	20 - 117	2	35
3,3'-Dichlorobenzidine	100	ND	*	ug/L		2	22 - 97	187	35
3-Nitroaniline	100	10.7	J *	ug/L		11	51 - 116	154	35
4,6-Dinitro-2-methylphenol	200	178		ug/L		89	28 - 139	2	35
4-Bromophenyl phenyl ether	100	71.7		ug/L		72	42 - 113	6	35
4-Chloro-3-methylphenol	100	72.7		ug/L		73	44 - 110	9	35
4-Chloroaniline	100	ND	*	ug/L		5	42 - 109	176	35
4-Chlorophenyl phenyl ether	100	77.2		ug/L		77	38 - 115	3	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-290473/3-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290473

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
3-Methylphenol + 4-Methylphenol	100	70.4		ug/L		70	35 - 106	7	35
4-Nitroaniline	100	28.9	*	ug/L		29	50 - 116	78	35
4-Nitrophenol	200	155		ug/L		77	26 - 132	9	35
Acenaphthene	100	73.7		ug/L		74	37 - 107	2	35
Acenaphthylene	100	73.9		ug/L		74	39 - 107	2	35
Aniline	100	42.3	*	ug/L		42	27 - 115	54	35
Anthracene	100	78.7		ug/L		79	42 - 120	1	35
Benzidine	100	77.4		ug/L		77	5 - 150	12	35
Benzo[a]anthracene	100	82.5		ug/L		83	42 - 115	2	35
Benzo[a]pyrene	100	72.8		ug/L		73	41 - 117	3	35
Benzo[b]fluoranthene	100	68.9		ug/L		69	36 - 113	4	35
Benzo[g,h,i]perylene	100	73.6		ug/L		74	37 - 115	2	35
Benzo[k]fluoranthene	100	79.4		ug/L		79	42 - 122	1	35
Benzoic acid	100	65.1		ug/L		65	15 - 121	5	35
Benzyl alcohol	100	72.3		ug/L		72	39 - 106	5	35
Bis(2-chloroethoxy)methane	100	66.5		ug/L		67	47 - 104	2	35
Bis(2-chloroethyl)ether	100	66.4		ug/L		66	42 - 99	1	35
Bis(2-ethylhexyl) phthalate	100	81.0		ug/L		81	43 - 124	3	35
Butyl benzyl phthalate	100	84.6		ug/L		85	44 - 122	1	35
Chrysene	100	81.1		ug/L		81	42 - 118	0	35
Dibenz(a,h)anthracene	100	72.8		ug/L		73	40 - 114	2	35
Dibenzofuran	100	76.6		ug/L		77	37 - 113	4	35
Diethyl phthalate	100	78.8		ug/L		79	51 - 120	4	35
Dimethyl phthalate	100	78.7		ug/L		79	49 - 113	3	35
Di-n-butyl phthalate	100	84.0		ug/L		84	47 - 125	1	35
Di-n-octyl phthalate	100	84.2		ug/L		84	42 - 125	3	35
Fluoranthene	100	82.8		ug/L		83	44 - 119	2	35
Fluorene	100	74.5		ug/L		74	39 - 116	4	35
Hexachlorobenzene	100	75.5		ug/L		75	43 - 112	3	35
Hexachlorobutadiene	100	48.1		ug/L		48	14 - 77	12	35
Hexachlorocyclopentadiene	100	24.0		ug/L		24	10 - 77	32	35
Hexachloroethane	100	52.8		ug/L		53	13 - 75	5	35
Indeno[1,2,3-cd]pyrene	100	82.8		ug/L		83	35 - 116	11	35
Isophorone	100	73.3		ug/L		73	48 - 107	7	35
Naphthalene	100	61.7		ug/L		62	33 - 95	0	35
Nitrobenzene	100	65.0		ug/L		65	42 - 99	1	35
N-Nitrosodi-n-propylamine	100	79.2		ug/L		79	44 - 111	14	35
N-Nitrosodiphenylamine	200	131		ug/L		65	46 - 116	18	35
Pentachlorophenol	200	150		ug/L		75	26 - 136	3	35
Phenanthrene	100	78.5		ug/L		79	43 - 120	0	35
Phenol	100	55.9		ug/L		56	25 - 99	3	35
Pyrene	100	83.8		ug/L		84	43 - 119	2	35
bis (2-chloroisopropyl) ether	100	70.4		ug/L		70	38 - 104	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*50 - 120*
2-Fluorophenol (Surr)	*52*		*30 - 120*
2,4,6-Tribromophenol (Surr)	*81*		*40 - 120*

8

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-290473/3-A
Matrix: Water
Analysis Batch: 291233

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290473

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	69		45 - 120
Terphenyl-d14 (Surr)	81		10 - 150
Phenol-d6 (Surr)	60		35 - 120

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Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 440-290131/1-A
Matrix: Water
Analysis Batch: 290855

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
4,4'-DDE	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
4,4'-DDT	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Aldrin	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
alpha-BHC	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
alpha-Chlordane	ND		0.20		ug/L		10/29/15 06:30	11/01/15 16:56	1
beta-BHC	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Chlordane (technical)	ND		1.0		ug/L		10/29/15 06:30	11/01/15 16:56	1
delta-BHC	ND		0.20		ug/L		10/29/15 06:30	11/01/15 16:56	1
Dieldrin	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endosulfan I	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endosulfan II	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endosulfan sulfate	ND		0.20		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endrin	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endrin aldehyde	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Endrin ketone	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
gamma-BHC (Lindane)	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
gamma-Chlordane	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Heptachlor	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Heptachlor epoxide	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Methoxychlor	ND		0.10		ug/L		10/29/15 06:30	11/01/15 16:56	1
Toxaphene	ND		5.0		ug/L		10/29/15 06:30	11/01/15 16:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		10 - 150	10/29/15 06:30	11/01/15 16:56	1
DCB Decachlorobiphenyl (Surr)	81		18 - 134	10/29/15 06:30	11/01/15 16:56	1

Lab Sample ID: LCS 440-290131/2-A
Matrix: Water
Analysis Batch: 290855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.200	0.140		ug/L		70	53 - 126
4,4'-DDE	0.200	0.121		ug/L		61	48 - 115
4,4'-DDT	0.200	0.131		ug/L		65	10 - 150
Aldrin	0.200	0.102		ug/L		51	19 - 115

QC Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 440-290131/2-A
Matrix: Water
Analysis Batch: 290855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	0.200	0.107		ug/L		54	42 - 115
alpha-Chlordane	0.200	0.120	J	ug/L		60	49 - 115
beta-BHC	0.200	0.126		ug/L		63	48 - 115
delta-BHC	0.200	0.128	J	ug/L		64	48 - 115
Dieldrin	0.200	0.125		ug/L		62	51 - 117
Endosulfan I	0.200	0.124		ug/L		62	47 - 117
Endosulfan II	0.200	0.133		ug/L		67	32 - 128
Endosulfan sulfate	0.200	0.244	*	ug/L		122	50 - 117
Endrin	0.200	0.128		ug/L		64	51 - 120
Endrin aldehyde	0.200	0.137		ug/L		69	49 - 115
Endrin ketone	0.200	0.135		ug/L		67	51 - 121
gamma-BHC (Lindane)	0.200	0.116		ug/L		58	43 - 115
gamma-Chlordane	0.200	0.118		ug/L		59	21 - 148
Heptachlor	0.200	0.114		ug/L		57	44 - 115
Heptachlor epoxide	0.200	0.122		ug/L		61	35 - 131
Methoxychlor	0.200	0.140		ug/L		70	44 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*41*		*10 - 150*
DCB Decachlorobiphenyl (Surr)	*61*		*18 - 134*

Lab Sample ID: LCSD 440-290131/3-A
Matrix: Water
Analysis Batch: 290855

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290131

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.200	0.147		ug/L		73	53 - 126	5	35
4,4'-DDE	0.200	0.124		ug/L		62	48 - 115	2	35
4,4'-DDT	0.200	0.130		ug/L		65	10 - 150	1	35
Aldrin	0.200	0.0955	J	ug/L		48	19 - 115	6	35
alpha-BHC	0.200	0.114		ug/L		57	42 - 115	6	35
alpha-Chlordane	0.200	0.125	J	ug/L		62	49 - 115	3	35
beta-BHC	0.200	0.130		ug/L		65	48 - 115	3	35
delta-BHC	0.200	0.132	J	ug/L		66	48 - 115	3	35
Dieldrin	0.200	0.129		ug/L		65	51 - 117	4	35
Endosulfan I	0.200	0.129		ug/L		64	47 - 117	3	34
Endosulfan II	0.200	0.136		ug/L		68	32 - 128	2	35
Endosulfan sulfate	0.200	0.244	*	ug/L		122	50 - 117	0	35
Endrin	0.200	0.129		ug/L		65	51 - 120	1	35
Endrin aldehyde	0.200	0.138		ug/L		69	49 - 115	0	35
Endrin ketone	0.200	0.137		ug/L		68	51 - 121	1	35
gamma-BHC (Lindane)	0.200	0.121		ug/L		61	43 - 115	5	35
gamma-Chlordane	0.200	0.124		ug/L		62	21 - 148	5	35
Heptachlor	0.200	0.122		ug/L		61	44 - 115	7	35
Heptachlor epoxide	0.200	0.127		ug/L		63	35 - 131	3	35
Methoxychlor	0.200	0.137		ug/L		69	44 - 142	2	35

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 440-290131/3-A
Matrix: Water
Analysis Batch: 290855

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290131

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	42		10 - 150
DCB Decachlorobiphenyl (Surr)	62		18 - 134

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

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Lab Sample ID: MB 440-290131/1-A
Matrix: Water
Analysis Batch: 290094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1221	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1232	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1242	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1248	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1254	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1
Aroclor 1260	ND		1.0		ug/L		10/29/15 06:30	10/29/15 14:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	32		29 - 115	10/29/15 06:30	10/29/15 14:50	1

Lab Sample ID: LCS 440-290131/4-A
Matrix: Water
Analysis Batch: 290094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	2.45		ug/L		61	39 - 145
Aroclor 1260	4.00	2.23		ug/L		56	37 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	39		29 - 115

Lab Sample ID: LCSD 440-290131/5-A
Matrix: Water
Analysis Batch: 290094

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290131

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	4.00	2.65		ug/L		66	39 - 145	8	30
Aroclor 1260	4.00	2.39		ug/L		60	37 - 137	7	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	40		29 - 115

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

GC/MS Semi VOA

Prep Batch: 290473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-1	Subpart CC (A) 1L AMB	Total/NA	Water	3520C	
440-125619-2	Subpart CC (B) 1L AMB	Total/NA	Water	3520C	
440-125619-3	Subpart CC (C) 1L AMB	Total/NA	Water	3520C	
440-125619-4	Subpart CC (D) 1L AMB	Total/NA	Water	3520C	
440-125619-5	Subpart CC (E) 1L AMB	Total/NA	Water	3520C	
440-125619-6	Subpart CC (F) 1L AMB	Total/NA	Water	3520C	
LCS 440-290473/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-290473/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-290473/1-A	Method Blank	Total/NA	Water	3520C	

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Analysis Batch: 291064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-4	Subpart CC (D) 1L AMB	Total/NA	Water	8270C	290473
440-125619-5	Subpart CC (E) 1L AMB	Total/NA	Water	8270C	290473
MB 440-290473/1-A	Method Blank	Total/NA	Water	8270C	290473

Analysis Batch: 291233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-1	Subpart CC (A) 1L AMB	Total/NA	Water	8270C	290473
440-125619-2	Subpart CC (B) 1L AMB	Total/NA	Water	8270C	290473
440-125619-3	Subpart CC (C) 1L AMB	Total/NA	Water	8270C	290473
440-125619-6	Subpart CC (F) 1L AMB	Total/NA	Water	8270C	290473
LCS 440-290473/2-A	Lab Control Sample	Total/NA	Water	8270C	290473
LCSD 440-290473/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	290473

GC Semi VOA

Analysis Batch: 290094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-290131/4-A	Lab Control Sample	Total/NA	Water	8082	290131
LCSD 440-290131/5-A	Lab Control Sample Dup	Total/NA	Water	8082	290131
MB 440-290131/1-A	Method Blank	Total/NA	Water	8082	290131

Prep Batch: 290131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-1	Subpart CC (A) 1L AMB	Total/NA	Water	3510C	
440-125619-2	Subpart CC (B) 1L AMB	Total/NA	Water	3510C	
440-125619-3	Subpart CC (C) 1L AMB	Total/NA	Water	3510C	
440-125619-4	Subpart CC (D) 1L AMB	Total/NA	Water	3510C	
440-125619-5	Subpart CC (E) 1L AMB	Total/NA	Water	3510C	
440-125619-6	Subpart CC (F) 1L AMB	Total/NA	Water	3510C	
LCS 440-290131/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 440-290131/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-290131/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 440-290131/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 440-290131/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 290503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-1	Subpart CC (A) 1L AMB	Total/NA	Water	8082	290131

GC Semi VOA (Continued)

Analysis Batch: 290503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-2	Subpart CC (B) 1L AMB	Total/NA	Water	8082	290131
440-125619-3	Subpart CC (C) 1L AMB	Total/NA	Water	8082	290131
440-125619-4	Subpart CC (D) 1L AMB	Total/NA	Water	8082	290131
440-125619-5	Subpart CC (E) 1L AMB	Total/NA	Water	8082	290131
440-125619-6	Subpart CC (F) 1L AMB	Total/NA	Water	8082	290131

Analysis Batch: 290855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125619-1	Subpart CC (A) 1L AMB	Total/NA	Water	8081A	290131
440-125619-2	Subpart CC (B) 1L AMB	Total/NA	Water	8081A	290131
440-125619-3	Subpart CC (C) 1L AMB	Total/NA	Water	8081A	290131
440-125619-4	Subpart CC (D) 1L AMB	Total/NA	Water	8081A	290131
440-125619-5	Subpart CC (E) 1L AMB	Total/NA	Water	8081A	290131
440-125619-6	Subpart CC (F) 1L AMB	Total/NA	Water	8081A	290131
LCS 440-290131/2-A	Lab Control Sample	Total/NA	Water	8081A	290131
LCSD 440-290131/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	290131
MB 440-290131/1-A	Method Blank	Total/NA	Water	8081A	290131

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125619-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312007A	07-31-16 *
New Mexico	State Program	6	N/A	01-29-16
Northern Mariana Islands	State Program	9	MP0002	01-29-16
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	07-08-18

* Certification renewal pending - certification considered valid.

TestAmerica
ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY RECORD

☐ Nashville, TN ☐ Orlando, FL ☐ Cedar Falls, IA ☐ Dayton, OH ☐ Watertown, WI ☐ Pontiac, MI ☐ Indianapolis, IN ■ Irvine,CA

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes No

Enforcement Action? Yes No

Client Name/Account #: Evoqua Water Technologies

Address: POB 3308 / 2523 MUTAHAR ST

City/State/Zip: PARKER, AZ 85344

Project Manager: Camille Murray

Telephone Number: 928-669-5758 Fax No.: 928-669-5775

Sampler Name: (Print) Roy Provins

Sampler Signature:

Report To: James.R.Provins@Evoqual.com

Invoice To:

TA Quote #:

Project ID: Subpart CC

Project #:

440-125619 Chain of Custody

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Other (Specify)	Matrix: Groundwater	Water	Drinking Water	Sludge	Soil	Other (specify):	Analyze For: 8270	8081 / 8082	RUSH TAT (Pre-Schedule	Standard TAT	Fax Results	Send QC with report
Subpart CC (A) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (B) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (C) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (D) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (E) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (F) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (A) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (B) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (C) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (D) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (E) 1L AMB	10/27/2015	8:00 AM	2																							
Subpart CC (F) 1L AMB	10/27/2015	8:00 AM	2																							

Special Instructions:

Method of Shipment: UPS

Relinquished by:	Date	Time	Received by:	Date	Time
Roy Provins	10/27/2015	1400		10/28/15	10:00

Laboratory Comments:

Temperature Upon Receipt:

VOCs Free of Headspace? Y N

1.5/0.5 2.0/1.0 3.4/2.4

IR-73

UPS: 1ZA95 20E 01 9586 6057 1ZA95 20E 01 9556 5640
1ZA95 20E 01 98 0039

S:\Laboratory Results\Chain Of Custody forms\Excel\TestAmerica-coc- Subpart CC.xls

Login Sample Receipt Checklist

Client: Evoqua Water Technologies eProcurement

Job Number: 440-125619-1

Login Number: 125619
List Number: 1
Creator: Escalante, Maria I

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

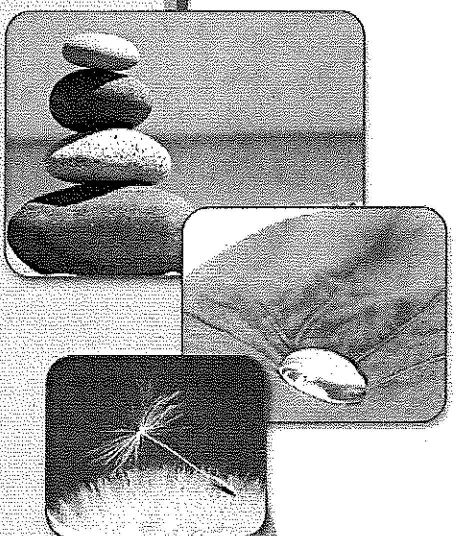
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-125626-1
Client Project/Site: Subpart CC

For:
Evoqua Water Technologies eProcurement
PO BOX 3308 IMA065
Parker, Arizona 85344

Attn: Roy Provins



Authorized for release by:
11/10/2015 3:12:51 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-125626-1	Subpart CC VOA #A	Water	10/27/15 09:00	10/28/15 10:00
440-125626-2	Subpart CC VOA #B	Water	10/27/15 09:00	10/28/15 10:00
440-125626-3	Subpart CC VOA #C	Water	10/27/15 09:00	10/28/15 10:00
440-125626-4	Subpart CC VOA #D	Water	10/27/15 09:00	10/28/15 10:00
440-125626-5	Subpart CC VOA #E	Water	10/27/15 09:00	10/28/15 10:00
440-125626-6	Subpart CC VOA #F	Water	10/27/15 09:00	10/28/15 10:00

Job ID: 440-125626-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-125626-1

Comments
No additional comments.

Receipt
The samples were received on 10/28/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). There were a total of 6 trip blanks that came with this project, it was not listed on the COC, they will be labeled and put away.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #A
Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125626-1
Matrix: Water

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Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/04/15 21:29	1
Bromobenzene	ND		5.0		ug/L			11/04/15 21:29	1
Bromochloromethane	ND		5.0		ug/L			11/04/15 21:29	1
Bromodichloromethane	ND		2.0		ug/L			11/04/15 21:29	1
Bromoform	ND		5.0		ug/L			11/04/15 21:29	1
Bromomethane	ND		5.0		ug/L			11/04/15 21:29	1
Carbon disulfide	ND		5.0		ug/L			11/04/15 21:29	1
Carbon tetrachloride	ND		5.0		ug/L			11/04/15 21:29	1
Chlorobenzene	ND		2.0		ug/L			11/04/15 21:29	1
Chloroethane	ND		5.0		ug/L			11/04/15 21:29	1
Chloroform	ND		2.0		ug/L			11/04/15 21:29	1
Chloromethane	ND		5.0		ug/L			11/04/15 21:29	1
2-Chlorotoluene	ND		5.0		ug/L			11/04/15 21:29	1
4-Chlorotoluene	ND		5.0		ug/L			11/04/15 21:29	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 21:29	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 21:29	1
Dibromochloromethane	ND		2.0		ug/L			11/04/15 21:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/04/15 21:29	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/04/15 21:29	1
Dibromomethane	ND		2.0		ug/L			11/04/15 21:29	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/04/15 21:29	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/04/15 21:29	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/04/15 21:29	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/04/15 21:29	1
1,1-Dichloroethane	ND		2.0		ug/L			11/04/15 21:29	1
1,2-Dichloroethane	ND		2.0		ug/L			11/04/15 21:29	1
1,1-Dichloroethene	ND		5.0		ug/L			11/04/15 21:29	1
1,2-Dichloropropane	ND		2.0		ug/L			11/04/15 21:29	1
1,3-Dichloropropane	ND		2.0		ug/L			11/04/15 21:29	1
2,2-Dichloropropane	ND		2.0		ug/L			11/04/15 21:29	1
1,1-Dichloropropene	ND		2.0		ug/L			11/04/15 21:29	1
Ethylbenzene	ND		2.0		ug/L			11/04/15 21:29	1
Hexachlorobutadiene	ND		5.0		ug/L			11/04/15 21:29	1
Isopropylbenzene	ND		2.0		ug/L			11/04/15 21:29	1
Methylene Chloride	ND		5.0		ug/L			11/04/15 21:29	1
m,p-Xylene	ND		2.0		ug/L			11/04/15 21:29	1
Naphthalene	ND		5.0		ug/L			11/04/15 21:29	1
n-Butylbenzene	ND		5.0		ug/L			11/04/15 21:29	1
N-Propylbenzene	ND		2.0		ug/L			11/04/15 21:29	1
o-Xylene	ND		2.0		ug/L			11/04/15 21:29	1
p-Isopropyltoluene	ND		2.0		ug/L			11/04/15 21:29	1
sec-Butylbenzene	ND		5.0		ug/L			11/04/15 21:29	1
Styrene	ND		2.0		ug/L			11/04/15 21:29	1
tert-Butylbenzene	ND		5.0		ug/L			11/04/15 21:29	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/04/15 21:29	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/04/15 21:29	1
Tetrachloroethene	ND		2.0		ug/L			11/04/15 21:29	1
Toluene	ND		2.0		ug/L			11/04/15 21:29	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 21:29	1

Client Sample ID: Subpart CC VOA #A

Lab Sample ID: 440-125626-1

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Matrix: Water

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 21:29	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/04/15 21:29	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/04/15 21:29	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/04/15 21:29	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/04/15 21:29	1
Trichloroethene	ND		2.0		ug/L			11/04/15 21:29	1
Trichlorofluoromethane	ND		5.0		ug/L			11/04/15 21:29	1
1,2,3-Trichloropropane	ND		10		ug/L			11/04/15 21:29	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/04/15 21:29	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/04/15 21:29	1
Vinyl acetate	ND		5.0		ug/L			11/04/15 21:29	1
Vinyl chloride	ND		5.0		ug/L			11/04/15 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/04/15 21:29*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*11/04/15 21:29*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*11/04/15 21:29*	*1*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 12:52	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 12:52	1
Methanol	ND		10		mg/L			11/09/15 12:52	1
1-Propanol	**10**		10		mg/L			11/09/15 12:52	1

Client Sample ID: Subpart CC VOA #B

Lab Sample ID: 440-125626-2

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/04/15 22:55	1
Bromobenzene	ND		5.0		ug/L			11/04/15 22:55	1
Bromochloromethane	ND		5.0		ug/L			11/04/15 22:55	1
Bromodichloromethane	ND		2.0		ug/L			11/04/15 22:55	1
Bromoform	ND		5.0		ug/L			11/04/15 22:55	1
Bromomethane	ND		5.0		ug/L			11/04/15 22:55	1
Carbon disulfide	ND		5.0		ug/L			11/04/15 22:55	1
Carbon tetrachloride	ND		5.0		ug/L			11/04/15 22:55	1
Chlorobenzene	ND		2.0		ug/L			11/04/15 22:55	1
Chloroethane	ND		5.0		ug/L			11/04/15 22:55	1
Chloroform	ND		2.0		ug/L			11/04/15 22:55	1
Chloromethane	ND		5.0		ug/L			11/04/15 22:55	1
2-Chlorotoluene	ND		5.0		ug/L			11/04/15 22:55	1
4-Chlorotoluene	ND		5.0		ug/L			11/04/15 22:55	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 22:55	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 22:55	1
Dibromochloromethane	ND		2.0		ug/L			11/04/15 22:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/04/15 22:55	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/04/15 22:55	1

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #B

Lab Sample ID: 440-125626-2

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Matrix: Water

5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		2.0		ug/L			11/04/15 22:55	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/04/15 22:55	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/04/15 22:55	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/04/15 22:55	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/04/15 22:55	1
1,1-Dichloroethane	ND		2.0		ug/L			11/04/15 22:55	1
1,2-Dichloroethane	ND		2.0		ug/L			11/04/15 22:55	1
1,1-Dichloroethene	ND		5.0		ug/L			11/04/15 22:55	1
1,2-Dichloropropane	ND		2.0		ug/L			11/04/15 22:55	1
1,3-Dichloropropane	ND		2.0		ug/L			11/04/15 22:55	1
2,2-Dichloropropane	ND		2.0		ug/L			11/04/15 22:55	1
1,1-Dichloropropene	ND		2.0		ug/L			11/04/15 22:55	1
Ethylbenzene	ND		2.0		ug/L			11/04/15 22:55	1
Hexachlorobutadiene	ND		5.0		ug/L			11/04/15 22:55	1
Isopropylbenzene	ND		2.0		ug/L			11/04/15 22:55	1
Methylene Chloride	ND		5.0		ug/L			11/04/15 22:55	1
m,p-Xylene	ND		2.0		ug/L			11/04/15 22:55	1
Naphthalene	ND		5.0		ug/L			11/04/15 22:55	1
n-Butylbenzene	ND		5.0		ug/L			11/04/15 22:55	1
N-Propylbenzene	ND		2.0		ug/L			11/04/15 22:55	1
o-Xylene	ND		2.0		ug/L			11/04/15 22:55	1
p-Isopropyltoluene	ND		2.0		ug/L			11/04/15 22:55	1
sec-Butylbenzene	ND		5.0		ug/L			11/04/15 22:55	1
Styrene	ND		2.0		ug/L			11/04/15 22:55	1
tert-Butylbenzene	ND		5.0		ug/L			11/04/15 22:55	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/04/15 22:55	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/04/15 22:55	1
Tetrachloroethene	ND		2.0		ug/L			11/04/15 22:55	1
Toluene	ND		2.0		ug/L			11/04/15 22:55	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 22:55	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 22:55	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/04/15 22:55	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/04/15 22:55	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/04/15 22:55	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/04/15 22:55	1
Trichloroethene	ND		2.0		ug/L			11/04/15 22:55	1
Trichlorofluoromethane	ND		5.0		ug/L			11/04/15 22:55	1
1,2,3-Trichloropropane	ND		10		ug/L			11/04/15 22:55	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/04/15 22:55	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/04/15 22:55	1
Vinyl acetate	ND		5.0		ug/L			11/04/15 22:55	1
Vinyl chloride	ND		5.0		ug/L			11/04/15 22:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*11/04/15 22:55*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*11/04/15 22:55*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*11/04/15 22:55*	*1*

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #B

Lab Sample ID: 440-125626-2
Date Collected: 10/27/15 09:00
Matrix: Water
Date Received: 10/28/15 10:00

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Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 13:00	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 13:00	1
Methanol	ND		10		mg/L			11/09/15 13:00	1
1-Propanol	ND		10		mg/L			11/09/15 13:00	1

Client Sample ID: Subpart CC VOA #C

Lab Sample ID: 440-125626-3
Date Collected: 10/27/15 09:00
Matrix: Water
Date Received: 10/28/15 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/04/15 23:23	1
Bromobenzene	ND		5.0		ug/L			11/04/15 23:23	1
Bromochloromethane	ND		5.0		ug/L			11/04/15 23:23	1
Bromodichloromethane	ND		2.0		ug/L			11/04/15 23:23	1
Bromoform	ND		5.0		ug/L			11/04/15 23:23	1
Bromomethane	ND		5.0		ug/L			11/04/15 23:23	1
Carbon disulfide	ND		5.0		ug/L			11/04/15 23:23	1
Carbon tetrachloride	ND		5.0		ug/L			11/04/15 23:23	1
Chlorobenzene	ND		2.0		ug/L			11/04/15 23:23	1
Chloroethane	ND		5.0		ug/L			11/04/15 23:23	1
Chloroform	ND		2.0		ug/L			11/04/15 23:23	1
Chloromethane	ND		5.0		ug/L			11/04/15 23:23	1
2-Chlorotoluene	ND		5.0		ug/L			11/04/15 23:23	1
4-Chlorotoluene	ND		5.0		ug/L			11/04/15 23:23	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 23:23	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 23:23	1
Dibromochloromethane	ND		2.0		ug/L			11/04/15 23:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/04/15 23:23	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/04/15 23:23	1
Dibromomethane	ND		2.0		ug/L			11/04/15 23:23	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:23	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:23	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:23	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/04/15 23:23	1
1,1-Dichloroethane	ND		2.0		ug/L			11/04/15 23:23	1
1,2-Dichloroethane	ND		2.0		ug/L			11/04/15 23:23	1
1,1-Dichloroethene	ND		5.0		ug/L			11/04/15 23:23	1
1,2-Dichloropropane	ND		2.0		ug/L			11/04/15 23:23	1
1,3-Dichloropropane	ND		2.0		ug/L			11/04/15 23:23	1
2,2-Dichloropropane	ND		2.0		ug/L			11/04/15 23:23	1
1,1-Dichloropropene	ND		2.0		ug/L			11/04/15 23:23	1
Ethylbenzene	ND		2.0		ug/L			11/04/15 23:23	1
Hexachlorobutadiene	ND		5.0		ug/L			11/04/15 23:23	1
Isopropylbenzene	ND		2.0		ug/L			11/04/15 23:23	1
Methylene Chloride	ND		5.0		ug/L			11/04/15 23:23	1
m,p-Xylene	ND		2.0		ug/L			11/04/15 23:23	1
Naphthalene	ND		5.0		ug/L			11/04/15 23:23	1
n-Butylbenzene	ND		5.0		ug/L			11/04/15 23:23	1
N-Propylbenzene	ND		2.0		ug/L			11/04/15 23:23	1

5

Client Sample ID: Subpart CC VOA #C

Lab Sample ID: 440-125626-3
Date Collected: 10/27/15 09:00
Matrix: Water
Date Received: 10/28/15 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		2.0		ug/L			11/04/15 23:23	1
p-Isopropyltoluene	ND		2.0		ug/L			11/04/15 23:23	1
sec-Butylbenzene	ND		5.0		ug/L			11/04/15 23:23	1
Styrene	ND		2.0		ug/L			11/04/15 23:23	1
tert-Butylbenzene	ND		5.0		ug/L			11/04/15 23:23	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/04/15 23:23	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/04/15 23:23	1
Tetrachloroethene	ND		2.0		ug/L			11/04/15 23:23	1
Toluene	ND		2.0		ug/L			11/04/15 23:23	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 23:23	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 23:23	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/04/15 23:23	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/04/15 23:23	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/04/15 23:23	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/04/15 23:23	1
Trichloroethene	ND		2.0		ug/L			11/04/15 23:23	1
Trichlorofluoromethane	ND		5.0		ug/L			11/04/15 23:23	1
1,2,3-Trichloropropane	ND		10		ug/L			11/04/15 23:23	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/04/15 23:23	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/04/15 23:23	1
Vinyl acetate	ND		5.0		ug/L			11/04/15 23:23	1
Vinyl chloride	ND		5.0		ug/L			11/04/15 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/04/15 23:23*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*11/04/15 23:23*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*11/04/15 23:23*	*1*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 13:08	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 13:08	1
Methanol	ND		10		mg/L			11/09/15 13:08	1
1-Propanol	ND		10		mg/L			11/09/15 13:08	1

Client Sample ID: Subpart CC VOA #D

Lab Sample ID: 440-125626-4
Date Collected: 10/27/15 09:00
Matrix: Water
Date Received: 10/28/15 10:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/04/15 23:51	1
Bromobenzene	ND		5.0		ug/L			11/04/15 23:51	1
Bromochloromethane	ND		5.0		ug/L			11/04/15 23:51	1
Bromodichloromethane	ND		2.0		ug/L			11/04/15 23:51	1
Bromoform	ND		5.0		ug/L			11/04/15 23:51	1
Bromomethane	ND		5.0		ug/L			11/04/15 23:51	1
Carbon disulfide	ND		5.0		ug/L			11/04/15 23:51	1
Carbon tetrachloride	ND		5.0		ug/L			11/04/15 23:51	1
Chlorobenzene	ND		2.0		ug/L			11/04/15 23:51	1

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #D

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125626-4
Matrix: Water

5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		5.0		ug/L			11/04/15 23:51	1
Chloroform	ND		2.0		ug/L			11/04/15 23:51	1
Chloromethane	ND		5.0		ug/L			11/04/15 23:51	1
2-Chlorotoluene	ND		5.0		ug/L			11/04/15 23:51	1
4-Chlorotoluene	ND		5.0		ug/L			11/04/15 23:51	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 23:51	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 23:51	1
Dibromochloromethane	ND		2.0		ug/L			11/04/15 23:51	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/04/15 23:51	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/04/15 23:51	1
Dibromomethane	ND		2.0		ug/L			11/04/15 23:51	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:51	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:51	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/04/15 23:51	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/04/15 23:51	1
1,1-Dichloroethane	ND		2.0		ug/L			11/04/15 23:51	1
1,2-Dichloroethane	ND		2.0		ug/L			11/04/15 23:51	1
1,1-Dichloroethene	ND		5.0		ug/L			11/04/15 23:51	1
1,2-Dichloropropane	ND		2.0		ug/L			11/04/15 23:51	1
1,3-Dichloropropane	ND		2.0		ug/L			11/04/15 23:51	1
2,2-Dichloropropane	ND		2.0		ug/L			11/04/15 23:51	1
1,1-Dichloropropene	ND		2.0		ug/L			11/04/15 23:51	1
Ethylbenzene	ND		2.0		ug/L			11/04/15 23:51	1
Hexachlorobutadiene	ND		5.0		ug/L			11/04/15 23:51	1
Isopropylbenzene	ND		2.0		ug/L			11/04/15 23:51	1
Methylene Chloride	ND		5.0		ug/L			11/04/15 23:51	1
m,p-Xylene	ND		2.0		ug/L			11/04/15 23:51	1
Naphthalene	ND		5.0		ug/L			11/04/15 23:51	1
n-Butylbenzene	ND		5.0		ug/L			11/04/15 23:51	1
N-Propylbenzene	ND		2.0		ug/L			11/04/15 23:51	1
o-Xylene	ND		2.0		ug/L			11/04/15 23:51	1
p-Isopropyltoluene	ND		2.0		ug/L			11/04/15 23:51	1
sec-Butylbenzene	ND		5.0		ug/L			11/04/15 23:51	1
Styrene	ND		2.0		ug/L			11/04/15 23:51	1
tert-Butylbenzene	ND		5.0		ug/L			11/04/15 23:51	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/04/15 23:51	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/04/15 23:51	1
Tetrachloroethene	ND		2.0		ug/L			11/04/15 23:51	1
Toluene	ND		2.0		ug/L			11/04/15 23:51	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 23:51	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 23:51	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/04/15 23:51	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/04/15 23:51	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/04/15 23:51	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/04/15 23:51	1
Trichloroethene	ND		2.0		ug/L			11/04/15 23:51	1
Trichlorofluoromethane	ND		5.0		ug/L			11/04/15 23:51	1
1,2,3-Trichloropropane	ND		10		ug/L			11/04/15 23:51	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/04/15 23:51	1

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #D

Lab Sample ID: 440-125626-4
Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00
Matrix: Water

5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/04/15 23:51	1
Vinyl acetate	ND		5.0		ug/L			11/04/15 23:51	1
Vinyl chloride	ND		5.0		ug/L			11/04/15 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/04/15 23:51*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*11/04/15 23:51*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*11/04/15 23:51*	*1*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 13:16	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 13:16	1
Methanol	ND		10		mg/L			11/09/15 13:16	1
1-Propanol	ND		10		mg/L			11/09/15 13:16	1

Client Sample ID: Subpart CC VOA #E

Lab Sample ID: 440-125626-5
Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/05/15 00:19	1
Bromobenzene	ND		5.0		ug/L			11/05/15 00:19	1
Bromochloromethane	ND		5.0		ug/L			11/05/15 00:19	1
Bromodichloromethane	ND		2.0		ug/L			11/05/15 00:19	1
Bromoform	ND		5.0		ug/L			11/05/15 00:19	1
Bromomethane	ND		5.0		ug/L			11/05/15 00:19	1
Carbon disulfide	ND		5.0		ug/L			11/05/15 00:19	1
Carbon tetrachloride	ND		5.0		ug/L			11/05/15 00:19	1
Chlorobenzene	ND		2.0		ug/L			11/05/15 00:19	1
Chloroethane	ND		5.0		ug/L			11/05/15 00:19	1
Chloroform	ND		2.0		ug/L			11/05/15 00:19	1
Chloromethane	ND		5.0		ug/L			11/05/15 00:19	1
2-Chlorotoluene	ND		5.0		ug/L			11/05/15 00:19	1
4-Chlorotoluene	ND		5.0		ug/L			11/05/15 00:19	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/05/15 00:19	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/05/15 00:19	1
Dibromochloromethane	ND		2.0		ug/L			11/05/15 00:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/05/15 00:19	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/05/15 00:19	1
Dibromomethane	ND		2.0		ug/L			11/05/15 00:19	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:19	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:19	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:19	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/05/15 00:19	1
1,1-Dichloroethane	ND		2.0		ug/L			11/05/15 00:19	1
1,2-Dichloroethane	ND		2.0		ug/L			11/05/15 00:19	1
1,1-Dichloroethene	ND		5.0		ug/L			11/05/15 00:19	1
1,2-Dichloropropane	ND		2.0		ug/L			11/05/15 00:19	1

Client Sample ID: Subpart CC VOA #E
Lab Sample ID: 440-125626-5
Date Collected: 10/27/15 09:00
Matrix: Water
Date Received: 10/28/15 10:00

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	ND		2.0		ug/L			11/05/15 00:19	1
2,2-Dichloropropane	ND		2.0		ug/L			11/05/15 00:19	1
1,1-Dichloropropene	ND		2.0		ug/L			11/05/15 00:19	1
Ethylbenzene	ND		2.0		ug/L			11/05/15 00:19	1
Hexachlorobutadiene	ND		5.0		ug/L			11/05/15 00:19	1
Isopropylbenzene	ND		2.0		ug/L			11/05/15 00:19	1
Methylene Chloride	ND		5.0		ug/L			11/05/15 00:19	1
m,p-Xylene	ND		2.0		ug/L			11/05/15 00:19	1
Naphthalene	ND		5.0		ug/L			11/05/15 00:19	1
n-Butylbenzene	ND		5.0		ug/L			11/05/15 00:19	1
N-Propylbenzene	ND		2.0		ug/L			11/05/15 00:19	1
o-Xylene	ND		2.0		ug/L			11/05/15 00:19	1
p-Isopropyltoluene	ND		2.0		ug/L			11/05/15 00:19	1
sec-Butylbenzene	ND		5.0		ug/L			11/05/15 00:19	1
Styrene	ND		2.0		ug/L			11/05/15 00:19	1
tert-Butylbenzene	ND		5.0		ug/L			11/05/15 00:19	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/05/15 00:19	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/05/15 00:19	1
Tetrachloroethene	ND		2.0		ug/L			11/05/15 00:19	1
Toluene	ND		2.0		ug/L			11/05/15 00:19	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/05/15 00:19	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/05/15 00:19	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/05/15 00:19	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/05/15 00:19	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/05/15 00:19	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/05/15 00:19	1
Trichloroethene	ND		2.0		ug/L			11/05/15 00:19	1
Trichlorofluoromethane	ND		5.0		ug/L			11/05/15 00:19	1
1,2,3-Trichloropropane	ND		10		ug/L			11/05/15 00:19	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/05/15 00:19	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/05/15 00:19	1
Vinyl acetate	ND		5.0		ug/L			11/05/15 00:19	1
Vinyl chloride	ND		5.0		ug/L			11/05/15 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/05/15 00:19*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*11/05/15 00:19*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*11/05/15 00:19*	*1*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 13:25	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 13:25	1
Methanol	ND		10		mg/L			11/09/15 13:25	1
1-Propanol	ND		10		mg/L			11/09/15 13:25	1

Client Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #F

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125626-6
Matrix: Water

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Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/05/15 00:48	1
Bromobenzene	ND		5.0		ug/L			11/05/15 00:48	1
Bromochloromethane	ND		5.0		ug/L			11/05/15 00:48	1
Bromodichloromethane	ND		2.0		ug/L			11/05/15 00:48	1
Bromoform	ND		5.0		ug/L			11/05/15 00:48	1
Bromomethane	ND		5.0		ug/L			11/05/15 00:48	1
Carbon disulfide	ND		5.0		ug/L			11/05/15 00:48	1
Carbon tetrachloride	ND		5.0		ug/L			11/05/15 00:48	1
Chlorobenzene	ND		2.0		ug/L			11/05/15 00:48	1
Chloroethane	ND		5.0		ug/L			11/05/15 00:48	1
Chloroform	ND		2.0		ug/L			11/05/15 00:48	1
Chloromethane	ND		5.0		ug/L			11/05/15 00:48	1
2-Chlorotoluene	ND		5.0		ug/L			11/05/15 00:48	1
4-Chlorotoluene	ND		5.0		ug/L			11/05/15 00:48	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/05/15 00:48	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/05/15 00:48	1
Dibromochloromethane	ND		2.0		ug/L			11/05/15 00:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/05/15 00:48	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/05/15 00:48	1
Dibromomethane	ND		2.0		ug/L			11/05/15 00:48	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:48	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:48	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/05/15 00:48	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/05/15 00:48	1
1,1-Dichloroethane	ND		2.0		ug/L			11/05/15 00:48	1
1,2-Dichloroethane	ND		2.0		ug/L			11/05/15 00:48	1
1,1-Dichloroethene	ND		5.0		ug/L			11/05/15 00:48	1
1,2-Dichloropropane	ND		2.0		ug/L			11/05/15 00:48	1
1,3-Dichloropropane	ND		2.0		ug/L			11/05/15 00:48	1
2,2-Dichloropropane	ND		2.0		ug/L			11/05/15 00:48	1
1,1-Dichloropropene	ND		2.0		ug/L			11/05/15 00:48	1
Ethylbenzene	ND		2.0		ug/L			11/05/15 00:48	1
Hexachlorobutadiene	ND		5.0		ug/L			11/05/15 00:48	1
Isopropylbenzene	ND		2.0		ug/L			11/05/15 00:48	1
Methylene Chloride	ND		5.0		ug/L			11/05/15 00:48	1
m,p-Xylene	ND		2.0		ug/L			11/05/15 00:48	1
Naphthalene	ND		5.0		ug/L			11/05/15 00:48	1
n-Butylbenzene	ND		5.0		ug/L			11/05/15 00:48	1
N-Propylbenzene	ND		2.0		ug/L			11/05/15 00:48	1
o-Xylene	ND		2.0		ug/L			11/05/15 00:48	1
p-Isopropyltoluene	ND		2.0		ug/L			11/05/15 00:48	1
sec-Butylbenzene	ND		5.0		ug/L			11/05/15 00:48	1
Styrene	ND		2.0		ug/L			11/05/15 00:48	1
tert-Butylbenzene	ND		5.0		ug/L			11/05/15 00:48	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/05/15 00:48	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/05/15 00:48	1
Tetrachloroethene	ND		2.0		ug/L			11/05/15 00:48	1
Toluene	ND		2.0		ug/L			11/05/15 00:48	1
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/05/15 00:48	1

Client Sample ID: Subpart CC VOA #F

Lab Sample ID: 440-125626-6

Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Matrix: Water

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Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/05/15 00:48	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/05/15 00:48	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/05/15 00:48	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/05/15 00:48	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/05/15 00:48	1
Trichloroethene	ND		2.0		ug/L			11/05/15 00:48	1
Trichlorofluoromethane	ND		5.0		ug/L			11/05/15 00:48	1
1,2,3-Trichloropropane	ND		10		ug/L			11/05/15 00:48	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/05/15 00:48	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/05/15 00:48	1
Vinyl acetate	ND		5.0		ug/L			11/05/15 00:48	1
Vinyl chloride	ND		5.0		ug/L			11/05/15 00:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/05/15 00:48*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*11/05/15 00:48*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*11/05/15 00:48*	*1*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 13:33	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 13:33	1
Methanol	ND		10		mg/L			11/09/15 13:33	1
1-Propanol	ND		10		mg/L			11/09/15 13:33	1

Method Summary

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Nonhalogenated Organic Compounds - Direct Injection (GC)	SW846	TAL CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Client Sample ID: Subpart CC VOA #A — **Lab Sample ID: 440-125626-1**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/04/15 21:29	WK	TAL IRV
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 12:52	JCM	TAL CF

Client Sample ID: Subpart CC VOA #B — **Lab Sample ID: 440-125626-2**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/04/15 22:55	WK	TAL IRV
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 13:00	JCM	TAL CF

Client Sample ID: Subpart CC VOA #C — **Lab Sample ID: 440-125626-3**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/04/15 23:23	WK	TAL IRV
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 13:08	JCM	TAL CF

Client Sample ID: Subpart CC VOA #D — **Lab Sample ID: 440-125626-4**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/04/15 23:51	WK	TAL IRV
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 13:16	JCM	TAL CF

Client Sample ID: Subpart CC VOA #E — **Lab Sample ID: 440-125626-5**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/05/15 00:19	WK	TAL IRV
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 13:25	JCM	TAL CF

Client Sample ID: Subpart CC VOA #F — **Lab Sample ID: 440-125626-6**
Date Collected: 10/27/15 09:00 — Matrix: Water
Date Received: 10/28/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	291618	11/05/15 00:48	WK	TAL IRV

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Lab Chronicle

Client Sample ID: Subpart CC VOA #F
Date Collected: 10/27/15 09:00
Date Received: 10/28/15 10:00

Lab Sample ID: 440-125626-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	1 mL		107866	11/09/15 13:33	JCM	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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QC Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-291618/3
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			11/04/15 20:21	1
Bromobenzene	ND		5.0		ug/L			11/04/15 20:21	1
Bromochloromethane	ND		5.0		ug/L			11/04/15 20:21	1
Bromodichloromethane	ND		2.0		ug/L			11/04/15 20:21	1
Bromoform	ND		5.0		ug/L			11/04/15 20:21	1
Bromomethane	ND		5.0		ug/L			11/04/15 20:21	1
Carbon disulfide	ND		5.0		ug/L			11/04/15 20:21	1
Carbon tetrachloride	ND		5.0		ug/L			11/04/15 20:21	1
Chlorobenzene	ND		2.0		ug/L			11/04/15 20:21	1
Chloroethane	ND		5.0		ug/L			11/04/15 20:21	1
Chloroform	ND		2.0		ug/L			11/04/15 20:21	1
Chloromethane	ND		5.0		ug/L			11/04/15 20:21	1
2-Chlorotoluene	ND		5.0		ug/L			11/04/15 20:21	1
4-Chlorotoluene	ND		5.0		ug/L			11/04/15 20:21	1
cis-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 20:21	1
cis-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 20:21	1
Dibromochloromethane	ND		2.0		ug/L			11/04/15 20:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			11/04/15 20:21	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			11/04/15 20:21	1
Dibromomethane	ND		2.0		ug/L			11/04/15 20:21	1
1,2-Dichlorobenzene	ND		2.0		ug/L			11/04/15 20:21	1
1,3-Dichlorobenzene	ND		2.0		ug/L			11/04/15 20:21	1
1,4-Dichlorobenzene	ND		2.0		ug/L			11/04/15 20:21	1
Dichlorodifluoromethane	ND		5.0		ug/L			11/04/15 20:21	1
1,1-Dichloroethane	ND		2.0		ug/L			11/04/15 20:21	1
1,2-Dichloroethane	ND		2.0		ug/L			11/04/15 20:21	1
1,1-Dichloroethene	ND		5.0		ug/L			11/04/15 20:21	1
1,2-Dichloropropane	ND		2.0		ug/L			11/04/15 20:21	1
1,3-Dichloropropane	ND		2.0		ug/L			11/04/15 20:21	1
2,2-Dichloropropane	ND		2.0		ug/L			11/04/15 20:21	1
1,1-Dichloropropene	ND		2.0		ug/L			11/04/15 20:21	1
Ethylbenzene	ND		2.0		ug/L			11/04/15 20:21	1
Hexachlorobutadiene	ND		5.0		ug/L			11/04/15 20:21	1
Isopropylbenzene	ND		2.0		ug/L			11/04/15 20:21	1
Methylene Chloride	ND		5.0		ug/L			11/04/15 20:21	1
m,p-Xylene	ND		2.0		ug/L			11/04/15 20:21	1
Naphthalene	ND		5.0		ug/L			11/04/15 20:21	1
n-Butylbenzene	ND		5.0		ug/L			11/04/15 20:21	1
N-Propylbenzene	ND		2.0		ug/L			11/04/15 20:21	1
o-Xylene	ND		2.0		ug/L			11/04/15 20:21	1
p-Isopropyltoluene	ND		2.0		ug/L			11/04/15 20:21	1
sec-Butylbenzene	ND		5.0		ug/L			11/04/15 20:21	1
Styrene	ND		2.0		ug/L			11/04/15 20:21	1
tert-Butylbenzene	ND		5.0		ug/L			11/04/15 20:21	1
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			11/04/15 20:21	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			11/04/15 20:21	1
Tetrachloroethene	ND		2.0		ug/L			11/04/15 20:21	1
Toluene	ND		2.0		ug/L			11/04/15 20:21	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-291618/3
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		2.0		ug/L			11/04/15 20:21	1
trans-1,3-Dichloropropene	ND		2.0		ug/L			11/04/15 20:21	1
1,2,3-Trichlorobenzene	ND		5.0		ug/L			11/04/15 20:21	1
1,2,4-Trichlorobenzene	ND		5.0		ug/L			11/04/15 20:21	1
1,1,1-Trichloroethane	ND		2.0		ug/L			11/04/15 20:21	1
1,1,2-Trichloroethane	ND		2.0		ug/L			11/04/15 20:21	1
Trichloroethene	ND		2.0		ug/L			11/04/15 20:21	1
Trichlorofluoromethane	ND		5.0		ug/L			11/04/15 20:21	1
1,2,3-Trichloropropane	ND		10		ug/L			11/04/15 20:21	1
1,2,4-Trimethylbenzene	ND		2.0		ug/L			11/04/15 20:21	1
1,3,5-Trimethylbenzene	ND		2.0		ug/L			11/04/15 20:21	1
Vinyl acetate	ND		5.0		ug/L			11/04/15 20:21	1
Vinyl chloride	ND		5.0		ug/L			11/04/15 20:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/04/15 20:21*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*11/04/15 20:21*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*11/04/15 20:21*	*1*

Lab Sample ID: LCS 440-291618/4
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.0		ug/L		100	68 - 130
Bromobenzene	25.0	25.7		ug/L		103	70 - 130
Bromochloromethane	25.0	25.7		ug/L		103	70 - 130
Bromodichloromethane	25.0	25.6		ug/L		102	70 - 132
Bromoform	25.0	25.7		ug/L		103	60 - 148
Bromomethane	25.0	27.1		ug/L		108	64 - 139
Carbon disulfide	25.0	25.4		ug/L		102	52 - 136
Carbon tetrachloride	25.0	28.7		ug/L		115	60 - 150
Chlorobenzene	25.0	25.6		ug/L		102	70 - 130
Chloroethane	25.0	26.3		ug/L		105	64 - 135
Chloroform	25.0	24.8		ug/L		99	70 - 130
Chloromethane	25.0	26.4		ug/L		106	47 - 140
2-Chlorotoluene	25.0	25.6		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 133
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 133
Dibromochloromethane	25.0	26.1		ug/L		104	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.2		ug/L		93	52 - 140
1,2-Dibromoethane (EDB)	25.0	26.8		ug/L		107	70 - 130
Dibromomethane	25.0	24.8		ug/L		99	70 - 130
1,2-Dichlorobenzene	25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	25.4		ug/L		101	29 - 150

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Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-291618/4
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	24.8		ug/L		99	64 - 130
1,2-Dichloroethane	25.0	26.1		ug/L		104	57 - 138
1,1-Dichloroethene	25.0	25.9		ug/L		103	70 - 130
1,2-Dichloropropane	25.0	24.8		ug/L		99	67 - 130
1,3-Dichloropropane	25.0	24.8		ug/L		99	70 - 130
2,2-Dichloropropane	25.0	29.0		ug/L		116	68 - 141
1,1-Dichloropropene	25.0	25.5		ug/L		102	70 - 130
Ethylbenzene	25.0	25.4		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	26.0		ug/L		104	10 - 150
Isopropylbenzene	25.0	26.1		ug/L		104	70 - 136
Methylene Chloride	25.0	23.9		ug/L		96	52 - 130
m,p-Xylene	25.0	25.9		ug/L		104	70 - 130
Naphthalene	25.0	24.7		ug/L		99	60 - 140
n-Butylbenzene	25.0	25.0		ug/L		100	65 - 150
N-Propylbenzene	25.0	26.1		ug/L		104	67 - 139
o-Xylene	25.0	25.2		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	25.2		ug/L		101	70 - 132
sec-Butylbenzene	25.0	25.1		ug/L		100	70 - 138
Styrene	25.0	26.9		ug/L		108	70 - 134
tert-Butylbenzene	25.0	25.1		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		108	60 - 141
1,1,2,2-Tetrachloroethane	25.0	24.5		ug/L		98	63 - 130
Tetrachloroethene	25.0	26.7		ug/L		107	70 - 130
Toluene	25.0	24.8		ug/L		99	70 - 130
trans-1,2-Dichloroethene	25.0	27.1		ug/L		109	70 - 130
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	70 - 132
1,2,3-Trichlorobenzene	25.0	24.7		ug/L		99	60 - 140
1,2,4-Trichlorobenzene	25.0	25.5		ug/L		102	60 - 140
1,1,1-Trichloroethane	25.0	26.8		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	25.7		ug/L		103	70 - 130
Trichloroethene	25.0	26.4		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	27.1		ug/L		108	60 - 150
1,2,3-Trichloropropane	25.0	21.7		ug/L		87	63 - 130
1,2,4-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 135
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	70 - 136
Vinyl acetate	25.0	19.3		ug/L		77	48 - 140
Vinyl chloride	25.0	26.2		ug/L		105	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-125626-1 MS
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		25.0	24.6		ug/L		98	66 - 130
Bromobenzene	ND		25.0	25.7		ug/L		103	70 - 130
Bromochloromethane	ND		25.0	26.0		ug/L		104	70 - 130
Bromodichloromethane	ND		25.0	25.4		ug/L		102	70 - 138
Bromoform	ND		25.0	27.2		ug/L		103	59 - 150
Bromomethane	ND		25.0	27.2		ug/L		109	62 - 131
Carbon disulfide	ND		25.0	25.5		ug/L		102	49 - 140
Carbon tetrachloride	ND		25.0	28.0		ug/L		112	60 - 150
Chlorobenzene	ND		25.0	24.3		ug/L		97	70 - 130
Chloroethane	ND		25.0	26.1		ug/L		105	68 - 130
Chloroform	ND		25.0	24.4		ug/L		98	70 - 130
Chloromethane	ND		25.0	26.7		ug/L		107	39 - 144
2-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130
4-Chlorotoluene	ND		25.0	26.0		ug/L		104	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	25.0		ug/L		100	70 - 133
Dibromochloromethane	ND		25.0	26.0		ug/L		104	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	24.0		ug/L		96	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	25.4		ug/L		102	70 - 131
Dibromomethane	ND		25.0	25.0		ug/L		100	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
Dichlorodifluoromethane	ND		25.0	24.7		ug/L		99	25 - 142
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130
1,2-Dichloroethane	ND		25.0	25.9		ug/L		103	56 - 146
1,1-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130
1,2-Dichloropropane	ND		25.0	24.7		ug/L		99	69 - 130
1,3-Dichloropropane	ND		25.0	24.2		ug/L		97	70 - 130
2,2-Dichloropropane	ND		25.0	28.5		ug/L		114	69 - 138
1,1-Dichloropropene	ND		25.0	25.2		ug/L		101	64 - 130
Ethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130
Hexachlorobutadiene	ND		25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	ND		25.0	25.1		ug/L		101	70 - 132
Methylene Chloride	ND		25.0	24.0		ug/L		96	52 - 130
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	25.0		ug/L		100	60 - 140
n-Butylbenzene	ND		25.0	25.1		ug/L		101	61 - 149
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135
o-Xylene	ND		25.0	23.4		ug/L		93	70 - 133
p-Isopropyltoluene	ND		25.0	25.2		ug/L		101	70 - 130
sec-Butylbenzene	ND		25.0	24.9		ug/L		100	67 - 134
Styrene	ND		25.0	24.7		ug/L		99	29 - 150
tert-Butylbenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	25.9		ug/L		104	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	24.0		ug/L		96	63 - 130
Tetrachloroethene	ND		25.0	25.2		ug/L		101	70 - 137
Toluene	ND		25.0	23.9		ug/L		95	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-125626-1 MS
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	ND		25.0	26.9		ug/L		108	70 - 130
trans-1,3-Dichloropropene	ND		25.0	24.7		ug/L		99	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	25.3		ug/L		101	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	26.5		ug/L		106	60 - 140
1,1,1-Trichloroethane	ND		25.0	26.4		ug/L		105	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.8		ug/L		99	70 - 130
Trichloroethene	ND		25.0	26.7		ug/L		107	70 - 130
Trichlorofluoromethane	ND		25.0	27.2		ug/L		109	60 - 150
1,2,3-Trichloropropane	ND		25.0	21.5		ug/L		86	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	25.4		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130
Vinyl acetate	ND		25.0	19.0		ug/L		76	23 - 150
Vinyl chloride	ND		25.0	26.5		ug/L		106	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

Lab Sample ID: 440-125626-1 MSD
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	25.2		ug/L		101	66 - 130	2	20
Bromobenzene	ND		25.0	27.4		ug/L		109	70 - 130	6	20
Bromochloromethane	ND		25.0	27.0		ug/L		108	70 - 130	4	25
Bromodichloromethane	ND		25.0	27.2		ug/L		109	70 - 138	7	20
Bromoform	ND		25.0	30.9		ug/L		118	59 - 150	13	25
Bromomethane	ND		25.0	28.2		ug/L		113	62 - 131	3	25
Carbon disulfide	ND		25.0	26.4		ug/L		105	49 - 140	3	20
Carbon tetrachloride	ND		25.0	29.7		ug/L		119	60 - 150	6	25
Chlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130	5	20
Chloroethane	ND		25.0	27.1		ug/L		108	68 - 130	4	25
Chloroform	ND		25.0	25.6		ug/L		102	70 - 130	4	20
Chloromethane	ND		25.0	27.3		ug/L		109	39 - 144	2	25
2-Chlorotoluene	ND		25.0	27.1		ug/L		108	70 - 130	6	20
4-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130	2	20
cis-1,2-Dichloroethene	ND		25.0	26.1		ug/L		105	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	27.6		ug/L		110	70 - 133	10	20
Dibromochloromethane	ND		25.0	28.6		ug/L		114	70 - 148	10	25
1,2-Dibromo-3-Chloropropane	ND		25.0	26.3		ug/L		105	48 - 140	9	30
1,2-Dibromoethane (EDB)	ND		25.0	27.9		ug/L		112	70 - 131	9	25
Dibromomethane	ND		25.0	26.0		ug/L		104	70 - 130	4	25
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	25.6		ug/L		103	70 - 130	1	20
Dichlorodifluoromethane	ND		25.0	26.3		ug/L		105	25 - 142	6	30

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QC Sample Results

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-125626-1 MSD
Matrix: Water
Analysis Batch: 291618

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		25.0	25.9		ug/L		104	65 - 130	6	20
1,2-Dichloroethane	ND		25.0	27.2		ug/L		109	56 - 146	5	20
1,1-Dichloroethene	ND		25.0	26.5		ug/L		106	70 - 130	4	20
1,2-Dichloropropane	ND		25.0	26.0		ug/L		104	69 - 130	5	20
1,3-Dichloropropane	ND		25.0	26.2		ug/L		105	70 - 130	8	25
2,2-Dichloropropane	ND		25.0	29.7		ug/L		119	69 - 138	4	25
1,1-Dichloropropene	ND		25.0	26.3		ug/L		105	64 - 130	4	20
Ethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	8	20
Hexachlorobutadiene	ND		25.0	25.0		ug/L		100	10 - 150	2	20
Isopropylbenzene	ND		25.0	27.1		ug/L		108	70 - 132	7	20
Methylene Chloride	ND		25.0	24.9		ug/L		100	52 - 130	4	20
m,p-Xylene	ND		25.0	25.7		ug/L		103	70 - 133	4	25
Naphthalene	ND		25.0	22.7		ug/L		91	60 - 140	10	30
n-Butylbenzene	ND		25.0	25.1		ug/L		100	61 - 149	0	20
N-Propylbenzene	ND		25.0	27.4		ug/L		110	66 - 135	6	20
o-Xylene	ND		25.0	25.0		ug/L		100	70 - 133	7	20
p-Isopropyltoluene	ND		25.0	26.6		ug/L		106	70 - 130	5	20
sec-Butylbenzene	ND		25.0	26.3		ug/L		105	67 - 134	5	20
Styrene	ND		25.0	24.2		ug/L		97	29 - 150	2	35
tert-Butylbenzene	ND		25.0	27.2		ug/L		109	70 - 130	7	20
1,1,1,2-Tetrachloroethane	ND		25.0	27.9		ug/L		111	60 - 149	7	20
1,1,2,2-Tetrachloroethane	ND		25.0	27.4		ug/L		110	63 - 130	13	30
Tetrachloroethene	ND		25.0	27.5		ug/L		110	70 - 137	9	20
Toluene	ND		25.0	25.5		ug/L		102	70 - 130	7	20
trans-1,2-Dichloroethene	ND		25.0	28.1		ug/L		113	70 - 130	4	20
trans-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 138	10	25
1,2,3-Trichlorobenzene	ND		25.0	22.4		ug/L		90	60 - 140	12	20
1,2,4-Trichlorobenzene	ND		25.0	23.8		ug/L		95	60 - 140	11	20
1,1,1-Trichloroethane	ND		25.0	28.0		ug/L		112	70 - 130	6	20
1,1,2-Trichloroethane	ND		25.0	27.0		ug/L		108	70 - 130	9	25
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130	3	20
Trichlorofluoromethane	ND		25.0	28.9		ug/L		115	60 - 150	6	25
1,2,3-Trichloropropane	ND		25.0	25.1		ug/L		101	60 - 130	15	30
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		25.0	26.7		ug/L		107	70 - 130	5	20
Vinyl acetate	ND		25.0	20.3		ug/L		81	23 - 150	6	30
Vinyl chloride	ND		25.0	27.3		ug/L		109	50 - 137	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Method: 8015B - Nonhalogenated Organic Compounds - Direct Injection (GC)

Lab Sample ID: MB 310-107866/20
Matrix: Water
Analysis Batch: 107866

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 12:44	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 12:44	1
Methanol	ND		10		mg/L			11/09/15 12:44	1
1-Propanol	ND		10		mg/L			11/09/15 12:44	1

Lab Sample ID: MB 310-107866/4
Matrix: Water
Analysis Batch: 107866

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		10		mg/L			11/09/15 10:35	1
Isopropyl alcohol	ND		10		mg/L			11/09/15 10:35	1
Methanol	ND		10		mg/L			11/09/15 10:35	1
1-Propanol	ND		10		mg/L			11/09/15 10:35	1

Lab Sample ID: LCS 310-107866/16
Matrix: Water
Analysis Batch: 107866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	60.0	70.8		mg/L		118	80 - 120
Isopropyl alcohol	60.0	68.2		mg/L		114	80 - 120
Methanol	64.0	71.2		mg/L		111	80 - 120
1-Propanol	70.0	78.9		mg/L		113	80 - 120

Lab Sample ID: 440-125626-1 MS
Matrix: Water
Analysis Batch: 107866

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethanol	ND		60.0	66.6		mg/L		111	80 - 120
Isopropyl alcohol	ND		60.0	64.0		mg/L		107	80 - 120
Methanol	ND		64.0	67.5		mg/L		105	80 - 120
1-Propanol	10		70.0	76.6		mg/L		95	80 - 120

Lab Sample ID: 440-125626-1 MSD
Matrix: Water
Analysis Batch: 107866

Client Sample ID: Subpart CC VOA #A
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethanol	ND		60.0	68.6		mg/L		114	80 - 120	3	20
Isopropyl alcohol	ND		60.0	65.6		mg/L		109	80 - 120	2	20
Methanol	ND		64.0	69.1		mg/L		108	80 - 120	2	20
1-Propanol	10		70.0	80.6		mg/L		101	80 - 120	5	20

QC Association Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: Subpart CC

TestAmerica Job ID: 440-125626-1

GC/MS VOA

Analysis Batch: 291618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125626-1	Subpart CC VOA #A	Total/NA	Water	8260B	
440-125626-1 MS	Subpart CC VOA #A	Total/NA	Water	8260B	
440-125626-1 MSD	Subpart CC VOA #A	Total/NA	Water	8260B	
440-125626-2	Subpart CC VOA #B	Total/NA	Water	8260B	
440-125626-3	Subpart CC VOA #C	Total/NA	Water	8260B	
440-125626-4	Subpart CC VOA #D	Total/NA	Water	8260B	
440-125626-5	Subpart CC VOA #E	Total/NA	Water	8260B	
440-125626-6	Subpart CC VOA #F	Total/NA	Water	8260B	
LCS 440-291618/4	Lab Control Sample	Total/NA	Water	8260B	
MB 440-291618/3	Method Blank	Total/NA	Water	8260B	

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GC VOA

Analysis Batch: 107866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-125626-1	Subpart CC VOA #A	Total/NA	Water	8015B	
440-125626-1 MS	Subpart CC VOA #A	Total/NA	Water	8015B	
440-125626-1 MSD	Subpart CC VOA #A	Total/NA	Water	8015B	
440-125626-2	Subpart CC VOA #B	Total/NA	Water	8015B	
440-125626-3	Subpart CC VOA #C	Total/NA	Water	8015B	
440-125626-4	Subpart CC VOA #D	Total/NA	Water	8015B	
440-125626-5	Subpart CC VOA #E	Total/NA	Water	8015B	
440-125626-6	Subpart CC VOA #F	Total/NA	Water	8015B	
LCS 310-107866/16	Lab Control Sample	Total/NA	Water	8015B	
MB 310-107866/20	Method Blank	Total/NA	Water	8015B	
MB 310-107866/4	Method Blank	Total/NA	Water	8015B	

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312007A	07-31-16 *
New Mexico	State Program	6	N/A	01-29-16
Northern Mariana Islands	State Program	9	MP0002	01-29-16
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	07-08-18

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-15
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-15
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16
Wisconsin	State Program	5	999917270	08-31-16

* Certification renewal pending - certification considered valid.

TestAmerica
ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY RECORD

- [ ] Nashville, TN
- [ ] Dayton, OH
- [ ] Indianapolis, IN
- [ ] Orlando, FL
- [ ] Watertown, WI
- [x] Irvine, CA
- [ ] Cedar Falls, IA
- [ ] Pontiac, MI

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes No
Enforcement Action? Yes No

Client Name/Account #: Evoqua Water Technologies
Address: POB 3308 / 2523 MUTAHAR ST
City/State/Zip: PARKER, AZ 85344
Project Manager: Camille Murray
Telephone Number: 928-669-5758 **Fax No.:** 928-669-5775
Sampler Name: (Print) Roy Provins
Sampler Signature:

Report To: James.R.Provins@Evoqua.com
Invoice To:
TA Quote #:
Project ID: Subpart CC
Project #:

440-125626 Chain of Custody

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass (Yellow Label)	None (Black Label)	Other (Specify)	Groundwater	Water	Drinking Water	Sludge	Soil	Other (specify):	8260	8015 Alcohol Scan	RUSH TAT (Pre-Schedule	Standard TAT	Fax Results	Send QC with report
Subpart CC VOA #A	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA #B	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA #C	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA # D	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA # E	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA # F	10/27/2015	9:00 AM	3	X			X		X							X					X			X		
Subpart CC VOA #A-	10/27/2015	9:00 AM	3	X			X		X							X						X		X		
Subpart CC VOA # B	10/27/2015	9:00 AM	3	X			X		X							X						X		X		
Subpart CC VOA # C	10/27/2015	9:00 AM	3	X			X		X							X						X		X		
Subpart CC VOA # D	10/27/2015	9:00 AM	3	X			X		X							X						X		X		
Subpart CC VOA # E	10/27/2015	9:00 AM	3	X			X		X							X						X		X		
Subpart CC VOA # F	10/27/2015	9:00 AM	3	X			X		X							X						X		X		

Special Instructions:

Method of Shipment: UPS

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y N

Relinquished by:	Date	Time	Received by:	Date	Time
Roy Provins	10/27/2015	1400			
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
			[signature]	10/28/15	10:00

S:\Laboratory Results\Chain Of Custody forms\Excel\TestAmerica-coc- Subpart CC.xls

27/1.0° IR-73 # 495 20E 0195855265

11/10/2015

Login Sample Receipt Checklist

Client: Evoqua Water Technologies eProcurement

Job Number: 440-125626-1

Login Number: 125626
List Number: 1
Creator: Escalante, Maria I

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Evoqua Water Technologies eProcurement

Job Number: 440-125626-1

Login Number: 125626
List Number: 2
Creator: Worthy, Ashley L

List Source: TestAmerica Cedar Falls
List Creation: 10/29/15 10:41 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix K
Discharge Permit Fact Sheet

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PROPOSED PERMIT
FACT SHEET

Facility/ Permittee:	Colorado River Sewage System Joint Venture
Mailing Address:	12501 West Agency Rd. Parker, AZ 85344
Type of Facility:	Publicly Owned Treatment Works
Facility Location:	12501 West Agency Rd. Parker, AZ 85344
Contact Person(s):	Andy Jones General Manager 12501 West Agency Rd. Parker, AZ 85344 (928) 669-9821
NPDES Permit No.:	AZ0021415

I. STATUS OF PERMIT

On June 21, 2006, Colorado River Sewage System Joint Venture (CRSSJV) applied to the U.S. Environmental Protection Agency, Region 9 (US EPA) for renewal for its National Pollutant Discharge Elimination System (NPDES) permit for the discharge of the treated effluent from the existing CRSSJV wastewater treatment plant. The CRSSJV treatment facility is a publicly-owned treatment works (POTW) located in the Colorado River Indian Reservation. Pursuant to the EPA regulations set forth in Title 40, Code of Federal Regulations (CFR) Part 122.21, the effluent discharge was regulated under NPDES Permit No. AZ0021415, which became effective on October 30, 2001, and expired on October 30, 2006. All the terms and conditions of the 2001 permit are administratively extended until the reissuance of a new permit. This fact sheet is based on the facts presented by the applicant in both the application and any previous discharge data submitted, along with the appropriate laws and regulations. Pursuant to Section 402 of the Clean Water Act (CWA), the USEPA is proposing issuance of the NPDES permit renewal to CRSSJV (permittee) for the discharge of treated domestic wastewater to the Agency Road Irrigation Return Canal that flows to the Colorado River, a water of the U.S.

This permittee has been classified as a Major discharger.

II. GENERAL DESCRIPTION OF FACILITY

CRSSJV owns and operates the POTW servicing the Town of Parker, Arizona and the Colorado River Indian Tribes, with a total population of approximately 5,000. The POTW started operations in 1974 and has a design flow of 1.2 millions gallons per day (MGD). The treatment system consists of bar screens, contact stabilization tanks with secondary clarifiers, aerobic digestors, and ultraviolet disinfection with backup chlorination/dechlorination. Sludge is hauled off to a landfill.

CRSSJV does not have an approved pretreatment program but does maintain city codes and local limits to control the flow of industrial pollutants into the POTW. In the 2006 application, CRSSJV reported two significant industrial dischargers to the POTW – Siemens Water Technologies Inc. (formerly known as Westates Carbon-Arizona Inc.) and Custom Metal Finishing. Drum's Plating was previously listed in the 2001 permit fact sheet but is not found in the current application. According to the permittee, Drum's Plating ceased operations in 2005. Siemens Water Technologies' average daily volume of process wastewater is 140,000 gallons per day (GPD), which represents approximately 19 percent of the POTW's annual total flow of 750,000 GPD for the year of 2006. Custom Metal Finishing does not discharge any process wastewater.

III. DESCRIPTION OF RECEIVING WATER

The final treated effluent from the sewage treatment plant is discharged from Discharge Outfall No. 001 into the Agency Road Irrigation Return Canal, which flows about 10 miles before reaching the Colorado River. Any sampling and monitoring under the proposed permit shall be performed at Outfall No. 001.

Discharge Point No.	Latitude	Longitude	Description
001	34^o 08' 36" N	114^o 18' 31" W	Primary discharge point is the Agency Road Irrigation Return Canal which flows approximately 10 miles before reaching the Colorado River.

Agency Road Irrigation Return Canal is not specifically listed in Appendix B [*List of Surface Waters and Tributaries*] of the 2008 Arizona Water Quality Standards; however, section R18-11-105 [*Tributaries; Designated Uses*] of the Arizona WQS states:

> *"For a surface water that is not listed in Appendix B but is a tributary to a listed surface water, is perennial or intermittent and is below 5000 feet, the aquatic and wildlife (warm water fishery) and fish consumption standards apply as well as the water quality standards that have been established for the nearest downstream surface water listed in Appendix B that is not an ephemeral water or an effluent dependent water."*

And, section R18-11-104 [*Designated Uses*] states:

"If a surface water has more than one designated use listed in Appendix B, the most stringent water quality criterion applies."

The designated uses of the Colorado River from Topock Marsh to Morelos Dam are as follows:

A&Ww	Aquatic & Wildlife, warm water
FBC	Full Body Contact
DWS	Domestic Water Supply
FC	Fish Consumption
AgI	Agricultural Irrigation
AgL	Agricultural Livestock Watering

IV. DESCRIPTION OF DISCHARGE

A. Application Discharge Data

As part of the application for permit renewal, the permittee provided data from an analysis of the facility's treated wastewater discharge, shown in Table 1. This data, expressed only as maximum and average *daily* discharges, meets the existing permit maximum daily effluent limits shown in Table 2. However, as TDS was reported as the effluent gross value, it cannot be compared to the permit limit which is expressed as the incremental increase between the influent and effluent. Also, some of the parameters that were reported in the application are not limited in the existing permit (TKN, Nitrate+Nitrite as N, TP, Arsenic and Zinc).

Table 1. Application Discharge Data(1)

Parameter	Units	Maximum Daily Discharge	Average Daily Discharge
pH	Standard Units	7.03-7.3 (min-max)	--
Flow	MGD	0.758	0.75
Biochemical Oxygen Demand (5-day)	mg/L	5	4.25
E. Coli	cfu/100mL	6	1.74
Total Suspended Solids (TSS)	mg/L	4	3.13
Total Residual Chlorine	µg/L	ND	ND
Total Kjeldahl Nitrogen (TKN)	mg/L as N	5.11	4.78
Nitrate and Nitrite N	mg/L as N	15	10.12
Oil and Grease	mg/L	1.1	0.83
Total Phosphorus (TP)	mg/L as P	2.85	2.52
Total Dissolved Solids (TDS) (2)	mg/L	1432	1351
Arsenic	mg/L	0.004	0.004
Lead	mg/L	0.04	0.04

Parameter	Units	Maximum Daily Discharge	Average Daily Discharge
Selenium	mg/L	0.002	--
Zinc	mg/L	0.05	--

(1) All other data submitted on volatile organic compounds, acid-extractable compounds and base-neutral compounds were reported as below the detection limits used for each analysis.
(2) TDS reported as effluent gross value (not incremental increase as required in permit and DMRs).

B. Recent Discharge Monitoring Report (DMR) Data (2004-2008)

Table 2 provides a summary of effluent limitations and monitoring data based on the facility's most recent 5 years of DMRs (2004 to 2008). The data shows elevated concentrations of total dissolved solids, oil and grease, lead and selenium. In addition, the highest maximum daily flow (1.38 MGD) exceeds the design capacity of the treatment system (1.2 MGD).

Table 2. Discharge Monitoring Report data for years 2004-2008.

<table>
<tr><th rowspan="2">Parameter</th><th rowspan="2">Units</th><th colspan="3">Existing Permit Effluent Limitations</th><th colspan="3">Discharge Monitoring Data</th><th colspan="2">Monitoring Requirements</th></tr>
<tr><th>Average Monthly</th><th>Average Weekly</th><th>Maximum Daily</th><th>Highest Average Monthly</th><th>Highest Average Weekly</th><th>Highest Maximum Daily</th><th>Monitoring Frequency</th><th>Sample Type</th></tr>
<tr><td>Flow Rate</td><td>MGD</td><td>Monitoring Only</td><td>Monitoring Only</td><td>Monitoring Only</td><td>0.87</td><td>--</td><td>1.38</td><td>Continuous</td><td>Continuous</td></tr>
<tr><td rowspan="3">Biochemical Oxygen Demand
(5-day)</td><td>mg/L</td><td>30</td><td>45</td><td>Monitoring Only</td><td>8.0</td><td>8.0</td><td>10</td><td rowspan="3">2/Month</td><td rowspan="3">Composite</td></tr>
<tr><td>kg/day</td><td>136</td><td>204</td><td>408</td><td>25</td><td>--</td><td>31</td></tr>
<tr><td>Percent Removal</td><td colspan="3">Both the influent and the effluent shall be monitored. The arithmetic mean of the BOD values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (85 percent BOD removal).</td><td colspan="3">96-97
(min-max)</td></tr>
<tr><td rowspan="2">Total Suspended Solids</td><td>mg/L</td><td>30</td><td>45</td><td>Monitoring Only</td><td>16</td><td>16</td><td>20</td><td rowspan="2">2/Month</td><td rowspan="2">Composite</td></tr>
<tr><td>kg/day</td><td>136</td><td>204</td><td>408</td><td>50</td><td>--</td><td>61</td></tr>
</table>

	Percent Removal	Both the influent and the effluent shall be monitored. The arithmetic mean of the TSS values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (85 percent TSS removal).			90-99 (min-max)				
pH	Standard Units	Not < 6.5 SU, Not > 9.0 SU; discharge shall not change pH in receiving water by more than 0.5 SU			6.8 (minimum)	--	7.4	1/Week	Discrete
E. coli	cfu/ 100 mL	130	--	580	30.6	--	440	1/Week	Discrete
Total Dissolved Solids(1)	mg/L	Incremental increase not to exceed 400mg/L.			582	--	737	2/Month	Discrete
Total Residual Chlorine(2)	µg/L	5	--	11	ND	--	ND	1/Day	Discrete
Oil and Grease	kg/day	45.4	68.1	--	83.5	83.5	--	1/Month	Discrete
	mg/L	10	15	--	22	22	--		
Beryllium	kg/day	0.95	--	18	ND	--	ND	1/Month	Composite
	µg/L	0.21	--	4	ND	--	ND		
Cadmium	kg/day	14	--	318	ND	--	ND	1/Month	Composite
	µg/L	3.0	--	70	ND	--	ND		
Lead	kg/day	68	--	1753	9.0	--	9.0	1/Month	Composite
	µg/L	15	--	386	40	--	40		
Mercury	kg/day	0.045	--	11	ND	--	ND	1/Month	Composite

	µg/L	0.01	--	2.4	ND	--	ND		
Selenium	kg/day	9.1	--	91	0.0069	--	0.0069	1/Month	Composite
	µg/L	2.0	--	20	3.0	--	3.0		
Cyanide	kg/day	44	--	186	ND	--	ND	1/Month	Composite
	µg/L	9.7	--	41	ND	--	ND		
Bis(2-ethylhexyl)phthalate	kg/day	27	--	454	ND	--	ND	2/Year	Composite
	µg/L	6	--	100	ND	--	ND		

(1) TDS reported as incremental increase values as required by permit limit. TDS effluent gross values also provided in monthly DMRs, but cannot be compared to permit limits.
(2) Total Residual Chlorine monitoring only required if UV system not operational. Over the permit term, monitoring was only required 4 times and resulted in non-detects.

Numeric receiving water limitations for **temperature** (no more than 3 degrees Celsius), **dissolved oxygen** (DO) (not lower than 6 mg/L or 90% saturation), and **turbidity** (not higher than 50 NTU) were included in the previous permit, but no receiving water data was reported.

C. Siemens Water Technologies Inc.'s Discharge Data

Siemens Water Technologies is a carbon reactivation facility that discharges process wastewater (140,000 GPD) and non-process wastewater (1,000 GPD) to the permittee's treatment system. The facility's process wastewater flow represents about 19 percent of the POTW's flow, thus discharge data from this industrial user is important for the purposes of developing this NPDES permit. Although the POTW is not required to implement a formal pretreatment program, Siemens Water Technologies is subject to the general pretreatment regulations found in 40 CFR Part 403, and also categorical pretreatment standards, specifically the centralized waste treatment point source category in 40 CFR Part 437.

Pursuant to the reporting requirements in 40 CFR § 403.12(e), Siemens Water Technologies provided effluent discharge data for December 2008, which included an analysis of a variety of metals, organics, and oil and grease. Specific effluent limitations for metals and organics applicable to this industrial user are found in Subpart D - *Multiple Wastestreams* of 40 CFR Part 437. All metals analyzed, including cadmium, lead, and mercury, which are parameters limited by the POTW's current permit, were below detection limits for the analysis. Results of the organics, including bis(2-ethylhexyl)phthalate, were also below the detection limits for the analysis. Of the four oil and grease samples, the highest result was 8.5 mg/L, which is below the effluent limits required by Subpart B - *Oils Treatment and Recovery* (40 CFR § 437.21).

Past reports (March 2004, June 2004, June 2005, and June 2006) indicate that measurable concentrations of arsenic were present in the effluent, typically around 0.012 mg/l, but as high as 0.02 mg/l. These concentrations of arsenic are below the effluent limits required by Subpart D – Multiple Wastestreams (40 CFR § 437.46(b)). Concentrations of vanadium (0.031 mg/l) and chromium (0.005 mg/l) were also detected in June 2006 and 2005, respectively, and both of these are below the limits required by this Subpart.

It should be noted that Siemens was cited for RCRA violations in 2006 for failure to close containers of hazardous waste, failure to provide adequate secondary containment, and failure to adequately record observations and repairs during facility inspections. The facility has since complied with all of the requirements of the Penalty Order. Due to the facility's history of violations and the potential for the facility to be increasing the concentrations of metals, such as arsenic, at the POTW, the proposed permit includes new pretreatment monitoring and reporting requirements.

V. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

The previous permit contained daily maximum mass-based limits for BOD and TSS. These limits are redundant as the average monthly and weekly effluent limits are more stringent, and therefore more protective of water quality standards. Thus, the daily maximum limits for BOD and TSS have been eliminated from the proposed permit.

Effluent limits for total chlorine residual, beryllium, cadmium, mercury, cyanide and bis (2-ethylhexyl) phthalate that were included in the previous permit have been eliminated in the proposed permit as *no* reasonable potential to exceed water quality standards for these pollutants was found based on 5 years of effluent data. Monitoring as part of the priority pollutants scans is still required.

New limits for arsenic, boron, fluoride, and nitrate/nitrite as N are being proposed as reasonable potential to exceed water quality standards for these pollutants *was* found based on application and priority pollutant scan data. Monitoring for these pollutants will be required monthly. Also, based on WET test data, new limits for chronic whole effluent toxicity have also been proposed with continued semi-annual monitoring.

The WQBELs for lead and selenium have been re-calculated according to the statistical permit limit derivation procedures in Section 5.4 of EPA's TSD in order to provide the most protective WQBELs with regard for the variation in the effluent data. This resulted in WQBELs that are more stringent than the WQBELs required in the previous permit.

Lastly, the proposed permit includes new pretreatment monitoring requirements.

VI. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

The Clean Water Act (CWA) requires point source dischargers to control the amount of pollutants that are discharged to waters of the U.S. The control of pollutants is established through effluent limitations and other requirements in NPDES permits. When determining effluent limitations, EPA must consider limitations based on the technology used to treat the pollutant(s) (i.e., technology-based effluent limits) and limitations that are protective of water quality standards (i.e., water quality-based effluent limits).

A. Applicable Technology-based Effluent Limitations

EPA developed technology-based treatment standards for municipal wastewater treatment plants in accordance with Section 301(b)(1)(B) of the Clean Water Act. The minimum levels of effluent quality attainable by secondary treatment for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and pH, as defined in 40 CFR 133.102, are:

- BOD: 30 mg/L as a 30-day ("monthly") average,
  45 mg/L as a 7-day ("weekly") average, and
  85% removal efficiency;

- TSS: 30 mg/L as a 30-day ("monthly") average,
  45 mg/L as a 7-day ("weekly") average, and
  85% removal efficiency;

- pH: Must range from 6.0 – 9.0 standard units as an instantaneous maximum.

In accordance with 40 CFR 133, technology-based effluent limitations are proposed for BOD, TSS, and pH based on secondary treatment requirements for municipal wastewater treatment facilities. These requirements are performance-based and represent the degree of effluent reduction achievable using available wastewater treatment technology.

Currently, Colorado River Indian Tribes (CRIT) does not have EPA-approved surface water quality standards. As the discharge may eventually flow into the Colorado River, the discharge must meet those downstream standards established by the State of Arizona. In conjunction with federal requirements, Section R18-11-109 of the 2008 Arizona WQS provides applicable numeric water quality standards. Federal regulation requires that when establishing effluent limitations, the more stringent of the technology and water-quality based limitations applies. Table 3 provides a summary of proposed technology-based effluent limitations for Discharge Point No. 001.

Table 3. Summary of Proposed Technology-Based Effluent Limitations(1)

<table>
<tr><th rowspan="2">Parameter</th><th rowspan="2">Units[1]</th><th colspan="5">Proposed Technology-Based Effluent Limitations</th></tr>
<tr><th>Average Monthly</th><th>Average Weekly</th><th>Maximum Daily</th><th>Instantaneous Minimum</th><th>Instantaneous Maximum</th></tr>
<tr><td rowspan="3">Biochemical Oxygen Demand (5-day)</td><td>mg/L</td><td>30</td><td>45</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>kg/day</td><td>136</td><td>204</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td colspan="6">The 30-day average percent removal shall not be less than 85 percent.</td></tr>
<tr><td rowspan="3">Total Suspended Solids</td><td>mg/L</td><td>30</td><td>45</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>kg/day</td><td>136</td><td>204</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td colspan="6">The 30-day average percent removal shall not be less than 85 percent.</td></tr>
<tr><td>E. Coli</td><td>CFU/ 100 mL</td><td>126</td><td>--</td><td>--</td><td>--</td><td>235</td></tr>
<tr><td rowspan="2">Oil and Grease</td><td>mg/L</td><td>10</td><td>15</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>kg/day</td><td>45.4</td><td>68.1</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>pH</td><td>Standard Units</td><td>--</td><td>--</td><td>--</td><td>6.5</td><td>9.0</td></tr>
<tr><td>Total Chlorine Residual</td><td>µg/L</td><td>--</td><td>--</td><td>--</td><td>--</td><td>--</td></tr>
<tr><td>Total Dissolved Solids</td><td>mg/L</td><td colspan="3">Incremental increase not to exceed 400mg/L.</td><td>--</td><td>--</td></tr>
</table>

(1) Mass-based limits derived given a design flow of 1.2 MGD.

1. **Biochemical Oxygen Demand**. Pursuant to 40 CFR 133.102, effluent limitations are proposed for BOD. Secondary treatment requirements provide that effluent concentrations of BOD shall not exceed 30 mg/L on a 30-day average and not exceed 45 mg/L based on a 7-day average. In addition, the 30-day average percent removal shall not be less than 85 percent. Based on the facility's design flow of 1.2 MGD per day, EPA also proposes a mass-based monthly average effluent limitation of 136 kg/day and a weekly average effluent limitation of 204 kg/day for BOD. A daily maximum mass-based

limit was included in the previous permit (408 kg/day), but it has been dropped in the proposed permit as it is redundant. The monthly and weekly average limits are more stringent and the DMRs show that the facility is capable of achieving those limits.

2. **Total Suspended Solids**. Pursuant to 40 CFR 133.102 and Arizona WQS Section R18-11-109D, effluent limitations are proposed for TSS. Secondary treatment requirements provide that effluent concentrations of TSS shall not exceed 30 mg/L on a 30-day average and 45 mg/L on 7-day average. In addition, the 30-day average percent removal shall not be less than 85 percent. Arizona WQS requires that the median value of suspended sediments of a minimum of four samples collected at least seven days apart shall be 80 mg/L for Aquatic & Wildlife, warm water. Federal regulation requires that when establishing effluent limitations, the more stringent of the technology and water-quality based limitations applies. Therefore, EPA proposes the average monthly effluent limitation of 30 mg/L and an average weekly effluent limitation of 45 mg/L. Based on the facility's design flow of 1.2 MGD per day, EPA also proposes a mass-based monthly average effluent limitation of 136 kg/day and a weekly average effluent limitation of 204 kg/day for TSS. Narrative water quality standards for suspended solids (Arizona WQS R18-11-108C) are also included in the proposed permit. A daily maximum mass-based limit (408 kg/day), was included in the previous permit, but it has been dropped in the proposed permit as it is redundant. The monthly and weekly average limits are more stringent and the DMRs show that the facility is capable of achieving those limits.

3. ***E. Coli* bacteria**. Section R18-11-109A of the Arizona WQS provides requirements for bacteria for Full Body Contact. Arizona WQS requires that the geometric mean of the E. Coli values for effluent samples collected (a minimum of 4 samples in 30 consecutive days) shall not exceed 126 colony forming units (CFU) per 100 mL of water, and that the single sample maximum shall not exceed 235 cfu/100mL of water. The 2001 permit required a 130 cfu/100mL 30-day geometric mean and a 580 cfu/100mL single sample maximum. The Arizona WQS have since been revised (2008) and the proposed permit has incorporated this change.

4. **pH**. 40 CFR 133.102(c) provides secondary treatment requirements for pH, which state effluent values for pH shall be maintained within the limits of 6.0 and 9.0 standard units. Section R18-11-109B of the Arizona WQS requires that pH be maintained within the limits of 6.5 and 9.0. Federal regulation requires that when establishing effluent limitations, the more stringent of the technology and water-quality based limitations applies. Based on effluent monitoring data, pH values ranged between 6.8 and 7.4 standard units. Therefore, since the facility has been performing at the required level established in the existing permit, EPA proposes to retain the existing pH limitation in the draft permit that the pH level of the effluent shall be not less than 6.5 or greater than 9.0 standard units in the draft permit.

5. **Oil & Grease**. Oil and grease are common components of domestic wastewater. Section R18-11-108B of the Arizona WQS provides narrative standards that state that a surface water shall not contain oil, grease, or other pollutant that floats as debris, foam, or scum; or that causes a film or iridescent appearance on the surface of the water; or that cause a deposit on a shore-line, bank, or aquatic vegetation. The discharge of lubricating oil or gasoline associated with the normal operation of a recreational watercraft is not a

violation of this narrative standard. However, Arizona WQS do not provide a numeric water quality standard for oil and grease. Therefore, EPA proposes effluent limitations for oil and grease based on EPA's Best Professional Judgment (BPJ) related to the development of technology-based effluent limits since (1) there are no applicable effluent limitation guidelines and performance standards for oil and grease, and (2) similar domestic wastewater treatment facilities have shown that an average weekly limit of 15 mg/l and an average monthly limit of 10 mg/l can be easily achieved. Section 402(a)(1) of the CWA provides for the establishment of BPJ-based effluent limits when effluent limitation guidelines and performance standards are not available for a pollutant of concern. As in the 2001 permit, EPA proposes an average weekly limitation of 15 mg/l and an average monthly limitation of 10 mg/L for oil and grease. These limits are consistent with similar facilities that treat domestic wastewater in EPA Region IX. Also, based on a design flow of 1.2 MGD, EPA proposes a mass-based AWL and AML of 45.4 and 68.1 kg/day. In addition to the technology-based effluent limits, the narrative standard (Arizona WQS R18-11-108), is included in the proposed permit. The DMRs have shown that the facility has exceeded the BPJ-based numeric limits on at least one occasion over the last five years.

6. **Settleable Solids**. The minimum levels of effluent quality attainable by secondary treatment for Settleable Solids, as specified in the EPA Region IX Policy memo dated May 14, 1979, are listed as:

   - Settleable Solids: 1 mL/L as a 30-day ("monthly") average,
     2 mL/L daily maximum,

   The 2001 permit did not contain limitations for settleable solids with the justification that "EPA Region 9 believes that settleable solids data do not generally provide information beyond that provided by the total suspended solids data." In addition, the DMR data for October 2000 through October 2001 included settleable solids monitoring, which resulted in no exceedances of the limits specified in the 1979 EPA Region IX Policy memo. Therefore, a limit for settleable solids is not included in the proposed permit.

7. **Total Chlorine Residual**. Chlorination for disinfection is used only as an emergency back-up system when the UV system is not operational. Thus, monitoring and reporting are only required when the chlorination/dechlorination system is operational. The 2008 Arizona WQS require that total chlorine residual concentrations do not exceed 11 µg/L for the protection of aquatic and wildlife warm water fisheries from chronic exposure and do not exceed 19 µg/L for acute exposure. The previous permit contained limits for total chlorine residual; however based on the reasonable potential analysis (see RP table below), which included 4 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for total chlorine residual. Therefore, EPA proposes to eliminate the limits imposed in the previous permit. However, monitoring will still be required at times when the chlorination/dechlorination system is being used.

8. **Total Dissolved Solids**. The facility reported both effluent gross values and incremental increase values for TDS. Because of the plant's influent having a high concentration of TDS, an incremental increase limit of 400 mg/L was required in the previous permit, to be calculated as the increase between the TDS levels in the community's water supply

and the levels in the plant effluent. The DMRs show that the facility was unable to meet the previous permit incremental increase limit and that the effluent gross values for TDS exceed water quality standards. This limit is retained in the proposed permit. Section R18-11-110 of the Arizona WQS provides Salinity Standards for the Colorado River. The flow-weighted average annual salinity in the lower main stem of the Colorado River shall not exceed 747 mg/L below Parker Dam. In addition and specifically for municipal dischargers, Appendix A of the 2005 Review, Water Quality Standards for Salinity, Colorado River System requires that the discharge not exceed an incremental increase of 400 mg/L TDS.

B. Water Quality-Based Effluent Limitations ("WQBELs")

Water quality-based effluent limitations, or WQBELS, are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard. (40 CFR 122.44(d)(1))

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures which account for existing controls on point and non point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity) and where appropriate, the dilution of the effluent in the receiving water. (40 CFR 122.44 (d) (1) (ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water Enforcement and Permits, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers Manual* (Office of Water, U.S. EPA, December 1996). These factors include:

1. Applicable standards, designated uses and impairments of receiving water
2. Dilution in the receiving water
3. Type of industry
4. History of compliance problems and toxic impacts
5. Existing data on toxic pollutants - Reasonable Potential analysis

1. Applicable standards, designated uses and impairments of receiving water

Currently, Colorado River Indian Tribes (CRIT) does not have EPA-approved surface water quality standards. As the discharge may eventually flow into the Colorado River, the discharge must meet those downstream standards established by the State of Arizona Water Quality Standards found in Title 18, Chapter 11 of the Arizona Administrative Code. **At this time, the proposed 2008 Arizona Water Quality Standards have been partially approved by EPA. For those parts, the proposed permit cites the 2008 standards and**

for those that have not been approved so far, the proposed permit cites the 2003 standards.

The receiving water is not listed as impaired according to the CWA Section 303(d) List of Water Quality Limited Segments. The designated uses are listed above in Section III. *Description of Receiving Water*.

Applicable water quality standards establish water quality criteria for the protection of aquatic wildlife from acute and chronic exposure to certain metals that are hardness dependent, with a “cap” of 400 mg/l. Based on available hardness data for the discharge, the permit establishes water quality standards for these metals based on a hardness value of 338.8 mg/L. This value, used in the previous permit, is based on STORET data for the Colorado River Indian Tribe main drainage canal, and is consistent with more recent (2004) values found in STORET for the La Paz area.

2. Dilution in the receiving water

Arizona’s water quality standards require that water quality standards be achieved without mixing zones unless the Permittee applies and is approved for a mixing zone (R18-11-114). Thus, no dilution was applied in determining water quality-based effluent limits in the proposed permit.

3. Type of Industry

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia, nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. Chlorine and turbidity may also be of concern due to treatment plant operations.

4. History of compliance problems and toxic impacts

The DMR data shows elevated concentrations of total dissolved solids (TDS), oil and grease, lead and selenium. In addition, the highest maximum daily flow (1.38 MGD), for the month of December 2004, exceeds the design capacity of the treatment system (1.2 MGD). Effluent limits for the above parameters will be included in the proposed permit, excluding flow. Monitoring of flow will still be required. This facility also has a history of oil and grease compliance issues, but in the last five years, only had one exceedance of the BPJ-based permit limits.

The facility continues to have difficulty in complying with the TDS water quality standard, including the incremental increase requirement. As the permittee already has an understanding of the potential source of high TDS in the facility’s influent, **EPA recommends the permittee do outreach in the local community regarding water softener systems in order to decrease this source of high TDS**.

5. Existing data on toxic pollutants

For pollutants with effluent data available, EPA has conducted a reasonable potential analysis based on statistical procedures outlined in EPA's *Technical Support Document for Water Quality-based Toxics Control* herein after referred to as EPA's TSD (EPA 1991). These statistical procedures result in the calculation of the projected maximum effluent concentration based on monitoring data to account for effluent variability and a limited data set. The projected maximum effluent concentrations were estimated assuming a coefficient of variation of 0.6 for n<10, and the 99 percent confidence interval of the 99th percentile based on an assumed lognormal distribution of daily effluent values (sections 3.3.2 and 5.5.2 of EPA's TSD). For n>10, the CV was calculated as the standard deviation/mean for each parameter. EPA calculated the projected maximum effluent concentration for each pollutant using the following equation:

Projected maximum concentration = C_e × *reasonable potential multiplier factor.*

Where, "C_e" is the reported maximum effluent value and the multiplier factor is obtained from Table 3-1 of the TSD.

Table 4. Summary of Reasonable Potential Statistical Analysis(1)

Parameter	**Maximum Observed Concentration (µg/L) or other**	***n***	**CV**	**RP Multiplier**	**Projected Maximum Effluent Concentration (µg/L) or other**	**Most Stringent Water Quality Criterion(2) (µg/L) or other**	**Statistical Reasonable Potential?**
E. Coli	440 cfu/100mL	59	1.9	3.0	1320 cfu/100mL	126 cfu/100mL	Yes
Total Dissolved Solids	737 mg/L incremental increase	59	0.3	1.3	958 mg/L incremental increase	747 mg/L	Yes
Total Residual Chlorine	ND(3)	4	--	--	--	11	No
Beryllium	ND(3)	59	--	--	--	4	No
Cadmium	ND	59	--	--	--	1.31	No
Lead	40	59	1.22	2.3	92	9.23	Yes
Mercury	ND	59	--	--	--	0.01	No
Selenium	3	59	0.22	1.2	3.6	2.0	Yes
Cyanide	ND	59	--	--	--	9.7	No
Bis (2-ethylhexyl) phthalate	ND	11	--	--	--	6	No

Arsenic	4	3	0.6	13.2	22.4	10	Yes
Zinc	50	3	0.6	13.2	280	329.7	No
Barium	30	1	0.6	13.2	396	2,000	No
Boron	660	1	0.6	13.2	8,712	630	Yes
Iron	60	1	0.6	13.2	792	1,000	No
Magnesium	21,300	1	0.6	13.2	281,160	N/A(4)	--
1-(2-Methoxypropoxy)-2-propanol	69	1	0.6	13.2	910.8	N/A	--
Fluoride	2,100	1	0.6	13.2	27,720	4,000	Yes
Nitrate + Nitrite N	15,000	1	0.6	13.2	198,000	10,000	Yes
Phosphorus, total	2,850	1	0.6	13.2	37,620	N/A	--
Sulfate	321,000	1	0.6	13.2	4,237,200	N/A	--
TKN	5,110	1	0.6	13.2	67,452	N/A	--
Whole Effluent Toxicity, chronic	1.0 TU_C	1	0.6	13.2	13.2 TU_C	1.0 TU_C	Yes

(1)Parameters considered for RP analysis were parameters found in the previous permit, application for permit renewal, and the 2006 priority pollutant scan.
(2)Water Quality Standards are based on 2003 AWQS unless specific pollutant is part of proposed 2008 standards that have been so far approved by EPA.
(3)Non-Detects are considered zeroes for the purposes of the RP analysis.
(4)No water quality-based effluent limit or standard available for the RP analysis.

C. Rationale for Effluent Limits - Reasonable Potential Analysis

EPA evaluated the typical pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentration that have the reasonable potential to cause or contribute to violations of water quality standards, EPA may establish monitoring requirements in the permit. Where monitoring is required, data will be re-evaluated and the permit may be re-opened to incorporate effluent limitations as necessary.

Flow. No limits established for flow, but flow rates must be monitored and reported. Monitoring is required weekly.

Beryllium. The previous permit contained limits for beryllium; however based on the reasonable potential analysis, which included 59 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for beryllium. In addition, the method detection limit (MDL) is low enough at

2µg/L (smaller than the most stringent water quality standard at 4µg/L for Domestic Water Supply designated use) to adequately detect exceedances. Therefore, EPA proposes to eliminate the limits imposed in the previous permit. Monitoring for beryllium is still required as part of the twice yearly priority pollutant scans.

Cadmium. The previous permit contained limits for cadmium; however based on the reasonable potential analysis, which included 59 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for cadmium. One thing to consider, though, is that the method detection limit (MDL) is *not* low enough at 2µg/L (which is larger than the most stringent WQS at 1.31µg/L for Aquatic and wildlife, warmwater, chronic designated use) to adequately detect exceedances. This WQS is based on a hardness of 339mg/L. Therefore, EPA proposes to eliminate the limits imposed in the previous permit, but monitoring is still required as part of the twice yearly priority pollutant scans. The EPA recommends the permittee search for a way to increase the sensitivity of the MDL for this parameter to below the most stringent WQS.

Lead. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for lead. Therefore, the proposed permit contains effluent limits for lead based on chronic and acute WQS for the protection of the Aquatic and wildlife, warmwater designated use with a hardness value of 339mg/L. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 27.83 µg/L and an average monthly limit (AML) of 10.29 µg/L. A coefficient of variation of 1.2 (based on the standard deviation divided by the mean of the lead effluent data) was used to determine each multiplier. Monitoring is required monthly.

Table 5. WQBEL Calculations for Lead.

	Acute	**Chronic**[1]
Freshwater Aquatic Life Criteria, µg/L	236.82	9.23
No Dilution Credit Authorized	0	0
Background Concentration, µg/L	0	0
WLA (Dissolved), µg/L	236.82	9.23
WLA (Total Recoverable)[2], µg/L	386.26	15.05
WLA Multiplier (99^{th}%)	0.174	0.321
LTA, µg/L	67.21	4.83
LTA_{MDL} Multiplier (99^{th}%)	--	5.76
MDL, µg/L	--	27.83
MDL, kg/day	--	0.13
LTA_{AML} Multiplier (95^{th}%)[3]	--	2.13
AML, µg/L	--	10.29
AML, kg/day	--	0.05

[1]Derivation of permit limit based on Section 5.4.1 of EPA's TSD
[2]Conversion factor for dissolved to total recoverable found in Appendix A of the National Recommended Water Quality Criteria.
[3]LTA multiplier based on sampling frequency of four times per month per section 5.5.3 of EPA's TSD

Mercury. The previous permit contained limits for mercury; however based on the reasonable potential analysis, which included 59 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for mercury. One thing to consider, though, is that the method detection limit (MDL) is not low enough at 0.5µg/L (which is larger than the most stringent WQS at 0.01µg/L for Aquatic and wildlife, warmwater, chronic designated use) to adequately detect exceedances. Therefore, EPA proposes to eliminate the limits imposed in the previous permit, but monitoring is still required as part of the twice yearly priority pollutant scans. The EPA recommends the permittee search for a way to increase the sensitivity of the MDL for this parameter to below the most stringent WQS.

Selenium. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for selenium. Therefore, the proposed permit contains effluent limits for selenium based on chronic and acute WQS for the protection of the Aquatic and wildlife, warmwater designated use. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 2.47 µg/L and an average monthly limit (AML) of 1.86 µg/L. A coefficient of variation of 0.2 (based on the standard deviation divided by the mean of the selenium effluent data) was used to determine each multiplier. Monitoring is required monthly.

Table 6. WQBEL Calculations for Selenium.

	Acute	**Chronic**[1]
Freshwater Aquatic Life Criteria, µg/L	20	2.0
No Dilution Credit Authorized	0	0
Background Concentration, µg/L	0	0
WLA (Dissolved), µg/L	n/a	n/a
WLA (Total Recoverable)[2], µg/L	20	2.0
WLA Multiplier (99^{th}%)	0.643	0.797
LTA, µg/L	12.86	1.59
LTA_{MDL} Multiplier (99^{th}%)	--	1.55
MDL, µg/L	--	2.47
MDL, kg/day	--	0.011
LTA_{AML} Multiplier (95^{th}%)[3]	--	1.17
AML, µg/L	--	1.86
AML, kg/day	--	0.0084

[1]Derivation of permit limit based on Section 5.4.1 of EPA's TSD
[2]Conversion factor for dissolved to total recoverable found in Appendix A of the National Recommended Water Quality Criteria.
[3]LTA multiplier based on sampling frequency of four times per month per section 5.5.3 of EPA's TSD

Cyanide. The previous permit contained limits for cyanide; however based on the reasonable potential analysis, which included 59 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for cyanide. One thing to consider, though, is that the method detection limit (MDL) is not low enough at 10µg/L (which is larger than the most stringent WQS at 9.7µg/L for Aquatic and wildlife, warmwater, chronic designated use) to adequately detect exceedances. Therefore, EPA proposes to eliminate the limits imposed in the previous permit, but monitoring is still required as part of the twice yearly priority pollutant scans. The EPA recommends the permittee search for a way to increase the sensitivity of the MDL for this parameter to below the most stringent WQS.

Bis(2-ethylhexyl)phthalate [a.k.a Di(2-ethylhexyl phthalate]. The previous permit contained limits for bis(2-ethylhexyl)phthalate; however based on the reasonable potential analysis, which included 11 data points over 5 years, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for bis(2-ethylhexyl)phthalate. One thing to consider, though, is that the method detection limit (MDL) is not low enough at 10µg/L (which is larger than the most stringent WQS at 6µg/L for Domestic Water Supply designated use) to adequately detect exceedances. Therefore, EPA proposes to eliminate the limits imposed in the previous permit, but monitoring is still required as part of the twice yearly priority pollutant scans. The EPA recommends the permittee search for a way to increase the sensitivity of the MDL for this parameter to below the most stringent WQS.

Arsenic. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for arsenic. Therefore, the proposed permit contains effluent limits for arsenic based on the human health WQS for the Domestic Water Supply designated use. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 20.10 µg/L and an average monthly limit (AML) of 10 µg/L. A coefficient of variation of 0.6 was used to determine each multiplier. Monitoring is required monthly.

Table 7. WQBEL Calculations for Arsenic.

	Acute	**Chronic**	**Human Health[1]**
Freshwater Aquatic Life Criteria, µg/L	340	150	10
No Dilution Credit Authorized	0	0	0
Background Concentration, µg/L	0	0	0
WLA (Dissolved), µg/L	340	150	n/a
WLA (Total Recoverable)[2], µg/L	340	150	10
WLA Multiplier (99^{th}%)	0.321	0.527	n/a
LTA, µg/L	109.14	79.05	10
LTA_{MDL} Multiplier (99^{th}%)	--	--	2.01
MDL, µg/L	--	--	20.10
MDL, kg/day	--	--	0.091
LTA_{AML} Multiplier (95^{th}%)[3]	--	--	n/a
AML, µg/L	--	--	10
AML, kg/day	--	--	0.045

[1]Derivation of permit limit based on Section 5.4.4 of EPA's TSD
[2]Conversion factor for dissolved to total recoverable found in Appendix A of the National Recommended Water Quality Criteria.
[3]LTA multiplier based on sampling frequency of four times per month per section 5.5.3 of EPA's TSD

Boron. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for boron. Therefore, the proposed permit contains effluent limits for boron based on the human health WQS for the Domestic Water Supply designated use. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 1270 μg/L and an average monthly limit (AML) of 630 μg/L. A coefficient of variation of 0.6 was used to determine each multiplier. Monitoring is required monthly.

Table 8. WQBEL Calculations for Boron.

	Human Health[1]
Freshwater Aquatic Life Criteria, μg/L	630
No Dilution Credit Authorized	0
Background Concentration, μg/L	0
WLA (Dissolved), μg/L	n/a
WLA (Total Recoverable), μg/L	630
WLA Multiplier (99^{th}%)	n/a
LTA, μg/L	630
LTA_{MDL} Multiplier (99^{th}%)	2.01
MDL, μg/L	1270
MDL, kg/day	5.77
LTA_{AML} Multiplier (95^{th}%)	n/a
AML, μg/L	630
AML, kg/day	2.86

[1]Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Fluoride. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for fluoride. Therefore, the proposed permit contains effluent limits for fluoride based on the human health WQS for the Domestic Water Supply designated use. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 8,040 μg/L and an average monthly limit (AML) of 4,000 μg/L. A coefficient of variation of 0.6 was used to determine each multiplier. Monitoring is required monthly.

Table 9. WQBEL Calculations for Fluoride.

	Human Health[1]
Freshwater Aquatic Life Criteria, μg/L	4,000
No Dilution Credit Authorized	0
Background Concentration, μg/L	0
WLA (Dissolved), μg/L	n/a
WLA (Total Recoverable), μg/L	4,000
WLA Multiplier (99^{th}%)	n/a
LTA, μg/L	4,000
LTA_{MDL} Multiplier (99^{th}%)	2.01
MDL, μg/L	8,040
MDL, kg/day	36.52

LTA_{AML} Multiplier (95^{th}%)	n/a
AML, µg/L	4,000
AML, kg/day	18.17

[1]Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Nitrate + Nitrite as N. Based on the reasonable potential analysis, EPA has determined that the discharge has a reasonable potential to cause or contribute to an exceedance for nitrate + nitrite as N. Therefore, the proposed permit contains effluent limits for nitrate + nitrite as N based on the WQS for the Domestic Water Supply designated use. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 20,100 µg/L and an average monthly limit (AML) of 10,000 µg/L. A coefficient of variation of 0.6 was used to determine each multiplier. Monitoring is required monthly.

Table 10. WQBEL Calculations for Nitrate + Nitrite as N.

	Human Health[1]
Freshwater Aquatic Life Criteria, µg/L	10,000
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	10,000
WLA Multiplier (99^{th}%)	n/a
LTA, µg/L	10,000
LTA_{MDL} Multiplier (99^{th}%)	2.01
MDL, µg/L	20,100
MDL, kg/day	91.29
LTA_{AML} Multiplier (95^{th}%)	n/a
AML, µg/L	10,000
AML, kg/day	45.42

[1]Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Zinc, barium, and iron. Based on the reasonable potential analysis, EPA has determined that the discharge does not have reasonable potential to cause or contribute to an exceedance for zinc, barium, or iron.

Whole Effluent Toxicity (Chronic). Section R18-11-108 of the Arizona WQS provides narrative toxicity requirements that limit the adverse effects of toxic substances in effluents. The existing permit requires semi-annual chronic whole effluent toxicity testing using cladoceran (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promela*). Although the laboratory results from the July 2006 tests indicates a “pass” with results of 1.0 TUC for each species, EPA has determined that the effluent has reasonable potential to exceed water quality criteria and proposes semi-annual chronic toxicity monitoring with numeric chronic whole effluent toxicity limitations. For this discharge, the chronic WET permit limits are 1.6 TU_c (MDL: the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day), and 1.0 TU_c (Median Monthly Limit or MML: highest allowable value for the median of daily discharges obtained over a calendar month). Monitoring is required semi-annually.

Special Note: The MDL exceeds the most stringent WQS for a few of the other toxics tested in the 2006 priority pollutant scan, including pesticides (such as chlordane and aldrin) and acid & base/neutrals (such as benzo(a)pyrene). Although these were non-detects, EPA recommends the permittee search for a way to increase the sensitivity of the MDL for these parameters to below the most stringent WQS.

Table 11. Summary Table of Proposed Effluent Limitations and Monitoring Requirements.

Parameter	**Units**	**Existing Permit Effluent Limits**			**Proposed Permit Effluent Limits**			**Monitoring Frequency**	**Sample Type**
		Average Monthly	**Average Weekly**	**Maximum Daily**	**Average Monthly**	**Average Weekly**	**Maximum Daily**		
Flow	MGD	N/A	N/A	N/A	N/A	N/A	N/A	Continuous	N/A
Biochemical Oxygen Demand (5-day)	mg/L	30	45	Monitoring Only	30	45	Monitoring Only	Two/Month	24-hr Composite
	kg/day	136	204	408	136	204	Monitoring Only		
	% Removal	Both the influent and the effluent shall be monitored. The arithmetic mean of the BOD values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (85 percent BOD removal).							
Total Suspended Solids	mg/L	30	45	Monitoring Only	30	45	Monitoring Only	Two/Month	24-hr Composite
	kg/day	136	204	408	136	204	Monitoring Only		
	% Removal	Both the influent and the effluent shall be monitored. The arithmetic mean of the TSS values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (85 percent TSS removal).							
E. Coli	CFU/ 100 mL	130	--	580	126	--	235	Weekly	Discrete
Oil & Grease	mg/L	10	15	--	10	15	--	Monthly	Discrete
	kg/day	45.4	68.1	--	45.4	68.1	--		
pH	Standard Units	Not < 6.5 SU, Not > 9.0 SU			Not < 6.5 SU, Not > 9.0 SU			Weekly	Discrete
Total Dissolved Solids[1]	mg/L	Incremental increase not to exceed 400mg/L.			Incremental increase not to exceed 400mg/L.			Two/Month	Discrete
Total Residual Chlorine	µg/L	5	--	11	--	--	--	Once/Day	Discrete
Beryllium	kg/day	0.95	--	18	--	--	--	Two/Year as part of Priority Pollutant Scans	
	µg/L	0.21	--	4	--	--	--		
Cadmium	kg/day	14	--	318	--	--	--	Two/Year as part of	

	µg/L	3.0	--	70	--	--	--		
Lead	kg/day	68	--	1753	0.05	--	0.13	Monthly	Composite
	µg/L	15	--	386	10.29	--	27.83		
Mercury	kg/day	0.045	--	11	--	--	--	Two/Year as part of Priority Pollutant Scans	
	µg/L	0.01	--	2.4	--	--	--		
Selenium	kg/day	9.1	--	91	0.0084	--	0.011	Monthly	Composite
	µg/L	2.0	--	20	1.86	--	2.47		
Cyanide	kg/day	44	--	186	--	--	--	Two/Year as part of Priority Pollutant Scans	
	µg/L	9.7	--	41	--	--	--		
Bis(2-ethylhexyl)phthalate	kg/day	27	--	454	--	--	--	Two/Year as part of Priority Pollutant Scans	
	µg/L	6	--	100	--	--	--		
Arsenic	kg/day	--	--	--	0.045	--	0.091	Monthly	Composite
	µg/L	--	--	--	10	--	20.10		
Boron	kg/day	--	--	--	2.86	--	5.77	Monthly	Composite
	µg/L	--	--	--	630	--	1270		
Fluoride	kg/day	--	--	--	18.17	--	36.52	Monthly	Composite
	µg/L	--	--	--	4,000	--	8,040		
Nitrate + Nitrite as N	kg/day	--	--	--	45.42	--	91.29	Monthly	Composite
	µg/L	--	--	--	10,000	--	20,100		
Whole Effluent Toxicity, chronic	TU_C	Monitoring Only			1.0*	--	1.6	Two/Year	Composite

[1]*Both incremental increase and total effluent TDS values shall be reported.*
Monthly **median.*

D. Anti-Backsliding

Section 402(o) of the CWA prohibits the renewal or reissuance of an NPDES permit that contains effluent limits less stringent than those established in the previous permit, except as provided in the statute. The effluent limitations in the proposed permit are at least as stringent as the effluent limitations in the previous permit, with the exception of the following parameters.

Although the previous permit included WQBELs for total chlorine residual, beryllium, cadmium, mercury, cyanide and bis (2-ethylhexyl) phthalate, the proposed permit only includes WQBELs for those parameters found to cause, have the reasonable potential to cause, or contribute to an excursion above water quality standards, in accordance with 40 CFR 122.44(d) and RPA procedures in EPA’s TSD. Five years of monthly effluent data has shown that the above-mentioned parameters do not have the reasonable potential to cause exceedances of water quality standards. For parameters without WQBELs, this permit includes continued monitoring requirements. The removal of WQBELs is not expected to cause a change in the chemical nature of the effluent discharge, impact designated uses, or lower existing receiving water quality.

The previous permit also contained daily maximum mass-based limits for BOD and TSS. These limits are redundant as the average monthly and weekly effluent limits are more stringent, and therefore more protective of water quality standards. Thus, the daily maximum limits for BOD and TSS have been eliminated from the proposed permit.

E. Antidegradation Policy

EPA's antidegradation policy at 40 CFR 131.12 and Section R18-11-107 of the 2008 Arizona Water Quality Standards require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this document, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The permit does not include a mixing zone, therefore these limits will apply at the end of pipe without consideration of dilution in the receiving water. A priority pollutant scan has been conducted of the effluent, demonstrating that most pollutants will be discharged below detection levels. Furthermore, the waterbody is not listed as an impaired waterbody for total suspended solids, turbidity or oil and grease under section 303(d) of the CWA.

Therefore, due to the low levels of toxic pollutants present in the effluent, high level of treatment being obtained, and water quality based effluent limitations, it is not expected that the discharge will adversely affect receiving water bodies.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

Section R18-11-108 of the 2008 Arizona WQS contains narrative water quality standards applicable to the receiving water. Therefore, the permit incorporates the following applicable narrative water quality standards:

A. The discharge shall be free from pollutants in amounts or combinations that:
   1. Settle to form bottom deposits that inhibit or prohibit the habitation, growth, or propagation of aquatic life;
   2. Cause objectionable odor in the area in which the surface water is located;
   3. Cause off-taste or odor in drinking water;
   4. Cause off-flavor in aquatic organisms;
   5. Are toxic to humans, animals, plants, or other organisms;
   6. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth, or propagation of other aquatic life or that impair recreational uses;
   7. Cause or contribute to a violation of an aquifer water quality standard prescribed in R18-11-405 or R18-11-406; or
   8. Change the color of the surface water from natural background levels of color.

B. The discharge shall be free from oil, grease or other pollutant that floats as debris, foam, or scum; or that causes a film or iridescent appearance on the surface of the water; or that cause a deposit on a shoreline, bank, or aquatic vegetation. The discharge of lubricating oil or gasoline associated with the normal operation of a recreational watercraft is not a violation of this narrative standard.

C. The discharge shall be free from suspended solids in quantities or concentrations that interfere with the treatment processes at the nearest downstream potable water treatment plant or substantially increase the cost of handling solids produced at the nearest downstream potable water treatment plant.

D. The discharge shall be free from refuse, rubbish, demolition or construction debris, trash, garbage, motor vehicles, appliances, tires, or other solid waste into a surface water or onto its banks.

E. The discharge shall not cause degredation so that a wadeable, perennial stream cannot support and maintain a community of organisms having taxa richness, species composition, tolerance, and functional organization comparable to that of a reference stream in Arizona.

F. In addition, the discharge shall not:
   a) raise the natural ambient water **temperature** of the receiving water more than three (3) degrees Celsius;
   b) cause the **turbidity** of the receiving water to exceed 50 nephelometric turbidity units; or
   c) lower the **dissolved oxygen** concentration of the receiving water to less than six (6) mg/L or 90% saturation, whichever is less.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to conduct monitoring for all pollutants or parameters where effluent limits have been established, at the minimum frequency specified. Additionally, where effluent concentrations of toxic parameters are unknown or where data is insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Influent Monitoring and Reporting

The permittee shall conduct influent monitoring of BOD and TSS to evaluate compliance with the proposed permit conditions. The permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the draft permit. All influent monitoring data shall be reported on monthly DMR forms and submitted quarterly to EPA, as specified in the draft permit.

B. Effluent Monitoring and Reporting

The permittee shall conduct effluent monitoring as specified in the proposed permit to evaluate compliance with the proposed permit conditions. The permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit. All monitoring data shall be reported on monthly DMR forms and submitted quarterly as specified in the proposed permit.

C. Priority Toxic Pollutants Scan

The proposed permit retains the existing requirement that monitoring for Priority Pollutants be conducted **twice-yearly** in July and January using a 24-hour composite sample (use grab samples where appropriate) of the final effluent concurrent with Whole Effluent Toxicity testing. The permittee shall perform all effluent sampling and analyses for the priority pollutants scan in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the proposed permit or by EPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants.

D. Whole Effluent Toxicity Testing

The previous permit contained a requirement for chronic whole effluent toxicity testing for both cladoceran, *Ceriodaphnia dubia* and the fathead minnow, *Pimephales promela.* From results of the facility’s July 2006 tests, EPA has determined that there is reasonable potential for the effluent to exceed water quality standards. Therefore, new permit limits (1.0 TU_C monthly median, and 1.6 TU_C daily maximum) have been included in the proposed permit. In addition, the monitoring requirements have been updated to reflect the most recent WET monitoring requirements. These include a screen test, using three species, (the above-mentioned and an algal species), and from then on, testing with only the most sensitive species. Chronic WET testing shall be conducted semi-annually, in January and July, using a 24-hour composite sample (use grab samples where appropriate) of the final effluent concurrent with a Priority Pollutants scan. Additional requirements are included in the proposed permit.

IX. SPECIAL CONDITIONS

A. Biosolids

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are incorporated into the permit.

B. Pretreatment

The permittee is not required to have a formal pretreatment program; however, one of the industrial users that discharges process wastewater to the POTW has a history of violations and may be contributing to the concentration of metals, such as arsenic, in the POTW's effluent. Therefore, quarterly monitoring of the industrial user's effluent, to determine compliance with categorical pretreatment standards, and annual inspections and reporting are required in the proposed permit.

C. Development of an Initial Investigation TRE Workplan for Whole Effluent Toxicity

In the event effluent toxicity is triggered from WET test results, the permit requires the permittee to develop and implement a Toxics Reduction Evaluation ("TRE") Workplan. For acute toxicity, unacceptable effluent toxicity is found when "Fail" is determined, as indicated by a statistically significant difference between a test sample of 100 percent effluent and a control using a t-test. For chronic toxicity, unacceptable effluent toxicity is found in a single test result greater than 1.6 TU_c, or when any one or more monthly test results in a calculated median value greater than 1.0 TU_c. The draft permit also requires additional toxicity testing if a chronic toxicity monitoring trigger is exceeded. Within 90 days of the permit effective date, the permittee shall prepare and submit a copy of their Initial Investigation TRE Workplan (1-2 pages) for acute and chronic toxicity to EPA for review.

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Impact to Threatened and Endangered Species

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by the federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat.

EPA sent a letter to the US Fish and Wildlife Service (USFWS) on April 9, 2008 to request updated species information. EPA did not receive a response; however EPA found updated species information on USFWS's website. EPA prepared a biological evaluation of the listed species that may be potentially affected by the discharge. This biological evaluation will be sent to the USFWS for review. In addition, a copy of the proposed permit and fact sheet will be sent to the USFWS for review during the public comment period.

From the USFWS Southwest Region's Threatened and Endangered Species Online Database, EPA found there are currently 7 Federally-listed endangered (E) species and 1 Federally-listed threatened (T) species in La Paz and Yuma Counties.

Table 12. ESA Species List for La Paz and Yuma Counties, Arizona

Status	**Species (Common Name/ *Scientific Name*)**
E	Bonytail chub/ *Gila elegans*
E	Razorback sucker/ *Xyrauchen texanus*
E	Southwestern willow flycatcher/ *Empidonax traillii extimus*
E	Yuma clapper rail/ *Rallus longirostris yumanensis*
E	Lesser long-nosed bat/ *Leptonycteris curasoae yerbabuenae*
E	Sonoran pronghorn/ *Antilocapra Americana sonoriensis*
T	Bald eagle/ *Haliaeetus leucocephalus*

EPA's biological evaluation for these eight species found that the discharge "may affect, but is not likely to adversely affect" the bonytail chub, razorback sucker, and Yuma clapper rail and will have "no effect" on the southwestern willow flycatcher, lesser long-nosed bat, sonoran pronghorn, and bald eagle.

B. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to the NHPA and 36 CFR § 800.3(a)(1), EPA is making a determination that issuing this proposed NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. **Standard Provisions**

The permit requires the permittee to comply with EPA Region IX Standard Federal NPDES Permit Conditions, dated July 1, 2001.

XII. ADMINISTRATIVE INFORMATION

A. **Public Notice** (40 CFR 124.10)
The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. **Public Comment Period** (40 CFR 124.10)
Notice of the draft permit will be placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. **Public Hearing** (40 CFR 124.12(c))
A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if EPA determines there is a significant amount of interest expressed during the 30-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

XIII. CONTACT INFORMATION

Comments submittals and additional information relating to this proposal may be directed to:

U.S. Environmental Protection Agency, Region IX
NPDES Permits Office (WTR-5)
75 Hawthorne Street
San Francisco, California 94105
ATTN: Elizabeth Sablad
sablad.elizabeth@epa.gov

XIV. REFERENCES

EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. Prepared by EPA, Office of Water Enforcement and Permits, in March 1991. EPA/505/2-90-001.

EPA. 1996. *Regions IX & X Guidance for Implementing Whole Effluent Toxicity Testing Programs*, Interim Final, May 31. 1996.

Denton DL, Miller JM, Stuber RA. 2007. EPA Regions 9 and 10 toxicity training tool (TTT). November 2007. San Francisco, CA.

EPA. 2002a. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* - Fifth Edition. Office of Water, EPA. EPA-821-R-02-012.

EPA. 2002b. *National Recommended Water Quality Criteria*. Office of Water, EPA. EPA-822-R-02-047.

EPA. 1996. *U.S. EPA NPDES Basic Permit Writers Manual*. EPA. EPA-833-B-96-003.

Department of Environmental Quality. 2003. *Water Quality Standards*. Arizona Administrative Code Title 18, Chapter 11.

Department of Environmental Quality. 2008. *Notices of Proposed Rulemaking - Water Quality Standards*. Arizona Administrative Code Title 18, Chapter 11.

Appendix L

POTW Discharge Report
June 2015

EVOQUA
WATER TECHNOLOGIES

Via Electronic Mail

June 23, 2015

Mr. Keith Silva or Successor
WTR-7
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Re: 40 CFR 403.12(e) – Periodic Reports on Continued Compliance

Mr. Silva:

Per 40 CFR 403.12(e), Evoqua Water Technologies Inc. LLC is submitting the required periodic report.

The following are the report requirements listed in 40 CFR 403.12(e) which refer to paragraphs 403.12(b)(4)-(6).

Flow Measurement ***40 CFR 403.12(b)(4)***

(i) The average daily flow for the period of December 6, 2014 through June 4, 2015 for the regulated process stream was 121,227 gallons per day. The maximum daily flow for the same period for the regulated process stream was 138,215 gallons per day.

(ii) There are no other streams mixed with the regulated stream before the sampling point.

Pollutant Measurement ***40 CFR 403.12(b)(5)***

(i) The pretreatment standards for existing sources (PSES) applicable to the Evoqua facility can be found at 40 CFR 437.46(b) - Multiple Waste Streams (combined waste stream receipts from subparts A, B and C).

(ii) The results of the sampling and analyses identifying the nature and concentration of regulated pollutants in the discharge from the regulated process are located in Attachment 1. The samples are representative of daily operations.

PO Box 3308
Parker, AZ 85344 USA

Tel: +1 (928) 669-5758
Fax: +1 (928) 669-5775

www.evoqua.com

(iii) Four (4) grab samples were collected over a 24-hour period for the analysis of volatile organics and oil and grease. A 24-hour composite sample was obtained for the metals analyses.

(iv) A minimum of one sample was collected.

(v) The samples were collected immediately downstream from the pretreatment facility prior to mixing with any other waste stream.

(vi) Sampling and analysis were performed in accordance with the techniques prescribed in 40 CFR 136.

(vii) Not applicable for this report.

(viii) Not applicable for this report.

Certification ***40 CFR 403.12(b)(6)***

A statement of certification indicating that the Pretreatment Standards are being met on a consistent basis can be found in Attachment 2.

An additional attachment included in this letter is the signatory authorization letter (Attachment 3).

Please feel free to call if you have any questions at (928) 669-5758, x17.

Sincerely,

Monte McCue
Director of Plant Operations

CC: Andy Jones – CRSSJV
CRIT EPO Officer

Attachment 1

ANALYTICAL RESULTS

40 CFR 403.12(b)(5)(ii)

Evoqua Water Technologies Inc. LLC
Report on Compliance with Categorical Pretreatment Standards
Summary of Sample Results - June 3-4, 2015

Analyte	CWT Limits 40 CFR 437.46(b)		Method 200.7 / 7470A	Sample Result[1]			
Metals - 200.7 / 7470	**Maximum Daily[1]**	**Monthly Average[1]**	**Reporting Limit[1]**		**NA**	**NA**	**NA**
Antimony (200.7)	0.249	0.206	0.010	ND			
Arsenic (200.7)	0.162	0.104	0.010	0.011			
Cadmium (200.7)	0.474	0.0962	0.0050	ND			
Chromium (200.7)	0.947	0.487	0.0050	ND			
Cobalt (200.7)	0.192	0.124	0.010	ND			
Copper (200.7)	0.405	0.301	0.010	ND			
Lead (200.7)	0.222	0.172	0.0050	ND			
Mercury (7470)	0.00234	0.000739	0.00020	ND			
Nickel (200.7)	3.95	1.45	0.010	ND			
Silver (200.7)	0.120	0.0351	0.010	ND			
Tin (200.7)	0.409	0.120	0.10	ND			
Titanium (200.7)	0.0947	0.0618	0.0050	ND			
Vanadium (200.7)	0.218	0.0662	0.010	ND			
Zinc (200.7)	2.87	0.641	0.020	0.045			

Analyte	CWT Limits 40 CFR 437.46(b)		Method 625	Sample Result[2]			
Organics - 625	**Maximum Daily[1]**	**Monthly Average[1]**	**Reporting Limit[2]**				
Bis(2-ethylhexyl) phthalate	0.267	0.158	9.5 - 9.6	ND	ND	ND	ND
Carbazole	0.392	0.233	4.8	ND	ND	ND	ND
o-Cresol	1.92	0.561	4.8	ND	ND	ND	ND
p-Cresol	0.698	0.205	4.8	ND	ND	ND	ND
n-Decane	5.79	3.31	4.8	ND	ND	ND	ND
Fluoranthene	0.787	0.393	9.5 - 9.6	ND	ND	ND	ND
n-Octadecane	1.22	0.925	4.8	ND	ND	ND	ND
2,4,6-Trichlorophenol	0.155	0.106	9.5 - 9.6	ND	ND	ND	ND

Analyte	CWT Limits		Method HEM 1664	Sample Result[1]			
Oil & Grease - HEM EPA 1664	**Maximum Daily[1]**	**Monthly Average[1]**	**Reporting Limit[1]**				
Oil and Grease	127	38	4.7	ND	ND	ND	ND

[1] mg/l (ppm)　[2] ug/l (ppb)

ND - Analyte Not Detected at or above reporting limit

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-111986-1
Client Project/Site: CWT June 2015

For:
Evoqua Water Technologies eProcurement
PO BOX 3308 IMA065
Parker, Arizona 85344

Attn: Roy Provins

Authorized for release by:
6/18/2015 7:50:12 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Sample Summary

Client: Evoqua Water Technologies eProcurement
Project/Site: CWT June 2015

TestAmerica Job ID: 440-111986-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-111986-1	500 mL P Metals	Water	06/03/15 08:00	06/04/15 12:00
440-111986-2	Sample 1, 1L Amber(Black)	Water	06/02/15 10:00	06/04/15 12:00
440-111986-3	Sample 2, 1L Amber(Blue)	Water	06/02/15 16:00	06/04/15 12:00
440-111986-4	Sample 3, 1L Amber(Pink)	Water	06/02/15 22:00	06/04/15 12:00
440-111986-5	Sample 4, 1L Amber(Green)	Water	06/03/15 04:00	06/04/15 12:00

Job ID: 440-111986-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-111986-1

Comments
No additional comments.

Receipt
The samples were received on 6/4/2015 12:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.2º C and 5.6º C.

GC/MS Semi VOA
Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-259926 and analytical batch 440-260509. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-261004. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: 500 mL P Metals — Lab Sample ID: 440-111986-1

Date Collected: 06/03/15 08:00 — **Matrix: Water**
Date Received: 06/04/15 12:00

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.011**		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1
Cadmium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:29	1
Cobalt	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1
Chromium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:29	1
Copper	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1
Nickel	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1
Lead	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:29	1
Antimony	ND		0.010		mg/L		06/10/15 10:27	06/16/15 13:30	1
Tin	ND		0.10		mg/L		06/10/15 10:27	06/15/15 12:29	1
Titanium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:29	1
Vanadium	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1
Zinc	**0.045**		0.020		mg/L		06/10/15 10:27	06/15/15 12:29	1
Silver	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00024**		0.00020		mg/L		06/18/15 13:27	06/18/15 17:52	1

Client Sample ID: Sample 1, 1L Amber(Black) — Lab Sample ID: 440-111986-2

Date Collected: 06/02/15 10:00 — **Matrix: Water**
Date Received: 06/04/15 12:00

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		06/07/15 13:29	06/10/15 20:36	1
Carbazole	ND		20		ug/L		06/07/15 13:29	06/10/15 20:36	1
Fluoranthene	ND		10		ug/L		06/07/15 13:29	06/10/15 20:36	1
para-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 20:36	1
n-Decane	ND		5.1		ug/L		06/07/15 13:29	06/10/15 20:36	1
n-Octadecane	ND		5.1		ug/L		06/07/15 13:29	06/10/15 20:36	1
o-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 20:36	1
2,4,6-Trichlorophenol	ND		20		ug/L		06/07/15 13:29	06/10/15 20:36	1
Total Cresols	ND		10		ug/L		06/07/15 13:29	06/10/15 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*50 - 120*	*06/07/15 13:29*	*06/10/15 20:36*	*1*
2-Fluorophenol	*56*		*30 - 120*	*06/07/15 13:29*	*06/10/15 20:36*	*1*
Nitrobenzene-d5	*62*		*45 - 120*	*06/07/15 13:29*	*06/10/15 20:36*	*1*
Phenol-d6	*60*		*35 - 120*	*06/07/15 13:29*	*06/10/15 20:36*	*1*
Terphenyl-d14	*97*		*10 - 150*	*06/07/15 13:29*	*06/10/15 20:36*	*1*
2,4,6-Tribromophenol	*82*		*40 - 120*	*06/07/15 13:29*	*06/10/15 20:36*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0		mg/L		06/12/15 07:04	06/12/15 11:42	1

Client Sample ID: Sample 2, 1L Amber(Blue) Lab Sample ID: 440-111986-3

Date Collected: 06/02/15 16:00 **Matrix: Water**
Date Received: 06/04/15 12:00

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		06/07/15 13:29	06/10/15 20:59	1
Carbazole	ND		20		ug/L		06/07/15 13:29	06/10/15 20:59	1
Fluoranthene	ND		10		ug/L		06/07/15 13:29	06/10/15 20:59	1
para-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 20:59	1
n-Decane	ND		5.1		ug/L		06/07/15 13:29	06/10/15 20:59	1
n-Octadecane	ND		5.1		ug/L		06/07/15 13:29	06/10/15 20:59	1
o-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 20:59	1
2,4,6-Trichlorophenol	ND		20		ug/L		06/07/15 13:29	06/10/15 20:59	1
Total Cresols	ND		10		ug/L		06/07/15 13:29	06/10/15 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*50 - 120*	*06/07/15 13:29*	*06/10/15 20:59*	*1*
2-Fluorophenol	*58*		*30 - 120*	*06/07/15 13:29*	*06/10/15 20:59*	*1*
Nitrobenzene-d5	*61*		*45 - 120*	*06/07/15 13:29*	*06/10/15 20:59*	*1*
Phenol-d6	*64*		*35 - 120*	*06/07/15 13:29*	*06/10/15 20:59*	*1*
Terphenyl-d14	*90*		*10 - 150*	*06/07/15 13:29*	*06/10/15 20:59*	*1*
2,4,6-Tribromophenol	*80*		*40 - 120*	*06/07/15 13:29*	*06/10/15 20:59*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.8		mg/L		06/12/15 07:04	06/12/15 11:42	1

Client Sample ID: Sample 3, 1L Amber(Pink) Lab Sample ID: 440-111986-4

Date Collected: 06/02/15 22:00 **Matrix: Water**
Date Received: 06/04/15 12:00

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		06/07/15 13:29	06/10/15 23:15	1
Carbazole	ND		20		ug/L		06/07/15 13:29	06/10/15 23:15	1
Fluoranthene	ND		9.8		ug/L		06/07/15 13:29	06/10/15 23:15	1
para-Cresol	ND		9.8		ug/L		06/07/15 13:29	06/10/15 23:15	1
n-Decane	ND		4.9		ug/L		06/07/15 13:29	06/10/15 23:15	1
n-Octadecane	ND		4.9		ug/L		06/07/15 13:29	06/10/15 23:15	1
o-Cresol	ND		9.8		ug/L		06/07/15 13:29	06/10/15 23:15	1
2,4,6-Trichlorophenol	ND		20		ug/L		06/07/15 13:29	06/10/15 23:15	1
Total Cresols	ND		9.8		ug/L		06/07/15 13:29	06/10/15 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*50 - 120*	*06/07/15 13:29*	*06/10/15 23:15*	*1*
2-Fluorophenol	*57*		*30 - 120*	*06/07/15 13:29*	*06/10/15 23:15*	*1*
Nitrobenzene-d5	*62*		*45 - 120*	*06/07/15 13:29*	*06/10/15 23:15*	*1*
Phenol-d6	*61*		*35 - 120*	*06/07/15 13:29*	*06/10/15 23:15*	*1*
Terphenyl-d14	*89*		*10 - 150*	*06/07/15 13:29*	*06/10/15 23:15*	*1*
2,4,6-Tribromophenol	*81*		*40 - 120*	*06/07/15 13:29*	*06/10/15 23:15*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0		mg/L		06/12/15 07:04	06/12/15 11:42	1

Client Sample ID: Sample 4, 1L Amber(Green)

Lab Sample ID: 440-111986-5
Date Collected: 06/03/15 04:00
Matrix: Water
Date Received: 06/04/15 12:00

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		21		ug/L		06/07/15 13:29	06/10/15 23:38	1
Carbazole	ND		21		ug/L		06/07/15 13:29	06/10/15 23:38	1
Fluoranthene	ND		10		ug/L		06/07/15 13:29	06/10/15 23:38	1
para-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 23:38	1
n-Decane	ND		5.2		ug/L		06/07/15 13:29	06/10/15 23:38	1
n-Octadecane	ND		5.2		ug/L		06/07/15 13:29	06/10/15 23:38	1
o-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 23:38	1
2,4,6-Trichlorophenol	ND		21		ug/L		06/07/15 13:29	06/10/15 23:38	1
Total Cresols	ND		10		ug/L		06/07/15 13:29	06/10/15 23:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*54*		*50 - 120*	*06/07/15 13:29*	*06/10/15 23:38*	*1*
2-Fluorophenol	*39*		*30 - 120*	*06/07/15 13:29*	*06/10/15 23:38*	*1*
Nitrobenzene-d5	*47*		*45 - 120*	*06/07/15 13:29*	*06/10/15 23:38*	*1*
Phenol-d6	*41*		*35 - 120*	*06/07/15 13:29*	*06/10/15 23:38*	*1*
Terphenyl-d14	*73*		*10 - 150*	*06/07/15 13:29*	*06/10/15 23:38*	*1*
2,4,6-Tribromophenol	*64*		*40 - 120*	*06/07/15 13:29*	*06/10/15 23:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0		mg/L		06/12/15 07:04	06/12/15 11:42	1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
1664A	HEM and SGT-HEM	1664A	TAL IRV

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: 500 mL P Metals
Lab Sample ID: 440-111986-1
Date Collected: 06/03/15 08:00
Matrix: Water
Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			25 mL	25 mL	260523	06/10/15 10:27	APS	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1	25 mL	25 mL	261456	06/15/15 12:29	TK	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	260523	06/10/15 10:27	APS	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1	25 mL	25 mL	261693	06/16/15 13:30	TK	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	262226	06/18/15 13:27	DB	TAL IRV
Total/NA	Analysis	7470A		1	20 mL	20 mL	262310	06/18/15 17:52	DB	TAL IRV

Client Sample ID: Sample 1, 1L Amber(Black)
Lab Sample ID: 440-111986-2
Date Collected: 06/02/15 10:00
Matrix: Water
Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			985 mL	2 mL	259926	06/07/15 13:29	AK	TAL IRV
Total/NA	Analysis	625		1	985 mL	2 mL	260509	06/10/15 20:36	AI	TAL IRV
Total/NA	Prep	1664A			1010 mL	1000 mL	261004	06/12/15 07:04	QCT	TAL IRV
Total/NA	Analysis	1664A		1	1010 mL	1000 mL	261102	06/12/15 11:42	QCT	TAL IRV

Client Sample ID: Sample 2, 1L Amber(Blue)
Lab Sample ID: 440-111986-3
Date Collected: 06/02/15 16:00
Matrix: Water
Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			990 mL	2 mL	259926	06/07/15 13:29	AK	TAL IRV
Total/NA	Analysis	625		1	990 mL	2 mL	260509	06/10/15 20:59	AI	TAL IRV
Total/NA	Prep	1664A			1035 mL	1000 mL	261004	06/12/15 07:04	QCT	TAL IRV
Total/NA	Analysis	1664A		1	1035 mL	1000 mL	261102	06/12/15 11:42	QCT	TAL IRV

Client Sample ID: Sample 3, 1L Amber(Pink)
Lab Sample ID: 440-111986-4
Date Collected: 06/02/15 22:00
Matrix: Water
Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1025 mL	2 mL	259926	06/07/15 13:29	AK	TAL IRV
Total/NA	Analysis	625		1	1025 mL	2 mL	260509	06/10/15 23:15	AI	TAL IRV
Total/NA	Prep	1664A			1005 mL	1000 mL	261004	06/12/15 07:04	QCT	TAL IRV
Total/NA	Analysis	1664A		1	1005 mL	1000 mL	261102	06/12/15 11:42	QCT	TAL IRV

Client Sample ID: Sample 4, 1L Amber(Green)
Lab Sample ID: 440-111986-5
Date Collected: 06/03/15 04:00
Matrix: Water
Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			960 mL	2 mL	259926	06/07/15 13:29	AK	TAL IRV

Client Sample ID: Sample 4, 1L Amber(Green)

Lab Sample ID: 440-111986-5

Date Collected: 06/03/15 04:00

Matrix: Water

Date Received: 06/04/15 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	625		1	960 mL	2 mL	260509	06/10/15 23:38	AI	TAL IRV
Total/NA	Prep	1664A			1000 mL	1000 mL	261004	06/12/15 07:04	QCT	TAL IRV
Total/NA	Analysis	1664A		1	1000 mL	1000 mL	261102	06/12/15 11:42	QCT	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-259926/1-A
Matrix: Water
Analysis Batch: 260509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259926

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		06/07/15 13:29	06/10/15 10:46	1
Carbazole	ND		20		ug/L		06/07/15 13:29	06/10/15 10:46	1
Fluoranthene	ND		10		ug/L		06/07/15 13:29	06/10/15 10:46	1
para-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 10:46	1
n-Decane	ND		5.0		ug/L		06/07/15 13:29	06/10/15 10:46	1
n-Octadecane	ND		5.0		ug/L		06/07/15 13:29	06/10/15 10:46	1
o-Cresol	ND		10		ug/L		06/07/15 13:29	06/10/15 10:46	1
2,4,6-Trichlorophenol	ND		20		ug/L		06/07/15 13:29	06/10/15 10:46	1
Total Cresols	ND		10		ug/L		06/07/15 13:29	06/10/15 10:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*50 - 120*	*06/07/15 13:29*	*06/10/15 10:46*	*1*
2-Fluorophenol	*60*		*30 - 120*	*06/07/15 13:29*	*06/10/15 10:46*	*1*
Nitrobenzene-d5	*67*		*45 - 120*	*06/07/15 13:29*	*06/10/15 10:46*	*1*
Phenol-d6	*60*		*35 - 120*	*06/07/15 13:29*	*06/10/15 10:46*	*1*
Terphenyl-d14	*70*		*10 - 150*	*06/07/15 13:29*	*06/10/15 10:46*	*1*
2,4,6-Tribromophenol	*76*		*40 - 120*	*06/07/15 13:29*	*06/10/15 10:46*	*1*

Lab Sample ID: LCS 440-259926/2-A
Matrix: Water
Analysis Batch: 260509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259926

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	100	80.3		ug/L		80	10 - 150
Carbazole	100	87.5		ug/L		87	58 - 109
Fluoranthene	100	86.7		ug/L		87	26 - 137
para-Cresol	100	69.4		ug/L		69	49 - 100
o-Cresol	100	68.7		ug/L		69	47 - 97
2,4,6-Trichlorophenol	100	77.1		ug/L		77	37 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*50 - 120*
2-Fluorophenol	*57*		*30 - 120*
Nitrobenzene-d5	*67*		*45 - 120*
Phenol-d6	*59*		*35 - 120*
Terphenyl-d14	*83*		*10 - 150*
2,4,6-Tribromophenol	*84*		*40 - 120*

Lab Sample ID: LCSD 440-259926/3-A
Matrix: Water
Analysis Batch: 260509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259926

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	100	68.1		ug/L		68	10 - 150	17	35
Carbazole	100	71.9		ug/L		72	58 - 109	20	35
Fluoranthene	100	70.8		ug/L		71	26 - 137	20	35
para-Cresol	100	57.8		ug/L		58	49 - 100	18	35

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Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-259926/3-A
Matrix: Water
Analysis Batch: 260509

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259926

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Cresol	100	56.4		ug/L		56	47 - 97	20	35
2,4,6-Trichlorophenol	100	66.4		ug/L		66	37 - 144	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*50 - 120*
2-Fluorophenol	*46*		*30 - 120*
Nitrobenzene-d5	*55*		*45 - 120*
Phenol-d6	*49*		*35 - 120*
Terphenyl-d14	*70*		*10 - 150*
2,4,6-Tribromophenol	*71*		*40 - 120*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-260523/1-A
Matrix: Water
Analysis Batch: 261456

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1
Cadmium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:19	1
Cobalt	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1
Chromium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:19	1
Copper	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1
Nickel	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1
Lead	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:19	1
Tin	ND		0.10		mg/L		06/10/15 10:27	06/15/15 12:19	1
Titanium	ND		0.0050		mg/L		06/10/15 10:27	06/15/15 12:19	1
Vanadium	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1
Zinc	ND		0.020		mg/L		06/10/15 10:27	06/15/15 12:19	1
Silver	ND		0.010		mg/L		06/10/15 10:27	06/15/15 12:19	1

Lab Sample ID: MB 440-260523/1-A
Matrix: Water
Analysis Batch: 261693

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		06/10/15 10:27	06/16/15 13:18	1

Lab Sample ID: LCS 440-260523/2-A
Matrix: Water
Analysis Batch: 261693

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.512		mg/L		102	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-111887-A-1-B MS
Matrix: Water
Analysis Batch: 261456

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.11		0.500	0.610		mg/L		100	70 - 130
Cadmium	ND		0.500	0.479		mg/L		96	70 - 130
Cobalt	ND		0.500	0.496		mg/L		99	70 - 130
Chromium	0.32		0.500	0.812		mg/L		99	70 - 130
Copper	ND		0.500	0.497		mg/L		99	70 - 130
Nickel	ND		0.500	0.471		mg/L		94	70 - 130
Lead	ND		0.500	0.468		mg/L		94	70 - 130
Tin	ND		0.500	0.472		mg/L		94	70 - 130
Titanium	ND		0.500	0.509		mg/L		102	70 - 130
Vanadium	0.032		0.500	0.536		mg/L		101	70 - 130
Zinc	ND		0.500	0.494		mg/L		99	70 - 130
Silver	ND		0.250	0.246		mg/L		98	70 - 130

Lab Sample ID: 440-111887-A-1-B MS
Matrix: Water
Analysis Batch: 261693

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	L	0.500	0.487		mg/L		97	70 - 130

Lab Sample ID: 440-111887-A-1-C MSD
Matrix: Water
Analysis Batch: 261456

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.11		0.500	0.598		mg/L		97	70 - 130	2	20
Cadmium	ND		0.500	0.472		mg/L		94	70 - 130	2	20
Cobalt	ND		0.500	0.487		mg/L		97	70 - 130	2	20
Chromium	0.32		0.500	0.794		mg/L		95	70 - 130	2	20
Copper	ND		0.500	0.487		mg/L		97	70 - 130	2	20
Nickel	ND		0.500	0.459		mg/L		92	70 - 130	2	20
Lead	ND		0.500	0.463		mg/L		93	70 - 130	1	20
Tin	ND		0.500	0.462		mg/L		92	70 - 130	2	20
Titanium	ND		0.500	0.501		mg/L		100	70 - 130	2	20
Vanadium	0.032		0.500	0.533		mg/L		100	70 - 130	1	20
Zinc	ND		0.500	0.479		mg/L		96	70 - 130	3	20
Silver	ND		0.250	0.245		mg/L		98	70 - 130	0	20

Lab Sample ID: 440-111887-A-1-C MSD
Matrix: Water
Analysis Batch: 261693

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 260523

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	L	0.500	0.480		mg/L		96	70 - 130	1	20

Client: Evoqua Water Technologies eProcurement
Project/Site: CWT June 2015

TestAmerica Job ID: 440-111986-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-262226/1-A
Matrix: Water
Analysis Batch: 262310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 262226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		06/18/15 13:27	06/18/15 17:47	1

Lab Sample ID: LCS 440-262226/2-A
Matrix: Water
Analysis Batch: 262310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 262226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00851		mg/L		106	80 - 120

Lab Sample ID: 440-111986-1 MS
Matrix: Water
Analysis Batch: 262310

Client Sample ID: 500 mL P Metals
Prep Type: Total/NA
Prep Batch: 262226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00024		0.00800	0.00815		mg/L		99	70 - 130

Lab Sample ID: 440-111986-1 MSD
Matrix: Water
Analysis Batch: 262310

Client Sample ID: 500 mL P Metals
Prep Type: Total/NA
Prep Batch: 262226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00024		0.00800	0.00797		mg/L		97	70 - 130	2	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-261004/1-A
Matrix: Water
Analysis Batch: 261102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0		mg/L		06/12/15 07:04	06/12/15 11:42	1

Lab Sample ID: LCS 440-261004/2-A
Matrix: Water
Analysis Batch: 261102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	17.8		mg/L		89	78 - 114

Lab Sample ID: LCSD 440-261004/3-A
Matrix: Water
Analysis Batch: 261102

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 261004

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	20.0	18.6		mg/L		93	78 - 114	5	11

GC/MS Semi VOA

Prep Batch: 259926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-2	Sample 1, 1L Amber(Black)	Total/NA	Water	625	
440-111986-3	Sample 2, 1L Amber(Blue)	Total/NA	Water	625	
440-111986-4	Sample 3, 1L Amber(Pink)	Total/NA	Water	625	
440-111986-5	Sample 4, 1L Amber(Green)	Total/NA	Water	625	
LCS 440-259926/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 440-259926/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 440-259926/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 260509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-2	Sample 1, 1L Amber(Black)	Total/NA	Water	625	259926
440-111986-3	Sample 2, 1L Amber(Blue)	Total/NA	Water	625	259926
440-111986-4	Sample 3, 1L Amber(Pink)	Total/NA	Water	625	259926
440-111986-5	Sample 4, 1L Amber(Green)	Total/NA	Water	625	259926
LCS 440-259926/2-A	Lab Control Sample	Total/NA	Water	625	259926
LCSD 440-259926/3-A	Lab Control Sample Dup	Total/NA	Water	625	259926
MB 440-259926/1-A	Method Blank	Total/NA	Water	625	259926

Metals

Prep Batch: 260523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111887-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-111887-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
440-111986-1	500 mL P Metals	Total Recoverable	Water	200.2	
LCS 440-260523/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-260523/1-A	Method Blank	Total Recoverable	Water	200.2	

Analysis Batch: 261456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111887-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	260523
440-111887-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	260523
440-111986-1	500 mL P Metals	Total Recoverable	Water	200.7 Rev 4.4	260523
MB 440-260523/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	260523

Analysis Batch: 261693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111887-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	260523
440-111887-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	260523
440-111986-1	500 mL P Metals	Total Recoverable	Water	200.7 Rev 4.4	260523
LCS 440-260523/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	260523
MB 440-260523/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	260523

Prep Batch: 262226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-1	500 mL P Metals	Total/NA	Water	7470A	
440-111986-1 MS	500 mL P Metals	Total/NA	Water	7470A	
440-111986-1 MSD	500 mL P Metals	Total/NA	Water	7470A	
LCS 440-262226/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 440-262226/1-A	Method Blank	Total/NA	Water	7470A	

Metals (Continued)

Analysis Batch: 262310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-1	500 mL P Metals	Total/NA	Water	7470A	262226
440-111986-1 MS	500 mL P Metals	Total/NA	Water	7470A	262226
440-111986-1 MSD	500 mL P Metals	Total/NA	Water	7470A	262226
LCS 440-262226/2-A	Lab Control Sample	Total/NA	Water	7470A	262226
MB 440-262226/1-A	Method Blank	Total/NA	Water	7470A	262226

General Chemistry

Prep Batch: 261004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-2	Sample 1, 1L Amber(Black)	Total/NA	Water	1664A	
440-111986-3	Sample 2, 1L Amber(Blue)	Total/NA	Water	1664A	
440-111986-4	Sample 3, 1L Amber(Pink)	Total/NA	Water	1664A	
440-111986-5	Sample 4, 1L Amber(Green)	Total/NA	Water	1664A	
LCS 440-261004/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-261004/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-261004/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 261102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-111986-2	Sample 1, 1L Amber(Black)	Total/NA	Water	1664A	261004
440-111986-3	Sample 2, 1L Amber(Blue)	Total/NA	Water	1664A	261004
440-111986-4	Sample 3, 1L Amber(Pink)	Total/NA	Water	1664A	261004
440-111986-5	Sample 4, 1L Amber(Green)	Total/NA	Water	1664A	261004
LCS 440-261004/2-A	Lab Control Sample	Total/NA	Water	1664A	261004
LCSD 440-261004/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	261004
MB 440-261004/1-A	Method Blank	Total/NA	Water	1664A	261004

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

13

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-16

* Certification renewal pending - certification considered valid.

1 of 2

TestAmerica
ANALYTICAL TESTING CORPORATION

CHAIN OF CUSTODY RECORD

- [ ] Nashville, TN
- [ ] Orlando, FL
- [ ] Cedar Falls, IA
- [ ] Dayton, OH
- [ ] Watertown, WI
- [ ] Pontiac, MI
- [ ] Indianapolis, IN
- [x] Irvine,CA

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? **Yes** No

Enforcement Action? Yes **No**

9#

Client Name/Account #: Evoqua Water Technologies

Address: POB 3308 / 2523 Mutahar St

City/State/Zip: Parker, AZ 85344

Report To: James.R.Provins@evoqua.com

Project Manager:

Invoice To:

Telephone Number: (928) 669-5758

Fax No.: (928) 669-5775

TA Quote #:

Sampler Name: (Print) Roy Provins

Project ID: CWT June 2015

Sampler Signature:

Project #:

440-111986 Chain of Custody

							Preservative								Matrix						Analyze For:														
Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO_3 (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H_2SO_4 Plastic (Yellow Label)	H_2SO_4 Glass(Yellow Label)	None (White label)	Other (Specify)	Groundwater	Water	Drinking Water	Sludge	Soil	Other (specify):	Ni, Zn, As, Ag 200.7	Ti, Pb, Cd, Cu, 200.7	Co, V, Sn, Sb, 200.7	Cr, 200.7	Hg - 7470A	625-EFF	Oil & Grease 1664 HEM					RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
500 ml P metals	6/3/2015	8:00	1																																
Sample 1, 1L Amber(Black)	06/02/15	10:00	2																														X		
Sample 1, 1L Amber(Black)	06/02/15	10:00	2																														X		
Sample 2, 1L Amber(Blue)	06/02/15	16:00	2																														X		
Sample 2, 1L Amber(Blue)	06/02/15	16:00	2																														X		
Sample 3, 1L Amber(Pink)	06/02/15	22:00	2																														X		
Sample 3, 1L Amber(Pink)	06/02/15	22:00	2																														X		
Sample 4, 1L Amber(Green)	06/03/15	4:00	2																														X		
Sample 4, 1L Amber(Green)	06/03/15	4:00	2																														X		

Special Instructions:

Colors refer to tape on lid

Method of Shipment: UPS

Laboratory Comments:

Temperature Upon Receipt: 6.8/5.6 5.4/4.2

VOCs Free of Headspace? Y N

IR-71

Relinquished by:	Date	Time	Received by:	Date	Time
Provins	6/3/2015	12:00			
Relinquished by:	Date	Time	Received by TestAmerica:	Date	Time
			VuBanh	6/4/15	12:00

UPS: 1Z A95 20E 13 9704 5444
9840 9853

6/18/2015

Login Sample Receipt Checklist

Client: Evoqua Water Technologies eProcurement Job Number: 440-111986-1

Login Number: 111986 **List Source: TestAmerica Irvine**
List Number: 1
Creator: Kim, Guerry

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment 2

CERTIFICATION OF QUALIFIED PROFESSIONAL

40 CFR 403.12(b)(6)

Certification of Qualified Professional

40 CFR 403.12(b)(6)

I have reviewed the Evoqua Water Technologies inc. LLC treatment process and the effluent analytical results from the wastewater treatment plant contained in this report. Based on this review, I certify, as a qualified professional, that the Evoqua facility is meeting the applicable Pretreatment Standards on a consistent basis.

I am also an authorized representative for Evoqua Water Technoloties., and I have reviewed this statement.

Monte McCue
Director of Plant Operations

Date: June 22, 2015

Attachment 3

AUTHORIZATION OF SIGNATORY

40 CFR 403.12(l)5

USFilter
A Siemens Business

WESTATES
2523 MUTAHAR STREET (PHYSICAL)
PO BOX 3308(MAILING)
PARKER, AZ 85344

TELEPHONE 928-669-5758
FACSIMILE 928-669-5775
WEBSITE www.usfilter.com

June 1, 2005

Keith Silva
WTR-7
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: Authorization of Signatory

Dear Mr. Silva:

Pursuant to the signatory requirements under *40 CFR 403.12 (l)*, US Filter Corporation grants authorization to Monte McCue, Director of Plant Operations and/or Willard Bolyard, Jr. Plant Manager to sign on behalf of Westates Carbon-Arizona, Inc. for the purposes of certifying industrial user reports.

The above persons have the overall responsibility for the operations of the facility and the overall responsibility for environmental matters for Westates Carbon-Arizona, Inc.

Yours Truly,

Chuck Gordon
Executive Vice President
Westates Carbon-Arizona Inc.

Appendix M

Last Annual Emissions Results (2015) for Fugitive Emissions Measured Using a Foxboro FID

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
1	B-1 Baghouse Doors	8/5/2015	<5	<5	N			NA
2	B-1 Dust Collector Blower Outlet Flanges	8/5/2015	<5	<5	N			NA
3	H-1 Hopper Lid	8/5/2015	12	<5	N	Dumping Spent Carbon Lid Open		NA
4	H-1 Hopper Eductor, Piping and Victaulics	8/5/2015	30	30	N			NA
5	H-1 Hopper Flanges, Piping and Victaulics	8/5/2015	<5	<5	N			NA
6	H-1 Hopper Vault Door	8/5/2015	<5	<5	N			NA
7	H-2 Hopper Lid	8/5/2015	<5	<5	N			NA
8	H-2 Hopper Eductor Flanges and Victaulics	8/5/2015	<5	<5	N			NA
9	H-2 Hopper Piping and Victaulics	8/5/2015	<5	<5	N			NA
10	H-2 Hopper Vent Piping	8/5/2015	<5	<5	N			NA
11	RF-2 Hearth 1 Door West	8/5/2015	<5	<5	N			NA
12	RF-2 Seal Welded Flat - between 1 and 2	8/5/2015	<5	<5	N			NA
13	RF-2 Hearth 2 Door East	8/5/2015	**<5**	<5	N			NA
14	RF-2 Seal Welded Flat - between 2 and 3	8/5/2015	<5	<5	N			NA
15	RF-2 Hearth 3 Door East	8/5/2015	**<5**	<5	N			NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
16	RF-2 Seal Welded Flat - between 3 and 4	8/5/2015	<5	<5	N			NA
17	RF-2 Hearth 4 Door East	8/5/2015	<5	<5	N			NA
18	RF-2 Seal Welded Flat - between 4 and 5	8/5/2015	<5	<5	N			NA
19	RF-2 Hearth 5 Door East	8/5/2015	<5	<5	N			NA
20	RF-2 Welded Seam on Furnace Bottom	8/5/2015	<5	<5	N			NA
21	RF-2 Top Sand Seal	8/5/2015	<5	<5	N			NA
22	RF-2 Bottom Sand Seal	8/5/2015	<5	<5	N			NA
23	RF-2 Carbon Outlet Piping and Flanges	8/5/2015	<5	<5	N			NA
24	T-1 Ball Valves	8/5/2015	<5	<5	N	Not in Use		NA
25	T-1 Couplings	8/5/2015	<5	<5	N	Not in Use		NA
26	T-1 Eductor & Fittings	8/5/2015	<5	<5	N	Not in Use		NA
27	T-1 Fill Slurry Lines & Vics From H-1, H-2	8/5/2015	<5	<5	N	Not in Use		NA
28	T-1 Fittings & Valves	8/5/2015	<5	<5	N	Not in Use		NA
29	T-1 (SEE ATTACHMENT No. 1)	8/5/2015			N	Not in Use		NA
30	T-1 Pressure Relief Valve	8/5/2015	<5	<5	N	Not in Use		NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID

Tested By: Monte McCue

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
31	T-1 Slurry Line	8/5/2015	<5	<5	N	Not in Use		NA
32	T-1 Tank Flanges	8/5/2015	<5	<5	N	Not in Use		NA
33	T-1 Vent Pipe To WS-1	8/5/2015	<5	<5	N	Not in Use		NA
34	T-2 Ball Valves	8/5/2015	<5	<5	N	Not in Use		NA
35	T-2 Couplings	8/5/2015	<5	<5	N	Not in Use		NA
36	T-2 Eductor & Fittings	8/5/2015	<5	<5	N	Not in Use		NA
37	T-2 Fill Slurry Lines & Vics From H-1, H-2	8/5/2015	<5	<5	N	Not in Use		NA
38	T-2 Fittings & Valves	8/5/2015	<5	<5	N	Not in Use		NA
39	T-2 Tank (SEE ATTACHMENT No. 1)	8/5/2015			N	Not in Use		NA
40	T-2 Pressure Relief Valve	8/5/2015	<5	<5	N	Not in Use		NA
41	T-2 Slurry Line	8/5/2015	<5	<5	N	Not in Use		NA
42	T-2 Tank Flanges	8/5/2015	<5	<5	N	Not in Use		NA
43	T-2 Vent Pipe To WS-1	8/5/2015	<5	<5	N	Not in Use		NA
44	T-5 Ball Valves	8/5/2015	<5	<5	N			NA
45	T-5 Couplings	8/5/2015	<5	<5	N			NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
46	T-5 Eductor & Fittings	8/5/2015	<5	<5	N			NA
47	T-5 Fill Slurry Lines & Vics From H-1, H-2	8/5/2015	<5	<5	N			NA
48	T-5 Fittings & Valves	8/5/2015	<5	<5	N			NA
49	T-5 (SEE ATTACHMENT No. 2)	8/5/2015			N			NA
50	T-5 Pressure Relief Valve	8/5/2015	<5	<5	N			NA
51	T-5 Slurry Line	8/5/2015	<5	<5	N			NA
52	T-5 Tank Flanges	8/5/2015	<5	<5	N			NA
53	T-5 Vent Pipe To WS-1	8/5/2015	<5	<5	N			NA
54	T-6 Ball Valves	8/5/2015	<5	<5	N	Not in Use		NA
55	T-6 Couplings	8/5/2015	<5	<5	N	Not in Use		NA
56	T-6 Eductor & Fittings	8/5/2015	<5	<5	N	Not in Use		NA
57	T-6 Fill Slurry Lines & Vics From H-1, H-2	8/5/2015	<5	<5	N	Not in Use		NA
58	T-6 Fittings & Valves	8/5/2015	<5	<5	N	Not in Use		NA
59	T-6 (SEE ATTACHMENT No. 2)	8/5/2015			N	Not in Use		NA
60	T-6 Pressure Relief Valve	8/5/2015	<5	<5	N	Not in Use		NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
61	T-6 Slurry Line	8/5/2015	<5	<5	N	Not in Use		NA
62	T-6 Tank Flanges	8/5/2015	<5	<5	N	Not in Use		NA
63	T-6 Vent Pipe To WS-1	8/5/2015	<5	<5	N	Not in Use		NA
64	T-9 (SEE ATTACHMENT No. 3)	8/5/2015			N		Note: There was no reading <500 ppm but the lid was re-siliconed and rebolt to insure a good seal	NA
65	T-9 Level Transmitter	8/5/2015	<5	<5	N			NA
66	T-9 Main Bottom Manway Door	8/5/2015	<5	<5	N			NA
67	T-9 Return Line and Fittings From T Tanks	8/5/2015	<5	<5	N			NA
68	T-9 Return Line and Fittings From T-18	8/5/2015	<5	<5	N			NA
69	T-9 Sump Pump Fittings	8/5/2015	<5	<5	N			NA
70	T-9 Vent Line and Fittings To WS-1	8/5/2015	<5	<5	N			NA
71	T-9/P-4 Pump - Inlet Pipe and Fittings	8/5/2015	<5	<5	N			NA
72	T-9/P-5 Pump - Inlet Pipe and Fittings	8/5/2015	<5	<5	N			NA
73	T-9/P-4 Pump - Outlet Pipe and Fittings	8/5/2015	<5	<5	N			NA
74	T-9/P-5 Pump - Outlet Pipe and Fittings	8/5/2015	<5	<5	N			NA
75	H-18 Feed Hose & Couplings	8/5/2015	<5	<5	N			NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
76	H-18 Feed Valve & Piping	8/5/2015	<5	<5	N			NA
77	H-18 Level Indicators	8/5/2015	<5	<5	N			NA
78	H-18 Lids (SEE ATTACHMENT No. 4)	8/5/2015			N			NA
79	H-18 Return Line, Couplings and Vics	8/5/2015	<5	<5	N			NA
80	H-18 Piping and Couplings From T-Tanks	8/5/2015	<5	<5	N			NA
81	WS-1 Hatches & Sample Port	8/5/2015	<5	<5	N			NA
82	WS-1 Inlet	8/5/2015	8120	NA	N			NA
83	WS-1 Outlet	8/5/2015	6	<5	N			NA
84	WS-2 Hatches & Sample Port	8/5/2015	<5	<5	N			NA
85	WS-2 Inlet	8/5/2015	<5	<5	N			NA
86	WS-2 Outlet	8/5/2015	<5	<5	N			NA
87	WS-3 Hatches & Sample Port	8/5/2015	<5	<5	N			NA
88	WS-3 Inlet	8/5/2015	<5	<5	N			NA
89	WS-3 Outlet	8/5/2015	<5	<5	N			NA
90	Dewater Screw (SEE ATTACHMENT No. 4)	8/5/2015			N			NA

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.

Evoqua Water Technologies - Parker, AZ Facility

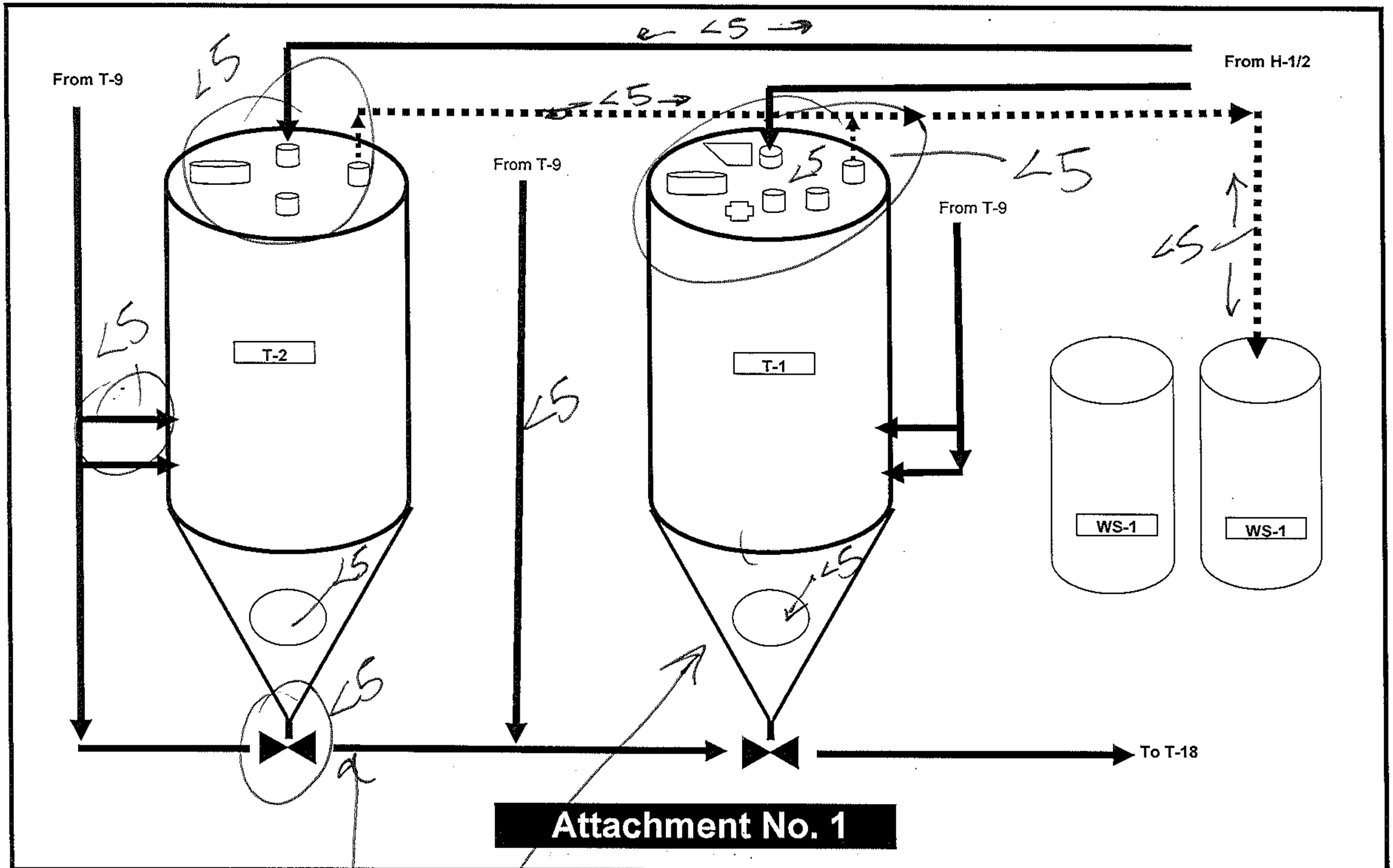
Annual Method 21 Testing

40 CFR 61.343, 345, 349

Instrument Used: Foxboro TVA 1000 FID **Tested By: Monte McCue**

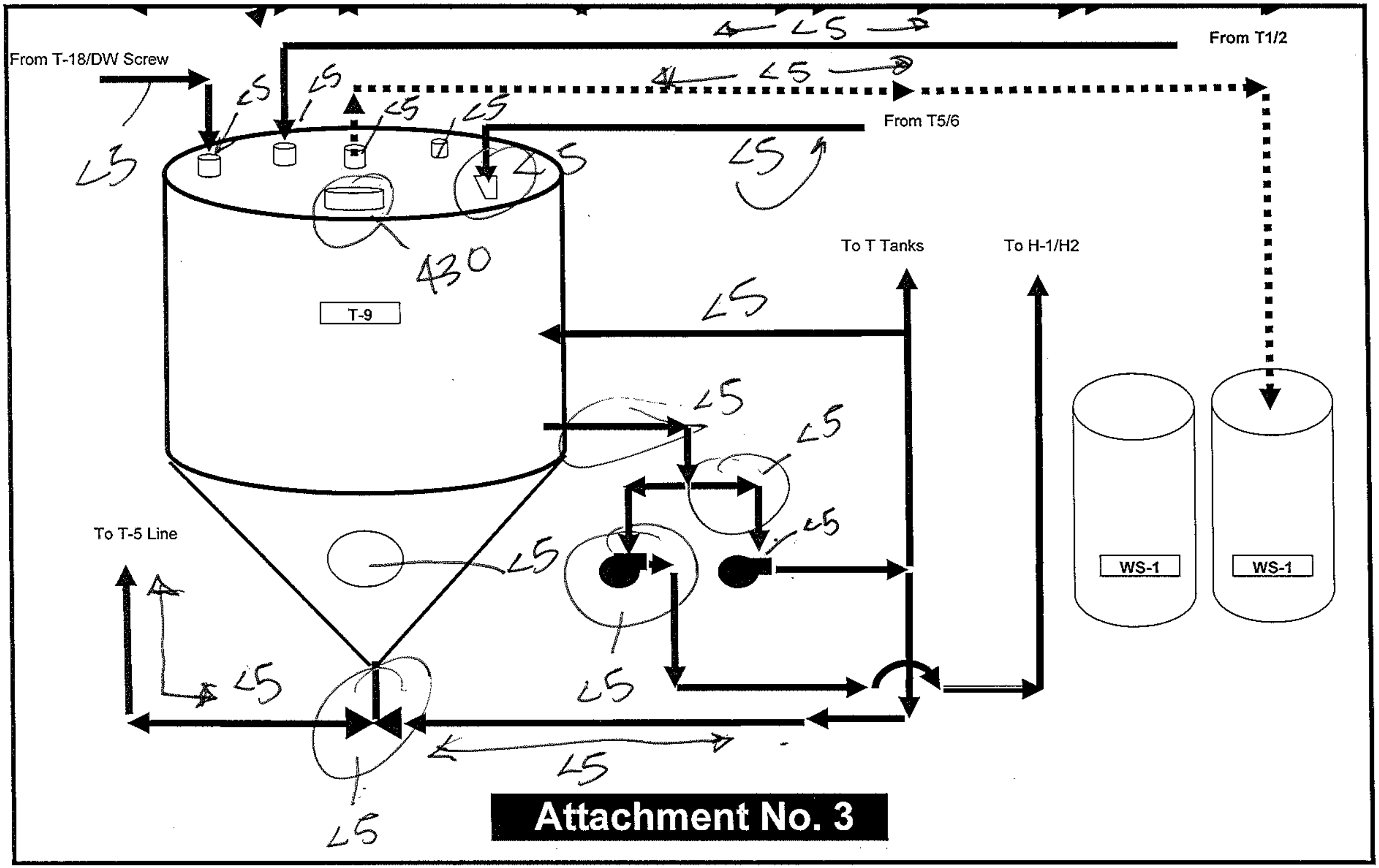
No.	Location ID	Date Inspected	Measured Concentration (PPMV)	Background Concentration (PPMV)	Leak Detected? (Y/N) *	Description Of Problem	Corrective Action Taken	Date Of Successful Repair **
91	Weigh Belt Feeder (SEE ATTACHMENT No. 4)	8/5/2015			N			NA
92	Rotary Valve (SEE ATTACHMENT No. 4)	8/5/2015			N			NA
93								
94								
95								
96								
97								
98								
99								
100								

*A leak is detected if the container is not sealed closed, or if the instrument reading exceeds 500 ppmv over the background concentration. **Repair must be completed within 15 days.



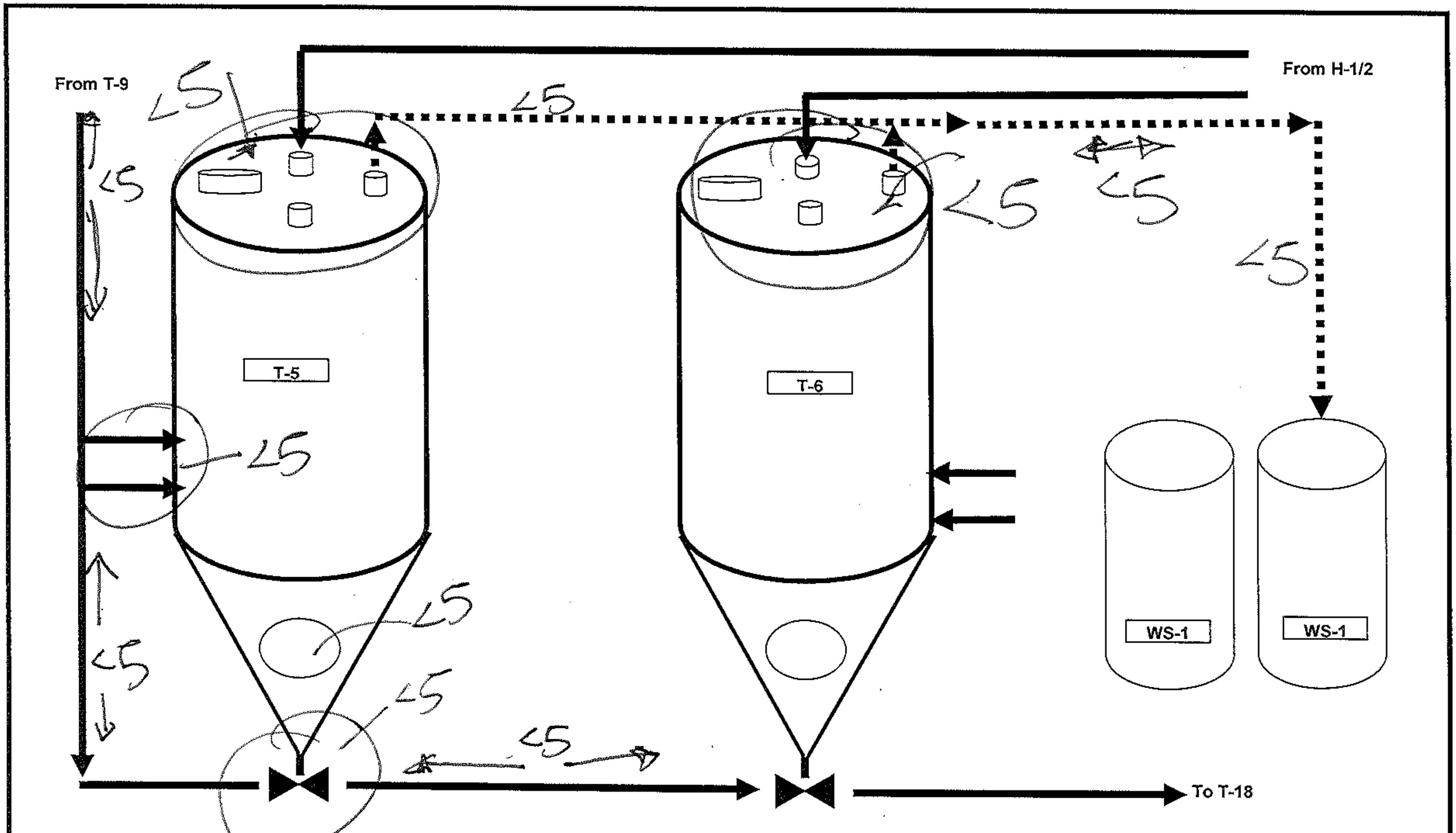
NOT IN USE

8/5/15



Attachment No. 3

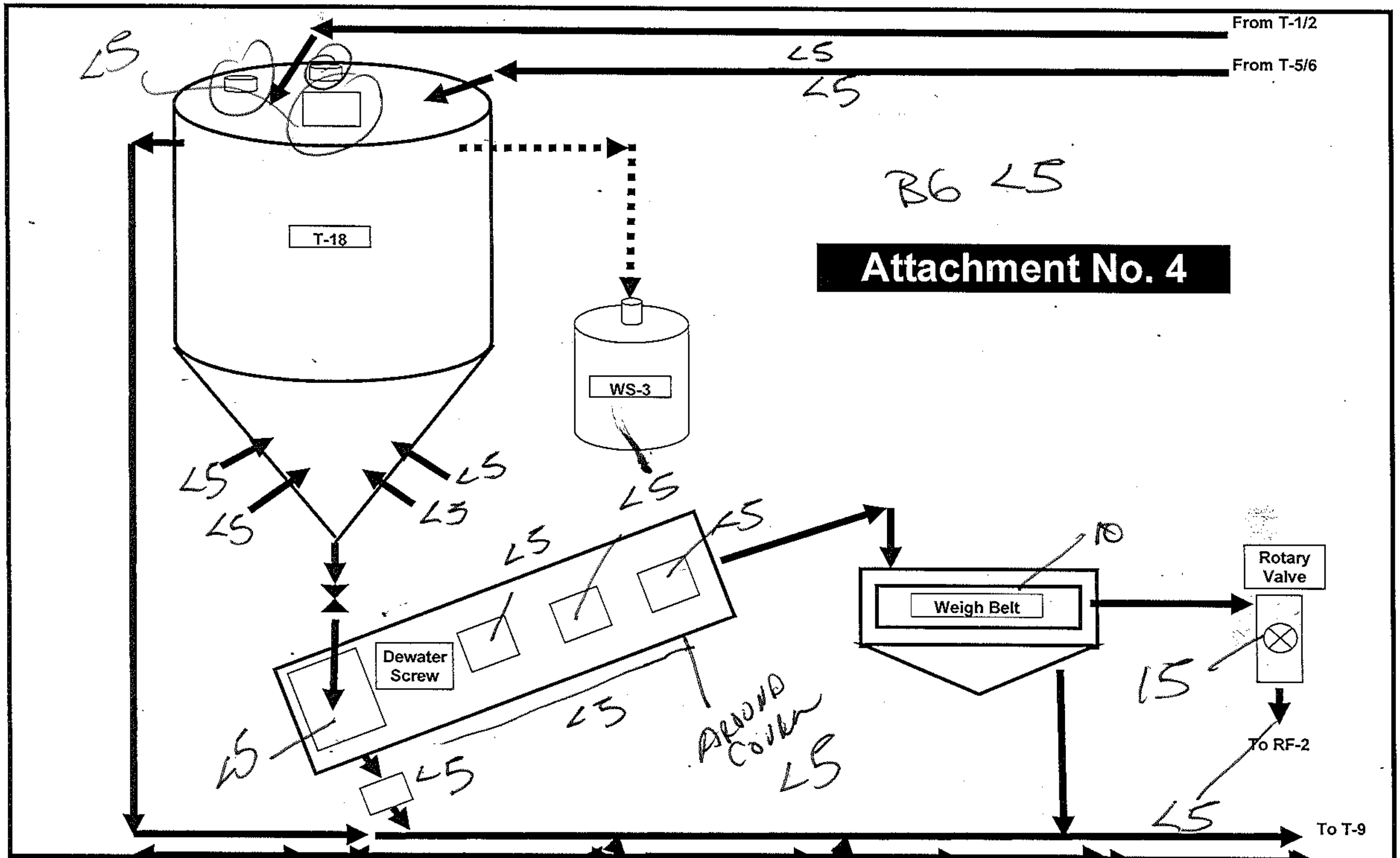
8/5/15



Attachment No. 2

T-6 NOT IN USE

8/5/15



From T-1/2
From T-5/6
<5
<5
<5
T-18
WS-3
B6 <5
Attachment No. 4
<5
<5
<5
<5
<5
<5
<5
Dewater Screw
Weigh Belt
10
Rotary Valve
<5
<5
<5
AROUND COVER <5
<5
To RF-2
<5
To T-9

8/5/15

Foxboro TVA1000A Calibration Record
Calibration Documentation
Serial Number: 11575766

Calibrated By: Monte McCue Date: 5-Aug-2015

Test No.	Time * Sec.	H/L	Response ppm	Gas Value ppm	Difference ppm
	X	X	0.90	0.5	X
1	5.65	H	9,900	10,000	-100
2	5.52	H	10,000	10,000	0
3	5.47	H	9,900	10,000	-100

* Denotes seconds to reach 90% of the gas value

Methane Values: HIGH 10,000

LOW 0.0

CALCULATIONS: H AVG. = 5.55 seconds

	High
ABSOLUTE MEAN DIFFERENCE	66.67
CALIBRATION ERROR (CE)	0.67%

Calibration Precision Requirements (8.1.2)

1. Calibration must be less than or equal 10% of the gas value
2. Response time must be less than or equal to 30 seconds to reach 90% of gas value
3. The calibration test must be completed prior to placing the analyzer into service and at subsequent 3-month intervals or at next use, whichever is later.

Appendix N

Appendix I of the Permit Application Reference 5

APPENDIX I

RCRA PART A

PERMIT APPLICATION

FOR

SIEMENS INDUSTRY, INC.

PARKER REACTIVATION FACILITY

PARKER, ARIZONA

Revision 1
April 2012

TABLE OF CONTENTS

REVISED RCRA PART A PERMIT APPLICATION

WESTATES carbon

ARIZONA

PARKER, ARIZONA

OCTOBER 1996

REVISED RCRA

PART A

PERMIT APPLICATION

FOR

WESTATES CARBON - ARIZONA, INC.

PARKER REACTIVATION FACILITY

PARKER, ARIZONA

TABLE OF CONTENTS

1.0 INTRODUCTION

WCAI is submitting a revised Part A permit application to reflect current facility operations.

Revisions include the following.

1 .Revision of the process flow diagram (Drawing No. 11135-002) to reflect recent facility modifications.

   a. Addition of existing overflow lines, from spent carbon storage tanks (T-1, T-2, T-5, and T-6) to Recycle Water Tank (T-12), to the process flow diagram (Drawing No. 11135-002). These overflow lines were installed during the initial construction of the facility, but were inadvertently omitted from the process flow diagram.

   b. Proposed addition of a water treatment system for recycle water as part of the facility's exempt wastewater treatment system. This system constitutes a wastwater treatment unit that is exempt from the requirements of Parts 264 and 265 in accordance with 40 CFR Part 264, §264.1(g)(6) and 40 CFR Part 265, §265.1(c)(10).

   c. Proposed addition of a third spent carbon feed hopper.

2. The reference to the process flow diagram number on page 3 of 7 (Section XI) of the Part A application form and the Index Attachments found at Tab 5 have been corrected to read 11135-002.

3. Revision of the general facility layout to indicate the change in designation of some of the equipment. While the function of the equipment has not changed, the new designations better describe their functions. The new designations are listed in Table 1.

   The redesignation of the Rainwater Collection Tank reflects the fact that rainwater collected in the tank is used as recycle water.

4. Submittal of a current photograph of Reactivation Unit No. 1 (RF-1), identified as Process Code T04 on page 4 of 7 (Section XII) of the Part A application form. The photograph is included in Attachment D (Tab 7).

TABLE 1	
Old Designation	Current Designation
Carbon Regeneration Unit No. 1 (CRU-1)	Carbon Reactivation Unit No. 1 (RF-1)
Carbon Regeneration Unit No. 1 (CRU-2)	Carbon Reactivation Unit No. 2 (RF-2)
Water Storage Tank (T-9)	Recycle Water Storage Tank (T-9)
Rainwater Collection Tank (T-12)	Recycle Water Storage Tank (T-12)
Industrial Sewer Surge Tank (T-11)	Equalization Tank (T-11)
Process Feed Tank (T-1)	Spent Carbon Storage Tank (T-1)
Process Feed Tank (T-2)	Spent Carbon Storage Tank (T-2)
Process Feed Tank (T-5)	Spent Carbon Storage Tank (T-5)
Process Feed Tank (T-6)	Spent Carbon Storage Tank (T-6)
Process Feed Tank (T-8)	Reactivation Unit No. 1 Feed Tank (T-8)

Form Approved. OMB No. 2050-0034 Expires 12-31-91

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GSA No. 0246-EPA-OT

For EPA Regional Use Only

EPA

United States Environmental Protection Agency

Washington, DC 20460

Hazardous Waste Permit Application Part A

For State Use Only

Date Received

Month Day Year

(Read the Instructions before starting)

I. ID Number(s)

A. EPA ID Number: A Z D 9 8 2 4 4 1 2 6 3

B. Secondary ID Number *(if applicable)*

II. Name of Facility: W E S T A T E S C A R B O N - A R I Z O N A I N C .

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street: 2 5 2 3 M U T A H A R S T R E E T

Street *(continued)*

City or Town	State	ZIP Code
P A R K E R	A Z	8 5 3 4 4 - 4 0 0 5

County Code (if known)	County Name
	L A P A Z

B. Land Type (enter code)	C. Geographic Location LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)	D. Facility Existence Date Month Day Year
I	3 4 0 7 5 0 N	1 1 4 1 6 2 2 W	0 8 0 5 9 1

IV. Facility Mailing Address

Street or P. O. Box: P O B O X E

City or Town	State	ZIP Code
P A R K E R	A Z	8 5 3 4 4 - 4 0 0 5

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(last)*	*(first)*
M c C U E	M O N T E

Job Title	Phone Number *(area code and number)*
P L A N T M A N A G E R	6 0 2 - 6 6 9 - 5 7 5 8

V. Facility Contact Address *(See Instructions)*

Contract Address Location	Mailing	B. Street or P. O. Box
	X	

City or Town	State	ZIP Code

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GSA No. 0246-EPA-OT

EPA I.D. Number *(enter from page 1)*: A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number *(enter from page 1)*:

VII. Operator Information *(see Instructions)*

Name of Operator: WESTATES CARBON - ARIZONA INC.

Street or P.O. Box: 2523 MUTAHAR STREET

City or Town: PARKER

State: AZ

Zip Code: 85344 - 4005

Phone Number *(area code and number)*: 602 - 669 - 5758

B. Operator Type: P

C. Change of Operator Indicator: Yes [ ] No [X]

Date Changed Month / Day / Year:

VIII. Facility Owner *(see Instructions)*

A. Name of Facility's Legal Owner: SEE ATTACHMENT A

Street or P.O. Box:

City or Town:

State:

Zip Code: -

Phone Number *(area code and number)*:

B. Owner Type:

C. Change of Owner Indicator: Yes [ ] No [ ]

Date Changed Month / Day / Year:

IX. SIC Codes *(4-digit, in order of significance)*

Primary	*(description)*	Secondary	*(description)*
4953	REFUSE SYSTEMS	9999	OTHERWISE UNCLASSIFIABLE ESTABLISHMENTS

X. Other Environmental Permits *(see Instructions)*

A. Permit Type *(enter code)*	B. Permit Number	C. Description
E	1001-93	Municipal Indust. Sewer Dischg. Permit
P	EXEMPT	PSD Permit (Minor Source)
E	B1122-CR 30.7	CRIT BUSINESS LEASE

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

EPA I.D. Number ***(enter from page 1)***
A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number ***(enter from page 1)***

XI. Nature of Business *(provide a brief description)*

Westates Carbon-Arizona, Inc. receives spent (used) activated carbon from its customers. These spent carbons arrive at the Parker facility in a variety of DOT approved containers; including: barrels, drums, portable tanks, bulk-bags, and bulk truck units. Some, but not all, spent carbons are received as manifested hazardous waste materials.

Received spent carbons are thermally reactivated in one of two furnaces. Reactivated carbons are certified non-hazardous and then shipped for recycling and/or reuse. This reactivation process is sketched in a Schematic Block Process Flow Diagram attached as Drawing No. 11135-002.

Incidental to the reactivation process is the management of container storage (area S01); spent carbon storage tanks (area S02); reactivation and reactivation off-gas treatment (area T04); and the non-hazardous slurry transfer water (recycle water) system, wastewater treatment system, rainwater collection system, and reactivated carbon product storage and shipping.

XII. Process - Codes and Design Capacities

A. PROCESS CODE - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Twelve lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided in Item XIII.*

B. PROCESS DESIGN CAPACITY - *For each code entered in column A, enter the capacity of the process.*
   1. AMOUNT - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process unit.*
   2. UNIT OF MEASURE - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. PROCESS TOTAL NUMBER OF UNITS - *Enter the total number of units used with the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	DISPOSAL:	
D79	INJECTION WELL	GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY
D80	LANDFILL	ACRE-FEET OR HECTARE-METER
D81	LAND APPLICATION	ACRES OR HECTARES
D82	OCEAN DISPOSAL	GALLONS PER DAY OR LITERS PER DAY
D83	SURFACE IMPOUNDMENT	GALLONS OR LITERS
	STORAGE:	
S01	CONTAINER (barrel, drum, etc.)	GALLONS OR LITERS
S02	TANK	GALLONS OR LITERS
S03	WASTE PILE	CUBIC YARDS OR CUBIC METERS
S04	SURFACE IMPOUNDMENT	GALLONS OR LITERS
	TREATMENT:	
T01	TANK	GALLONS PER DAY OR LITERS PER DAY
T02	SURFACE IMPOUNDMENT	GALLONS PER DAY OR LITERS PER DAY
T03	INCINERATOR	SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTUS PER HOUR
T04	OTHER TREATMENT (Use for physical, chemical, thermal or biological treatment processess not occurring in tanks, surface impoindment or incinerators. Describe the processes in the space provided in Item XIII.)	GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
GALLONS PER HOUR	E
GALLONS PER DAY	U
LITERS	L
LITERS PER HOUR	H
LITERS PER DAY	V
SHORT TONS PER HOUR	D
METRIC TONS PER HOUR	W
SHORT TONS PER DAY	N
METRIC TONS PER DAY	S
POUNDS PER HOUR	J
KILOGRAMS PER HOUR	R
CUBIC YARDS	Y
CUBIC METERS	C
ACRES	B
ACRE-FEET	A
HECTARES	Q
HECTARE-METER	F
BTUS PER HOUR	K

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

EPA I.D. Number *(enter from page 1)*: A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number *(enter from page 1)*:

XII. Process - Codes and Design Capacities *(continued)*

EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

Line Number	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBERS OF UNITS	FOR OFFICIAL USE ONLY
X 1	S 0 2	600	G	0 0 2	
X 2	T 0 3	20	E	0 0 1	
1	S 0 1	200,000	G	0 0 2	
2	S 0 2	35,000	G	0 0 5	
3	T 0 4	4,140	J	0 0 2	
4					
5					
6					
7					
8					
9					
0					
1 1					
1 2					

NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.

XIII. Additional Treatment Processes *(follow instructions from Item XII)*

Line Number (enter numbers in sequence with Item XII)	A. PROCESS CODE	B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	2. UNIT OF MEASURE (enter code)	C. PROCESS TOTAL NUMBER OF UNITS	D. DESCRIPTION OF PROCESS
	T 0 4				
	T 0 4				
	T 0 4				
	T 0 4				

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GSA No. 0246-EPA-OT

EPA I.D. Number ***(enter from page 1)***

A	Z	D	9	8	2	4	4	1	2	6	3

Secondary ID Number ***(enter from page 1)***

XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that processes that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. Enter the first two as described above.

2. Enter "000" in the extreme right box of Item XIV-D(I).

3.space provided on page 7, Item XIV-E, the line number and the additional code(s).

2. PROCESS DESCRIPTION: *a code is not listed for a process that will be used, describe the proces in the space provided on the form (D(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.

2.line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.

3each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an ounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA HAZARD WASTE NO. (enter code)				B.ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter	D. PROCESS (1) PROCESS CODES (enter) code)									(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
X	1	K	0	5	4	900	P	7	0	3	D	8	0				
X	2	D	0	0	2	400	P	7	0	3	D	8	0				
X	3	D	0	0	1	100	P	7	0	3	D	8	0				
X	4	D	0	0			2										

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GSA No. 0246-EPA-OT

EPA I.D. Number (enter from page 1)

A	Z	D	9	8	2	4	4	1	2	6	3

Secondary ID Number (enter from page 1)

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)									(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	D	0	0	1	5,000	P	S	0	1	S	0	2	T	0	4	
2	D	0	0	4	5,000	P	S	0	1	S	0	2	T	0	4	
3	D	0	0	5	5,000	P	S	0	1	S	0	2	T	0	4	
4	D	0	0	6	5,000	P	S	0	1	S	0	2	T	0	4	
5	D	0	0	7	5,000	P	S	0	1	S	0	2	T	0	4	
6	D	0	0	8	5,000	P	S	0	1	S	0	2	T	0	4	
7	D	0	0	9	5,000	P	S	0	1	S	0	2	T	0	4	
8	D	0	1	0	5,000	P	S	0	1	S	0	2	T	0	4	
9	D	0	1	1	5,000	P	S	0	1	S	0	2	T	0	4	
10	D	0	1	2	5,000	P	S	0	1	S	0	2	T	0	4	
11	D	0	1	3	5,000	P	S	0	1	S	0	2	T	0	4	
12	D	0	1	4	5,000	P	S	0	1	S	0	2	T	0	4	
13	D	0	1	5	5,000	P	S	0	1	S	0	2	T	0	4	
14	D	0	1	6	5,000	P	S	0	1	S	0	2	T	0	4	
15	D	0	1	7	5,000	P	S	0	1	S	0	2	T	0	4	
16	D	0	1	8	500,000	P	S	0	1	S	0	2	T	0	4	
17	D	0	1	9	5,000	P	S	0	1	S	0	2	T	0	4	
18	D	0	2	0	5,000	P	S	0	1	S	0	2	T	0	4	
19	D	0	2	1	5,000	P	S	0	1	S	0	2	T	0	4	
20	D	0	2	2	100,000	P	S	0	1	S	0	2	T	0	4	
21	D	0	2	3	5,000	P	S	0	1	S	0	2	T	0	4	
22	D	0	2	4	5,000	P	S	0	1	S	0	2	T	0	4	
23	D	0	2	5	5,000	P	S	0	1	S	0	2	T	0	4	
24	D	0	2	6	5,000	P	S	0	1	S	0	2	T	0	4	
25	D	0	2	7	5,000	P	S	0	1	S	0	2	T	0	4	
26	D	0	2	8	50,000	P	S	0	1	S	0	2	T	0	4	
27	D	0	2	9	100,000	P	S	0	1	S	0	2	T	0	4	
28	D	0	3	0	5,000	P	S	0	1	S	0	2	T	0	4	
29	D	0	3	1	5,000	P	S	0	1	S	0	2	T	0	4	
30	D	0	3	2	5,000	P	S	0	1	S	0	2	T	0	4	
31	D	0	3	3	5,000	P	S	0	1	S	0	2	T	0	4	
32	D	0	3	4	5,000	P	S	0	1	S	0	2	T	0	4	
33	D	0	3	5	100,000	P	S	0	1	S	0	2	T	0	4	

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GSA No. 0246-EPA-OT

EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
A Z D 9 8 2 4 4 1 2 6 3	

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	D036	5,000	P	S01	S02	T04	
2	D037	5,000	P	S01	S02	T04	
3	D038	5,000	P	S01	S02	T04	
4	D039	500,000	P	S01	S02	T04	
5	D040	500,000	P	S01	S02	T04	
6	D041	5,000	P	S01	S02	T04	
7	D042	5,000	P	S01	S02	T04	
8	D043	50,000	P	S01	S02	T04	
9	F001	2,000,000	P	S01	S02	T04	
10	F002	5,000	P	S01	S02	T04	
11	F003	1,500,000	P	S01	S02	T04	
12	F004	5,000	P	S01	S02	T04	
13	F005	1,500,000	P	S01	S02	T04	
14	F006	5,000	P	S01	S02	T04	
15	F012	5,000	P	S01	S02	T04	
16	F019	5,000	P	S01	S02	T04	
17	F025	5,000	P	S01	S02	T04	
18	F032	5,000	P	S01	S02	T04	
19	F035	5,000	P	S01	S02	T04	
20	F037	5,000	P	S01	S02	T04	
21	F038	5,000	P	S01	S02	T04	
21	F039	5,000	P	S01	S02	T04	
23	K001	5,000	P	S01	S02	T04	
24	K002	5,000	P	S01	S02	T04	
25	K003	5,000	P	S01	S02	T04	
26	K004	5,000	P	S01	S02	T04	
27	K005	5,000	P	S01	S02	T04	
28	K006	5,000	P	S01	S02	T04	
29	K007	5,000	P	S01	S02	T04	
30	K008	5,000	P	S01	S02	T04	
31	K009	5,000	P	S01	S02	T04	
32	K010	5,000	P	S01	S02	T04	
33	K014	5,000	P	S01	S02	T04	

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EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	K065	5,000	P	S01	S02	T04	
2	K066	5,000	P	S01	S02	T04	
3	K071	5,000	P	S01	S02	T04	
4	K073	5,000	P	S01	S02	T04	
5	K083	5,000	P	S01	S02	T04	
6	K084	5,000	P	S01	S02	T04	
7	K085	5,000	P	S01	S02	T04	
8	K086	5,000	P	S01	S02	T04	
9	K087	5,000	P	S01	S02	T04	
10	K088	5,000	P	S01	S02	T04	
11	K090	5,000	P	S01	S02	T04	
12	K091	5,000	P	S01	S02	T04	
13	K093	5,000	P	S01	S02	T04	
14	K094	5,000	P	S01	S02	T04	
15	K095	5,000	P	S01	S02	T04	
16	K096	5,000	P	S01	S02	T04	
17	K097	5,000	P	S01	S02	T04	
18	K098	5,000	P	S01	S02	T04	
19	K100	5,000	P	S01	S02	T04	
20	K101	5,000	P	S01	S02	T04	
21	K102	5,000	P	S01	S02	T04	
22	K103	5,000	P	S01	S02	T04	
23	K104	5,000	P	S01	S02	T04	
24	K105	5,000	P	S01	S02	T04	
25	K106	5,000	P	S01	S02	T04	
26	K112	5,000	P	S01	S02	T04	
27	K113	5,000	P	S01	S02	T04	
28	K114	5,000	P	S01	S02	T04	
29	K115	5,000	P	S01	S02	T04	
30	K116	5,000	P	S01	S02	T04	
31	K117	5,000	P	S01	S02	T04	
32	K118	5,000	P	S01	S02	T04	
33	K125	5,000	P	S01	S02	T04	

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EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1))
1	K015	5,000	P	S01	S02	T04	
2	K016	5,000	P	S01	S02	T04	
3	K017	5,000	P	S01	S02	T04	
4	K018	5,000	P	S01	S02	T04	
5	K019	5,000	P	S01	S02	T04	
6	K020	5,000	P	S01	S02	T04	
7	K022	5,000	P	S01	S02	T04	
8	K023	5,000	P	S01	S02	T04	
9	K024	5,000	P	S01	S02	T04	
10	K025	5,000	P	S01	S02	T04	
11	K026	5,000	P	S01	S02	T04	
12	K029	5,000	P	S01	S02	T04	
13	K030	5,000	P	S01	S02	T04	
14	K031	5,000	P	S01	S02	T04	
15	K032	5,000	P	S01	S02	T04	
16	K033	5,000	P	S01	S02	T04	
17	K034	5,000	P	S01	S02	T04	
18	K035	5,000	P	S01	S02	T04	
19	K036	5,000	P	S01	S02	T04	
20	K037	5,000	P	S01	S02	T04	
21	K038	5,000	P	S01	S02	T04	
22	K039	5,000	P	S01	S02	T04	
23	K040	5,000	P	S01	S02	T04	
24	K041	5,000	P	S01	S02	T04	
25	K042	5,000	P	S01	S02	T04	
26	K046	5,000	P	S01	S02	T04	
27	K048	5,000	P	S01	S02	T04	
28	K049	5,000	P	S01	S02	T04	
29	K050	5,000	P	S01	S02	T04	
30	K051	5,000	P	S01	S02	T04	
31	K052	5,000	P	S01	S02	T04	
32	K061	5,000	P	S01	S02	T04	
33	K064	5,000	P	S01	S02	T04	

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EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)									D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	K	1	2	6	5,000	P	S	0	1	S	0	2	T	0	4	
2	P	0	0	1	5,000	P	S	0	1	S	0	2	T	0	4	
3	P	0	0	2	5,000	P	S	0	1	S	0	2	T	0	4	
4	P	0	0	3	5,000	P	S	0	1	S	0	2	T	0	4	
5	P	0	0	4	5,000	P	S	0	1	S	0	2	T	0	4	
6	P	0	0	5	5,000	P	S	0	1	S	0	2	T	0	4	
7	P	0	0	7	5,000	P	S	0	1	S	0	2	T	0	4	
8	P	0	0	8	5,000	P	S	0	1	S	0	2	T	0	4	
9	P	0	1	0	5,000	P	S	0	1	S	0	2	T	0	4	
10	P	0	1	1	5,000	P	S	0	1	S	0	2	T	0	4	
11	P	0	1	2	5,000	P	S	0	1	S	0	2	T	0	4	
12	P	0	1	3	5,000	P	S	0	1	S	0	2	T	0	4	
13	P	0	1	4	5,000	P	S	0	1	S	0	2	T	0	4	
14	P	0	1	5	5,000	P	S	0	1	S	0	2	T	0	4	
15	P	0	1	6	5,000	P	S	0	1	S	0	2	T	0	4	
16	P	0	1	7	5,000	P	S	0	1	S	0	2	T	0	4	
17	P	0	1	8	5,000	P	S	0	1	S	0	2	T	0	4	
18	P	0	2	0	5,000	P	S	0	1	S	0	2	T	0	4	
19	P	0	2	1	5,000	P	S	0	1	S	0	2	T	0	4	
20	P	0	2	2	5,000	P	S	0	1	S	0	2	T	0	4	
21	P	0	2	3	5,000	P	S	0	1	S	0	2	T	0	4	
22	P	0	2	4	5,000	P	S	0	1	S	0	2	T	0	4	
23	P	0	2	6	5,000	P	S	0	1	S	0	2	T	0	4	
24	P	0	2	7	5,000	P	S	0	1	S	0	2	T	0	4	
25	P	0	2	8	5,000	P	S	0	1	S	0	2	T	0	4	
26	P	0	2	9	5,000	P	S	0	1	S	0	2	T	0	4	
27	P	0	3	0	5,000	P	S	0	1	S	0	2	T	0	4	
28	P	0	3	1	5,000	P	S	0	1	S	0	2	T	0	4	
29	P	0	3	3	5,000	P	S	0	1	S	0	2	T	0	4	
30	P	0	3	4	5,000	P	S	0	1	S	0	2	T	0	4	
31	P	0	3	6	5,000	P	S	0	1	S	0	2	T	0	4	
32	P	0	3	7	5,000	P	S	0	1	S	0	2	T	0	4	
33	P	0	3	8	5,000	P	S	0	1	S	0	2	T	0	4	

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EPA I.D. Number (enter from page 1)

A	Z	D	9	8	2	4	4	1	2	6	3

Secondary ID Number (enter from page 1)

XIV. Description of Hazardous Wastes (continued)

Line Number		A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)									(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
	1	P	0	3	9	5,000	P	S	0	1	S	0	2	T	0	4	
	2	P	0	4	0	5,000	P	S	0	1	S	0	2	T	0	4	
	3	P	0	4	1	5,000	P	S	0	1	S	0	2	T	0	4	
	4	P	0	4	2	5,000	P	S	0	1	S	0	2	T	0	4	
	5	P	0	4	3	5,000	P	S	0	1	S	0	2	T	0	4	
	6	P	0	4	4	5,000	P	S	0	1	S	0	2	T	0	4	
	7	P	0	4	5	5,000	P	S	0	1	S	0	2	T	0	4	
	8	P	0	4	6	5,000	P	S	0	1	S	0	2	T	0	4	
	9	P	0	4	7	5,000	P	S	0	1	S	0	2	T	0	4	
1	0	P	0	4	8	5,000	P	S	0	1	S	0	2	T	0	4	
1	1	P	0	4	9	5,000	P	S	0	1	S	0	2	T	0	4	
1	2	P	0	5	0	5,000	P	S	0	1	S	0	2	T	0	4	
1	3	P	0	5	1	5,000	P	S	0	1	S	0	2	T	0	4	
1	4	P	0	5	4	5,000	P	S	0	1	S	0	2	T	0	4	
1	5	P	0	5	6	5,000	P	S	0	1	S	0	2	T	0	4	
1	6	P	0	5	7	5,000	P	S	0	1	S	0	2	T	0	4	
1	7	P	0	5	8	5,000	P	S	0	1	S	0	2	T	0	4	
1	8	P	0	5	9	5,000	P	S	0	1	S	0	2	T	0	4	
1	9	P	0	6	0	5,000	P	S	0	1	S	0	2	T	0	4	
2	0	P	0	6	2	5,000	P	S	0	1	S	0	2	T	0	4	
2	1	P	0	6	3	5,000	P	S	0	1	S	0	2	T	0	4	
2	2	P	0	6	4	5,000	P	S	0	1	S	0	2	T	0	4	
2	3	P	0	6	6	5,000	P	S	0	1	S	0	2	T	0	4	
2	4	P	0	6	7	5,000	P	S	0	1	S	0	2	T	0	4	
2	5	P	0	6	8	5,000	P	S	0	1	S	0	2	T	0	4	
2	6	P	0	6	9	5,000	P	S	0	1	S	0	2	T	0	4	
2	7	P	0	7	0	5,000	P	S	0	1	S	0	2	T	0	4	
2	8	P	0	7	1	5,000	P	S	0	1	S	0	2	T	0	4	
2	9	P	0	7	2	5,000	P	S	0	1	S	0	2	T	0	4	
3	0	P	0	7	3	5,000	P	S	0	1	S	0	2	T	0	4	
3	1	P	0	7	4	5,000	P	S	0	1	S	0	2	T	0	4	
3	2	P	0	7	5	5,000	P	S	0	1	S	0	2	T	0	4	
3	3	P	0	7	7	5,000	P	S	0	1	S	0	2	T	0	4	

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EPA I.D. Number (enter from page 1)	Secondary ID Number (enter from page 1)
A Z D 9 8 2 4 4 1 2 6 3	

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	P078	5,000	P	S01	S02	T04	
2	P082	5,000	P	S01	S02	T04	
3	P084	5,000	P	S01	S02	T04	
4	P085	5,000	P	S01	S02	T04	
5	P087	5,000	P	S01	S02	T04	
6	P088	5,000	P	S01	S02	T04	
7	P089	5,000	P	S01	S02	T04	
8	P092	5,000	P	S01	S02	T04	
9	P093	5,000	P	S01	S02	T04	
10	P094	5,000	P	S01	S02	T04	
11	P095	5,000	P	S01	S02	T04	
12	P096	5,000	P	S01	S02	T04	
13	P097	5,000	P	S01	S02	T04	
14	P098	5,000	P	S01	S02	T04	
15	P099	5,000	P	S01	S02	T04	
16	P101	5,000	P	S01	S02	T04	
17	P102	5,000	P	S01	S02	T04	
18	P103	5,000	P	S01	S02	T04	
19	P104	5,000	P	S01	S02	T04	
20	P105	5,000	P	S01	S02	T04	
21	P106	5,000	P	S01	S02	T04	
22	P108	5,000	P	S01	S02	T04	
23	P109	5,000	P	S01	S02	T04	
24	P110	5,000	P	S01	S02	T04	
25	P113	5,000	P	S01	S02	T04	
26	P114	5,000	P	S01	S02	T04	
27	P115	5,000	P	S01	S02	T04	
28	P116	5,000	P	S01	S02	T04	
29	P118	5,000	P	S01	S02	T04	
30	P119	5,000	P	S01	S02	T04	
31	P120	5,000	P	S01	S02	T04	
32	P121	5,000	P	S01	S02	T04	
33	P123	5,000	P	S01	S02	T04	

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EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)									(2) PROCESS DESCRIPTION (if a code is not entered in D(1))
1	U	0	0	1	5,000	P	S	0	1	S	0	2	T	0	4	
2	U	0	0	2	5,000	P	S	0	1	S	0	2	T	0	4	
3	U	0	0	3	5,000	P	S	0	1	S	0	2	T	0	4	
4	U	0	0	4	5,000	P	S	0	1	S	0	2	T	0	4	
5	U	0	0	5	5,000	P	S	0	1	S	0	2	T	0	4	
6	U	0	0	7	5,000	P	S	0	1	S	0	2	T	0	4	
7	U	0	0	8	5,000	P	S	0	1	S	0	2	T	0	4	
8	U	0	0	9	5,000	P	S	0	1	S	0	2	T	0	4	
9	U	0	1	0	5,000	P	S	0	1	S	0	2	T	0	4	
10	U	0	1	1	5,000	P	S	0	1	S	0	2	T	0	4	
11	U	0	1	2	5,000	P	S	0	1	S	0	2	T	0	4	
12	U	0	1	4	5,000	P	S	0	1	S	0	2	T	0	4	
13	U	0	1	5	5,000	P	S	0	1	S	0	2	T	0	4	
14	U	0	1	6	5,000	P	S	0	1	S	0	2	T	0	4	
15	U	0	1	7	5,000	P	S	0	1	S	0	2	T	0	4	
16	U	0	1	8	5,000	P	S	0	1	S	0	2	T	0	4	
17	U	0	1	9	5,000	P	S	0	1	S	0	2	T	0	4	
18	U	0	2	1	5,000	P	S	0	1	S	0	2	T	0	4	
19	U	0	2	2	5,000	P	S	0	1	S	0	2	T	0	4	
20	U	0	2	4	5,000	P	S	0	1	S	0	2	T	0	4	
21	U	0	2	5	5,000	P	S	0	1	S	0	2	T	0	4	
22	U	0	2	6	5,000	P	S	0	1	S	0	2	T	0	4	
23	U	0	2	7	5,000	P	S	0	1	S	0	2	T	0	4	
24	U	0	2	8	5,000	P	S	0	1	S	0	2	T	0	4	
25	U	0	2	9	5,000	P	S	0	1	S	0	2	T	0	4	
26	U	0	3	0	5,000	P	S	0	1	S	0	2	T	0	4	
27	U	0	3	1	5,000	P	S	0	1	S	0	2	T	0	4	
28	U	0	3	2	5,000	P	S	0	1	S	0	2	T	0	4	
29	U	0	3	4	5,000	P	S	0	1	S	0	2	T	0	4	
30	U	0	3	5	5,000	P	S	0	1	S	0	2	T	0	4	
31	U	0	3	6	5,000	P	S	0	1	S	0	2	T	0	4	
32	U	0	3	7	5,000	P	S	0	1	S	0	2	T	0	4	
33	U	0	3	8	5,000	P	S	0	1	S	0	2	T	0	4	

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GSA No. 0246-EPA-OT

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A	Z	D	9	8	2	4	4	1	2	6	3	

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)	(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U039	5,000	P	S01 S02 T04	
2	U041	5,000	P	S01 S02 T04	
3	U042	5,000	P	S01 S02 T04	
4	U043	5,000	P	S01 S02 T04	
5	U044	5,000	P	S01 S02 T04	
6	U045	5,000	P	S01 S02 T04	
7	U046	5,000	P	S01 S02 T04	
8	U047	5,000	P	S01 S02 T04	
9	U048	5,000	P	S01 S02 T04	
10	U049	5,000	P	S01 S02 T04	
11	U050	5,000	P	S01 S02 T04	
12	U051	5,000	P	S01 S02 T04	
13	U052	5,000	P	S01 S02 T04	
14	U053	5,000	P	S01 S02 T04	
15	U055	5,000	P	S01 S02 T04	
16	U056	5,000	P	S01 S02 T04	
17	U057	5,000	P	S01 S02 T04	
18	U058	5,000	P	S01 S02 T04	
19	U059	5,000	P	S01 S02 T04	
20	U060	5,000	P	S01 S02 T04	
21	U061	5,000	P	S01 S02 T04	
22	U062	5,000	P	S01 S02 T04	
23	U063	5,000	P	S01 S02 T04	
24	U064	5,000	P	S01 S02 T04	
25	U066	5,000	P	S01 S02 T04	
26	U067	5,000	P	S01 S02 T04	
27	U068	5,000	P	S01 S02 T04	
28	U069	5,000	P	S01 S02 T04	
29	U070	5,000	P	S01 S02 T04	
30	U071	5,000	P	S01 S02 T04	
31	U072	5,000	P	S01 S02 T04	
32	U073	5,000	P	S01 S02 T04	
33	U074	5,000	P	S01 S02 T04	

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GSA No. 0246-EPA-OT

EPA I.D. Number (enter from page 1)

A	Z	D	9	8	2	4	4	1	2	6	3

Secondary ID Number (enter from page 1)

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)	D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U075	5,000	P	S01 S02 T04	
2	U076	5,000	P	S01 S02 T04	
3	U077	5,000	P	S01 S02 T04	
4	U078	5,000	P	S01 S02 T04	
5	U079	5,000	P	S01 S02 T04	
6	U080	5,000	P	S01 S02 T04	
7	U081	5,000	P	S01 S02 T04	
8	U082	5,000	P	S01 S02 T04	
9	U083	5,000	P	S01 S02 T04	
10	U084	5,000	P	S01 S02 T04	
11	U085	5,000	P	S01 S02 T04	
12	U086	5,000	P	S01 S02 T04	
13	U087	5,000	P	S01 S02 T04	
14	U088	5,000	P	S01 S02 T04	
15	U089	5,000	P	S01 S02 T04	
16	U090	5,000	P	S01 S02 T04	
17	U091	5,000	P	S01 S02 T04	
18	U092	5,000	P	S01 S02 T04	
19	U093	5,000	P	S01 S02 T04	
20	U094	5,000	P	S01 S02 T04	
21	U095	5,000	P	S01 S02 T04	
22	U097	5,000	P	S01 S02 T04	
23	U098	5,000	P	S01 S02 T04	
24	U099	5,000	P	S01 S02 T04	
25	U101	5,000	P	S01 S02 T04	
26	U102	5,000	P	S01 S02 T04	
27	U103	5,000	P	S01 S02 T04	
28	U105	5,000	P	S01 S02 T04	
29	U106	5,000	P	S01 S02 T04	
30	U107	5,000	P	S01 S02 T04	
31	U108	5,000	P	S01 S02 T04	
32	U109	5,000	P	S01 S02 T04	
33	U110	5,000	P	S01 S02 T04	

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GSA No. 0246-EPA-OT

EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U111	5,000	P	S01	S02	T04	
2	U112	5,000	P	S01	S02	T04	
3	U113	5,000	P	S01	S02	T04	
4	U114	5,000	P	S01	S02	T04	
5	U115	5,000	P	S01	S02	T04	
6	U116	5,000	P	S01	S02	T04	
7	U117	5,000	P	S01	S02	T04	
8	U118	5,000	P	S01	S02	T04	
9	U119	5,000	P	S01	S02	T04	
10	U120	5,000	P	S01	S02	T04	
11	U121	5,000	P	S01	S02	T04	
12	U122	5,000	P	S01	S02	T04	
13	U124	5,000	P	S01	S02	T04	
14	U125	5,000	P	S01	S02	T04	
15	U126	5,000	P	S01	S02	T04	
16	U127	5,000	P	S01	S02	T04	
17	U128	5,000	P	S01	S02	T04	
18	U129	5,000	P	S01	S02	T04	
19	U130	5,000	P	S01	S02	T04	
20	U131	5,000	P	S01	S02	T04	
21	U132	5,000	P	S01	S02	T04	
22	U135	5,000	P	S01	S02	T04	
23	U136	5,000	P	S01	S02	T04	
24	U137	5,000	P	S01	S02	T04	
25	U138	5,000	P	S01	S02	T04	
26	U140	5,000	P	S01	S02	T04	
27	U141	5,000	P	S01	S02	T04	
28	U142	5,000	P	S01	S02	T04	
29	U143	5,000	P	S01	S02	T04	
30	U144	5,000	P	S01	S02	T04	
31	U145	5,000	P	S01	S02	T04	
32	U146	5,000	P	S01	S02	T04	
33	U147	5,000	P	S01	S02	T04	

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EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)			D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U148	5,000	P	S01	S02	T04	
2	U149	5,000	P	S01	S02	T04	
3	U150	5,000	P	S01	S02	T04	
4	U151	5,000	P	S01	S02	T04	
5	U152	5,000	P	S01	S02	T04	
6	U153	5,000	P	S01	S02	T04	
7	U154	5,000	P	S01	S02	T04	
8	U155	5,000	P	S01	S02	T04	
9	U156	5,000	P	S01	S02	T04	
10	U157	5,000	P	S01	S02	T04	
11	U158	5,000	P	S01	S02	T04	
12	U159	5,000	P	S01	S02	T04	
13	U161	5,000	P	S01	S02	T04	
14	U162	5,000	P	S01	S02	T04	
15	U163	5,000	P	S01	S02	T04	
16	U164	5,000	P	S01	S02	T04	
17	U165	5,000	P	S01	S02	T04	
18	U166	5,000	P	S01	S02	T04	
19	U167	5,000	P	S01	S02	T04	
20	U168	5,000	P	S01	S02	T04	
21	U169	5,000	P	S01	S02	T04	
22	U170	5,000	P	S01	S02	T04	
23	U171	5,000	P	S01	S02	T04	
24	U172	5,000	P	S01	S02	T04	
25	U173	5,000	P	S01	S02	T04	
26	U174	5,000	P	S01	S02	T04	
27	U176	5,000	P	S01	S02	T04	
28	U177	5,000	P	S01	S02	T04	
29	U178	5,000	P	S01	S02	T04	
30	U179	5,000	P	S01	S02	T04	
31	U180	5,000	P	S01	S02	T04	
32	U181	5,000	P	S01	S02	T04	
33	U182	5,000	P	S01	S02	T04	

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GSA No. 0246-EPA-OT

EPA I.D. Number (enter from page 1): A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number (enter from page 1):

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)	D. PROCESSES (2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U183	5,000	P	S01 S02 T04	
2	U184	5,000	P	S01 S02 T04	
3	U185	5,000	P	S01 S02 T04	
4	U186	5,000	P	S01 S02 T04	
5	U187	5,000	P	S01 S02 T04	
6	U188	5,000	P	S01 S02 T04	
7	U190	5,000	P	S01 S02 T04	
8	U191	5,000	P	S01 S02 T04	
9	U192	5,000	P	S01 S02 T04	
10	U193	5,000	P	S01 S02 T04	
11	U194	5,000	P	S01 S02 T04	
12	U196	5,000	P	S01 S02 T04	
13	U197	5,000	P	S01 S02 T04	
14	U200	5,000	P	S01 S02 T04	
15	U201	5,000	P	S01 S02 T04	
16	U202	5,000	P	S01 S02 T04	
17	U203	5,000	P	S01 S02 T04	
18	U204	5,000	P	S01 S02 T04	
19	U206	5,000	P	S01 S02 T04	
20	U207	5,000	P	S01 S02 T04	
21	U208	5,000	P	S01 S02 T04	
22	U209	5,000	P	S01 S02 T04	
23	U210	5,000	P	S01 S02 T04	
24	U211	5,000	P	S01 S02 T04	
25	U213	5,000	P	S01 S02 T04	
26	U214	5,000	P	S01 S02 T04	
27	U215	5,000	P	S01 S02 T04	
28	U216	5,000	P	S01 S02 T04	
29	U217	5,000	P	S01 S02 T04	
30	U218	5,000	P	S01 S02 T04	
31	U219	5,000	P	S01 S02 T04	
32	U220	5,000	P	S01 S02 T04	
33	U221	5,000	P	S01 S02 T04	

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EPA I.D. Number (enter from page 1)												Secondary ID Number (enter from page 1)
A	Z	D	9	8	2	4	4	1	2	6	3	

XIV. Description of Hazardous Wastes (continued)

Line Number	A. EPA HAZARDOUS WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES (1) PROCESS CODES (enter)									(2) PROCESS DESCRIPTION (if a code is not entered in D(1)
1	U	2	2	2	5,000	P	S	0	1	S	0	2	T	0	4	
2	U	2	2	5	5,000	P	S	0	1	S	0	2	T	0	4	
3	U	2	2	6	5,000	P	S	0	1	S	0	2	T	0	4	
4	U	2	2	7	5,000	P	S	0	1	S	0	2	T	0	4	
5	U	2	2	8	5,000	P	S	0	1	S	0	2	T	0	4	
6	U	2	3	5	5,000	P	S	0	1	S	0	2	T	0	4	
7	U	2	3	6	5,000	P	S	0	1	S	0	2	T	0	4	
8	U	2	3	7	5,000	P	S	0	1	S	0	2	T	0	4	
9	U	2	3	8	5,000	P	S	0	1	S	0	2	T	0	4	
10	U	2	3	9	5,000	P	S	0	1	S	0	2	T	0	4	
11	U	2	4	0	5,000	P	S	0	1	S	0	2	T	0	4	
12	U	2	4	3	5,000	P	S	0	1	S	0	2	T	0	4	
13	U	2	4	4	5,000	P	S	0	1	S	0	2	T	0	4	
14	U	2	4	6	5,000	P	S	0	1	S	0	2	T	0	4	
15	U	2	4	7	5,000	P	S	0	1	S	0	2	T	0	4	
16	U	2	4	8	5,000	P	S	0	1	S	0	2	T	0	4	
17	U	2	4	9	5,000	P	S	0	1	S	0	2	T	0	4	
18	U	3	2	8	5,000	P	S	0	1	S	0	2	T	0	4	
19	U	3	5	3	5,000	P	S	0	1	S	0	2	T	0	4	
20	U	3	5	9	5,000	P	S	0	1	S	0	2	T	0	4	
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GSA No. 0248-EPA-OT

EPA I.D. Number (Enter from page 1)	Secondary ID Number (Enter from page 1)
A Z D 9 8 2 4 4 1 2 6 3	

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator Signature *	Date Signed 10-9-96
Name and Official Title (Type or print) Gregor E. Norgaard, Vice President, U.S. Filter Recovery Services, Inc. (Facility Owner)	
Owner Signature	Date Signed 10-16-96
Name and Official Title (Type or print) Daniel Eddy, Jr., Chairman, Colorado River Indian Tribes (Property Owner)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	

XIX. Comments

Received spent carbons are thermally reactivated in one of two furnaces. Reactivated carbons are certified non-hazardous and then shipped for recycling and/or reuse. This reactivation process is sketched in a Schematic Block-Process Flow Diagram attached as Drawing No. 11135-002.

Incidental to the reactivation process is the management of container storage (area S01); spent carbon storage tanks (area S02); reactivation and reactivation off-gas treatment (area T04); and the non-hazardous slurry transfer water (recycle water) system, wastewater treatment system, rainwater collection system, and reactivated carbon product storage and shipping.

*(Footnote to Section XVIII) EPA currently has a Part A that is signed by Westates Carbon-Arizona, Inc. This Part A is signed on behalf of the company which has agreed to aquire the shares of Westates Carbon-Arizona, Inc.

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

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EPA I.D. Number *(enter from page 1)*: A Z D 9 8 2 4 4 1 2 6 3

Secondary ID Number *(enter from page 1)*:

XIV. Description of Hazardous Waste *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.

Line Number	Additional Process Codes (enter)

XV. Map

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See Instructions for precise requirements.

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XVIII. Certification(s)

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Owner Signature (Property Owner)	Date Signed
Name and Official Title *(type or print)*	
Operator Signature (Facility Owner)	Date Signed
Name and Official Title *(type or print)*	

XIX. Comments

Index of Attachments follows this page.

Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to Instructions for more information)

INDEX OF ATTACHMENTS

ATTACHMENTS	DESCRIPTION
A	ITEM VIII -- Facility Owner
B	ITEM XV -- Map
	1. Drawing No. C-100604 Sheet 1 of 2 (Rev. 0) Topographical Map 1 - Plant Site
	2. Drawing No. C-100604 Sheet 2 of 2 (Rev. 0) Topographical Map 2 - Adjacent Lands
C	ITEM XVI -- Facility Drawing
	1. Scale Drawing of Property Layout
	2. Scale Drawing of Facility Layout (Equipment Location)
	3. Drawing No. 11135-002 (Rev. 1) Schematic Process Flow Diagram
D	ITEM XVII -- Photographs
	1. Site Photographs
	2. Site Aerial Photograph

ATTACHMENT A

ITEM VIII -- FACILITY OWNER

ADDITIONAL INFORMATION

EPA ID NUMBER: AZD982441263

ATTACHMENT A -- ITEM VIII

FACILITY OWNER

NAME OF FACILITY'S LEGAL OWNER

WESTATES CARBON-ARIZONA, INC.
2523 MUTAHAR STREET
PARKER, ARIZONA 85344-4005
TELEPHONE: 602-669-5758

OWNER TYPE - P

NAME OF PROPERTY OWNER:

COLORADO RIVER INDIAN TRIBES
RT - 1, BOX 23 - B
PARKER, ARIZONA 85344
TELEPHONE: 602-669-9211

OWNER TYPE - I

ATTACHMENT B

ITEM XV -- MAP

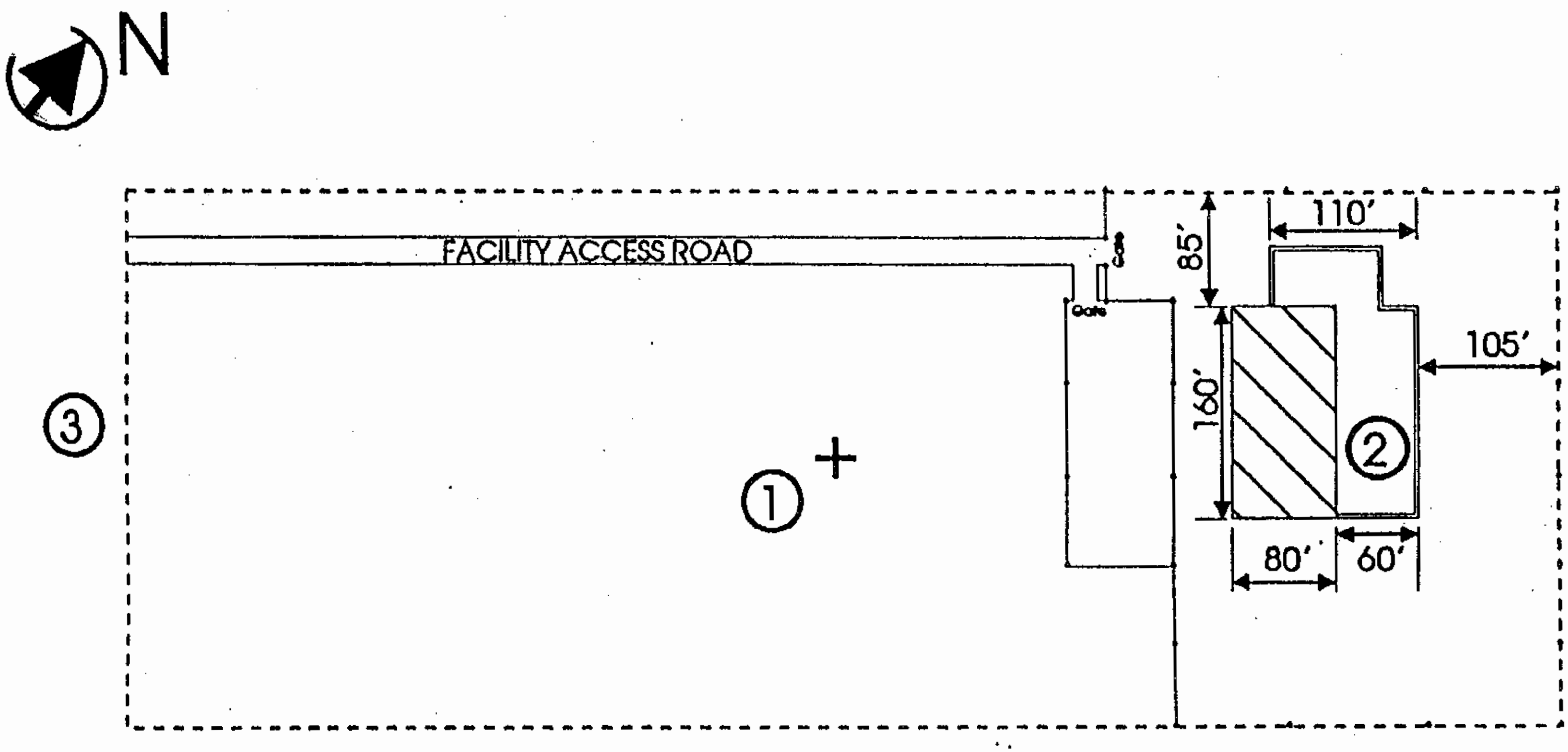
1. DRAWING NO. C-100604 SHEET 1 OF 2 (REV. 0)
   TOPOGRAPHICAL MAP 1 - PLANT SITE

2. DRAWING NO. C-100604 SHEET 2 OF 2 (REV. 0)
   TOPOGRAPHICAL MAP 2 - ADJACENT LANDS

ATTACHMENT C

ITEM XVII -- FACILITY DRAWING

1. SCALE DRAWING OF PROPERTY LAYOUT
2. SCALE DRAWING OF FACILITY LAYOUT (EQUIPMENT LOCATION)
3. DRAWING NO. 11135-002 -- SCHEMATIC PROCESS FLOW DIAGRAM



LEGEND:

1. Center of Property is Approximately N 34°-07'-50" X W 114°-16'-22"
2. Uncovered Reactivation Facilities
3. Mutahar Street

- - - - - - Property Line

Covered Storage and Maintenance Facilities

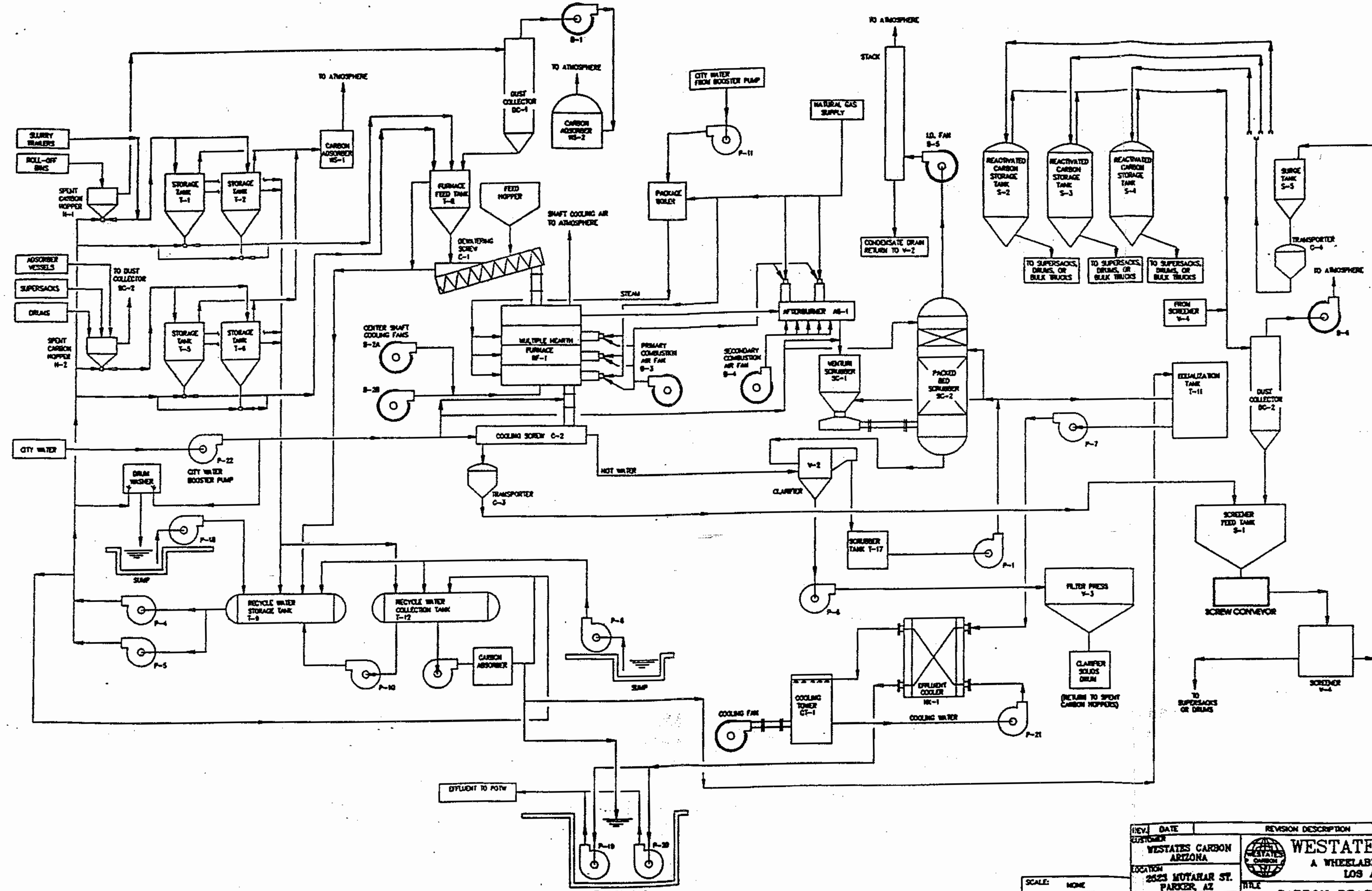
Fence Line

WESTATES CARBON - ARIZONA Parker, Arizona	
General Property Layout Reactivation Facilities	
Scale 1"=150'	Location: 2523 Mutahar Street Parker, Arizona 85344

LIST OF COMPONENTS

DWG.# 11135-002

ITEM	QTY	DWG/PART No.	DESCRIPTION



REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R	MGR.

CUSTOMER: WESTATES CARBON ARIZONA

LOCATION: 2523 MUTAHAR ST. PARKER, AZ

WESTATES CARBON, INC
A WHEELABRATOR TECHNOLOGIES CO.
LOS ANGELES, CA 90040

TITLE: CARBON REACTIVATION FACILITY FLOW DIAGRAM

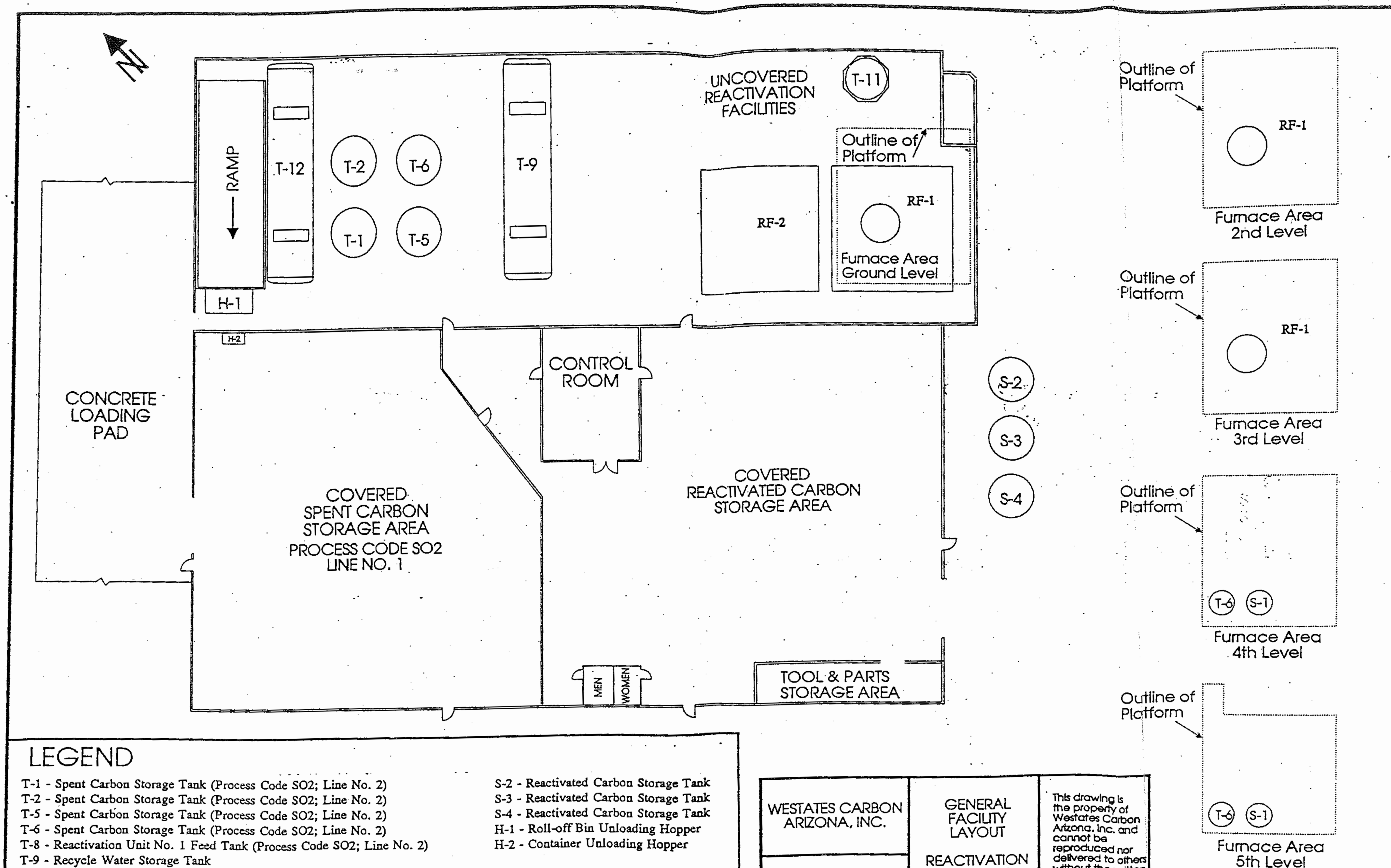
SCALE: NONE

DO NOT SCALE DRAWING

DRAWN	R. MONK	10-29-93
CHK'D		
ENG'R		
MGR.		

CODE: CA | DWG # 11135-002 | REV. 1

PROJECT # 11135



LEGEND

T-1 - Spent Carbon Storage Tank (Process Code SO2; Line No. 2)
T-2 - Spent Carbon Storage Tank (Process Code SO2; Line No. 2)
T-5 - Spent Carbon Storage Tank (Process Code SO2; Line No. 2)
T-6 - Spent Carbon Storage Tank (Process Code SO2; Line No. 2)
T-8 - Reactivation Unit No. 1 Feed Tank (Process Code SO2; Line No. 2)
T-9 - Recycle Water Storage Tank
T-11 - Equalization Tank
T-12 - Recycle Water Tank
RF-1 - Reactivation Unit No. 1 (Process Code T04; Line No. 3)
RF-2 - Yet to be Completed Carbon Reactivation Unit No. 2 (Process Code T04; Line No. 3)

S-2 - Reactivated Carbon Storage Tank
S-3 - Reactivated Carbon Storage Tank
S-4 - Reactivated Carbon Storage Tank
H-1 - Roll-off Bin Unloading Hopper
H-2 - Container Unloading Hopper

WESTATES CARBON ARIZONA, INC.	GENERAL FACILITY LAYOUT REACTIVATION FACILITIES	This drawing is the property of Westates Carbon Arizona, Inc. and cannot be reproduced nor delivered to others without the written permission of Westates Carbon Arizona, Inc.
LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344	SCALE: 1/4"=5'	

ATTACHMENT D

ITEM XVII -- PHOTOGRAPHS

1. SITE PHOTOGRAPHS
2. SITE AERIAL PHOTOGRAPHS

Process Code S02
(Identified as Line Number 2 in Section XII)

Spent Carbon Storage Feed Tanks
(Tank No. T-1 and T-2)

October 1996

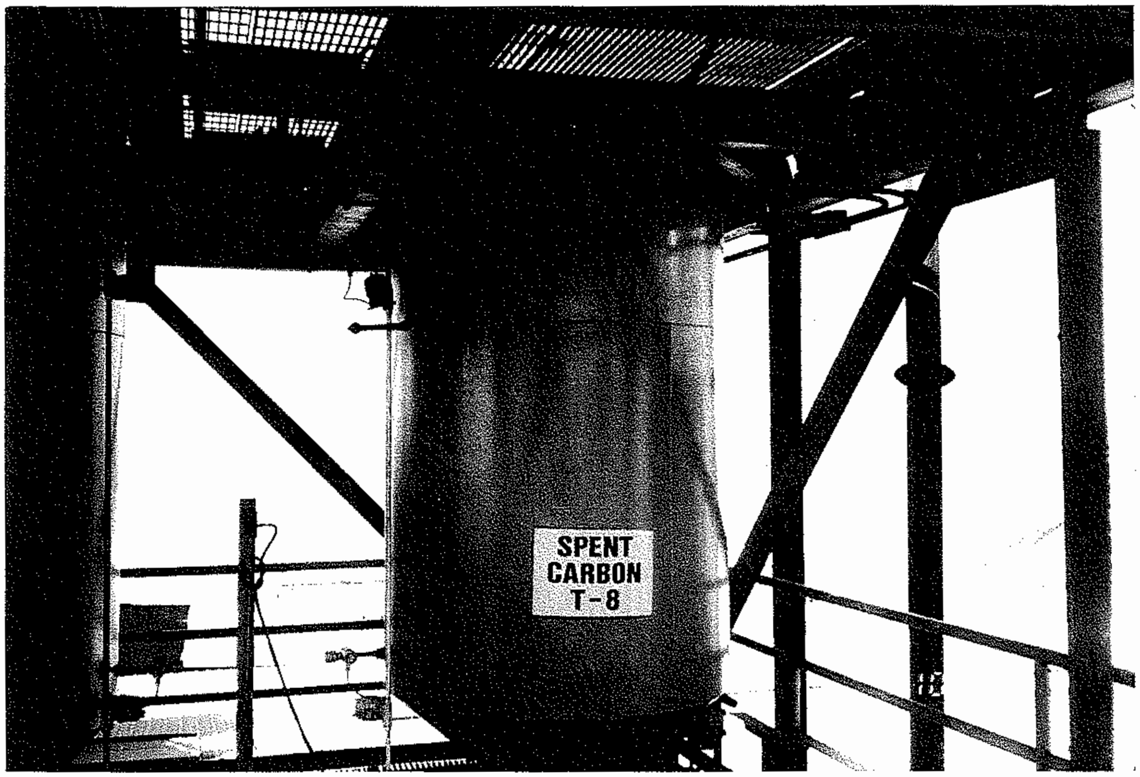
Process Code S02
(Identified as Line Number 2 in Section XII)

Spent Carbon Storage Feed Tanks
(Tank No. T-5 and T-6)

October 1996

Process Code S02
(Identified as Line Number 2 in Section XII)

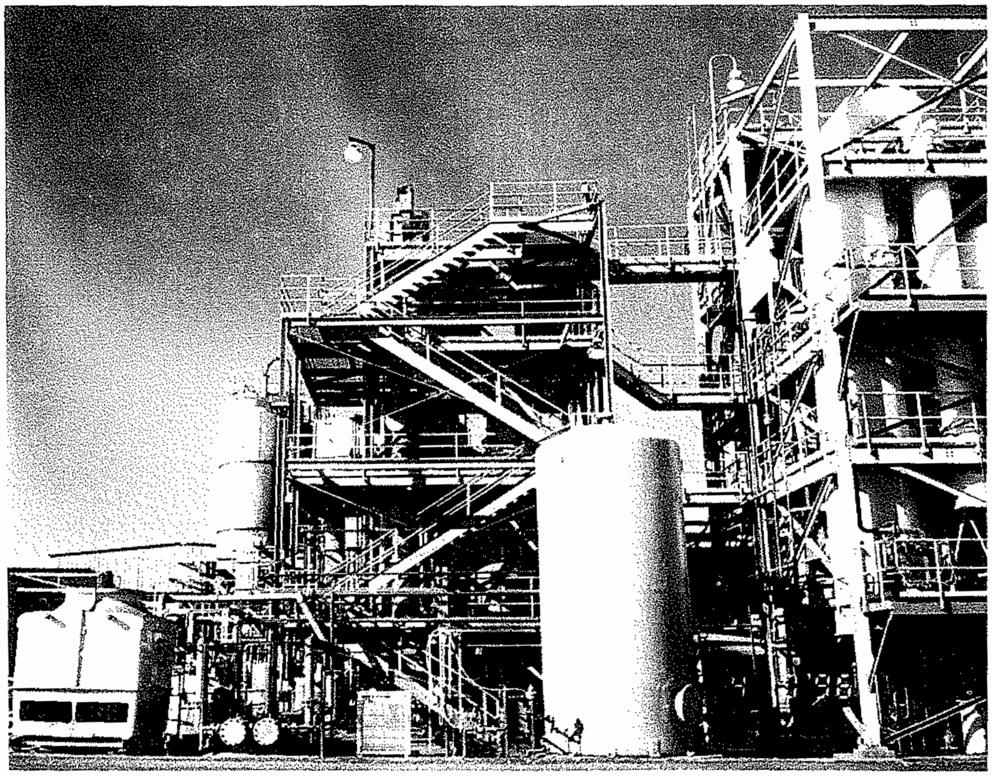
Spent Carbon Storage Feed Tanks
(Tank No. T-8)



October 1996

Process Code T04
(Identified as Line Number 3 in Section XII)

Carbon Reactivation Unit No.1 (RF-1)
(1 of 2)



October 1996

Process Code T04
(Identified as Line Number 3 in Section XII)

Carbon Reactivation Unit No.2 (RF-2)
(2 of 2)

October 1996

Process Code S01
(Identified as Line Number 1 in Section XII)

Spent Carbon Storage (Warehouse)

October 1996

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105

MAR 25 1992

Mr. Robert Babbitt
Project Manager
Westates Carbon - Arizona, Inc.
2250 Tubeway Avenue
Los Angeles, CA 90040

Dear Mr. Babbitt:

The United States Environmental Protection Agency ("EPA") has reviewed the information you provided in a letter dated February 14, 1992, regarding the interim status eligibility of Westates Carbon-Arizona, Inc. ("Westates") (ID# AZD982441263), located on the Colorado River Indian Reservation near Parker, Arizona.

The documentation you provided verifies that construction of the Westates facility had commenced before the effective date (August 21, 1991) of the boiler and industrial furnace (BIF) rule, thereby confirming Westates' status as an existing facility, pursuant to 40 CFR 260.10 and Section 3005(e)(1)(A)(ii) of RCRA. EPA hereby confirms that you have met the requirements as an interim status facility.

EPA will "call-in" your Part B permit application at a later date considering the relative hazard to human health and environment that Westates poses compared to other storage, treatment, and disposal facilities within the Director's purview. If you have any questions regarding this matter, please contact Chris Heppe at (415) 744-2027.

Sincerely,

Paula Bisson

Paula Bisson, Chief
Arizona, Nevada, Pacific Island Section

cc: Daniel Eddy, Jr., Chairman
Colorado Indian Tribe

Revised Part A Forms

Provided for Information Purposes Only

SEND COMPLETED FORM TO: The Appropriate State or EPA Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**			
1. Reason for Submittal (See instructions on page 14.) MARK ALL BOX(ES) THAT APPLY	**Reason for Submittal:** ❑ To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities) ❑ To provide Subsequent Notification of Regulated Waste Activity (to update site identification information) ❑ As a component of a First RCRA Hazardous Waste Part A Permit Application ❑ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #______) ❑ As a component of the Hazardous Waste Report			
2. Site EPA ID Number (page 15)	**EPA ID Number** |___|___|___| |___|___|___| |___|___|___| |___|___|___|			
3. Site Name (page 15)	**Name:**			
4. Site Location Information (page 15)	**Street Address:**			
	City, Town, or Village:		**State:**	
	County Name:		**Zip Code:**	
5. Site Land Type (page 15)	**Site Land Type:** ❑ Private ❑ County ❑ District ❑ Federal ❑ Indian ❑ Municipal ❑ State ❑ Other			
6. North American Industry Classification System (NAICS) Code(s) for the Site (page 15)	**A.** |___|___|___|___|___|___|	**B.** |___|___|___|___|___|___|		
	C. |___|___|___|___|___|___|	**D.** |___|___|___|___|___|___|		
7. Site Mailing Address (page 16)	**Street or P. O. Box:**			
	City, Town, or Village:			
	State:			
	Country:		**Zip Code:**	
8. Site Contact Person (page 16)	**First Name:**	**MI:**	**Last Name:**	
	Phone Number: **Extension:**		**Email address:**	
9. Operator and Legal Owner of the Site (pages 16 and 17)	**A. Name of Site's Operator:**		**Date Became Operator (mm/dd/yyyy):**	
	Operator Type: ❑ Private ❑ County ❑ District ❑ Federal ❑ Indian ❑ Municipal ❑ State ❑ Other			
	B. Name of Site's Legal Owner:		**Date Became Owner (mm/dd/yyyy):**	
	Owner Type: ❑ Private ❑ County ❑ District ❑ Federal ❑ Indian ❑ Municipal ❑ State ❑ Other			

9. Legal Owner (Continued) Address	Street or P. O. Box:	
	City, Town, or Village:	
	State:	
	Country:	Zip Code:

10. Type of Regulated Waste Activity
Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 18 to 21.)

A. Hazardous Waste Activities
Complete all parts for 1 through 6.

Y ❑ N ❑ 1. **Generator of Hazardous Waste**
If "Yes", choose only one of the following - a, b, or c.

❑ a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or

❑ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or

❑ c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste

In addition, indicate other generator activities.

Y ❑ N ❑ d. United States Importer of Hazardous Waste

Y ❑ N ❑ e. Mixed Waste (hazardous and radioactive) Generator

Y ❑ N ❑ 2. **Transporter of Hazardous Waste**

Y ❑ N ❑ 3. **Treater, Storer, or Disposer of Hazardous Waste (at your site)** Note: A hazardous waste permit is required for this activity.

Y ❑ N ❑ 4. **Recycler of Hazardous Waste (at your site)**

Y ❑ N ❑ 5. **Exempt Boiler and/or Industrial Furnace**
If "Yes", mark each that applies.
❑ a. Small Quantity On-site Burner Exemption
❑ b. Smelting, Melting, and Refining Furnace Exemption

Y ❑ N ❑ 6. **Underground Injection Control**

B. Universal Waste Activities

Y ❑ N ❑ 1. **Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. If "Yes", mark all boxes that apply:**

	Generate	Accumulate
a. Batteries	❑	❑
b. Pesticides	❑	❑
c. Thermostats	❑	❑
d. Lamps	❑	❑
e. Other (specify) ________________	❑	❑
f. Other (specify) ________________	❑	❑
g. Other (specify) ________________	❑	❑

Y ❑ N ❑ 2. **Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities
Mark all boxes that apply.

Y ❑ N ❑ 1. **Used Oil Transporter**
If "Yes", mark each that applies.
❑ a. Transporter
❑ b. Transfer Facility

Y ❑ N ❑ 2. **Used Oil Processor and/or Re-refiner**
If "Yes", mark each that applies.
❑ a. Processor
❑ b. Re-refiner

Y ❑ N ❑ 3. **Off-Specification Used Oil Burner**

Y ❑ N ❑ 4. **Used Oil Fuel Marketer**
If "Yes", mark each that applies.
❑ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
❑ b. Marketer Who First Claims the Used Oil Meets the Specifications

11. Description of Hazardous Wastes (See instructions on page 22.)

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

12. Comments (See instructions on page 22.)

13. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10 (b) and 270.11).
(See instructions on page 22.)

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)

EPA ID NO: I___I___I___I I___I___I___I I___I___I___I I___I___I___I

OMB #: 2050-0034 Expires 11/30/2005

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact (See instructions on page 23)	**First Name:**	**MI:**	**Last Name:**
	Phone Number:		**Phone Number Extension:**
2. Facility Permit Contact Mailing Address (See instructions on page 23)	**Street or P.O. Box:**		
	City, Town, or Village:		
	State:		
	Country:		**Zip Code:**
3. Operator Mailing Address and Telephone Number (See instructions on page 23)	**Street or P.O. Box:**		
	City, Town, or Village:		
	State:		
	Country:	**Zip Code:**	**Phone Number**
4. Legal Owner Mailing Address and Telephone Number (See instructions on page 23)	**Street or P.O. Box:**		
	City, Town, or Village:		
	State:		
	Country:	**Zip Code:**	**Phone Number**
5. Facility Existence Date (See instructions on page 24)	**Facility Existence Date (mm/dd/yyyy):**		

6. Other Environmental Permits (See instructions on page 24)

A. Permit Type *(Enter code)*	**B. Permit Number**	**C. Description**

7. Nature of Business (Provide a brief description; see instructions on page 24)

8. Process Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

A. PROCESS CODE - ***Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).***

B. PROCESS DESIGN CAPACITY- ***For each code entered in Section A, enter the capacity of the process.***

1. **AMOUNT** - ***Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.***

2. **UNIT OF MEASURE** - ***For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.***

C. PROCESS TOTAL NUMBER OF UNITS - ***Enter the total number of units for each corresponding process code.***

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure in Code Table Below
	Storage:	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure in Code Table Below
	Treatment:	
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Treatment (continued):	
T81	Cement Kiln	For T81-T93:
T82	Lime Kiln	
T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds
T84	Phosphate Kiln	Per Hour; Short Tons Per Hour; Kilograms
T85	Coke Oven	Per Hour; Metric Tons Per Day; Metric
T86	Blast Furnace	Tons Per Hour; Short Tons Per Day; Btu Per
T87	Smelting, Melting, or Refining Furnace	Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V

UNIT OF MEASURE	UNIT OF MEASURE CODE
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R
Million Btu Per Hour	X

UNIT OF MEASURE	UNIT OF MEASURE CODE
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu Per Hour	I

8. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. (2) Unit of Measure (Enter code)	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	5 3 3 .7 8 8	G	0 0 1	
	1				.			
	2				.			
	3				.			
	4				.			
	5				.			
	6				.			
	7				.			
	8				.			
	9				.			
1	0				.			
1	1				.			
1	2				.			
1	3				.			
1	4				.			
1	5				.			

NOTE: If you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.

9. Other Processes (*See instructions on page 25 and follow instructions from Item 8 for D99, S99, T04 and X99 process codes*)

Line Number (Enter #s in sequence with Item 8)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	B. (2) Unit of Measure (Enter code)	C. Process Total Number of Units	D. Description of Process
X	2	T	0	4	1 0 0 . 0 0 0	U	0 0 1	In-situ Vitrification
					.			
					.			
					.			
					.			
					.			

10. Description of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5.

A. EPA HAZARDOUS WASTE NUMBER - ***Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.***

B. ESTIMATED ANNUAL QUANTITY - ***For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.***

C. UNIT OF MEASURE - ***For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:***

ENGLISH UNIT OF MEASURE	*CODE*	*METRIC UNIT OF MEASURE*	*CODE*
POUNDS	*P*	*KILOGRAMS*	*K*
TONS	*T*	*METRIC TONS*	*M*

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. ***Enter the first two as described above.***
2. ***Enter "000" in the extreme right box of Item 10.D(1).***
3. ***Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.***

2. PROCESS DESCRIPTION: ***If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).***

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. ***Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.***
2. ***In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.***
3. ***Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.***

EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		*A. EPA Hazardous Waste No. (Enter code)*				*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*D. PROCESSES*									
								(1) PROCESS CODES (Enter code)									*(2) PROCESS DESCRIPTION- (If a code is not entered in D(1))*
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

OMB #: 2050-0034 Expires 11/30/2005

10. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)			D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1							
2							
3							
4							
5							
6							
7							
8							
9							
1 0							
1 1							
1 2							
1 3							
1 4							
1 5							
1 6							
1 7							
1 8							
1 9							
2 0							
2 1							
2 2							
2 3							
2 4							
2 5							
2 6							
2 7							
2 8							
2 9							
3 0							
3 1							
3 2							
3 3							
3 4							
3 5							
3 6							
3 7							
3 8							
3 9							

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet(s) as necessary; number as 5 a, etc.)

Line Number		*A. EPA Hazardous Waste No. (Enter code)*	*B. Estimated Annual Quantity of Waste*	*C. Unit of Measure (Enter code)*	*E. PROCESSES (1) PROCESS CODES (Enter code)*	*E. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in E(1))*
4	0					

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
7	9	K	0	3	1	5,000	P	S	0	1	S	0	2	X	0	3	
8	0	K	0	3	2	5,000	P	S	0	1	S	0	2	X	0	3	
8	1	K	0	3	3	5,000	P	S	0	1	S	0	2	X	0	3	
8	2	K	0	3	4	5,000	P	S	0	1	S	0	2	X	0	3	
8	3	K	0	3	5	5,000	P	S	0	1	S	0	2	X	0	3	
8	4	K	0	3	6	5,000	P	S	0	1	S	0	2	X	0	3	
8	5	K	0	3	7	5,000	P	S	0	1	S	0	2	X	0	3	
8	6	K	0	3	8	5,000	P	S	0	1	S	0	2	X	0	3	
8	7	K	0	3	9	5,000	P	S	0	1	S	0	2	X	0	3	
8	8	K	0	4	0	5,000	P	S	0	1	S	0	2	X	0	3	
8	9	K	0	4	1	5,000	P	S	0	1	S	0	2	X	0	3	
9	0	K	0	4	1	5,000	P	S	0	1	S	0	2	X	0	3	
9	1	K	0	4	6	5,000	P	S	0	1	S	0	2	X	0	3	
9	2	K	0	4	8	5,000	P	S	0	1	S	0	2	X	0	3	
9	3	K	0	4	9	5,000	P	S	0	1	S	0	2	X	0	3	
9	4	K	0	5	0	5,000	P	S	0	1	S	0	2	X	0	3	
9	5	K	0	5	1	5,000	P	S	0	1	S	0	2	X	0	3	
9	6	K	0	5	2	5,000	P	S	0	1	S	0	2	X	0	3	
9	7	K	0	6	1	5,000	P	S	0	1	S	0	2	X	0	3	
9	8	K	0	6	4	5,000	P	S	0	1	S	0	2	X	0	3	
9	9	K	0	6	5	5,000	P	S	0	1	S	0	2	X	0	3	
10	0	K	0	6	6	5,000	P	S	0	1	S	0	2	X	0	3	
10	1	K	0	7	1	5,000	P	S	0	1	S	0	2	X	0	3	
10	2	K	0	7	3	5,000	P	S	0	1	S	0	2	X	0	3	
10	3	K	0	8	3	5,000	P	S	0	1	S	0	2	X	0	3	
10	4	K	0	8	4	5,000	P	S	0	1	S	0	2	X	0	3	
10	5	K	0	8	5	5,000	P	S	0	1	S	0	2	X	0	3	
10	6	K	0	8	6	5,000	P	S	0	1	S	0	2	X	0	3	
10	7	K	0	8	7	5,000	P	S	0	1	S	0	2	X	0	3	
10	8	K	0	8	8	5,000	P	S	0	1	S	0	2	X	0	3	
10	9	K	0	9	0	5,000	P	S	0	1	S	0	2	X	0	3	
11	0	K	0	9	1	5,000	P	S	0	1	S	0	2	X	0	3	
11	1	K	0	9	3	5,000	P	S	0	1	S	0	2	X	0	3	
11	2	K	0	9	4	5,000	P	S	0	1	S	0	2	X	0	3	
11	3	K	0	9	5	5,000	P	S	0	1	S	0	2	X	0	3	
11	4	K	0	9	6	5,000	P	S	0	1	S	0	2	X	0	3	
11	5	K	0	9	7	5,000	P	S	0	1	S	0	2	X	0	3	
11	6	K	0	9	8	5,000	P	S	0	1	S	0	2	X	0	3	
11	7	K	1	0	0	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
11	8	K	1	0	1	5,000	P	S	0	1	S	0	2	X	0	3	
11	9	K	1	0	2	5,000	P	S	0	1	S	0	2	X	0	3	
12	0	K	1	0	3	5,000	P	S	0	1	S	0	2	X	0	3	
12	1	K	1	0	4	5,000	P	S	0	1	S	0	2	X	0	3	
12	2	K	1	0	5	5,000	P	S	0	1	S	0	2	X	0	3	
12	3	K	1	0	6	5,000	P	S	0	1	S	0	2	X	0	3	
12	4	K	1	1	2	5,000	P	S	0	1	S	0	2	X	0	3	
12	5	K	1	1	3	5,000	P	S	0	1	S	0	2	X	0	3	
12	6	K	1	1	4	5,000	P	S	0	1	S	0	2	X	0	3	
12	7	K	1	1	5	5,000	P	S	0	1	S	0	2	X	0	3	
12	8	K	1	1	6	5,000	P	S	0	1	S	0	2	X	0	3	
12	9	K	1	1	7	5,000	P	S	0	1	S	0	2	X	0	3	
13	0	K	1	1	8	5,000	P	S	0	1	S	0	2	X	0	3	
13	1	K	1	2	5	5,000	P	S	0	1	S	0	2	X	0	3	
13	2	K	1	2	6	5,000	P	S	0	1	S	0	2	X	0	3	
13	3	P	0	0	1	5,000	P	S	0	1	S	0	2	X	0	3	
13	4	P	0	0	2	5,000	P	S	0	1	S	0	2	X	0	3	
13	5	P	0	0	3	5,000	P	S	0	1	S	0	2	X	0	3	
13	6	P	0	0	4	5,000	P	S	0	1	S	0	2	X	0	3	
13	7	P	0	0	5	5,000	P	S	0	1	S	0	2	X	0	3	
13	8	P	0	0	7	5,000	P	S	0	1	S	0	2	X	0	3	
13	9	P	0	0	8	5,000	P	S	0	1	S	0	2	X	0	3	
14	0	P	0	1	0	5,000	P	S	0	1	S	0	2	X	0	3	
14	1	P	0	1	1	5,000	P	S	0	1	S	0	2	X	0	3	
14	2	P	0	1	2	5,000	P	S	0	1	S	0	2	X	0	3	
14	3	P	0	1	3	5,000	P	S	0	1	S	0	2	X	0	3	
14	4	P	0	1	4	5,000	P	S	0	1	S	0	2	X	0	3	
14	5	P	0	1	5	5,000	P	S	0	1	S	0	2	X	0	3	
14	6	P	0	1	6	5,000	P	S	0	1	S	0	2	X	0	3	
14	7	P	0	1	7	5,000	P	S	0	1	S	0	2	X	0	3	
14	8	P	0	1	8	5,000	P	S	0	1	S	0	2	X	0	3	
14	9	P	0	2	0	5,000	P	S	0	1	S	0	2	X	0	3	
15	0	P	0	2	1	5,000	P	S	0	1	S	0	2	X	0	3	
15	1	P	0	2	2	5,000	P	S	0	1	S	0	2	X	0	3	
15	2	P	0	2	3	5,000	P	S	0	1	S	0	2	X	0	3	
15	3	P	0	2	4	5,000	P	S	0	1	S	0	2	X	0	3	
15	4	P	0	2	6	5,000	P	S	0	1	S	0	2	X	0	3	
15	5	P	0	2	7	5,000	P	S	0	1	S	0	2	X	0	3	
15	6	P	0	2	8	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
15	7	P	0	2	9	5,000	P	S	0	1	S	0	2	X	0	3	
15	8	P	0	3	0	5,000	P	S	0	1	S	0	2	X	0	3	
15	9	P	0	3	1	5,000	P	S	0	1	S	0	2	X	0	3	
16	0	P	0	3	3	5,000	P	S	0	1	S	0	2	X	0	3	
16	1	P	0	3	4	5,000	P	S	0	1	S	0	2	X	0	3	
16	2	P	0	3	6	5,000	P	S	0	1	S	0	2	X	0	3	
16	3	P	0	3	7	5,000	P	S	0	1	S	0	2	X	0	3	
16	4	P	0	3	8	5,000	P	S	0	1	S	0	2	X	0	3	
16	5	P	0	3	9	5,000	P	S	0	1	S	0	2	X	0	3	
16	6	P	0	4	0	5,000	P	S	0	1	S	0	2	X	0	3	
16	7	P	0	4	1	5,000	P	S	0	1	S	0	2	X	0	3	
16	8	P	0	4	2	5,000	P	S	0	1	S	0	2	X	0	3	
16	9	P	0	4	3	5,000	P	S	0	1	S	0	2	X	0	3	
17	0	P	0	4	4	5,000	P	S	0	1	S	0	2	X	0	3	
17	1	P	0	4	5	5,000	P	S	0	1	S	0	2	X	0	3	
17	2	P	0	4	6	5,000	P	S	0	1	S	0	2	X	0	3	
17	3	P	0	4	7	5,000	P	S	0	1	S	0	2	X	0	3	
17	4	P	0	4	8	5,000	P	S	0	1	S	0	2	X	0	3	
17	5	P	0	4	9	5,000	P	S	0	1	S	0	2	X	0	3	
17	6	P	0	5	0	5,000	P	S	0	1	S	0	2	X	0	3	
17	7	P	0	5	1	5,000	P	S	0	1	S	0	2	X	0	3	
17	8	P	0	5	4	5,000	P	S	0	1	S	0	2	X	0	3	
17	9	P	0	5	6	5,000	P	S	0	1	S	0	2	X	0	3	
18	0	P	0	5	7	5,000	P	S	0	1	S	0	2	X	0	3	
18	1	P	0	5	8	5,000	P	S	0	1	S	0	2	X	0	3	
18	2	P	0	5	9	5,000	P	S	0	1	S	0	2	X	0	3	
18	3	P	0	6	0	5,000	P	S	0	1	S	0	2	X	0	3	
18	4	P	0	6	2	5,000	P	S	0	1	S	0	2	X	0	3	
18	5	P	0	6	3	5,000	P	S	0	1	S	0	2	X	0	3	
18	6	P	0	6	4	5,000	P	S	0	1	S	0	2	X	0	3	
18	7	P	0	6	6	5,000	P	S	0	1	S	0	2	X	0	3	
18	8	P	0	6	7	5,000	P	S	0	1	S	0	2	X	0	3	
18	9	P	0	6	8	5,000	P	S	0	1	S	0	2	X	0	3	
19	0	P	0	6	9	5,000	P	S	0	1	S	0	2	X	0	3	
19	1	P	0	7	0	5,000	P	S	0	1	S	0	2	X	0	3	
19	2	P	0	7	1	5,000	P	S	0	1	S	0	2	X	0	3	
19	3	P	0	7	2	5,000	P	S	0	1	S	0	2	X	0	3	
19	4	P	0	7	3	5,000	P	S	0	1	S	0	2	X	0	3	
19	5	P	0	7	4	5,000	P	S	0	1	S	0	2	X	0	3	

EPA ID NO: AZD982441263 OMB #: 2050-0034 Expires 11/30/2005

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
19	6	P	0	7	5	5,000	P	S	0	1	S	0	2	X	0	3	
19	7	P	0	7	7	5,000	P	S	0	1	S	0	2	X	0	3	
19	8	P	0	7	8	5,000	P	S	0	1	S	0	2	X	0	3	
19	9	P	0	8	2	5,000	P	S	0	1	S	0	2	X	0	3	
20	0	P	0	8	4	5,000	P	S	0	1	S	0	2	X	0	3	
20	1	P	0	8	5	5,000	P	S	0	1	S	0	2	X	0	3	
20	2	P	0	8	7	5,000	P	S	0	1	S	0	2	X	0	3	
20	3	P	0	8	8	5,000	P	S	0	1	S	0	2	X	0	3	
20	4	P	0	8	9	5,000	P	S	0	1	S	0	2	X	0	3	
20	5	P	0	9	2	5,000	P	S	0	1	S	0	2	X	0	3	
20	6	P	0	9	3	5,000	P	S	0	1	S	0	2	X	0	3	
20	7	P	0	9	4	5,000	P	S	0	1	S	0	2	X	0	3	
20	8	P	0	9	5	5,000	P	S	0	1	S	0	2	X	0	3	
20	9	P	0	9	6	5,000	P	S	0	1	S	0	2	X	0	3	
21	0	P	0	9	7	5,000	P	S	0	1	S	0	2	X	0	3	
21	1	P	0	9	8	5,000	P	S	0	1	S	0	2	X	0	3	
21	2	P	0	9	9	5,000	P	S	0	1	S	0	2	X	0	3	
21	3	P	1	0	1	5,000	P	S	0	1	S	0	2	X	0	3	
21	4	P	1	0	2	5,000	P	S	0	1	S	0	2	X	0	3	
21	5	P	1	0	3	5,000	P	S	0	1	S	0	2	X	0	3	
21	6	P	1	0	4	5,000	P	S	0	1	S	0	2	X	0	3	
21	7	P	1	0	5	5,000	P	S	0	1	S	0	2	X	0	3	
21	8	P	1	0	8	5,000	P	S	0	1	S	0	2	X	0	3	
21	9	P	1	0	9	5,000	P	S	0	1	S	0	2	X	0	3	
22	0	P	1	1	0	5,000	P	S	0	1	S	0	2	X	0	3	
22	1	P	1	1	3	5,000	P	S	0	1	S	0	2	X	0	3	
22	2	P	1	1	4	5,000	P	S	0	1	S	0	2	X	0	3	
22	3	P	1	1	5	5,000	P	S	0	1	S	0	2	X	0	3	
22	4	P	1	1	6	5,000	P	S	0	1	S	0	2	X	0	3	
22	5	P	1	1	8	5,000	P	S	0	1	S	0	2	X	0	3	
22	6	P	1	1	9	5,000	P	S	0	1	S	0	2	X	0	3	
22	7	P	1	2	0	5,000	P	S	0	1	S	0	2	X	0	3	
22	8	P	1	2	1	5,000	P	S	0	1	S	0	2	X	0	3	
22	9	P	1	2	3	5,000	P	S	0	1	S	0	2	X	0	3	
23	0	U	0	0	1	5,000	P	S	0	1	S	0	2	X	0	3	
23	1	U	0	0	2	5,000	P	S	0	1	S	0	2	X	0	3	
23	2	U	0	0	3	5,000	P	S	0	1	S	0	2	X	0	3	
23	3	U	0	0	4	5,000	P	S	0	1	S	0	2	X	0	3	
23	4	U	0	0	5	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)																		
Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)										(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
23	5	U	0	0	7	5,000	P	S	0	1	S	0	2	X	0	3	
23	6	U	0	0	8	5,000	P	S	0	1	S	0	2	X	0	3	
23	7	U	0	0	9	5,000	P	S	0	1	S	0	2	X	0	3	
23	8	U	0	1	0	5,000	P	S	0	1	S	0	2	X	0	3	
23	9	U	0	1	1	5,000	P	S	0	1	S	0	2	X	0	3	
24	0	U	0	1	2	5,000	P	S	0	1	S	0	2	X	0	3	
24	1	U	0	1	4	5,000	P	S	0	1	S	0	2	X	0	3	
24	2	U	0	1	5	5,000	P	S	0	1	S	0	2	X	0	3	
24	3	U	0	1	6	5,000	P	S	0	1	S	0	2	X	0	3	
24	4	U	0	1	7	5,000	P	S	0	1	S	0	2	X	0	3	
24	5	U	0	1	8	5,000	P	S	0	1	S	0	2	X	0	3	
24	6	U	0	1	9	5,000	P	S	0	1	S	0	2	X	0	3	
24	7																Intentionally blank
24	8	U	0	2	2	5,000	P	S	0	1	S	0	2	X	0	3	
24	9	U	0	2	4	5,000	P	S	0	1	S	0	2	X	0	3	
25	0	U	0	2	5	5,000	P	S	0	1	S	0	2	X	0	3	
25	1	U	0	2	6	5,000	P	S	0	1	S	0	2	X	0	3	
25	2	U	0	2	7	5,000	P	S	0	1	S	0	2	X	0	3	
25	3	U	0	2	8	5,000	P	S	0	1	S	0	2	X	0	3	
25	4	U	0	2	9	5,000	P	S	0	1	S	0	2	X	0	3	
25	5	U	0	3	0	5,000	P	S	0	1	S	0	2	X	0	3	
25	6	U	0	3	1	5,000	P	S	0	1	S	0	2	X	0	3	
25	7	U	0	3	2	5,000	P	S	0	1	S	0	2	X	0	3	
25	8	U	0	3	4	5,000	P	S	0	1	S	0	2	X	0	3	
25	9	U	0	3	5	5,000	P	S	0	1	S	0	2	X	0	3	
26	0	U	0	3	6	5,000	P	S	0	1	S	0	2	X	0	3	
26	1	U	0	3	7	5,000	P	S	0	1	S	0	2	X	0	3	
26	2	U	0	3	8	5,000	P	S	0	1	S	0	2	X	0	3	
26	3	U	0	3	9	5,000	P	S	0	1	S	0	2	X	0	3	
26	4	U	0	4	1	5,000	P	S	0	1	S	0	2	X	0	3	
26	5	U	0	4	2	5,000	P	S	0	1	S	0	2	X	0	3	
26	6	U	0	4	3	5,000	P	S	0	1	S	0	2	X	0	3	
26	7	U	0	4	4	5,000	P	S	0	1	S	0	2	X	0	3	
26	8	U	0	4	5	5,000	P	S	0	1	S	0	2	X	0	3	
26	9	U	0	4	6	5,000	P	S	0	1	S	0	2	X	0	3	
27	0	U	0	4	7	5,000	P	S	0	1	S	0	2	X	0	3	
27	1	U	0	4	8	5,000	P	S	0	1	S	0	2	X	0	3	
27	2	U	0	4	9	5,000	P	S	0	1	S	0	2	X	0	3	
27	3	U	0	5	0	5,000	P	S	0	1	S	0	2	X	0	3	

EPA ID NO: AZD982441263 OMB #: 2050-0034 Expires 11/30/2005

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
27	4	U	0	5	1	5,000	P	S	0	1	S	0	2	X	0	3	
27	5	U	0	5	2	5,000	P	S	0	1	S	0	2	X	0	3	
27	6	U	0	5	3	5,000	P	S	0	1	S	0	2	X	0	3	
27	7	U	0	5	5	5,000	P	S	0	1	S	0	2	X	0	3	
27	8	U	0	5	6	5,000	P	S	0	1	S	0	2	X	0	3	
27	9	U	0	5	7	5,000	P	S	0	1	S	0	2	X	0	3	
28	0	U	0	5	8	5,000	P	S	0	1	S	0	2	X	0	3	
28	1	U	0	5	9	5,000	P	S	0	1	S	0	2	X	0	3	
28	2	U	0	6	0	5,000	P	S	0	1	S	0	2	X	0	3	
28	3	U	0	6	1	5,000	P	S	0	1	S	0	2	X	0	3	
28	4	U	0	6	2	5,000	P	S	0	1	S	0	2	X	0	3	
28	5	U	0	6	3	5,000	P	S	0	1	S	0	2	X	0	3	
28	6	U	0	6	4	5,000	P	S	0	1	S	0	2	X	0	3	
28	7	U	0	6	6	5,000	P	S	0	1	S	0	2	X	0	3	
28	8	U	0	6	7	5,000	P	S	0	1	S	0	2	X	0	3	
28	9	U	0	6	8	5,000	P	S	0	1	S	0	2	X	0	3	
29	0	U	0	6	9	5,000	P	S	0	1	S	0	2	X	0	3	
29	1	U	0	7	0	5,000	P	S	0	1	S	0	2	X	0	3	
29	2	U	0	7	1	5,000	P	S	0	1	S	0	2	X	0	3	
29	3	U	0	7	2	5,000	P	S	0	1	S	0	2	X	0	3	
29	4	U	0	7	3	5,000	P	S	0	1	S	0	2	X	0	3	
29	5	U	0	7	4	5,000	P	S	0	1	S	0	2	X	0	3	
29	6	U	0	7	5	5,000	P	S	0	1	S	0	2	X	0	3	
29	7	U	0	7	6	5,000	P	S	0	1	S	0	2	X	0	3	
29	8	U	0	7	7	5,000	P	S	0	1	S	0	2	X	0	3	
29	9	U	0	7	8	5,000	P	S	0	1	S	0	2	X	0	3	
30	0	U	0	7	9	5,000	P	S	0	1	S	0	2	X	0	3	
30	1	U	0	8	0	5,000	P	S	0	1	S	0	2	X	0	3	
30	2	U	0	8	1	5,000	P	S	0	1	S	0	2	X	0	3	
30	3	U	0	8	2	5,000	P	S	0	1	S	0	2	X	0	3	
30	4	U	0	8	3	5,000	P	S	0	1	S	0	2	X	0	3	
30	5	U	0	8	4	5,000	P	S	0	1	S	0	2	X	0	3	
30	6	U	0	8	5	5,000	P	S	0	1	S	0	2	X	0	3	
30	7	U	0	8	6	5,000	P	S	0	1	S	0	2	X	0	3	
30	8	U	0	8	7	5,000	P	S	0	1	S	0	2	X	0	3	
30	9	U	0	8	8	5,000	P	S	0	1	S	0	2	X	0	3	
31	0	U	0	8	9	5,000	P	S	0	1	S	0	2	X	0	3	
31	1	U	0	9	0	5,000	P	S	0	1	S	0	2	X	0	3	
31	2	U	0	9	1	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)																	
Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
31	3	U	0	9	2	5,000	P	S	0	1	S	0	2	X	0	3	
31	4	U	0	9	3	5,000	P	S	0	1	S	0	2	X	0	3	
31	5	U	0	9	4	5,000	P	S	0	1	S	0	2	X	0	3	
31	6	U	0	9	5	5,000	P	S	0	1	S	0	2	X	0	3	
31	7	U	0	9	7	5,000	P	S	0	1	S	0	2	X	0	3	
31	8	U	0	9	8	5,000	P	S	0	1	S	0	2	X	0	3	
31	9	U	0	9	9	5,000	P	S	0	1	S	0	2	X	0	3	
32	0	U	1	0	1	5,000	P	S	0	1	S	0	2	X	0	3	
32	1	U	1	0	2	5,000	P	S	0	1	S	0	2	X	0	3	
32	2	U	1	0	3	5,000	P	S	0	1	S	0	2	X	0	3	
32	3	U	1	0	5	5,000	P	S	0	1	S	0	2	X	0	3	
32	4	U	1	0	6	5,000	P	S	0	1	S	0	2	X	0	3	
32	5	U	1	0	7	5,000	P	S	0	1	S	0	2	X	0	3	
32	6	U	1	0	8	5,000	P	S	0	1	S	0	2	X	0	3	
32	7	U	1	0	9	5,000	P	S	0	1	S	0	2	X	0	3	
32	8	U	1	1	0	5,000	P	S	0	1	S	0	2	X	0	3	
32	9	U	1	1	1	5,000	P	S	0	1	S	0	2	X	0	3	
33	0	U	1	1	2	5,000	P	S	0	1	S	0	2	X	0	3	
33	1	U	1	1	3	5,000	P	S	0	1	S	0	2	X	0	3	
33	2	U	1	1	4	5,000	P	S	0	1	S	0	2	X	0	3	
33	3	U	1	1	5	5,000	P	S	0	1	S	0	2	X	0	3	
33	4	U	1	1	6	5,000	P	S	0	1	S	0	2	X	0	3	
33	5	U	1	1	7	5,000	P	S	0	1	S	0	2	X	0	3	
33	6	U	1	1	8	5,000	P	S	0	1	S	0	2	X	0	3	
33	7	U	1	1	9	5,000	P	S	0	1	S	0	2	X	0	3	
33	8	U	1	2	0	5,000	P	S	0	1	S	0	2	X	0	3	
33	9	U	1	2	1	5,000	P	S	0	1	S	0	2	X	0	3	
34	0	U	1	2	2	5,000	P	S	0	1	S	0	2	X	0	3	
34	1	U	1	2	4	5,000	P	S	0	1	S	0	2	X	0	3	
34	2	U	1	2	5	5,000	P	S	0	1	S	0	2	X	0	3	
34	3	U	1	2	6	5,000	P	S	0	1	S	0	2	X	0	3	
34	4	U	1	2	7	5,000	P	S	0	1	S	0	2	X	0	3	
34	5	U	1	2	8	5,000	P	S	0	1	S	0	2	X	0	3	
34	6	U	1	2	9	5,000	P	S	0	1	S	0	2	X	0	3	
34	7	U	1	3	0	5,000	P	S	0	1	S	0	2	X	0	3	
34	8	U	1	3	1	5,000	P	S	0	1	S	0	2	X	0	3	
34	9	U	1	3	2	5,000	P	S	0	1	S	0	2	X	0	3	
35	0	U	1	3	5	5,000	P	S	0	1	S	0	2	X	0	3	
35	1	U	1	3	6	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)																	
Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
35	2	U	1	3	7	5,000	P	S	0	1	S	0	2	X	0	3	
35	3	U	1	3	8	5,000	P	S	0	1	S	0	2	X	0	3	
35	4	U	1	4	0	5,000	P	S	0	1	S	0	2	X	0	3	
35	5	U	1	4	1	5,000	P	S	0	1	S	0	2	X	0	3	
35	6	U	1	4	2	5,000	P	S	0	1	S	0	2	X	0	3	
35	7	U	1	4	3	5,000	P	S	0	1	S	0	2	X	0	3	
35	8	U	1	4	4	5,000	P	S	0	1	S	0	2	X	0	3	
35	9	U	1	4	5	5,000	P	S	0	1	S	0	2	X	0	3	
36	0	U	1	4	6	5,000	P	S	0	1	S	0	2	X	0	3	
36	1	U	1	4	7	5,000	P	S	0	1	S	0	2	X	0	3	
36	2	U	1	4	8	5,000	P	S	0	1	S	0	2	X	0	3	
36	3	U	1	4	9	5,000	P	S	0	1	S	0	2	X	0	3	
36	4	U	1	5	0	5,000	P	S	0	1	S	0	2	X	0	3	
36	5	U	1	5	1	5,000	P	S	0	1	S	0	2	X	0	3	
36	6	U	1	5	2	5,000	P	S	0	1	S	0	2	X	0	3	
36	7	U	1	5	3	5,000	P	S	0	1	S	0	2	X	0	3	
36	8	U	1	5	4	5,000	P	S	0	1	S	0	2	X	0	3	
36	9	U	1	5	5	5,000	P	S	0	1	S	0	2	X	0	3	
37	0	U	1	5	6	5,000	P	S	0	1	S	0	2	X	0	3	
37	1	U	1	5	7	5,000	P	S	0	1	S	0	2	X	0	3	
37	2	U	1	5	8	5,000	P	S	0	1	S	0	2	X	0	3	
37	3	U	1	5	9	5,000	P	S	0	1	S	0	2	X	0	3	
37	4	U	1	6	1	5,000	P	S	0	1	S	0	2	X	0	3	
37	5	U	1	6	2	5,000	P	S	0	1	S	0	2	X	0	3	
37	6	U	1	6	3	5,000	P	S	0	1	S	0	2	X	0	3	
37	7	U	1	6	4	5,000	P	S	0	1	S	0	2	X	0	3	
37	8	U	1	6	5	5,000	P	S	0	1	S	0	2	X	0	3	
37	9	U	1	6	6	5,000	P	S	0	1	S	0	2	X	0	3	
38	0	U	1	6	7	5,000	P	S	0	1	S	0	2	X	0	3	
38	1	U	1	6	8	5,000	P	S	0	1	S	0	2	X	0	3	
38	2	U	1	6	9	5,000	P	S	0	1	S	0	2	X	0	3	
38	3	U	1	7	0	5,000	P	S	0	1	S	0	2	X	0	3	
38	4	U	1	7	1	5,000	P	S	0	1	S	0	2	X	0	3	
38	5	U	1	7	2	5,000	P	S	0	1	S	0	2	X	0	3	
38	6	U	1	7	3	5,000	P	S	0	1	S	0	2	X	0	3	
38	7	U	1	7	4	5,000	P	S	0	1	S	0	2	X	0	3	
38	8	U	1	7	6	5,000	P	S	0	1	S	0	2	X	0	3	
38	9	U	1	7	7	5,000	P	S	0	1	S	0	2	X	0	3	
39	0	U	1	7	8	5,000	P	S	0	1	S	0	2	X	0	3	

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)																		
Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)										(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
39	1	U	1	7	9	5,000	P	S	0	1	S	0	2	X	0	3		
39	2	U	1	8	0	5,000	P	S	0	1	S	0	2	X	0	3		
39	3	U	1	8	1	5,000	P	S	0	1	S	0	2	X	0	3		
39	4	U	1	8	2	5,000	P	S	0	1	S	0	2	X	0	3		
39	5	U	1	8	3	5,000	P	S	0	1	S	0	2	X	0	3		
39	6	U	1	8	4	5,000	P	S	0	1	S	0	2	X	0	3		
39	7	U	1	8	5	5,000	P	S	0	1	S	0	2	X	0	3		
39	8	U	1	8	6	5,000	P	S	0	1	S	0	2	X	0	3		
39	9	U	1	8	7	5,000	P	S	0	1	S	0	2	X	0	3		
40	0	U	1	8	8	5,000	P	S	0	1	S	0	2	X	0	3		
40	1	U	1	9	0	5,000	P	S	0	1	S	0	2	X	0	3		
40	2	U	1	9	1	5,000	P	S	0	1	S	0	2	X	0	3		
40	3	U	1	9	2	5,000	P	S	0	1	S	0	2	X	0	3		
40	4	U	1	9	3	5,000	P	S	0	1	S	0	2	X	0	3		
40	5	U	1	9	4	5,000	P	S	0	1	S	0	2	X	0	3		
40	6	U	1	9	6	5,000	P	S	0	1	S	0	2	X	0	3		
40	7	U	1	9	7	5,000	P	S	0	1	S	0	2	X	0	3		
40	8	U	2	0	0	5,000	P	S	0	1	S	0	2	X	0	3		
40	9	U	2	0	1	5,000	P	S	0	1	S	0	2	X	0	3		
41	0	U	2	0	2	5,000	P	S	0	1	S	0	2	X	0	3		
41	1	U	2	0	3	5,000	P	S	0	1	S	0	2	X	0	3		
41	2	U	2	0	4	5,000	P	S	0	1	S	0	2	X	0	3		
41	3	U	2	0	6	5,000	P	S	0	1	S	0	2	X	0	3		
41	4	U	2	0	7	5,000	P	S	0	1	S	0	2	X	0	3		
41	5	U	2	0	8	5,000	P	S	0	1	S	0	2	X	0	3		
41	6	U	2	0	9	5,000	P	S	0	1	S	0	2	X	0	3		
41	7	U	2	1	0	5,000	P	S	0	1	S	0	2	X	0	3		
41	8	U	2	1	1	5,000	P	S	0	1	S	0	2	X	0	3		
41	9	U	2	1	3	5,000	P	S	0	1	S	0	2	X	0	3		
42	0	U	2	1	4	5,000	P	S	0	1	S	0	2	X	0	3		
42	1	U	2	1	5	5,000	P	S	0	1	S	0	2	X	0	3		
42	2	U	2	1	6	5,000	P	S	0	1	S	0	2	X	0	3		
42	3	U	2	1	7	5,000	P	S	0	1	S	0	2	X	0	3		
42	4	U	2	1	8	5,000	P	S	0	1	S	0	2	X	0	3		
42	5	U	2	1	9	5,000	P	S	0	1	S	0	2	X	0	3		
42	6	U	2	2	0	5,000	P	S	0	1	S	0	2	X	0	3		
42	7	U	2	2	1	5,000	P	S	0	1	S	0	2	X	0	3		
42	8	U	2	2	2	5,000	P	S	0	1	S	0	2	X	0	3		
42	9	U	2	2	5	5,000	P	S	0	1	S	0	2	X	0	3		

EPA ID NO: AZD982441263 OMB #: 2050-0034 Expires 11/30/2005

10. Description of Hazardous Wastes (Continued. Use this Additional Sheet (s) as necessary; munber as 5a, etc.)

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	E. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
43	0	U	2	2	6	5,000	P	S	0	1	S	0	2	X	0	3	
44	1	U	2	2	7	5,000	P	S	0	1	S	0	2	X	0	3	
44	2	U	2	2	8	5,000	P	S	0	1	S	0	2	X	0	3	
44	3	U	2	3	5	5,000	P	S	0	1	S	0	2	X	0	3	
44	4	U	2	3	6	5,000	P	S	0	1	S	0	2	X	0	3	
44	5	U	2	3	7	5,000	P	S	0	1	S	0	2	X	0	3	
44	6	U	2	3	8	5,000	P	S	0	1	S	0	2	X	0	3	
44	7	U	2	3	9	5,000	P	S	0	1	S	0	2	X	0	3	
44	8	U	2	4	0	5,000	P	S	0	1	S	0	2	X	0	3	
44	9	U	2	4	3	5,000	P	S	0	1	S	0	2	X	0	3	
45	0	U	2	4	4	5,000	P	S	0	1	S	0	2	X	0	3	
45	1	U	2	4	6	5,000	P	S	0	1	S	0	2	X	0	3	
45	2	U	2	4	7	5,000	P	S	0	1	S	0	2	X	0	3	
45	3	U	2	4	8	5,000	P	S	0	1	S	0	2	X	0	3	
45	4	U	2	4	9	5,000	P	S	0	1	S	0	2	X	0	3	
45	5	U	3	2	8	5,000	P	S	0	1	S	0	2	X	0	3	
45	6	U	3	5	3	5,000	P	S	0	1	S	0	2	X	0	3	
45	7	U	3	5	9	5,000	P	S	0	1	S	0	2	X	0	3	
45	8																
45	9																
46	0																
46	1																
46	2																
46	3																
46	4																
46	5																
46	6																
46	7																
46	8																
46	9																
47	0																
47	1																
47	2																
47	3																
47	4																
47	5																
47	6																
47	7																
47	8																

11. Map (See instructions on pages 25 and 26)

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

12. Facility Drawing (See instructions on page 26)

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

13. Photographs (See instructions on page 26)

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

14. Comments (See instructions on page 26)

ATTACHMENT A – Item 9 – Facility Owner Information

EPA ID NUMBER: AZD982441236

NAME OF FACILITY'S LEGAL OWNER (Owner Type P):

SIEMENS INDUSTRY, INC.
2523 MUTAHAR STREET
PARKER, ARIZONA 85344-4005
TELEPHONE: (928) 669-5758

CORPORATE HEADQUARTERS OF FACILITY'S LEGAL OWNER:

SIEMENS INDUSTRY, INC.
181 THORN HILL ROAD
WARRENDALE, PENNSYLVANIA 15086
TELEPHONE: (724) 772-1402

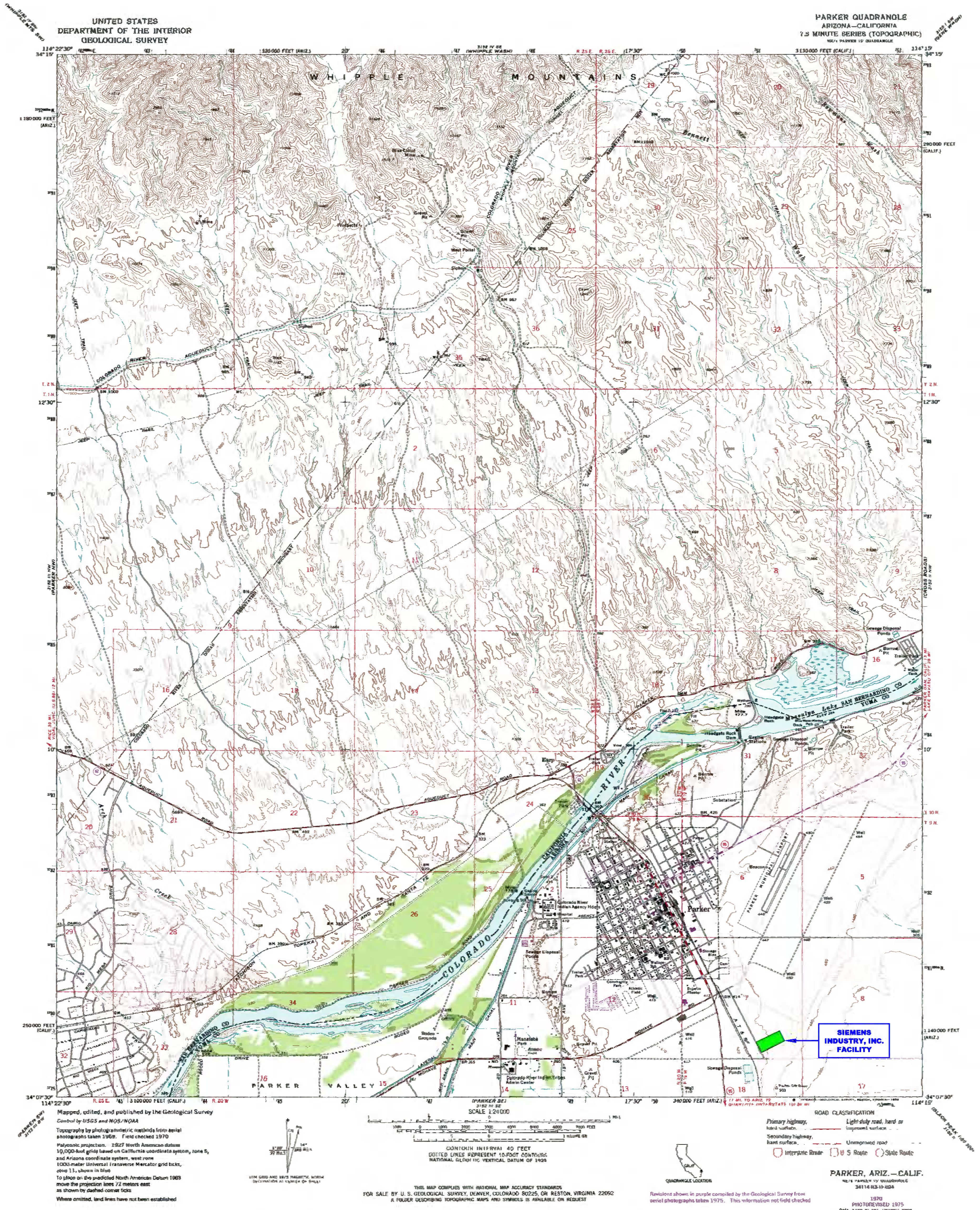
NAME OF PROPERTY OWNER (Owner Type I):

COLORADO RIVER INDIAN TRIBES
RT – 1, BOX 23 – B
PARKER, ARIZONA 85344
TELEPHONE: (928) 669-9211

ATTACHMENT B – Item 11 – Topographic Map

DRAWING NO. C-100604 SHEET 1 OF 2 (REV. 0)
TOPOGRAPHICAL MAP 1 – PLANT SITE

DRAWING NO. C-100604 SHEET 2OF 2 (REV. 0)
TOPOGRAPHICAL MAP 2 – ADJACENT LANDS



NOTES:

1. SEE ATTACHED SIEMENS INDUSTRY, INC. DRAWING D-14789-02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

PLOT SCALE: AS NOTED

DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS INDUSTRY, INC.

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.

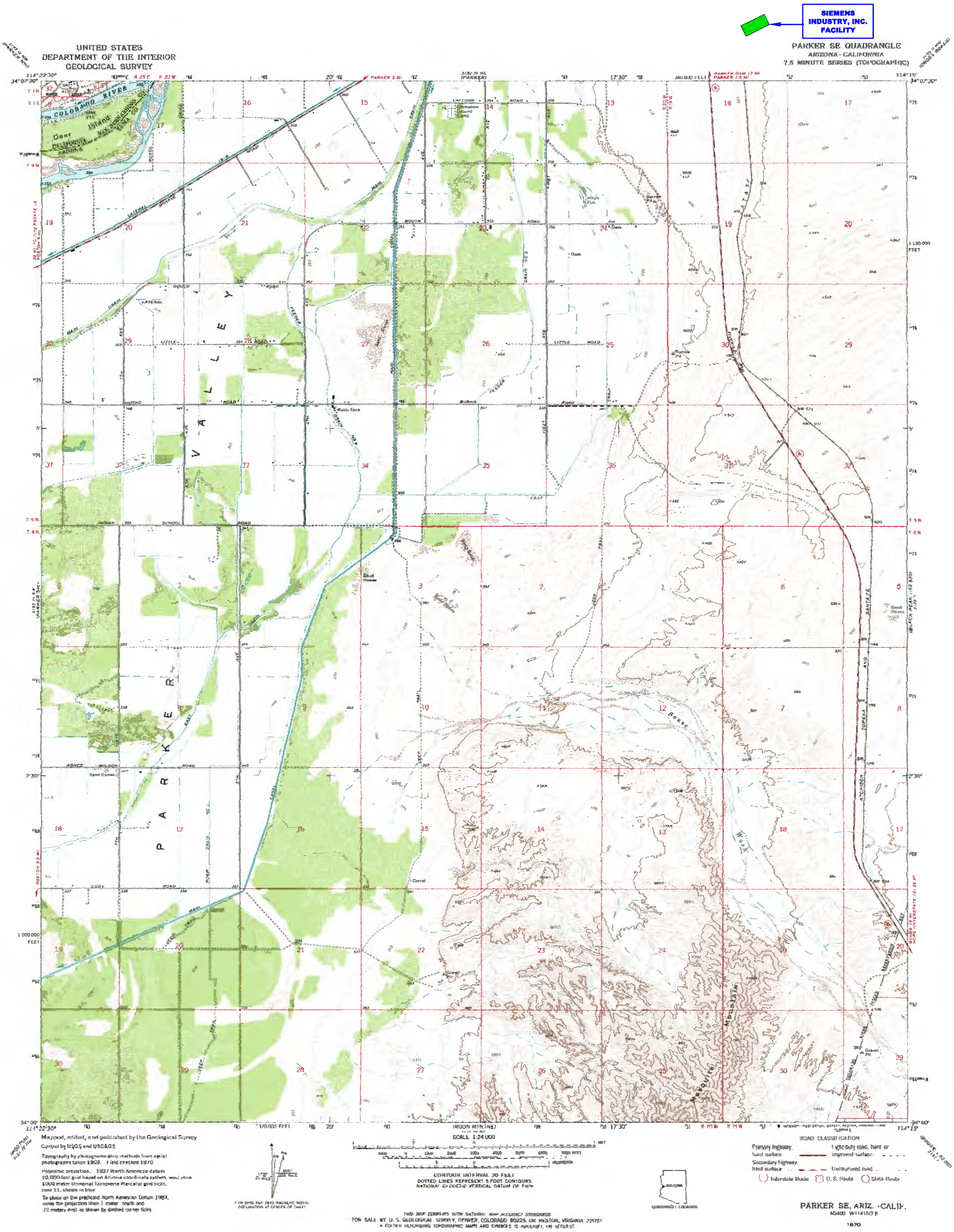
DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER, AZ TOPOGRAPHIC MAP

DWG No. C-100604 | SHEET No. 1 of 2 | REV. 1

PRINT DATE: 4/19/12



NOTES:

1. SEE ATTACHED SIEMENS WATER TECHNOLOGIES CORP. DRAWING D-14789-02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

PLOT SCALE: AS NOTED

DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS INDUSTRY, INC.

CUSTOMER: SIEMENS INDUSTRY, INC.		
LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344		
PROJECT No.		
DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER SE, AZ TOPOGRAPHIC MAP

DWG No. C-100604 | SHEET No. 2 of 2 | REV. 1

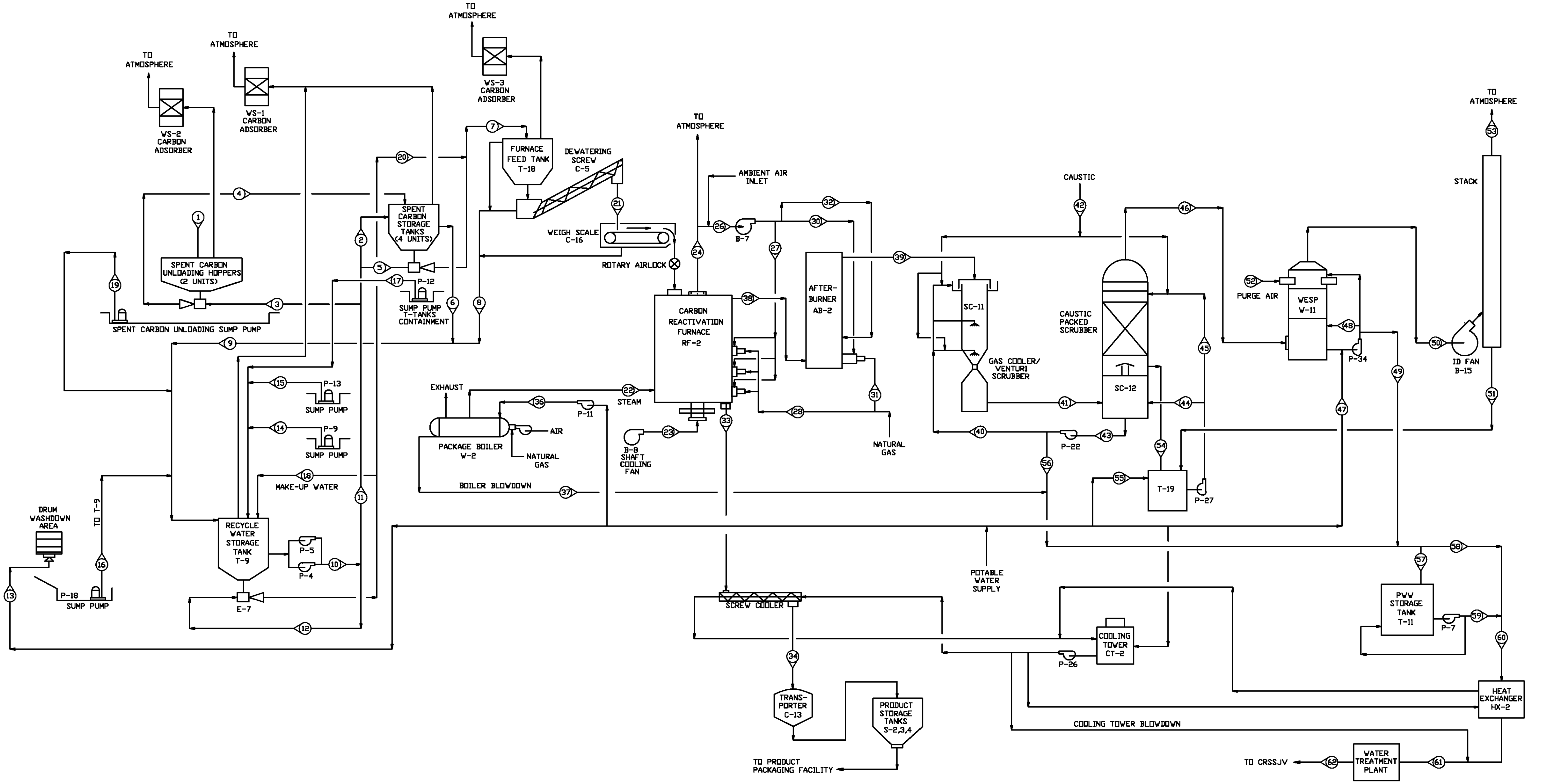
PRINT DATE: 4/19/12

ATTACHMENT C – Item 12 – Facility Drawing

SCALE DRAWING OF PROPERTY LAYOUT

SCALE DRAWING OF FACILITY LAYOUT (EQUIPMENT LOCATION)

SCHEMATIC PROCESS FLOW DIAGRAM



NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

NO	DWN	CK'D	APP	REVISIONS	DATE
2	JBE	KEM		NAME CHANGED TO SIEMENS INDUSTRY	3-15-12
1	JBE	KEM		UPDATED FOR PERMIT SUBMITTAL	2-8-07

CBE CHAVOND-BARRY ENGINEERING CORP.
400 Route 518 • P.O. Box 205 • Blawenburg, New Jersey 08504

SIEMENS INDUSTRY, INC.
2523 MUTAHAR STREET, PARKER, AZ 85344

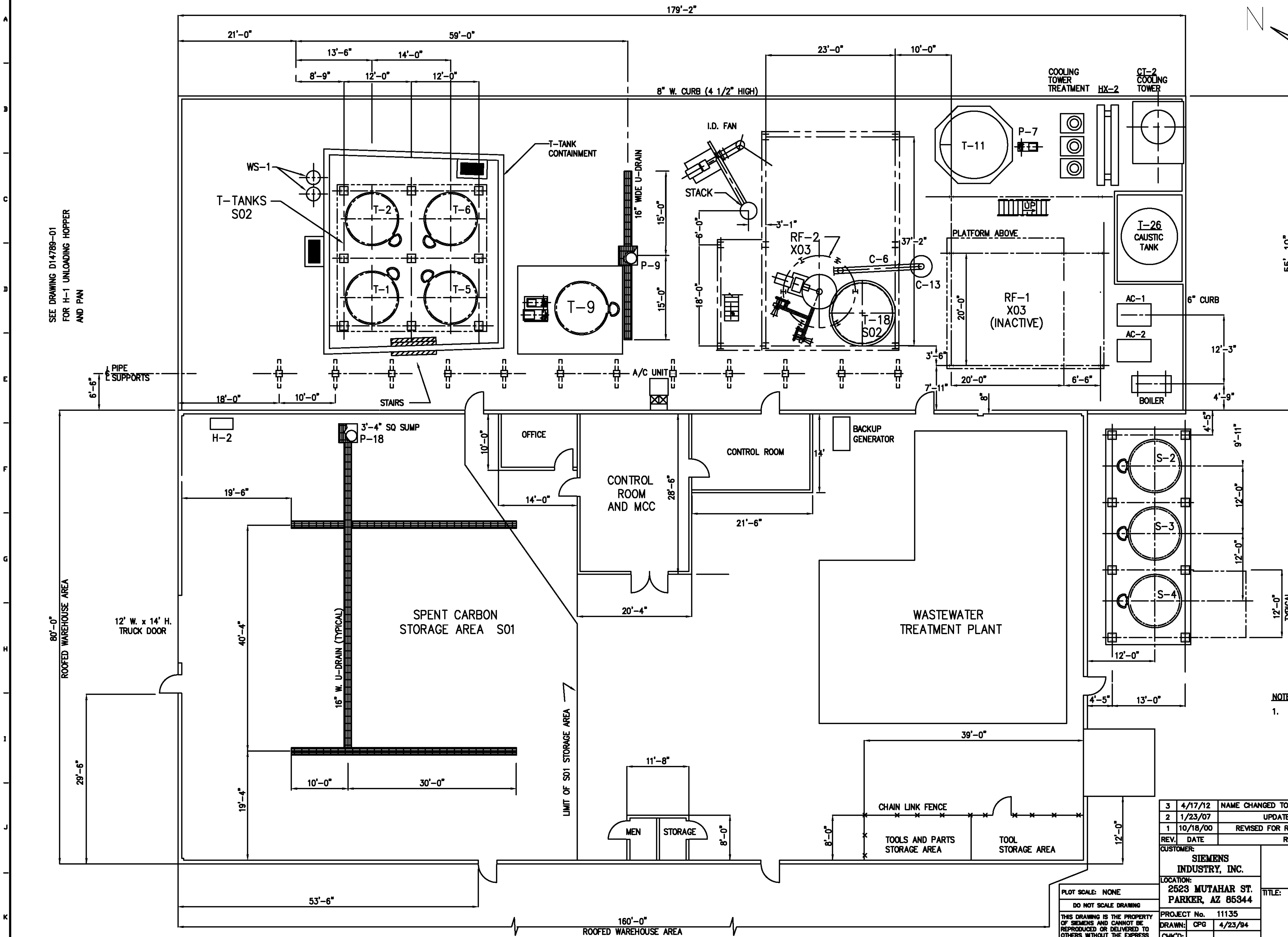
FACILITY PROCESS FLOW DIAGRAM

DRAWN	DATE	CHECKED	DATE	APPROVED	DATE
AJW	11/27/96	KEM	11/27/96		

SCALE	DWG. NO.	REV.
NONE	1525-PR-001	2

PRINT DATE: 4/19/12

DWG: D14789-02



EQUIPMENT LIST:

C-4	TRANSPORTER
C-6	PRODUCT COOLING SCREW
C-13	TRANSPORTER
CT-2	COOLING TOWER
H-1	CARBON HOPPER
H-2	CARBON HOPPER
HX-2	HEAT EXCHANGER
P-4	RECYCLE WATER PUMP
P-5	RECYCLE WATER PUMP
P-7	PROCESS WW PUMP
P-9	SUMP PUMP
P-18	SUMP PUMP
S-2	CARBON STORAGE TANK
S-3	CARBON STORAGE TANK
S-4	CARBON STORAGE TANK
T-1	SPENT CARBON STORAGE TANK
T-2	SPENT CARBON STORAGE TANK
T-5	SPENT CARBON STORAGE TANK
T-6	SPENT CARBON STORAGE TANK
T-9	RECYCLE WATER STORAGE TANK
T-11	PROCESS WW STORAGE TANK
T-18	FURNACE FEED TANK
T-26	CAUSTIC TANK
WS-1	ACTIVATED CARBON ADSORBER

NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
3	4/17/12	NAME CHANGED TO SIEMENS INDUSTRY, INC., MOVE WS-1	JBE	KEM	
2	1/23/07	UPDATED FOR PERMIT SUBMITTAL	JBE	KEM	
1	10/18/00	REVISED FOR RCRA PART B PERMIT APPLICATION	JBE	---	

PLOT SCALE: NONE

DO NOT SCALE DRAWING

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No. 11135

DRAWN: CPG 4/23/94

CHK'D:

ENG'R:

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE:

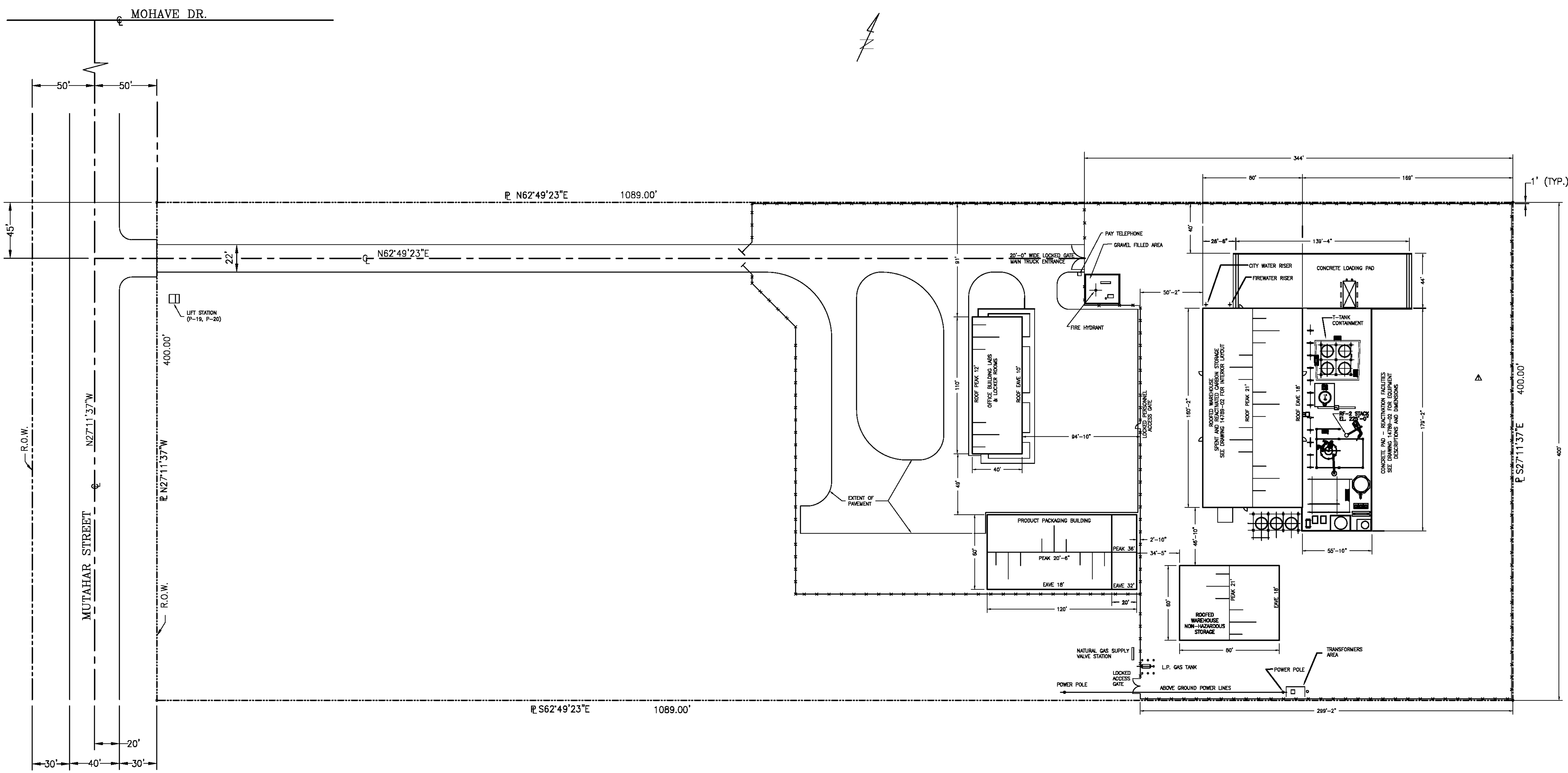
REACTIVATION FACILITY
EQUIPMENT ARRANGEMENT

PART No.

DWG No. D14789-02 REV. 3

PRINT DATE: 4/19/12

DWG: D14789-08



NOTES:

1. THIS DRAWING INCLUDES COMPONENTS OF THE FACILITY THAT ARE EXEMPT FROM PERMITTING UNDER VARIOUS PROVISIONS OF RCRA. DATA RELATED TO THESE COMPONENTS IS PROVIDED FOR INFORMATIONAL PURPOSES AND EASE OF REVIEW ONLY, AND THEY ARE NOT INTENDED TO BECOME REGULATED COMPONENTS OF THE HAZARDOUS WASTE FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
3	3/16/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	
2	1/18/07	UPDATED FOR PERMIT SUBMITTAL	JBE	KEM	
1	6/21/02	REMOVED DUMPSTER PAD	CPG	KEM	

PLOT SCALE: 1"=40'

DO NOT SCALE DRAWING

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.

DRAWN:	CPG	3/01/02
CHK'D:	KEM	3/01/02
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE:

REACTIVATION FACILITY
SITE PLAN

PART No. | DWG No. D14789-08 | REV. 3

PRINT DATE: 4/19/12

ATTACHMENT D – Item 13 – Photographs

SITE PHOTOGRAPHS

SITE AERIAL PHOTOGRAPHS

AERIAL PHOTOGRAPHS OF THE FACILTY

PROCESS CODE S01
(Identified as Line Number 1)

Spent Carbon Warehouse

PROCESS CODE S02
(Identified as Line Number 2)

Spent Carbon Storage Feed Tanks
(Tank No. T-1 and T-2)

PROCESS CODE S02
(Identified as Line Number 2)

Spent Carbon Storage Feed Tanks
(Tank No. T-2, T-5 and T-6)

PROCESS CODE X03
(Identified as Line Number 3)

Carbon Reactivation Furnace RF-2

Appendix O

Appendix II of the Permit Application Reference 5

APPENDIX II

TOPOGRAPHIC MAP

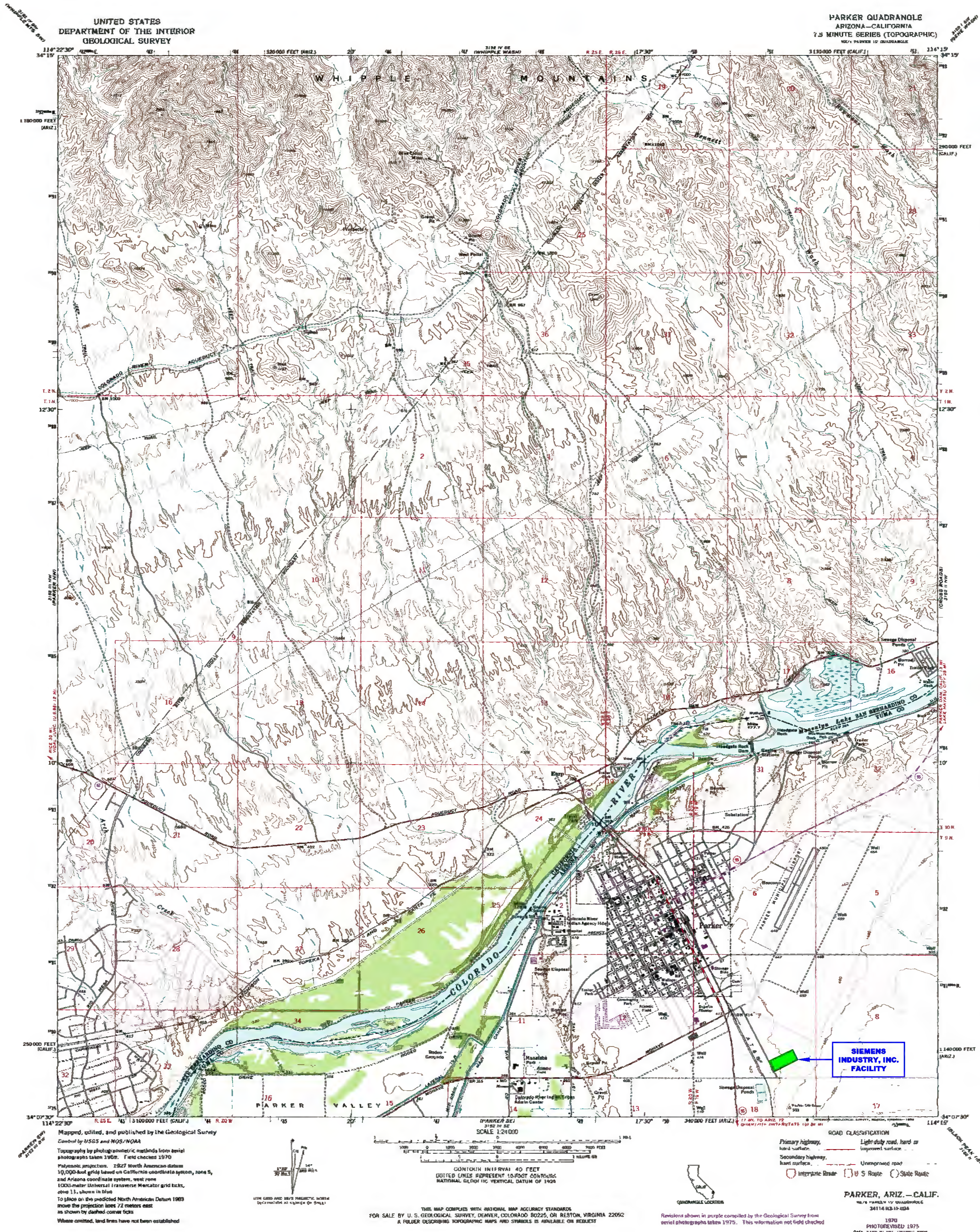
FLOOD INSURANCE MAP FOR THE COLORADO RIVER INDIAN RESERVATION

PERIPHERAL LAND USE STUDY DIAGRAM FOR THE COLORADO RIVER INDIAN TRIBE LANDS

WIND ROSE

LEGAL BOUNDARIES

Revision 1
April 2012



NOTES:

1. SEE ATTACHED SIEMENS INDUSTRY, INC. DRAWING D-14789-02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

PLOT SCALE: AS NOTED

DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS INDUSTRY, INC.

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

PROJECT No.

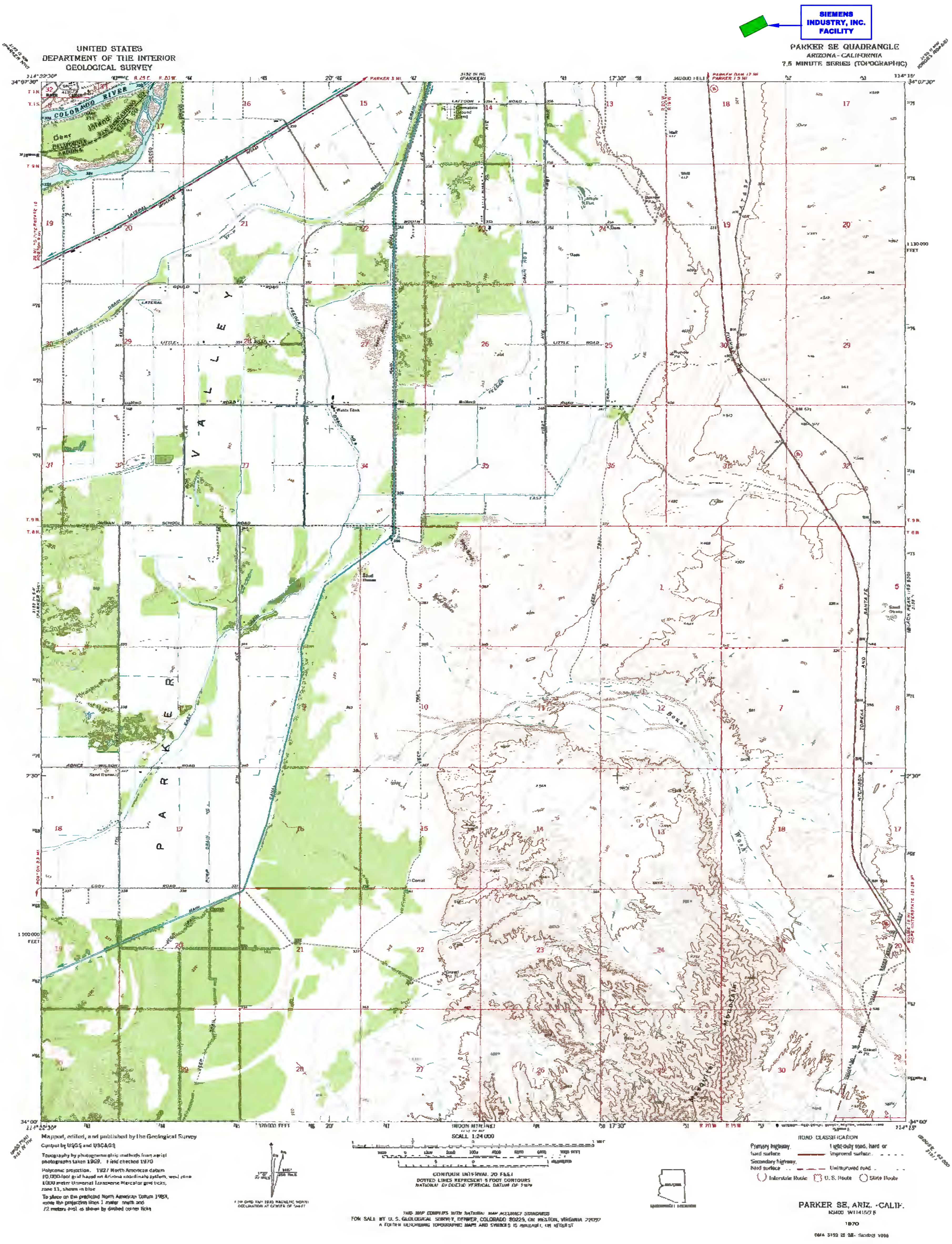
DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER, AZ TOPOGRAPHIC MAP

DWG No. C-100604 | SHEET No. 1 of 2 | REV. 1

PRINT DATE: 4/19/12



NOTES:

1. SEE ATTACHED SIEMENS WATER TECHNOLOGIES CORP. DRAWING D-14789-02 FOR DETAILED LOCATION OF S01, S02, AND X03.
2. THERE ARE NO INJECTION WELLS ASSOCIATED WITH THIS FACILITY.
3. THERE ARE NO SPRINGS, DRINKING WATER WELLS, NOR SURFACE WATER BODIES LOCATED WITHIN 1/4 MILE OF THIS FACILITY.

CUSTOMER: SIEMENS INDUSTRY, INC.

LOCATION: 2523 MUTAHAR ST. PARKER, AZ 85344

SIEMENS INDUSTRY, INC.
Parker, AZ

TITLE: U.S.G.S. SURVEY – PARKER SE, AZ TOPOGRAPHIC MAP

PLOT SCALE: AS NOTED

DO NOT SCALE DRAWING

THIS DRAWING IS THE PROPERTY OF SIEMENS AND CANNOT BE REPRODUCED OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF SIEMENS INDUSTRY, INC.

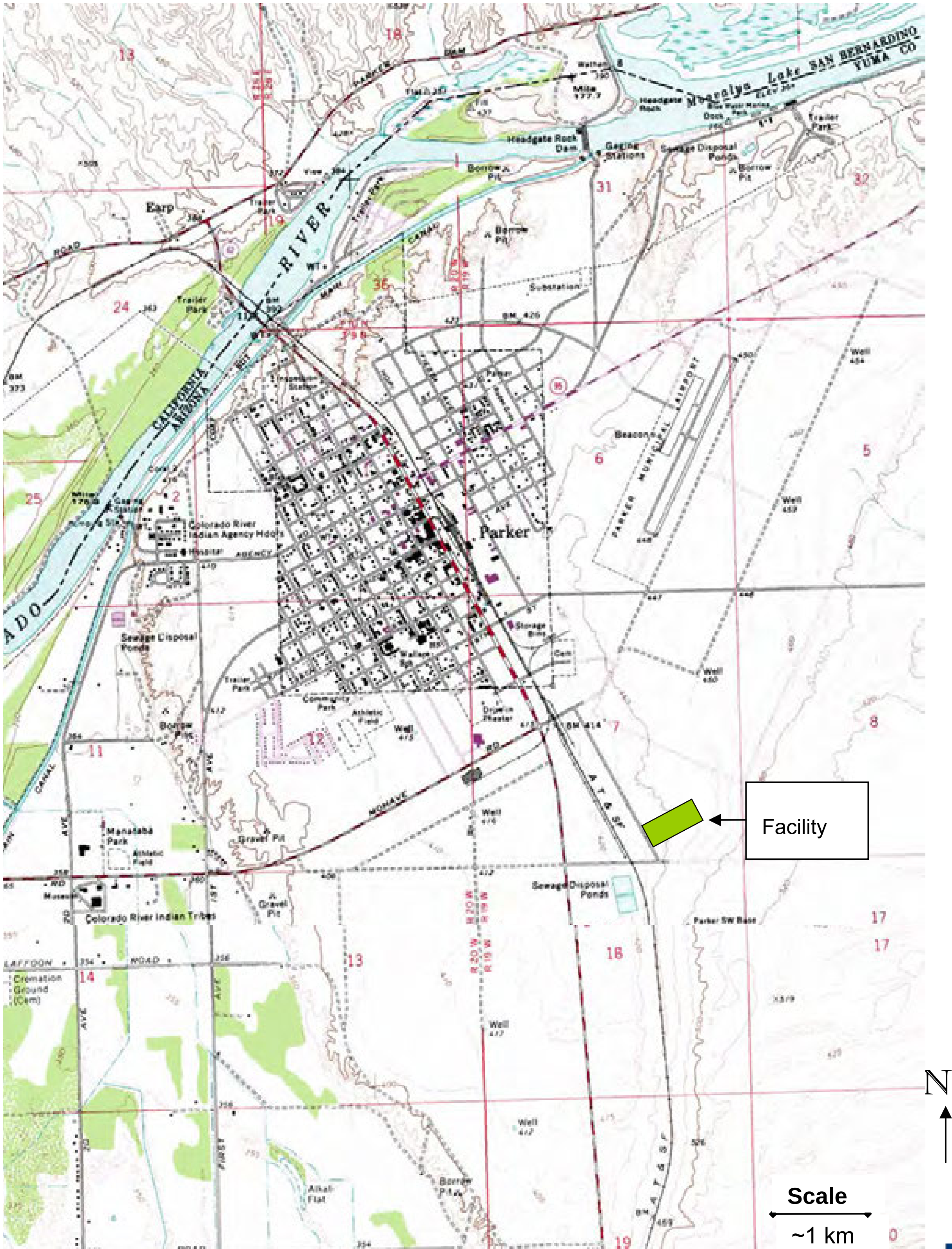
PROJECT No.		
DRAWN:	JBE	1/22/07
CHK'D:	KEM	1/22/07
ENG'R:		

DWG No. C-100604 | SHEET No. 2 of 2 | REV. 1

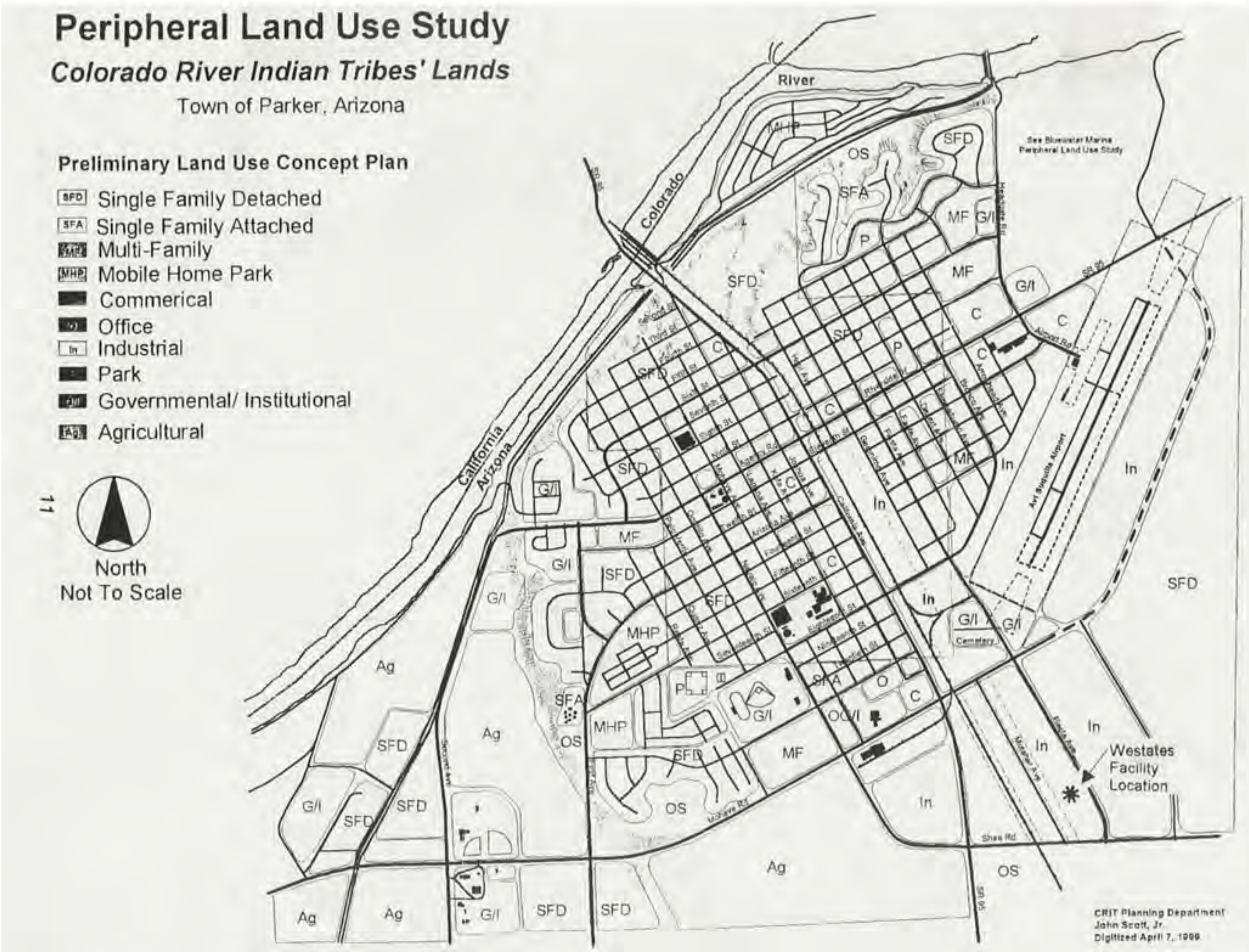
REV.	DATE	REVISION DESCRIPTION	DRAWN	CHK'D	ENG'R
1	3/15/12	NAME CHANGED TO SIEMENS INDUSTRY, INC.	JBE	KEM	

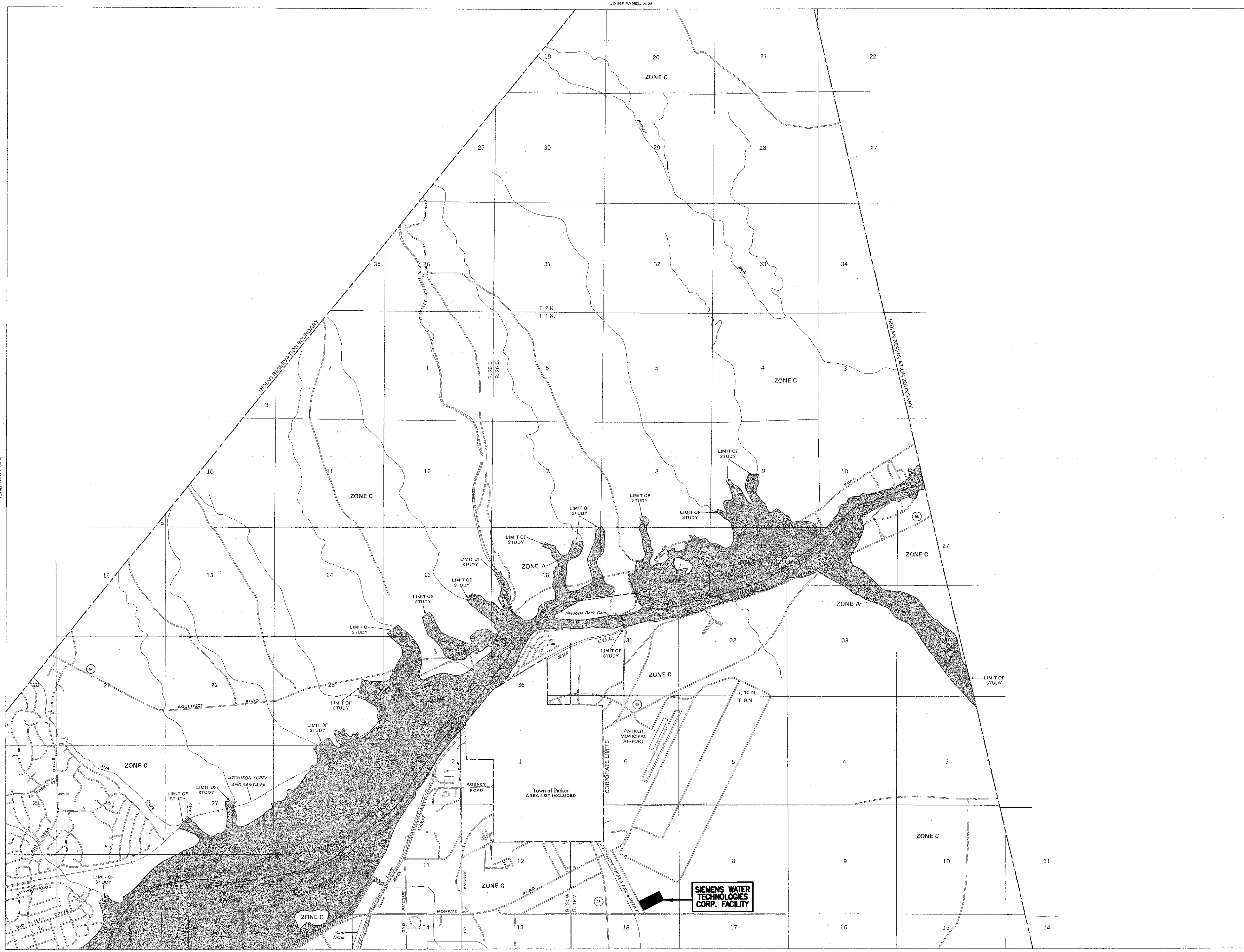
PRINT DATE: 4/15/12

Facility Location



Peripheral Land Use Study: Colorado River Indian Tribes Lands





KEY TO MAP

Zone Designations*	ZONE C / ZONE A / ZONE C
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7×
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside special flood hazard areas.

Coastal base flood elevations apply only landward of the shoreline shown on this map.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
MAY 4, 1987

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
MAY 4, 1987

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

N

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

COLORADO RIVER INDIAN RESERVATION, ARIZONA

PANEL 75 OF 275
(SEE MAP INDEX FOR PANELS NOT PRINTED)

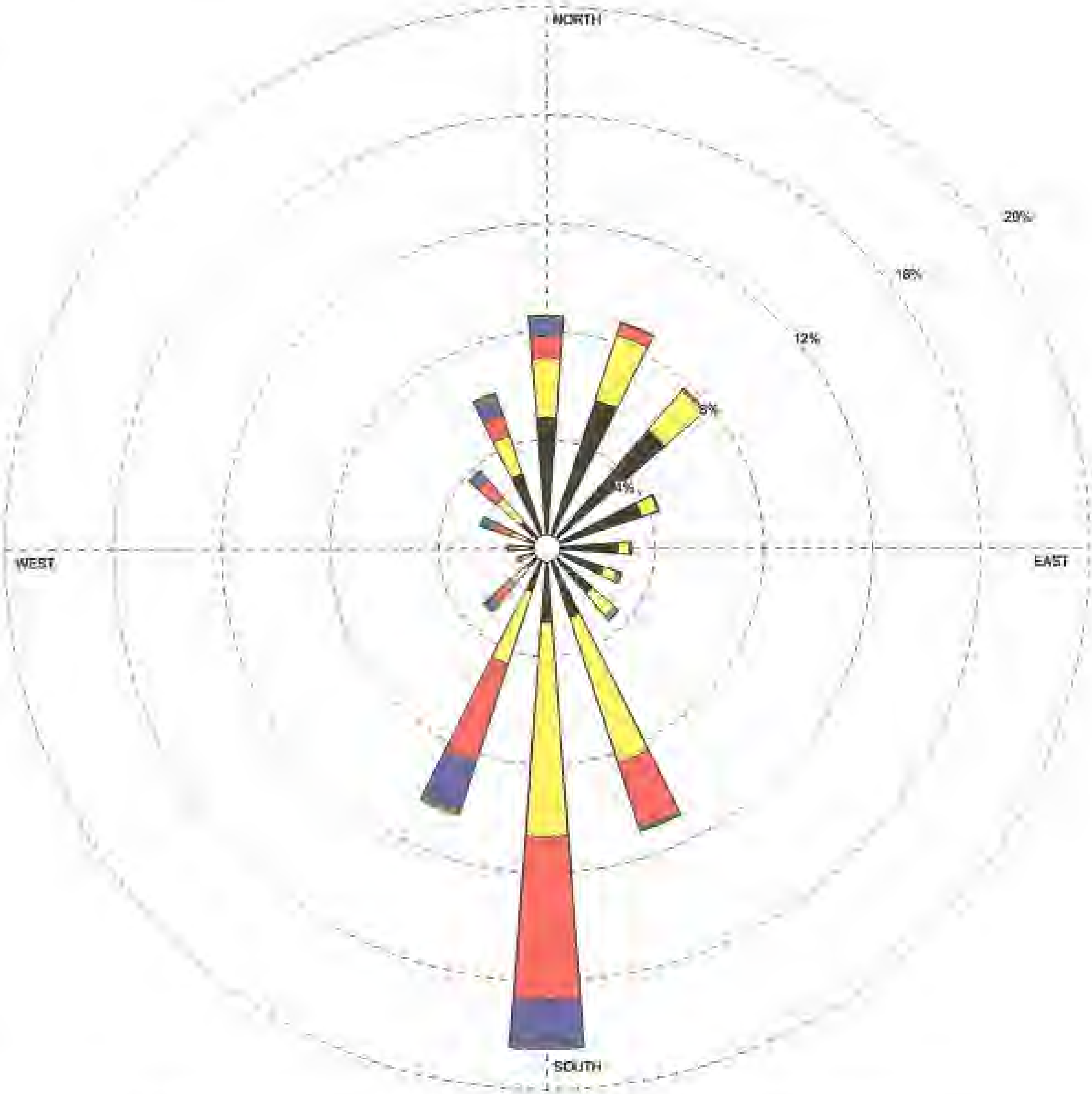
COMMUNITY-PANEL NUMBER
040123 0075 A

EFFECTIVE DATE:
MAY 4, 1987

Federal Emergency Management Agency

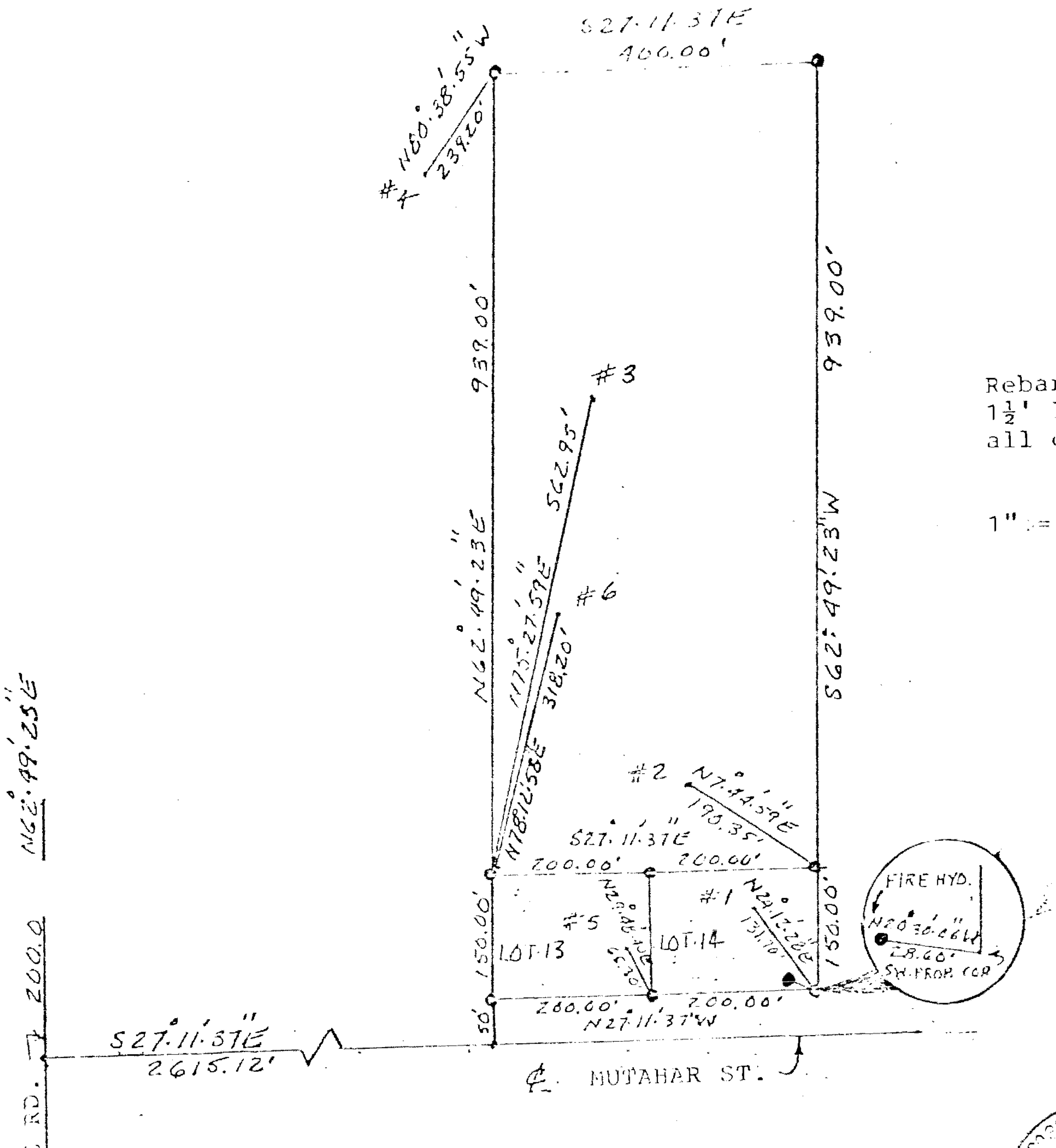
WIND ROSE PLOT

FIGURE 2. Windrose for Parker, Arizona 1997 - 2001



Wind Speed (m/s)

MODELER **CHV**		COMPANY NAME **Focus Environmental, Inc.**
DISPLAY **Wind Speed**	UNIT **m/s**	SOURCE **Arizona Meteorological Network (AZMET) - Parker, Arizona**
AVG. WIND SPEED **2.64 m/s**	CALM WINDS **2.01%**	
ORIENTATION **Direction (blowing from)**	PLOT YEAR-DATE-TIME **97 98 99 00 01** **January 1 - December 31** **Midnight - 11 PM**	PROJECT/PLOT NO. **FIGURE 2**



Rebar, $\frac{1}{2}$" Diameter, $1\frac{1}{2}$' long, set at all corner points.

1" = 200 feet

603-119-91

COLORADO RIVER INDUSTRIAL PARK
BEING PART OF SECTION 7, T9NR19W
GILA, SALT RIVER BASE MERIDIAN
LA PAZ COUNTY, ARIZONA
COLORADO RIVER INDIAN RESERVATION

3.2.90

March 2, 1990

COLORADO RIVER INDUSTRIAL PARK
BEING PART OF SECTION 7, T9N, R19W
GILA, SALT RIVER BASE MERIDIAN
COLORADO RIVER INDIAN RESERVATION

Starting from the intersection point of Mohave Road and Mutabar Street, existing survey monuments, Thence S27°11'.37"E; 2615.12 feet. Thence N62°49'.23"E, 50.00 feet to the Northwest corner Lot 13, and point of beginning. Thence N62°49'.23"E, 150.00 feet, to the Northeast corner Lot 13. Thence S27°11'.37"E, 200.00 feet to the Southeast corner Lot 13. Thence S27°11'.37"E, 200.00 feet to the Southeast corner Lot 14, Thence S62°49'.23"W, 150.00 feet to the Southwest corner Lot 14. Thence N27°11'.37"W, 200.00 feet, along road right away, to the Northwest corner Lot 14. Thence N27°11'.37"W, 200.00 feet, along right away, to point of beginning. The area contains a calculated area of 1.38 acres.

Thence from the Northeast corner Lot 13, N62°49'.23"E, 939.00 feet, to the Northeast corner, 8.62 acre lot. Thence S27°11'.37"E, 400 feet to the Southeast corner, 8.62 acre lot. Thence S62°49'.23"W, 939.00 feet to the Southeast corner, Lot 14. The area contains a calculated area of 8.62 acres.

Thence from the Northeast corner Lot 13, soil sample number 3, bears N75°27'.59"E, 562.95 feet. Soil sample number 6 bears N78°12'.58"E, 318.20 feet.

Thence from the Northeast corner, 8.62 acre lot, soil sample number 4, bears N80°38'.55"W, 239.20 feet.

Thence from the Southeast corner Lot 14, soil sample number 2, bears N7°44'.59"E, 190.35 feet.

Thence from the Southwest corner Lot 14, soil sample number 1, bears N24°12'.28"E, 131.70 feet. Fire hydrant bears N20°30'.06"W, 28.60 feet.

Thence from the Northwest corner Lot 14, soil sample number 5, bears N29°48'.40"E, 65.30 feet.

ENGINEER"S CERTIFICATE: I certify that I have examined this plot of the Survey and found that it confirms with the data from which it was drawn and that I am satisfied the map is technically correct.

603-119-91

Appendix P

Data from Monitoring WS-1, WS-2, and WS-3 Before Change-outs

4000 lbs | WS-1 (7.8 Days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
22 ppm	6/27/2011	6/24/2011	3	Mon	4000
	6/29/2011	6/27/2011	2	Wed	4000
	7/1/2011	6/29/2011	2	Fri	4000
	7/4/2011	7/1/2011	3	Mon	4000
	7/6/2011	7/4/2011	2	Wed	4000
	7/8/2011	7/6/2011	2	Fri	4000
	7/11/2011	7/8/2011	3	Mon	4000
	7/13/2011	7/11/2011	2	wed	4000
	7/15/2011	7/13/2011	2	Fri	4000
	7/18/2011	7/15/2011	3	Mon	4000
	7/20/2011	7/18/2011	2	wed	4000
	7/22/2011	7/20/2011	2	Fri	4000
14 ppm	7/25/2011	7/22/2011	3	Mon	4000
	7/27/2011	7/25/2011	2	Wed	4000
	7/29/2011	7/27/2011	2	Fri	4000
	8/1/2011	7/29/2011	3	Mon	4000
	8/3/2011	8/1/2011	2	Wed	4000
	8/5/2011	8/3/2011	2	fri	4000
	8/8/2011	8/5/2011	3	mon	4000
195 ppm	8/10/2011	8/8/2011	2	Wed	4000
	8/12/2011	8/10/2011	2	Fri	4000
	8/15/2011	8/12/2011	3	Mon	4000
	8/17/2011	8/15/2011	2	Wed	4000
	8/19/2011	8/17/2011	2	Fri	4000
	8/22/2011	8/19/2011	3	Mon	4000
	8/24/2011	8/22/2011	2	Wed	4000
	8/26/2011	8/24/2011	2	Fri	4000
	8/29/2011	8/26/2011	3	Mon	4000
	8/31/2011	8/29/2011	2	Wed	4000
	9/2/2011	8/31/2011	2	Fri	4000
	9/5/2011	9/2/2011	3	Mon	4000
	9/7/2011	9/5/2011	2	Wed	4000
	9/9/2011	9/7/2011	2	Fri	4000
	9/12/2011	9/9/2011	3	Mon	4000
	9/14/2011	9/12/2011	2	Wed	4000
	9/16/2011	9/14/2011	2	Fri	4000
	9/19/2011	9/16/2011	3	Mon	4000
26 ppm	9/21/2011	9/19/2011	2	Wed	4000
	9/23/2011	9/21/2011	2	Fri	4000
	9/26/2011	9/23/2011	3	Mon	4000
	9/28/2011	9/26/2011	2	Wed	4000
	9/30/2011	9/28/2011	2	Fri	4000
	10/3/2011	9/30/2011	3	Mon	4000
	10/5/2011	10/3/2011	2	Wed	4000
6 ppm	10/7/2011	10/5/2011	2	Fri	4000
	10/10/2011	10/7/2011	3	Mon	4000
	10/11/2011	10/12/2011	1	Tue	2000 (Replaced Internal)
	10/12/2011	10/10/2011	2	Wed	4000
14 ppm	10/14/2011	10/12/2011	2	Fri	4000
	10/17/2011	10/14/2011	3	Mon	4000
24 ppm	10/19/2011	10/17/2011	2	Wed	4000
	10/21/2011	10/19/2011	2	Fri	4000
35 ppm	10/24/2011	10/21/2011	3	Mon	4000
23 ppm	10/26/2011	10/24/2011	2	Wed	4000
201 ppm	10/28/2011	10/26/2011	2	Fri	4000
45 ppm	10/31/2011	10/28/2011	3	Mon	4000
45 ppm	11/2/2011	10/31/2011	2	Wed	4000
67 ppm	11/4/2011	11/2/2011	2	Fri	4000
	11/7/2011	11/4/2011	3	Mon	4000
27 ppm	11/9/2011	11/7/2011	2	Wed	4000

4000 lbs

WS-1 (7.8 Days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
	11/11/2011	11/9/2011	2	Fri	4000
	11/14/2011	11/11/2011	3	Mon	4000
	11/16/2011	11/14/2011	2	Wed	4000
34 ppm	11/18/2011	11/16/2011	2	Fri	4000
	11/21/2011	11/18/2011	3	Mon	4000
	11/23/2011	11/21/2011	2	Wed	4000
16 ppm	11/25/2011	11/23/2011	2	Fri	4000
	11/28/2011	11/25/2011	3	Mon	4000
22 ppm	11/30/2011	11/28/2011	2	Wed	4000
	12/2/2011	11/30/2011	2	Fri	4000
	12/5/2011	12/2/2011	3	Mon	4000
	12/7/2011	12/5/2011	2	Wed	4000
38 ppm	12/9/2011	12/7/2011	2	Fri	4000
	12/12/2011	12/9/2011	3	Mon	4000
	12/14/2011	12/12/2011	2	Wed	4000
	12/16/2011	12/14/2011	2	Fri	4000
	12/19/2011	12/16/2011	3	Mon	4000
	12/21/2011	12/19/2011	2	Wed	4000
	12/23/2011	12/21/2011	2	Fri	4000
	12/26/2011	12/23/2011	3	Mon	4000
78 ppm	12/28/2011	12/26/2011	2	Wed	4000
	12/30/2011	12/28/2011	2	Fri	4000
	1/2/2012	12/30/2011	3	Mon	4000
25 ppm	1/4/2012	1/2/2012	2	Wed	4000
	1/6/2012	1/4/2012	2	Fri	4000
	1/9/2012	1/6/2012	3	Mon	4000
52 ppm	1/11/2012	1/9/2012	2	Wed	4000
	1/13/2012	1/11/2012	2	Fri	4000
25 ppm	1/16/2012	1/13/2012	3	Mon	4000
	1/18/2012	1/16/2012	2	Wed	4000
	1/20/2012	1/18/2012	2	Fri	4000
45 ppm	1/23/2012	1/20/2012	3	Mon	4000
	1/25/2012	1/23/2012	2	Wed	4000
	1/27/2012	1/25/2012	2	Fri	4000
	1/30/2012	1/27/2012	3	Mon	4000
	2/1/2012	1/30/2012	2	Wed	4000
	2/3/2012	2/1/2012	2	Fri	4000
	2/6/2012	2/3/2012	3	Mon	4000
	2/8/2012	2/6/2012	2	Wed	4000
	2/10/2012	2/8/2012	2	Fri	4000
	2/13/2012	2/10/2012	3	Mon	4000
	2/15/2012	2/13/2012	2	Wed	4000
13 ppm	2/17/2012	2/15/2012	2	Fri	4000
	2/20/2012	2/17/2012	3	Mon	NA
	2/22/2012	2/20/2012	2	Wed	NA
	2/24/2012	2/22/2012	2	Fri	NA
	2/27/2012	2/24/2012	3	Mon	NA
	2/29/2012	2/27/2012	2	Wed	4000
	3/2/2012	2/29/2012	2	Fri	4000
5 ppm	3/5/2012	3/2/2012	3	Mon	4000
	3/7/2012	3/5/2012	2	Wed	4000
	3/9/2012	3/7/2012	2	Fri	4000
	3/12/2012	3/9/2012	3	Mon	4000
	3/14/2012	3/12/2012	2	Wed	4000
20 ppm	3/16/2012	3/14/2012	2	Fri	4000
	3/19/2012	3/16/2012	3	Mon	4000
	3/21/2012	3/19/2012	2	Wed	4000
	3/23/2012	3/21/2012	2	Fri	5000
	3/26/2012	3/23/2012	3	Mon	4000
	3/28/2012	3/26/2012	2	Wed	4000

4000 lbs

WS-1 (7.8 Days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
	3/30/2012	3/28/2012	2	Fri	4000
11 ppm	4/2/2012	3/30/2012	3	Mon	4000
	4/4/2012	4/2/2012	2	Wed	4000
	4/6/2012	4/4/2012	2	Fri	4000
	4/9/2012	4/6/2012	3	Mon	4000
	4/11/2012	4/9/2012	2	Wed	4000
	4/13/2012	4/11/2012	2	Fri	4000
	4/16/2012	4/13/2012	3	Mon	4000
13 ppm	4/18/2012	4/16/2012	2	Wed	4000
	4/20/2012	4/18/2012	2	Fri	4000
9 ppm	4/23/2012	4/20/2012	3	Mon	4000
63 ppm	4/25/2012	4/23/2012	2	Wed	4000
	4/27/2012	4/25/2012	2	Fri	4000
	4/30/2012	4/27/2012	3	Mon	4000
	5/2/2012	4/30/2012	2	Wed	4000
25 ppm	5/4/2012	5/2/2012	2	Fri	4000
	5/7/2012	5/4/2012	3	Mon	4000
16 ppm	5/9/2012	5/7/2012	2	Wed	4000
	5/11/2012	5/9/2012	2	Fri	4000
	5/14/2012	5/11/2012	3	Mon	4000
	5/16/2012	5/14/2012	2	Wed	4000
	5/18/2012	5/16/2012	2	Fri	4000
	5/21/2012	5/18/2012	3	Mon	4000
	5/23/2012	5/21/2012	2	Wed	4000
	5/25/2012	5/23/2012	2	Fri	4000
	5/28/2012	5/25/2012	3	Mon	4000
	5/30/2012	5/28/2012	2	Wed	4000
15 ppm	6/1/2012	5/30/2012	2	Fri	4000
	6/4/2012	6/1/2012	3	Mon	4000
10 ppm	6/6/2012	6/4/2012	2	Wed	4000
	6/8/2012	6/6/2012	2	Fri	4000
	6/11/2012	6/8/2012	3	Mon	4000
	6/13/2012	6/11/2012	2	Wed	4000
	6/15/2012	6/13/2012	2	Fri	4000
	6/18/2012	6/15/2012	3	Mon	4000
	6/20/2012	6/18/2012	2	Wed	4000
	6/22/2012	6/20/2012	2	Fri	4000
	6/25/2012	6/22/2012	3	Mon	4000
	6/27/2012	6/25/2012	2	Wed	4000
2 ppm	6/29/2012	6/27/2012	2	Fri	4000
	7/2/2012	6/29/2012	3	Mon	4000
	7/4/2012	7/2/2012	2	Wed	4000
	7/6/2012	7/4/2012	2	Fri	4000
14 ppm	7/9/2012	7/6/2012	3	Mon	4000
	7/11/2012	7/9/2012	2	Wed	4000
	7/13/2012	7/11/2012	2	Fri	4000
	7/16/2012	7/13/2012	3	Mon	4000
	7/18/2012	7/16/2012	2	Wed	4000
	7/20/2012	7/18/2012	2	Fri	4000
	7/23/2012	7/20/2012	3	Mon	4000
	7/25/2012	7/23/2012	2	Wed	4000
	7/27/2012	7/25/2012	2	Fri	4000
	7/30/2012	7/27/2012	3	Mon	4000
5 ppm	8/1/2012	7/30/2012	2	Wed	4000
	8/3/2012	8/1/2012	2	Fri	4000
	8/6/2012	8/3/2012	3	Mon	4000
	8/8/2012	8/6/2012	2	Wed	4000
	8/10/2012	8/8/2012	2	Fri	4000
	8/13/2012	8/10/2012	3	Mon	4000
	8/15/2012	8/13/2012	2	Wed	4000

4000 lbs	WS-1 (7.8 Days)				
Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
	8/17/2012	8/15/2012	2	Fri	4000
115 ppm	8/20/2012	8/17/2012	3	Mon	4000
	8/22/2012	8/20/2012	2	Wed	4000
	8/24/2012	8/22/2012	2	Fri	4000
	8/27/2012	8/24/2012	3	Mon	4000
	8/29/2012	8/27/2012	2	Wed	4000
	8/31/2012	8/29/2012	2	Fri	4000
	9/3/2012	8/31/2012	3	Mon	4000
	9/5/2012	9/3/2012	2	Wed	4000
	9/7/2012	9/5/2012	2	Fri	4000
25 ppm	9/10/2012	9/7/2012	3	Mon	4000
	9/12/2012	9/10/2012	2	Wed	4000
	9/14/2012	9/12/2012	2	Fri	4000
	9/17/2012	9/14/2012	3	Mon	4000
	9/19/2012	9/17/2012	2	Wed	4000
10 ppm	9/21/2012	9/19/2012	2	Fri	4000
	9/24/2012	9/21/2012	3	Mon	4000
	9/26/2012	9/24/2012	2	Wed	4000
	9/28/2012	9/26/2012	2	Fri	4000
	10/1/2012	9/28/2012	3	Mon	4000
	10/3/2012	10/1/2012	2	Wed	4000
	10/5/2012	10/3/2012	2	Fri	4000
	10/8/2012	10/5/2012	3	Mon	4000
12 ppm	10/10/2012	10/8/2012	2	Wed	4000
	10/12/2012	10/10/2012	2	Fri	4000
	10/15/2012	10/12/2012	3	Mon	4000
	10/17/2012	10/15/2012	2	Wed	4000
	10/19/2012	10/17/2012	2	Fri	4000
	10/22/2012	10/19/2012	3	Mon	4000
	10/24/2012	10/22/2012	2	Wed	4000
	10/26/2012	10/24/2012	2	Fri	4000
	10/29/2012	10/26/2012	3	Mon	4000
	10/31/2012	10/29/2012	2	Wed	4000
	11/2/2012	10/31/2012	2	Fri	4000
45 ppm	11/5/2012	11/2/2012	3	Mon	4000
	11/7/2012	11/5/2012	2	Wed	4000
	11/9/2012	11/7/2012	2	Fri	4000
	11/12/2012	11/9/2012	3	Mon	4000
	11/14/2012	11/12/2012	2	Wed	4000
	11/16/2012	11/14/2012	2	Fri	4000
	11/19/2012	11/16/2012	3	Mon	4000
	11/21/2012	11/19/2012	2	Wed	4000
	11/23/2012	11/21/2012	2	Fri	4000
	11/26/2012	11/23/2012	3	Mon	4000
223 ppm	11/28/2012	11/26/2012	2	Wed	4000
	11/30/2012	11/28/2012	2	Fri	4000
	12/3/2012	11/30/2012	3	Mon	4000
	12/5/2012	12/3/2012	2	Wed	4000
	12/7/2012	12/5/2012	2	Fri	4000
	12/10/2012	12/7/2012	3	Mon	4000
<2 ppm	12/12/2012	12/10/2012	2	Wed	4000
	12/14/2012	12/12/2012	2	Fri	4000
	12/17/2012	12/14/2012	3	Mon	4000
	12/19/2012	12/17/2012	2	Wed	4000
	12/21/2012	12/19/2012	2	Fri	4000
	12/24/2012	12/21/2012	3	Mon	4000
	12/26/2012	12/24/2012	2	Wed	4000
	12/28/2012	12/26/2012	2	Fri	4000
	12/31/2012	12/28/2012	3	Mon	4000
19 ppm	1/2/2013	12/31/2012	2	Wed	4000

4000 lbs

WS-1 (7.8 Days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
	1/4/2013	1/2/2013	2	Fri	4000
	1/7/2013	1/4/2013	3	Mon	4000
	1/9/2013	1/7/2013	2	Wed	4000
	1/11/2013	1/9/2013	2	Fri	4000
	1/14/2013	1/11/2013	3	Mon	4000
	1/16/2013	1/14/2013	2	Wed	4000
	1/18/2013	1/16/2013	2	Fri	4000
	1/21/2013	1/18/2013	3	Mon	4000
	1/23/2013	1/21/2013	2	Wed	4000
	1/25/2013	1/23/2013	2	Fri	4000
	1/28/2013	1/25/2013	3	Mon	4000
	1/30/2013	1/28/2013	2	Wed	4000
5 ppm	2/1/2013	1/30/2013	2	Fri	4000
	2/4/2013	2/1/2013	3	Mon	4000
	2/6/2013	2/4/2013	2	Wed	4000
	2/8/2013	2/6/2013	2	Fri	4000
	2/11/2013	2/8/2013	3	Mon	4000
	2/13/2013	2/11/2013	2	Wed	4000
	2/15/2013	2/13/2013	2	Fri	4000
	2/18/2013	2/15/2013	3	Mon	4000
	2/20/2013	2/18/2013	2	Wed	4000
	2/22/2013	2/20/2013	2	Fri	4000
	2/25/2013	2/22/2013	3	Mon	4000
	2/27/2013	2/25/2013	2	Wed	4000
2 ppm	3/1/2013	2/27/2013	2	Fri	4000
	3/4/2013	3/1/2013	3	Mon	4000
	3/6/2013	3/4/2013	2	Wed	4000
	3/8/2013	3/6/2013	2	Fri	4000
	3/11/2013	3/8/2013	3	Mon	4000
	3/13/2013	3/11/2013	2	Wed	4000
	3/15/2013	3/13/2013	2	Fri	4000
	3/18/2013	3/15/2013	3	Mon	4000
	3/20/2013	3/18/2013	2	Wed	4000
	3/22/2013	3/20/2013	2	Fri	4000
	3/25/2013	3/22/2013	3	Mon	4000
	3/27/2013	3/25/2013	2	Wed	4000
	3/29/2013	3/27/2013	2	Fri	4000
	4/1/2013	3/29/2013	3	Mon	4000
	4/3/2013	4/1/2013	2	Wed	4000
	4/5/2013	4/3/2013	2	Fri	4000
	4/8/2013	4/5/2013	3	Mon	4000
	4/10/2013	4/8/2013	2	Wed	4000
	4/12/2013	4/10/2013	2	Fri	4000
	4/15/2013	4/12/2013	3	Mon	4000
	4/17/2013	4/15/2013	2	Wed	4000
	4/19/2013	4/17/2013	2	Fri	4000
9 ppm	4/22/2013	4/19/2013	3	Mon	4000
	4/24/2013	4/22/2013	2	Wed	4000
	4/26/2013	4/24/2013	2	Fri	4000
	4/29/2013	4/26/2013	3	Mon	4000
	5/1/2013	4/29/2013	2	Wed	4000
	5/3/2013	5/1/2013	2	Fri	4000
25 ppm	5/6/2013	5/3/2013	3	Mon	4000
	5/8/2013	5/6/2013	2	Wed	4000
	5/10/2013	5/8/2013	2	Fri	4000
	5/13/2013	5/10/2013	3	Mon	4000
	5/15/2013	5/13/2013	2	Wed	4000
	5/17/2013	5/15/2013	2	Fri	4000
	5/20/2013	5/17/2013	3	Mon	4000
	5/22/2013	5/20/2013	2	Wed	4000

4000 lbs

WS-1 (7.8 Days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Day	Carbon Pounds Used
	5/24/2013	5/22/2013	2	Fri	4000
	5/27/2013	5/24/2013	**3**	Mon	4000
	5/29/2013	5/27/2013	2	Wed	4000
	5/31/2013	5/29/2013	2	Fri	4000
12 ppm	6/3/2013	5/31/2013	**3**	Mon	4000
	6/5/2013	6/3/2013	2	Wed	4000
	6/7/2013	6/5/2013	2	Fri	4000
	6/10/2013	6/7/2013	**3**	Mon	4000
	6/12/2013	6/10/2013	2	Wed	4000
	6/14/2013	6/12/2013	2	Fri	4000
	6/17/2013	6/14/2013	**3**	Mon	4000
	6/19/2013	6/17/2013	2	Wed	4000
	6/21/2013	6/19/2013	2	Fri	4000
	6/24/2013	6/21/2013	**3**	Mon	4000
	6/26/2013	6/24/2013	2	Wed	4000
	6/28/2013	6/26/2013	2	Fri	4000
	7/1/2013	6/28/2013	**3**	Mon	4000
	7/3/2013	7/1/2013	2	Wed	
	7/5/2013	7/3/2013	2	Fri	
	7/8/2013	7/5/2013	**3**	Mon	
	7/10/2013	7/8/2013	2	Wed	
	7/12/2013	7/10/2013	2	Fri	
	7/15/2013	7/12/2013	**3**	Mon	
	7/17/2013	7/15/2013	2	Wed	
	7/19/2013	7/17/2013	2	Fri	
	7/22/2013	7/19/2013	**3**	Mon	
	7/24/2013	7/22/2013	2	Wed	
	7/26/2013	7/24/2013	2	Fri	
	7/29/2013	7/26/2013	**3**	Mon	
	7/31/2013	7/29/2013	2	Wed	
	8/2/2013	7/31/2013	2	Fri	

5000 lbs

WS-2 (100 days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Carbon Pounds Used
<2 ppm	7/1/2011	4/11/2011	81	5000
<2 ppm	10/1/2011	7/1/2011	92	5000
<2 ppm	12/6/2011	10/1/2011	66	5000
<2 ppm	2/2/2012	12/6/2011	58	5000
<2 ppm	5/3/2012	2/2/2012	91	5000
<2 ppm	8/1/2012	5/3/2012	90	5000
<2 ppm	9/18/2012	8/1/2012	48	5000
<2 ppm	12/10/2012	9/18/2012	83	5000
<2 ppm	3/7/2013	12/10/2012	87	5000
<2 ppm	6/6/2013	3/7/2013	91	5000

1000 lbs

WS-3 (38 days)

Periodic Test Before Changeout	Change Out	Last Change	Days	Carbon Pounds Used
<2 ppm	7/1/2011	6/1/2011	30	1000
<2 ppm	8/1/2011	7/1/2011	31	1000
<2 ppm	9/1/2011	8/1/2011	31	1000
<2 ppm	10/1/2011	9/1/2011	30	1000
<2 ppm	11/2/2011	10/1/2011	32	1000
<2 ppm	12/2/2011	11/2/2011	30	1000
<2 ppm	1/1/2012	12/2/2011	30	1000
<2 ppm	2/1/2012	1/1/2012	31	1000
<2 ppm	2/29/2012	2/1/2012	28	1000
<2 ppm	4/3/2012	2/29/2012	34	1000
<2 ppm	5/1/2012	4/3/2012	28	1000
<2 ppm	6/1/2012	5/1/2012	31	1000
<2 ppm	7/1/2012	6/1/2012	30	1000
<2 ppm	8/1/2012	7/1/2012	31	1000
<2 ppm	8/31/2012	8/1/2012	30	1000
<2 ppm	10/2/2012	8/31/2012	32	1000
<2 ppm	11/2/2012	10/2/2012	31	1000
<2 ppm	12/2/2012	11/2/2012	30	1000
<2 ppm	1/2/2013	12/2/2012	31	1000
<2 ppm	1/30/2013	1/2/2013	28	1000
<2 ppm	3/1/2013	1/30/2013	30	1000
<2 ppm	4/1/2013	3/1/2013	31	1000
<2 ppm	5/2/2013	4/1/2013	31	1000
<2 ppm	5/31/2013	5/2/2013	29	1000
	7/1/2013	5/31/2013	31	1000
		7/1/2013	####	

Appendix Q

Sample of Stack Plume Hourly Visual Observations

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	X	
0800	X	
0900	X	
1000	X	
1100	X	
1200	X	
1300	X	
1400	X	
1500	X	
1600	X	
1700	X	
1800	X	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/2/15

LP GAS LEVEL	29%
OPERATING HOURS	24HRS
STANDBY HOURS - NO SPENT CARBON	0
GAS	155177
WATER	120.661
POTW DISCHARGE	117,105

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/3/15

LP GAS LEVEL	25%
OPERATING HOURS	24 HRS
STANDBY HOURS - NO SPENT CARBON	~~0~~
GAS	155577
WATER	119,070
POTW DISCHARGE	116,683

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/4/15

LP GAS LEVEL	25%
OPERATING HOURS	24 HRS
STANDBY HOURS - NO SPENT CARBON	0
GAS	155728
WATER	119,463
POTW DISCHARGE	120,732

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/5/15

LP GAS LEVEL	29%
OPERATING HOURS	24 HRS
STANDBY HOURS - NO SPENT CARBON	0
GAS	155367
WATER	117,586
POTW DISCHARGE	115,672

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	X	
2000	X	
2100	X	
2200	X	
2300	X	
0000	X	
0100	X	
0200	X	
0300	X	
0400	X	
0500	X	
0600	X	

7/6/15

LP GAS LEVEL	22%
OPERATING HOURS	24
STANDBY HOURS - NO SPENT CARBON	
GAS	155944
WATER	123594
POTW DISCHARGE	117766

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/7/15

LP GAS LEVEL	21%
OPERATING HOURS	24
STANDBY HOURS - NO SPENT CARBON	
GAS	156149
WATER	123638
POTW DISCHARGE	119412

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/8/15

LP GAS LEVEL	20%
OPERATING HOURS	21:40
STANDBY HOURS - NO SPENT CARBON	2:20
GAS	156324
WATER	122427
POTW DISCHARGE	112848

STACK PLUME HOURLY VISUAL OBSERVATIONS

TIME	NORMAL	UNSATISFACTORY
0700	✓	
0800	✓	
0900	✓	
1000	✓	
1100	✓	
1200	✓	
1300	✓	
1400	✓	
1500	✓	
1600	✓	
1700	✓	
1800	✓	
1900	✓	
2000	✓	
2100	✓	
2200	✓	
2300	✓	
0000	✓	
0100	✓	
0200	✓	
0300	✓	
0400	✓	
0500	✓	
0600	✓	

7/9/15

LP GAS LEVEL	20%
OPERATING HOURS	24
STANDBY HOURS - NO SPENT CARBON	0
GAS	156502
WATER	115961
POTW DISCHARGE	113048