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Our Ref.: 12581570

November 15, 2024

Mr. Dale Thrush
Environmental Protection Agency
US EPA Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270

Revised PCB Clean-Up Plan
Former Cactus Facilities
Phillips 66 Company
Cactus, Moore County, Texas
TCEQ SWR No. 30076
Customer No. CN601230907, Regulated Entity No. RN101474781

Dear Mr. Thrush:

On behalf of Phillips 66 Company (Phillips 66), GHD Services Inc. (GHD) is submitting a Revised Polychlorinated biphenyl (PCB) Clean-Up Plan for the above-referenced property (Site) to the United States Environmental Protection Agency (EPA). GHD has revised the PCB Clean-Up Plan per the phone call with Phillips 66, EPA, Texas Commission on Environmental Quality (TCEQ), and GHD on October 12, 2023. Revisions to this Plan were made based on EPA correspondence received October 15, 2024.

Should you have any questions or comments regarding this submittal, please don't hesitate to contact the undersigned.

Regards,

GHD

A handwritten signature in black ink, appearing to read "Jessica Wright", with a stylized flourish at the end.

Jessica Wright
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Copy to: Tom Wynn, Phillips 66 Company
Andrew Horton, TCEQ Austin
TCEQ Region 1 (files), Amarillo, Texas

Texas Commission on Environmental Quality

Remediation Division Correspondence Identification Form

SITE & PROGRAM AREA IDENTIFICATION

SITE LOCATION				REMEDIATION DIVISION PROGRAM AND FACILITY IDENTIFICATION			
Site Name: Former Cactus Facilities				Is This Site Being Managed Under A State Lead Contract? ☐ Yes ☒ No			
Address 1: S. US Hwy 287				Program Area: IHW CORRECTIVE ACTION			
Address 2:				Mail Code: MC-127			
City: Cactus		State: Texas		Is This A New Site To This Program Area? ☐ Yes ☒ No			
Zip Code:	79013	County:	Moore	TCEQ Facility ID No.:		SWR 30076	
TCEQ Region: Region 1 - Amarillo				--Leave This Field Blank--		--Leave This Field Blank--	

DOCUMENT(S) IDENTIFICATION

PHASE OF REMEDIATION		DOCUMENT NAME	
1.	MISCELLANEOUS	2.	TECHNICAL REPORT NOT OTHERWISE SPECIFIED (NOS)
3.		4.	
4.		5.	
5.			

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TCEQ INTERNAL USE ONLY

Document No.	TCEQ Database Term	Document No.	TCEQ Database Term
1.	TECHNICAL REPORT	4.	
2.		5.	
3.			



Revised PCB Clean-Up Plan

**Former Cactus Facilities
Stormwater Trench, North Palo Duro
Creek, and Former Remelt Pond Areas
Cactus, Moore County, Texas
EPA ID TXD041230426
SWR No. 30076**

Phillips 66 Company

November 15, 2024



GHD Services Inc.
d/b/a GHD Environmental and Consulting
Texas Geoscience License No. 50043

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03	1	Jessica Wright	Ken Forster	<i>Ken Forster</i>	Jessica Wright	<i>Jessica Wright</i>	11/15/24

GHD 340

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1. Introduction

Phillips 66 Company (Phillips 66) retained GHD Services Inc. (GHD) to manage environmental concerns related to the former Cactus Facilities located southeast of Cactus, Texas (Site). The Site location is presented as Figure 1. A Site Plan is presented as Figure 2.

Polychlorinated biphenyl (PCB) impacts to soils and sediment at the Site have been defined to the extent satisfying initial source area assessment and delineation requirements. The majority of PCBs are located in soils and sediment within or along well channelized drainage features at the Site. This Work Plan describes the proposed activities to conduct the final delineation of the horizontal and vertical extent of soil or sediment exhibiting PCB detections above the Texas Risk Reduction Program (TRRP) Protective Concentration Limits (PCL) in support of preparing a Self-Implementation Notice (SIN) in accordance with 30 Texas Administrative Code (TAC) §350.32(d) and 350.92.

1.1 Site Description

The Site encompassing approximately 460 acres, is defined as the former operational areas of the manufacturing complex. The Site is currently vacant, rural land, and except for some limited storage of piping/equipment owned by the City of Cactus at the former Nitrate Plant, the Site is generally isolated from the public by fencing and locked gates. The Site has been disturbed by anthropogenic activities, which include, but are not limited to roads, disturbed soils/landfills, residual demolition debris (concrete, scrap metal, gravel, etc.), pipelines (water, sewer, oil & gas), wells (water and oil & gas), and agricultural fields. No adjacent sensitive populations or environments have been identified at the Site.

The majority of property adjacent to the Site is rural land that is either vacant or utilized for agriculture or commercial operations. Land use across the Site area include the following:

- West adjacent property uses include United States Highway 287 (beyond which is the City of Cactus), vacant land, agricultural fields, and an electrical substation.
- North adjacent property uses include North Palo Duro Creek (beyond which is the City of Cactus and the City of Cactus' solid waste transfer station).
- East adjacent property uses include agricultural fields, vacant land, the Cactus Playa, and the City of Cactus' Wastewater Treatment Plant (WWTP).
- South adjacent property uses include vacant land, agricultural fields, an electrical substation, a DCP Midstream natural gas compressor station, and FM 281 (beyond which are a railroad track, vacant land, and agricultural fields).

Topography at the majority of the Site slopes gently to the east while the northern portion of the Site slopes toward North Palo Duro Creek (NPDC), which is present along the north and northeast of the northern most portions of the Site. The Cactus Playa is located approximately 0.25-mile east of the Site. Given the semi-arid climate of the region, North Palo Duro Creek and the Cactus Playa are generally dry. The Site and surrounding property are illustrated on a United States Geological Survey (USGS) topographic map as Figure 1.

1.2 Environmental Setting

The Site is located in northwest Texas; a region characterized by semi-arid high plains. According to the Texas Water Development Board (TWDB) on-line Water Data viewer, Moore County's median annual precipitation rate is less than 18 inches (TWDB, 2024). Similarly, the TWDB's on-line Drought Monitor indicates Moore County experienced severe drought to extreme drought conditions during 2023 (TWDB, 2024). Although the Site area is unmapped by the Federal Emergency Management Agency (FEMA, 2024), the majority of the Site is unlikely to be within a 100-year floodplain.

The area is rural and agricultural and contains monoculture crops and areas of undeveloped and vacant grassland. North Palo Duro Creek and the Cactus Playa are the most significant landforms in the area (GHD, 2015a).

1.3 Geology and Hydrogeology

Based on the data from subsurface assessments conducted at the Site, soils at and near the surface are generally comprised of silts and clays with minor sands and gravels. According to the USDA Web Soil Survey on-line viewer (WSS, 2024), the vast majority of surficial soils at the Site are classified as Sherm silty clay loam (ShA): a well-drained, silty and clayey loess, without frequency of flooding, on level ground (0 to 1 percent slopes), that is well suited as farmland. Surface soils at the Site are generally underlain by sands and/or caliche. Some of the caliche horizons were observed to be greater than 10 feet (ft) in thickness and hard/competent, most significantly along portions of the Chemical Sewer Trench. The caliche appears to have attenuated vertical migration of Constituents of Concern (COCs) in certain areas of the Site.

According to the USGS on-line Texas geology viewer, the Site is underlain by the Quaternary-aged Blackwater Draw Formation, which consists of silty sand, calcareous, with caliche nodules, and approximately 25 ft thick, and the Ogallala Formation in the northern portion of the Site, along Palo Duro Creek and around Cactus Playa, west of the Site. The Pliocene Age Ogallala Formation is described as containing silt, clay, gravel, and caliche. Sand, fine to coarse-grain quartz. Gravel present locally, in intraformational channel deposits and in basal conglomerate. Forms ledges and caprock with a reported maximum thickness of 550 ft. (USGS, 2024).

Quaternary-aged "Playa deposits" are also present sporadically across the area. The Playa deposits are sandy clays and silts in shallow depressions that tend to allow the accumulation of water, when present in sufficient volume.

According to the TWDB, the High Plains Aquifer underlies the Site which is mainly comprised of the Ogallala Formation (a Major Aquifer in Texas), but can also include hydraulically connected, older formations that underlie the Ogallala. It should be noted that the Ogallala may be underlain at the Site by a relatively thin layer of the Dockum Formation (a Minor Aquifer in Texas) that thickens west of the Site.

The High Plains aquifer is underlain by the Permian age Red Bed which is regarded as an aquiclude (TDWR, 1984) and forms the lower confining unit for the High Plains aquifer. Locally, the Red Beds was logged between approximately 600 to 950 feet below ground surface (ft bgs) in the boring log for well D-1 and is noted elsewhere at the Site to range in depth from approximately 544 ft bgs (well Phillips WW-10) to 643 ft bgs (well Phillips WW-01B). Most production water wells in the area fully penetrate the High Plains aquifer and terminate at the Red Bed.

The Red Bed Formation is underlain by a thick sequence of low permeability formations followed by the water bearing Glorieta Sandstone, which was noted locally as present at approximately 1,250 to 1,470 ft bgs in well D-1. While the Glorieta reportedly contains water, it is under pressure/confined in the area, contains highly mineralized water, and was utilized for the disposal of brine by numerous wells in the region (USGS, 1969). As such, impacts in the High Plains aquifer at the Site are unlikely to present significant risk to groundwater bearing underlying formations.

Regional groundwater flows in the Ogallala are generally reported to the east or southeast (NPGCD, 2023). However, the operation of off-Site high yield irrigation and municipal production wells at varying rates and frequencies likely has modified the apparent gradient across the Site.

Cactus Playa

The Cactus Playa is a shallow, circular-shaped wetland that is primarily filled by rainfall, although some playas found in cropland settings may also receive water from irrigation runoff. According to the Texas Park and Wildlife Department (TPWB), approximately 19,300 playas are found in the Texas High Plains (TPWD, 2024). Similarly, the Texas Water Development Board (TWDB), indicates playa lakes are a critical recharge source for the Ogallala aquifer. Playas filter and recharge as much as 95 percent of the water collected in the southern portion of the aquifer. Recharge occurs both through playa basins and along the perimeter (or annual rings) of playas (TWDB, 2021).

Historically, the Cactus Playa was artificially recharged by treated effluent from the City of Cactus wastewater treatment plant (WWTP), but on 2010, the City of Cactus redirected WWTP effluent from discharge to the Cactus Playa to newly constructed evaporative ponds. However, given the significant depth to groundwater (320 to 408 ft bgs) it is unlikely that surface water or substrate could be impacted by affected groundwater related to former discharges to the Playa or Site operations (GHD, 2017b).

In January 1975, Phillips Petroleum Company transferred ownership of the Cactus Playa and adjacent property in Section 38 (approximately 510 acres; east of the Nitrate Plant) to the City of Cactus. In March 1992, Phillips donated approximately 800 acres of land west and northwest of the Cactus Playa to the City of Cactus in an effort to protect and extend waterfowl habitat adjacent to the Cactus Playa. Phillips Petroleum Company retained ownership of the Ammonia Plant and north-adjacent property.

North Palo Duro Creek

North Palo Duro Creek (NPDC) is an intermittent stream classified by National Hydrography Dataset Plus (NHDPlus, 2024) as a First or Second Stream; Stream order is a measure of the relative size of streams. The smallest tributaries are referred to as first-order streams, First-through third-order streams are usually called headwater streams. Based on-site observations the NPDC is generally dry, and no perennial pools have been observed during previous investigations at the Site. Similarly, the NPDC is considered a losing stream (the depth to groundwater ranges from approximately 320 to 408 ft bgs in July 2023 (GHD, 2024)).

According to EPA's Enforcement and Compliance History Online page there are several Concentrated Animal Feeding Operation (CAFO) facilities located upstream along NPDC with TPDES & Stormwater discharge permits (ECHO, 2024):

- North Dumas Farms, 5450 West Road G, Dumas, Texas 79029.
- Cactus Feedyard 12100 Cactus Feeders Road, Cactus, Texas 79013.
- Swift Beef, Schroeter Industrial Park Cactus, Texas 79013.

Regionally, NPDC discharges into the Beaver River in the Oklahoma panhandle. The Beaver River discharges to the North Canadian River near Woodward, Oklahoma. The North Canadian River discharges to the Arkansas River, which discharges to the Mississippi River which discharges to the Gulf of Mexico.

1.4 Operational History

The Site originated in 1942 as a munitions chemical plant that generated anhydrous ammonia, with regular operations lasting through 1943. Ammonia production ceased circa 1944 to 1945 due to the easing of wartime effort. Shell Union and Gas Corporation reportedly manufactured fuel-related compounds at the facility between approximately 1944/1945 and 1946. The Emergency Export Company (a subsidiary of Spencer Chemical Company) restarted the production of anhydrous ammonia in September 1946 (GHD, 2015a).

The United States Army Corps of Engineers (USACE) offered the facility for lease in December 1947 as a fertilizer manufacturing plant. Phillips Chemical Company (Phillips Chemical) operated the facility under lease from August 1948 to August 1963, and subsequently purchased the majority of the leased property in September 1964. Phillips Chemical produced anhydrous ammonia at the Ammonia Plant and pelletized ammonium nitrate fertilizer at the Nitrate Plant. In 1973, the Ammonia Plant ended production, while the Nitrate Plant continued operation until approximately 1982. The Ammonia Plant was dismantled in 1975. At that time, Phillips transferred the ownership of the Cactus Playa to the City of Cactus (City). The Nitrate Plant was dismantled by 1989. In March 1992, Phillips donated approximately 800 acres of land west and northwest of the Cactus Playa to the City. Phillips retained ownership of the Ammonia Plant and north-adjacent property (GHD, 2015a).

1.5 Industrial Process and Potential PCB Release Characteristics

This section presents GHD's understanding of the industrial processes used for the production of ammonia and ammonium nitrate and the potential use and release of PCBs.

1.5.1 Ammonia Plant

The Haber-Bosch process was the main industrial method for the production of ammonia during the operation of the Ammonia Plant from 1942 to 1973. The Haber-Bosch process is based on the reaction of atmospheric nitrogen (N_2) with hydrogen (H_2) under pressure in the presence of a catalyst to produce ammonia (NH_3) (Kent, James A. (ed.), 2003) (Miller, Lenaeus, Saeman, & Dokken, 1946).

The hydrogen gas required for this process was produced by the decomposition of natural gas (particularly methane) in the presence of water under pressure in the Site's Gas Reforming Plant (Kent, James A. (ed.), 2003) (CCCCCE, circa 1945).

The ammonia production process involves the handling and distribution of compressed gasses including atmospheric oxygen, nitrogen, hydrogen, methane, and carbon oxides. The Site's Ammonia Plant facilities included a "*H.P. [High Pressure] Compression Building*" (with 8 compression engines) and a "*L.P. [Low Pressure] & I.P. [Intermediate Pressure] Compression Building*" (with 37 compression engines) (CCCCCE, circa 1945).

PCBs were produced commercially in the U.S. from 1929 to 1979 and commonly used as lubricants for compressors due to their high flash point, low flammability, and chemical stability (EPA, 2024). The main PCB lubricants used in compressors were formulated under the trade names Aroclor 1242 and Aroclor 1248 (for gas compressors), and Aroclor 1254 (for air compressors) (SSPA, 2010).

Impurities in the compressed gas streams (including PCBs) can form liquid residues (called condensate) in the piping throughout the gas distribution system. This condensate could have been periodically flushed out of the piping during routine maintenance at the Ammonia Plant.

The flushing of condensate from piping used to carry pressurized gas streams is the most likely source of PCBs identified in the chemical and storm sewers at the Facility. Releases of PCB-impacted condensate may have occurred during the operation of the Ammonia Plant from 1942 to 1973, or its demolition in 1975.

1.5.2 Nitrate Plant

Ammonium nitrate is produced by the reaction of anhydrous ammonia (NH_3) with nitric acid (HNO_3). The ammonium nitrate is then mechanically formed into pellets. The production of ammonium nitrate is not expected to have involved a significant use of PCBs.

1.5.3 PCB Occurrence in Drainage Features

GHD understands the Ammonia Plant managed process water using a stormwater collection system, a sanitary sewer system, and a chemical sewer system. The former Ammonia Plant's sanitary sewer system discharged to a former WWTP located northwest of the Ammonia Plant, which also accepted municipal wastewater from neighboring residential areas prior to the City of Cactus WWTP being constructed in 1973. The former stormwater system at the Ammonia Plant utilized surface drains to direct stormwater via subgrade piping and the Stormwater Trench to NPDC. A chemical sewer system at the former Ammonia Plant directed wastes/off-spec liquids via subgrade piping to the Waste Chemical Trench, which directed waste liquids to various disposal/recycling facilities including the disposal well D-1, the Remelt Pond, the Cactus Playa, or the former Caliche Pit (see Figure 1 for locations).

The Nitrate Plant had smaller scale wastewater and drainage systems that directed stormwater to the Cactus Playa via the Waste Chemical Trench and wastes/off-spec liquids in a similar fashion as the Ammonia Plant. It should be noted that effluent from the City of Cactus WWTP also discharged to the Waste Chemical Trench, the Cactus Playa, and the former Caliche Pit for a period of time.

Due to its physical and chemical properties PCBs entering the surface water and drainage features would adsorb onto particulate matter including soil particles and organic materials. PCBs adsorbed onto sand-sized particles have limited mobility and are expected to diminish along the course of the stream bed. PCBs adsorbed onto silt- or clay-sized particles would flow with the water until they reached stagnant pools where they could settle out.

The migration of PCBs in the Site's drainage systems was in part controlled by flow attenuation structures constructed along the Chemical Sewer Trench and North Palo Duro Creek which were apparently constructed and operated by the facility. The flow attenuation structures created areas of ponded liquids by slowing down the downstream flow of liquids, facilitating the settling of PCBs and other contaminants to the base of the trench or creek bed. Consequently, downstream of these structures' concentrations of PCBs and other pollutants are significantly reduced. Additionally, PCBs have been detected in the walls/banks of the drainage features.

Groundwater sampling conducted in on-Site and off-Site monitor wells, irrigation wells, potable use wells since 2017 analytical results have not shown PCB detections above the Method detection Limit.

1.5.4 Previous Investigations and Remediation

Subsurface assessment and groundwater monitoring activities have been conducted at the Site by GHD from 2010 to present to characterize and delineate impacts associated with former operations and releases, as well as augment previous assessments. The results are presented in the Affected Property Assessment Report (APAR [GHD, 2015a]), APAR Addendum (GHD, 2015c), and the Revised APAR (GHD, 2017b), which include an assessment of potential risk to human receptors, as well as two ecological risk assessments (ERAs) (initial ERA [GHD, 2015b] and Addendum ERA [GHD, 2017a]).

As part of the ERAs, samples of surface soil (0 to 0.5 ft bgs) and subsurface soil (0.5 to 5 ft bgs) were collected from locations throughout the Site. Samples of substrate (sediment) were collected from North Palo Duro Creek and the Cactus Playa. As water is typically not present in North Palo Duro Creek or the Cactus Playa, the collected substrate is hereafter referred to as dry sediment.

The dry sediment samples collected from North Palo Duro Creek and the Cactus Playa were evaluated in the screening process as both sediment and soil per Texas Commission on Environmental Quality (TCEQ) Guidance (TCEQ, 2017a). The samples were collected for the analysis of chemicals of (ecological) concern (COCs), consisting of metals, PCBs, total petroleum hydrocarbons (TPHs), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), and nitrogen compounds (ammonia, nitrate, nitrite, and four species of nitrobenzene).

The highest concentrations of PCBs were observed at the following locations (GHD, 2017b).

- Associated with dried sludge or tar-like substance at the former Copper Solution Makeup Laboratory Area at the Former Ammonia Plant.
- Associated with a small area of white pellets discovered at the surface near the Stormwater Trench, north of the Ammonia Plant.
- Associated with a horizon of staining at the base of a former dam in NPDC.
- Associated with the Chemical Sewer Trench.
- Associated with an area downgradient of the City of Cactus Solid Waste Facility, just north of NPDC.

Lower concentrations of PCBs were detected topographically-downgradient, downstream, and adjacent to these locations. The PCB impacts have been delineated vertically and laterally (GHD, 2017b). The PCBs have not migrated vertically to any significant extent (no RAL exceedance beneath 10 ft bgs) and do not threaten groundwater (GHD, 2017b).

In 2015, one localized Response Action (RA) was conducted at the Site. An approximately 0.15-cubic yard (yd³) area of PCB impacted surface soils at SB-143 (located between the chemical trench and the ammonia plant area) was excavated and transported off-Site for disposal to eliminate the potential of exposure (GHD, 2015b).

The location and extent of contamination is discussed in further detail in Section 2.2.

1.6 Regulatory Context

The Site is being managed under the TCEQ TRRP rule (30 TAC Chapter 350). However, clean-up and disposal options for PCB remediation waste are regulated under the Toxic Substances Control Act (TSCA) becoming effective

on April 18, 1978. The PCB regulations are not currently delegated to state or local agencies; thus, EPA is the regulatory lead for the clean-up of PCBs under the TSCA.

The current disposal regulations are codified in Part 761 of Title 40 of the Code of Federal Regulations (CFR). These regulations have special provisions for releases which occurred prior to TSCA's enactment. However, on August 29, 2023, EPA finalized regulatory changes addressing several key issues related to implementing the PCB Clean-Up and Disposal Program under the TSCA, including:

- Expanding the available options for extraction and determinative methods used to characterize and verify the clean-up of PCB waste under the federal TSCA regulations (also referred to as the PCB regulations).
- Adding more flexible provisions to facilitate clean-up and protective disposal of waste generated by spills that occur during emergency situations (e.g., hurricanes or floods).
- Adding amendments to the performance-based disposal option for PCB remediation waste by adding explicit clean-up provisions, including the requirement to notify EPA and follow specific sampling protocols.
- Removing the provision allowing PCB bulk product waste to be disposed of as roadbed material to improve protectiveness of human health and the environment.
- Harmonizing the general disposal requirements for PCB remediation waste and makes other amendments to improve the implementation of the regulations, clarify ambiguity, and correct technical errors.

1.6.1 Clean-Up and Disposal Options

Under the TSCA August 29, 2023, amendment two options for the clean-up and disposal of PCB remediation waste are available:

- Self-implementing on-Site clean-up and disposal of PCB remediation waste §761.61(a).
- Risk-based disposal approval §761.61(c).

The self-implementing option under Site §761.61(a) is applicable to a site where a low residual environmental impact from remedial activities is expected, as well as the lack of nearby sensitive populations or environments.

According to 40 CFR 761.61(a)(4)(i) through (iv), for purposes of cleaning, decontaminating, or removing PCB remediation waste under this section, there are four general waste categories: bulk PCB remediation waste, non-porous surfaces, porous surfaces, and liquids. Clean-up levels are based on the kind of material and the potential exposure to PCBs left after clean-up is completed.

(i) **Bulk PCB Remediation Waste.** Bulk PCB remediation waste includes, but is not limited to, the following non-liquid PCB remediation waste: soil, sediments, dredged materials, muds, PCB sewage sludge, and industrial sludge.

(A) **High Occupancy Areas.** The clean-up level for bulk PCB remediation waste in high occupancy areas is ≤1 parts per million (ppm) without further conditions. High occupancy areas where bulk PCB remediation waste remains at concentrations >1 ppm and ≤10 ppm shall be covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8) of this section.

(B) **Low Occupancy Areas:**

(B)(1) The clean-up level for bulk PCB remediation waste in low occupancy areas is ≤25 ppm unless otherwise specified in this paragraph.

(B)(2) Bulk PCB remediation wastes may remain at a clean-up Site at concentrations >25 ppm and ≤50 ppm if the Site is secured by a fence and marked with a sign including the M_L mark.

(B)(3) Bulk PCB remediation wastes may remain at a clean-up Site at concentrations >25 ppm and ≤100 ppm if the Site is covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8) of this section.

Per discussion with EPA and TCEQ on October 12, 2023, the proposed clean-up goals for the Site will be established under TRRP for surface soils (0 to 5 ft bgs) and under TSCA for subsurface soils (>5 ft bgs). The clean-up goals for the Site are further discussed in Section 2.2. In accordance with 30 TAC 350, rule §350.4(a)(47), following submission and TCEQ approval of a Remedial Action Plan an institutional control (restrictive covenant) will be placed on the affected property and/or cleanup areas, prohibiting residential use or development of the property.

1.6.2 Notification

40 CFR 761.61(a)(3) requires written notice to the EPA Regional Administrator, the TCEQ, and the Director of the county or local environmental protection agency where the clean-up will be conducted of the following information:

- a. The nature of the contamination, including kinds of materials contaminated.
- b. A summary of the procedures used to sample contaminated and adjacent areas and a table or clean-up Site map showing PCB concentrations measured in all pre-clean-up characterization samples.
- c. The location and extent of the identified contaminated area, including topographic maps with sample collection sites cross referenced to the sample identification numbers.
- d. A clean-up plan for the Site, including schedule, disposal technology, and approach with options and contingencies for unanticipated higher concentrations or wider distributions of PCB remediation waste are found.
- e. A written certification, signed by the owner of the property where the clean-up Site is located and the party conducting the clean-up, that documentation of all sampling plans and procedures are available for EPA inspection.

This Clean-Up Plan has been developed to address these requirements.

2. Clean-Up Plan

2.1 Nature of Contamination

As discussed in Section 1.5.4, GHD has conducted subsurface assessment and groundwater monitoring activities to characterize and delineate potential impacts associated with former operations and releases, as well as augment historical assessments. Results of the assessments conducted at the Site have been presented in several reports (APARs, ERAs). The reports and assessment conclusions support the risk management decisions and remedial actions presented in this Clean-Up Plan.

Initially, media (soils, sediment, groundwater) present at or immediately downgradient of former storage/use, apparent source areas, or apparent locations of releases at the facilities were assessed. Identified impacts were then delineated vertically and downgradient/downstream of the source areas using TRRP Residential Assessment Levels (RALs) and/or Ecological Protective Concentration Levels (EcoPCLs). Soils were assessed in order to evaluate the potential of impacts to migrate to other media (i.e., underlying groundwater, adjacent sediment). Sediment samples were also collected from the Cactus Playa and North Palo Duro Creek. As water is typically not present in either of these drainage features, this substrate is frequently also referred to as "dry sediment" and related exposure pathways/risk parameters more closely align to soils, than sediment at perennial water bodies.

As further detailed below, the nature of contamination related to this Clean-Up Plan consists of PCB impacted soils and dry sediment related to the Stormwater Trench, on-Site and off-Site portions of North Palo Duro Creek, and the former Remelt Pond.

2.1.1 Sample Collection and Analytical Procedures

To assess and delineate PCB impacts at the Site, surficial soil/sediment samples were collected using a decontaminated stainless-steel trowel or other appropriate tool. Each sample consisted of soil/sediment from the surface (0 to 0.5-foot bgs). A direct-push drill rig was employed to advance soil borings for the collection of below-grade samples utilizing tube samplers affixed with a cutting shoe and an internal acetate liner. New acetate liners were used for each borehole interval. Prior to each use, non-disposable sampling/drilling equipment was decontaminated by brushing with an aqueous solution of laboratory grade surfactant, followed by a rinse with distilled water, or high-pressure steam cleaner.

Prior to sample collection, surficial debris/vegetation was removed from the sample area. The depth of sample was determined in the field based on the thickness of observed depositional features and apparent horizons of impact. If the deepest soil sample collected from a boring location exceeded an assessment level or remediation objective, additional sampling was conducted to complete the vertical delineation of impacts.

Samples collected for potential analysis were placed in clean, laboratory-supplied containers, which were immediately sealed, labeled, and stored in a cooler containing sufficient ice to maintain ≤ 6 degrees Celsius ($^{\circ}\text{C}$). Samples were transported under chain-of-custody documentation to a laboratory certified by the National Environmental Laboratory Accreditation Program (NELAP) for extraction via USEPA SW-846 Method 3546 and analysis via USEPA SW-846 Method 8082A.

2.2 Location and Extent of Contamination

The 40 CFR 761.3 defines a Clean-up Site as: “the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementing a clean-up of PCB remediation waste regardless of whether the Site was intended for management of waste.”

Despite a significant assessment effort, the exact source(s) of the PCBs at the Site remains undetermined; however, the former Ammonia Plant is the general area from which the majority of the PCBs originated. PCBs do not appear to have been utilized directly in the processes at the facilities but were likely related to oils utilized for cooling and lubrication of equipment/processes. Areas where oils were likely stored, utilized, or discharged, include: the facility's electrical substation, storage tanks, compressor buildings, and related drainage areas; each were assessed to identify/delineate impacts and locate the source.

PCB impacted soil/dry sediment exist at and downstream of the former Ammonia Plant, in and along the Stormwater Trench, North Palo Duro Creek, Chemical Sewer Trench and the former Remelt Pond (GHD, 2015a). PCB impacted soils at the Site do not threaten groundwater and PCBs have not been detected in groundwater samples collected from the Site. Clean-up of PCB impacts in the Chemical Sewer Trench was self-implemented under 40 CFR 761.61(a) beginning November 5, 2019, through May 8, 2020. An overview of remaining areas of PCB impacted soil/dry sediment above proposed clean-up levels are illustrated on Figure 3.

The Stormwater Trench is man-made, v-shaped, soil based, and directed stormwater run-off from the former Ammonia Plant to its outfall at North Palo Duro Creek. The Stormwater Trench is approximately 20 ft bgs deep, 50 ft wide, and 1,800 ft long. PCB impacts are generally limited to soils in the base of the trench as the lateral extent of PCB migration was largely contained by the controlled flow of stormwater within the walls/banks of the trench. It should be noted that the facility operated an oil-water separator system at the downstream portion of the Stormwater Trench; however, the portion of trench near the outfall is no longer well defined due to historical grading of the surface likely conducted during the removal of the oil-water separator system during facility demolition. As such, PCB impacts in this area are also present just east of the trench. Analytical results indicate the maximum concentration of PCBs in soil along the Stormwater Trench is 227 milligrams per kilogram (mg/kg), in sample SB-174 (0 to 0.5 ft bgs). Assessment analytical data indicated PCBs did not migrate vertically to a considerable extent. In the base of the Stormwater Trench, analytical results indicated that concentrations of PCBs in soils exceeding 25 mg/kg did not extend beneath approximately 5 ft bgs.

Assessment of the Waste Pit Area revealed frequent impacts associated with surface debris and buried general plant trash. PCBs did not migrate laterally or vertically to a considerable extent. Analytical results indicated that concentrations of PCBs in soils exceeding 25 mg/kg did not extend beneath approximately 5 ft bgs.

The downstream migration of PCBs in North Palo Duro Creek was attenuated by two dam features formerly operated by the facility. The first was located immediately downstream of Holding Pond No. 1, with another feature being further downgradient, immediately downstream of Former Petty Lake. The dams created areas of ponded water that allowed PCBs to settle out of the flow to the creek bed. Significantly lower concentrations of PCBs are located downstream of each former dam feature.

The former Remelt Pond was a 3.5-acre evaporative pond just south of the former Nitrate Plant which accepted off-spec nitrogenous chemicals associated with fertilizer production in support of recycling the liquids back into production. The majority of the impacts in this area were related to the operation/removal of the Remelt Pond. Sporadic, relatively low-level PCB impacts to soils at/near the Remelt Pond are present and will be remediated under this Clean-Up Plan. PCBs in this area did not migrate laterally to a considerable extent and concentrations of PCBs in soils exceeding 25 mg/kg did not extend beneath approximately 2 ft bgs. Although, a meandering, natively-like channel related to the outfall of the Chemical Sewer Trench is located just south of the area impacts related to the former Remelt Pond are unrelated.

Analytical results of soil samples collected from along the Stormwater Trench, North Palo Duro Creek and the former Remelt Pond area are summarized on Table 1 and Table 2. Sample results exceeding proposed PCB clean-up levels are illustrated by Figures 4 through 9. Laboratory analytical reports and/or excerpts of analytical reports applicable to data for the proposed clean-up areas are presented as Appendix A.

2.3 Clean-Up Plan

Based on the distribution of the remaining PCB impacts on- and off -of the Site, remedial action objectives have been developed for two categories of soil/dry sediment at the Site.

- *Surface Deposits/Soils (0 to 5 ft bgs)*: Surficial soil/dry sediments are more likely to be potentially accessible to receptors, including ecological. PCB impacts to surficial deposits required Site-specific, risk-based Clean-Up Levels given the exposure potential for both ecological and human receptors.
- *Subsurface Deposits/Soils (>5 ft bgs)*: PCB impacted soil/dry sediment, which underlie Surface Soils/Deposits are less likely to come in contact with receptors. PCB impacts to Subsurface Soils/Deposits allow the use of standard Clean-Up Goals since the exposure potential is low and the groundwater leaching pathway is not complete (EPA, 1979) (EPA, 1988, pp. II-27) (ATSDR, 2000, p. 479) (EPA, 2017).

As discussed above in Section 1.6.1, per discussion with EPA and TCEQ on October 12, 2023, the proposed clean-up goals for the Site will be established under TRRP for surface soils (0 to 5 ft bgs) and under TSCA for subsurface soils (>5 ft bgs). In accordance with 30 TAC 350, rule §350.4(a)(47), following submission and TCEQ approval of a Remedial Action Plan an institutional control (restrictive covenant) will be placed on the affected property and/or cleanup areas, prohibiting residential use or development of the property.

To establish the TRRP PCLs for the Surface Deposits/Soils at the Site, the default exposure area sizes for residential land use to be 1/8-acre (State of Texas, 2017, p. §350.51(l)(3)) and commercial/industrial land use to be 0.5-acre (State of Texas, 2017, p. §350.51(l)(4)). The assumed exposure area should represent the smallest area over which an individual can be expected to move randomly (State of Texas, 2017, p. §350.51(l)(4)).

For this Site, for the purpose of developing the Critical PCLs, 0.5-acre source areas will be utilized with exception of the Stormwater Trench Area. Per EPA correspondence dated October 15, 2024, a 30-acre source area is applicable to this area. Thus, the PCBs Critical PCLs considered under TRRP for the Site's Surface Deposits/Soils is the Tier 1 Commercial/Industrial (C/I) Soil $T_{ot}Soil_{Comb}$ PCL of 7.7 mg/kg (0.5-acre source area) and 7.1 mg/kg (30-acre source area), both of which will be protective of ecological receptors, groundwater, and inhalation pathways at the Site.

To address ecological receptors, GHD prepared a Screening Level Ecological Risk Assessment (SLERA) dated April 17, 2017, consistent with TCEQ's guidance document, "Conducting Ecological Risk Assessments at Remediation Sites in Texas" (TCEQ Guidance [TCEQ, 2017a]). In responding to TCEQ's comments, a SLERA Addendum dated June 20, 2018, was prepared by GHD and provisionally approved by the TCEQ on February 13, 2019. The SLERA Addendum calculated a Final Ecological Protective Concentration (Eco- PCL) for PCB of 11.5 mg/kg (GHD, 2018). As noted above, the use of the $T_{ot}Soil_{Comb}$ PCL of 7.7 mg/kg will be protective of ecological receptors at the Site.

To determine appropriate remediation goals for Subsurface Deposits/Soils, action levels for residential and non-residential scenarios were selected from the EPA's 1990 "Guidance on Remedial Actions for Superfund Sites with PCB Contamination" (EPA, 1990) and TSCA.

The final Clean-Up Levels selected for the Site are summarized below.

Table 2.1 Clean-Up Levels

Category		PCB Clean-Up Level (mg/kg)	Source
Surface Deposits/Soils (0 to 5 ft bgs)			
	TRRP Tier 1 C/I Soil ^{Tot} Soil _{Comb} PCL (0.5-acre source area)	7.7	TRRP Tier 1 PCLs dated May 10, 2023
	TRRP Tier 1 C/I Soil ^{Tot} Soil _{Comb} PCL (30-acre source area)	7.1	
Subsurface Deposits/Soils (>5 ft bgs)			
	Non-residential, low occupancy	25	40 CFR 761.61(a)

2.3.1 Remedies for PCB Concentration Ranges

Presumptive remedies have been established which meet the Clean-Up Levels for the protection of human health and ecological receptors described above. The proposed remedies for the Site and the impacted off-Site portions of North Palo Duro Creek are shown in the following table.

Table 2.2 Proposed Remedies for PCBs

PCB Concentration (mg/kg)	Land Use	Presumptive Remedy
<7.1 (Surface Deposits/Soils – Stormwater Trench)	Non-Residential, Low Occupancy	No Action
>7.1 (Surface Deposits/Soils – Stormwater Trench)	Non-Residential, Low Occupancy	Excavation and off-Site disposal
<7.7 (Surface Deposits/Soils)	Non-Residential, Low Occupancy	No action
>7.7 (Surface Deposits/Soils)	Non-Residential, Low Occupancy	Excavation and off-Site disposal
<25 (Subsurface Deposits/Soils)	Non-Residential, Low Occupancy	No action
>25 (Subsurface Deposits/Soils)	Non-Residential, Low Occupancy	Excavation and off-Site disposal

2.4 Determination of Compliance with Remedial Action Objectives

The EPA's Risk Assessment Guidance for Superfund (RAGS) describes the basis for exposure areas as the following.

“When evaluating chemical contamination at a site, it is important to review the spatial distribution of the data and evaluate it in ways that have the most relevance to the pathway being assessed. In short, consider where the contamination is with respect to known or anticipated population activity patterns. Maps of both concentration distribution and activity patterns will be useful for the exposure assessment. It is the intersection of activity patterns and contamination that defines an exposure area. Data from random sampling or from systematic grid pattern sampling may be more representative of a given exposure pathway than data collected only from hot spots” (EPA, 1989, pp. 6-26).

Since the PCBs were generally deposited with fluvial sediments along channelized drainage systems at the Site, the concentration distribution was expected to correlate with depositional landforms, such as point bars, floodplains, and other alluvial features. The anticipated distribution pattern was confirmed by assessments performed at the Site as well as screening and post remediation verification sampling conducted during the remediation of the Chemical Sewer Trench in 2019 and 2020. Consistent with EPA Risk Assessment Guidance, TRRP states the assumed exposure area should represent the smallest area over which an individual can be expected to move randomly (State of Texas, 2017, p. §350.51(l)(4)). For this Site, 1/2-acre exposure areas will be utilized.

2.4.1 Verification Sampling Methodology

To verify compliance with Clean-Up Levels, 1/2-acre exposure areas will be established across the entire remediated area. Two composite samples will be collected from each half-acre area, with each of the composites consisting of 18 individual samples (EPA, 1985). Within each exposure area, the spacing will be determined so that a minimum of 18 grid point sample locations will be collected for each composite. Each composite verification sample will be submitted for laboratory analysis.

If a uniform grid sampling pattern is not practical (typically due to topographical limitations), a nonuniform grid, random sampling, or quasi-random sampling may be used. The exact sampling locations may need to be slightly adjusted in the field to accommodate challenging conditions, such as topography, utilities, etc. The exposure areas identified for sampling based on the existing data are shown on Figures 10 through 14.

Per 40 CFR 761.286, verification samples will be collected using a stainless-steel core sampler with a diameter of greater than 2 cm (0.8-inch) and less than 3 cm (1.2 inches) advanced no more than 7.5 cm (3 inches) into the soils/dry sediment present at the limit of excavation. Should the material at the limit of excavation be too dense to advance the core tube (caliche is common at the Site), a sample will be collected using a stainless-steel trowel/shovel advanced no more than 3 inches in depth. Prior to each use, sampling equipment will be decontaminated by brushing with an aqueous solution of laboratory grade surfactant and rinsed with potable water. GHD personnel will don new nitrile gloves prior to handling each sample.

At a minimum, sampling locations will be recorded using surveying equipment capable of providing latitude and longitude coordinates with an estimated accuracy not to exceed approximately 3 meters.

2.4.2 Analytical Methods

Samples collected for analysis will be placed in clean, laboratory-supplied containers, which will be immediately sealed, labeled, and stored in a cooler containing sufficient ice to maintain $\leq 6^{\circ}\text{C}$. Certificates of analysis that document cleanliness will be kept on file at the laboratory for every lot of sample containers purchased and will be available upon request. Samples will be transported under chain-of-custody documentation to a laboratory certified by the National Environmental Laboratory Accreditation Program (NELAP) for extraction via Method 3546 and analysis via EPA Method 8082A or equivalent. Quality control samples will include laboratory control sample duplicates, Site-specific matrix spike/matrix spike (MS/MSD) duplicates, surrogate recoveries, and laboratory method blanks. Results will be reported on a dry weight basis in mg/kg (ppm). A data usability summary will be prepared for confirmation sample results.

2.4.3 QA/QC Discussion

Samples Laboratory quality control samples, laboratory quality control sample duplicates, matrix spikes, matrix spike duplicates, surrogate recoveries, method blanks, and any other quality control sample analyzed by the laboratory. A TRRP complainant Data Usability Summary or Report prepared for each sampling events will identify sample extraction methods, extract pre-analysis clean-up methods used (if any), laboratory analytical methods, and laboratory acceptance limits for quality control samples.

2.4.4 Documentation

A photographic log and field book will document field activities, Site conditions, anomalies, and other notations relevant to the fieldwork. Observed soils/sediment will be described in general conformance with the Unified Soil Classification System (USCS). The soil description and other observations will be recorded on boring logs or field book.

2.5 Disposal Method

Soils/sediments exceeding the specified clean-up levels will be excavated and transported off-Site for disposal. If not direct loaded for transport, the excavated materials will be temporarily stockpiled on heavy duty plastic sheeting and covered with plastic sheeting and/or a biodegradable soil stabilizer. The stockpiled material will be promptly loaded for transportation for off-Site disposal, as detailed below.

Bulk PCB remediation waste will be sent off-Site for disposal in accordance with the requirements of the DOT Hazardous Materials Regulations (HMR) at 49 CFR Parts 171 through 180. PCB remediation wastes with a PCB concentration greater or equal to 50 mg/kg (ppm) shall be disposed of at Clean Harbor's Lone Mountain Landfill

Facility (EPA Identification [ID] OKD065438376) in Waynoka, Oklahoma. The Lone Mountain Facility is a Resource Conservation and Recovery Act (RCRA) permitted hazardous waste landfill. In accordance with 40 CFR 761.61(a)(5), soils/sediments with in-place PCB concentrations less than 50 mg/kg will be transported for disposal at Republic Services' Southwest Landfill (EPA ID TXR000084623) in Canyon, Texas.

Phillips 66 does not plan to store bulk PCB remediation waste beyond what is necessary to load the waste for transportation off-Site. As noted above, the excavated materials will be temporarily stockpiled on heavy duty plastic sheeting and covered with plastic sheeting and/or a biodegradable soil stabilizer. PCB waste activity notification, manifesting, and manifest/disposal record keeping will be performed as required by 40 CFR 761 Subpart K.

A Notification of PCB Waste Activity Form (USEPA Form 7710-53) has been completed and submitted to the USEPA consistent with 40 CFR 761.205 prior to initiating any removal activities. This notification has been provided as Appendix B.

2.6 Records Documenting Completion of PCB Sampling, Clean-Up, and Disposal

A Remediation Completion Report documenting the field activities, waste disposal, etc. will be submitted to EPA Region 6 office following the completion of clean-up activities and receipt of final verification sampling data, waste disposal documentation, etc. As required by 40 CFR 761.61(a)(9) and 761.125(c)(5), records documenting the completion of this Clean-Up Plan will be retained for a period of at least 5 years.

2.7 Certification Statement

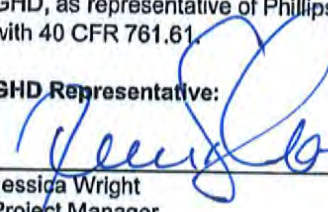
Consistent with 40 CFR 761.61 (a)(3)(i)(E), the signatories to this document certify that:

All sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the clean-up Site, are on file and available for EPA inspection at:

GHD Services Inc.
1755 Wittington Place, Suite 500
Dallas, Texas 75234
(972) 331-8500
Attn: Jessica Wright

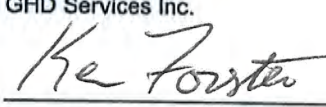
GHD, as representative of Phillips 66 Company, will act as the party implementing the Clean-Up Plan in accordance with 40 CFR 761.61.

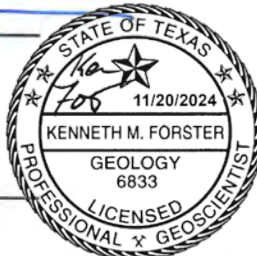
GHD Representative:


Jessica Wright
Project Manager
GHD Services Inc.

November 15, 2024

Date


Ken Forster, P.G. (TX-6833)
Project Geologist
GHD Services Inc.



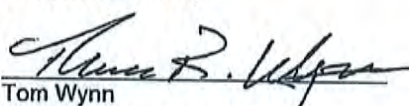
11/20/2024

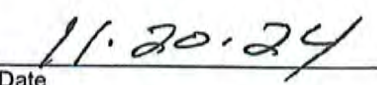
Date

GHD Services Inc.
d/b/a GHD Environmental and Consulting
Texas Geoscience License No. 50043

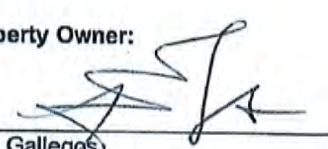
"Based on my knowledge of the conditions of the property described within and my inquiry of the person or persons directly responsible of gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware of the penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

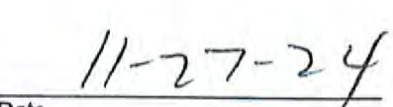
Responsible Party:


Tom Wynn
Program Manager
HSE Remediation Management


Date

Property Owner:


Aldo Gallegos
City Manager
City of Cactus


Date

3. References

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Tables

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD001	4/18/2013	0-0.5 ft	<0.019	<0.037	<0.019	<0.019	<0.019	<0.019	<0.019	<0.037
	PD002	4/18/2013	0-0.5 ft	<0.018	<0.035	<0.018	<0.018	<0.018	<0.018	<0.018	<0.035
	PD003	4/18/2013	0-0.5 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.04	<0.019	0.040
	PD004	12/17/2013	0-0.5 ft	<0.0056	<0.017	<0.019	<0.0027	<0.0045	0.21	0.10	0.31
	PD005	12/17/2013	0-0.5 ft	<0.0055	<0.017	<0.018	<0.0026	<0.0043	0.15	0.15	0.30
	PD006	12/17/2013	0-0.5 ft	<0.0055	<0.017	<0.018	<0.0026	<0.0044	0.07	0.08	0.151
	PD008	12/17/2013	0-0.5 ft	<0.027	<0.084	<0.089	<0.013	<0.022	2.00	0.99	2.99
	PD008	12/17/2013	2 ft	<0.057	<0.18	<0.19	<0.027	<0.045	3.4	1.3	4.7
	PD008	12/17/2013	4 ft	<0.029	<0.090	<0.095	<0.014	<0.023	1.2	0.53	1.73
	PD009	12/17/2013	0-0.5 ft	<0.28	<0.85	<0.91	<0.13	<0.22	21.80	8.50	30.3
	PD009	12/17/2013	2 ft	<0.35	<1.1	<1.1	<0.17	<0.28	30	12.7	42.7
	PD009	4/25/2019	2.5 ft	<0.163	<0.542	<0.745	<0.556	<0.224	12.2	<0.0813	12.2
	PD009	12/17/2013	4 ft	<0.0056	<0.017	<0.019	<0.0027	<0.0045	0.1	0.046	0.146
	PD009	4/25/2019	4 ft	<0.138	<0.459	<0.632	<0.471	<0.189	0.779 J	<0.0689	0.779
	PD010	12/17/2013	0-0.5 ft	<0.28	<0.87	<0.92	<0.13	<0.22	23.40	11.20	34.6
	PD010	4/25/2019	1 ft	<0.141	<0.471	<0.648	<0.483	<0.194	<0.124	<0.0707	<0.648
	PD010	4/25/2019	2 ft	<0.137	<0.457	<0.629	<0.469	<0.189	<0.120	<0.0686	<0.648
	PD010	4/25/2019	4 ft	<0.126	<0.422	<0.580	<0.432	<0.174	1.63	<0.0632	1.63
	PD011	12/17/2013	0-0.5 ft	<0.50	<1.6	<1.7	<0.24	<0.40	30.60	13.00	43.6
	PD012	12/17/2013	0-0.5 ft	<0.11	<0.34	<0.36	<0.052	<0.087	4.60	2.50	7.1
	PD014	3/12/2014	0-0.5 ft	<0.059	<0.18	<0.20	<0.028	<0.047	4.50	2.70	7.2
	PD015	3/12/2014	0-0.5 ft	<0.0054	<0.017	<0.018	<0.0026	<0.0043	0.035 J	0.04	0.076
	PD016	3/12/2014	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	0.07	0.08	0.151
	PD017	3/12/2014	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	0.34	0.22	0.56
	PD017	5/2/2019	1 ft	<0.139	<0.464	<0.638	<0.476	<0.191	0.663 J	<0.0696	0.663
	PD017	5/2/2019	2 ft	<0.136	<0.453	<0.623	<0.464	<0.187	0.396 J	<0.0680	0.396
	PD018	5/1/2014	0-0.5 ft	<0.020	<0.079	<0.084	<0.012	<0.020	<0.0057	<0.0033	<0.084
	PD019	5/1/2014	0-0.5 ft	<0.41	<1.6	<1.7	<0.25	<0.42	51.40	<0.34	51.4
	PD019	5/1/2014	1 ft	<3.3	<12.9	<13.6	<2.0	<3.3	494.00	<2.7	494
	PD019	4/25/2019	2 ft	<0.137	<0.455	<0.626	<0.467	<0.188	<0.120	<0.0683	<0.626
	PD019	5/1/2014	3.5 ft	<0.085	<0.33	<0.35	<0.051	<0.085	8.2	<0.069	8.2
	PD020	5/1/2014	0-1 ft	<0.22	<0.85	<0.90	<0.13	<0.22	17.90	<0.18	17.9
	PD020	4/26/2019	1.5 ft	<0.143	<0.476	<0.655	<0.488	<0.196	<0.125	<0.0714	<0.655
	PD020	4/26/2019	2 ft	<0.148	<0.492	<0.677	<0.504	<0.203	<0.129	<0.0738	<0.677
	PD020	4/26/2019	3 ft	<0.135	<0.451	<0.620	<0.462	<0.186	<0.118	<0.0676	<0.620
	PD021	5/1/2014	0-0.5 ft	<0.021	<0.082	<0.088	<0.013	<0.021	1.70	<0.017	1.7
	PD021	4/26/2019	1.5 ft	<0.171	<0.569	<0.782	<0.583	<0.235	4.81	<0.0853	4.81
	PD021	4/26/2019	2.5 ft	<0.168	<0.559	<0.768	<0.573	<0.230	6.91	<0.0838	6.91
	PD021	5/1/2014	3 ft	<0.10	<0.41	<0.43	<0.063	<0.10	9.7	<0.085	9.7
	PD021	4/26/2019	4 ft	<0.118	<0.394	<0.542	<0.404	<0.163	<0.104	<0.0592	<0.542
	PD021	5/1/2014	4.5 ft	<0.0047	<0.018	<0.020	<0.0028	<0.0047	0.037 J	<0.0038	0.037 J
	PD022	5/2/2014	0-0.5 ft	<0.088	<0.35	<0.37	<0.053	<0.089	7.40	<0.072	7.4
	PD022	4/25/2019	1.5 ft	<0.159	<0.531	<0.730	<0.544	<0.219	6.5	<0.0797	6.5
	PD022	4/25/2019	2.5 ft	<0.152	<0.505	<0.695	<0.518	<0.209	<0.133	<0.0758	<0.695
	PD022	4/25/2019	3.5 ft	<0.138	<0.462	<0.635	<0.473	<0.190	<0.121	<0.0692	<0.635
	PD026	5/18/2015	0-0.5 ft	<0.0034	<0.0051	<0.0045	<0.010	<0.013	<0.0060	<0.0051	<0.013
	PD026	5/18/2015	2 ft	<0.0032	<0.0047	<0.0042	<0.0092	<0.012	0.024 J	<0.0047	0.024 J
	PD026	5/18/2015	4 ft	<0.0032	<0.0047	<0.0042	<0.0092	<0.012	<0.0055	<0.0047	<0.012

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD027	5/18/2015	0-0.5 ft	<0.0040	<0.0059	<0.0052	<0.011	<0.015	<0.0069	<0.0059	<0.015
	PD027	5/18/2015	2 ft	<0.0038	<0.0056	<0.0049	<0.011	<0.014	<0.0065	<0.0056	<0.014
	PD027	5/18/2015	4 ft	<0.0039	<0.0058	<0.0051	<0.011	<0.014	<0.0067	<0.0058	<0.014
	PD028	5/2/2019	0-0.5 ft	<0.141	<0.471	<0.648	<0.483	<0.194	4.15	<0.0706	4.15
	PD028	5/2/2019	1 ft	<0.139	<0.462	<0.636	<0.474	<0.191	<0.121	<0.0693	<0.636
	PD028	9/30/2015	2 ft	<0.045	<0.13	<0.059	<0.13	<0.036	0.29 J	<0.067	0.29 J
	PD028	9/30/2015	3.5 ft	<0.042	<0.12	<0.055	<0.12	<0.033	<0.047	<0.062	<0.12
	PD029	9/30/2015	0-0.5 ft	<0.039	<0.11	<0.051	<0.11	<0.031	<0.044	<0.058	<0.11
	PD029	9/30/2015	1.5 ft	<0.035	<0.10	<0.046	<0.10	<0.028	<0.039	<0.052	<0.10
	PD030	9/30/2015	0-0.5 ft	<0.037	<0.11	<0.049	<0.11	<0.030	<0.042	<0.056	<0.11
	PD030	9/30/2015	1.5 ft	<0.043	<0.12	<0.056	<0.12	<0.034	<0.049	<0.064	<0.12
	PD031	9/30/2015	0-0.5 ft	<0.044	<0.13	<0.058	<0.13	<0.035	<0.050	<0.066	<0.13
	PD031	9/30/2015	2 ft	<0.044	<0.12	<0.057	<0.13	<0.035	<0.049	<0.065	<0.13
	PD032	9/30/2015	0-0.5 ft	<0.049	<0.14	<0.064	<0.14	<0.039	2.40	<0.073	2.4
	PD032	9/30/2015	2 ft	<0.048	<0.14	<0.063	<0.14	<0.038	<0.054	<0.072	<0.14
	PD033	9/30/2015	0-0.5 ft	<0.43	<1.2	<0.57	<1.3	<0.34	26.00	<0.65	26.0
	PD033	9/30/2015	3 ft	<0.038	<0.11	<0.049	<0.11	<0.030	<0.042	<0.056	<0.11
	PD034	9/30/2015	0-0.5 ft	<0.048	<0.14	<0.063	<0.14	<0.038	0.69	<0.071	0.69
	PD034	9/30/2015	3 ft	<0.040	<0.11	<0.052	<0.11	<0.032	<0.045	<0.059	<0.11
	PD035	9/30/2015	0-0.5 ft	<0.040	<0.11	<0.052	<0.11	<0.032	<0.045	<0.059	<0.11
	PD035	9/30/2015	1.5 ft	<0.041	<0.12	<0.053	<0.12	<0.032	<0.046	<0.061	<0.12
	PD036	9/30/2015	0-0.5 ft	<0.033	<0.094	<0.043	<0.095	<0.026	<0.037	<0.049	<0.095
	PD036	9/30/2015	1.5 ft	<0.043	<0.12	<0.056	<0.12	<0.034	<0.048	<0.064	<0.12
	PD037	9/30/2015	0-0.5 ft	<0.038	<0.11	<0.050	<0.11	<0.030	1.70	<0.057	1.7
	PD037	9/30/2015	2 ft	<0.27	<0.78	<0.36	<0.78	<0.22	9.2	<0.40	9.2
	PD037	9/30/2015	3 ft	<0.045	<0.13	<0.059	<0.13	<0.036	<0.051	<0.067	<0.13
	PD037	9/30/2015	7.5 ft	<0.047	<0.14	<0.062	<0.14	<0.038	<0.053	<0.070	<0.14
	PD038	9/30/2015	0-0.5 ft	<0.23	<0.67	<0.31	<0.68	<0.19	9.30	<0.35	9.3
	PD038	9/30/2015	2 ft	<0.046	<0.13	<0.060	<0.13	<0.037	<0.052	<0.069	<0.13
	PD039	9/30/2015	0-0.5 ft	<0.036	<0.10	<0.047	<0.10	<0.029	3.60	<0.054	3.6
	PD039	9/30/2015	2 ft	<0.047	<0.13	<0.062	<0.14	<0.037	<0.053	<0.070	<0.14
	PD040	9/30/2015	0-0.5 ft	<0.040	<0.11	<0.052	<0.12	<0.032	<0.045	<0.059	<0.12
	PD040	9/30/2015	2 ft	<0.046	<0.13	<0.060	<0.13	<0.036	0.55	<0.068	0.55
	PD041	10/1/2015	0-0.5 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	PD041	10/1/2015	1.5 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	PD041	10/1/2015	3 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD042	10/1/2015	0-0.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
	PD042	10/1/2015	1.5 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	PD042	10/1/2015	3 ft	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	PD043	10/20/2015	0-0.5 ft	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.027 J	0.027 J
	PD044	10/1/2015	0-0.5 ft	<0.31	<0.31	<0.31	<0.31	<0.31	1.40	<0.31	1.4
	PD044	10/1/2015	2 ft	<0.26	<0.26	<0.26	<0.26	<0.26	1.6	<0.26	1.6
	PD044	10/1/2015	3.5 ft	<1.4	<1.4	<1.4	<1.4	<1.4	10.5	<1.4	10.5
	PD044	4/26/2019	4 ft	<0.146	<0.486	<0.668	<0.498	<0.200	3.56	<0.0729	3.56
	PD045	10/1/2015	0-0.5 ft	<0.29	<0.29	<0.29	<0.29	<0.29	0.94	<0.29	0.94
	PD045	10/1/2015	1.5 ft	<1.3	<1.3	<1.3	<1.3	<1.3	16	<1.3	16
	PD045	10/1/2015	2.5 ft	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
	PD046	10/1/2015	0-0.5 ft	<0.21	<0.21	<0.21	<0.21	<0.21	1.00	<0.21	1.0

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD046	10/1/2015	1.5 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	PD047	10/1/2015	0-0.5 ft	<0.28	<0.28	<0.28	<0.28	<0.28	0.89	<0.28	0.89
	PD047	10/1/2015	1.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD048	10/1/2015	0-0.5 ft	<0.26	<0.26	<0.26	<0.26	<0.26	0.95	<0.26	0.95
	PD048	10/1/2015	1.5 ft	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
	PD049	10/1/2015	0-0.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
	PD049	10/1/2015	1.5 ft	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29	<0.29
	PD050	10/1/2015	0-0.5 ft	<0.29	<0.29	<0.29	<0.29	<0.29	0.70	<0.29	0.70
	PD050	10/1/2015	3 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD051	10/1/2015	0-0.5 ft	<0.30	<0.30	<0.30	<0.30	<0.30	0.60	<0.30	0.60
	PD052	10/1/2015	0-0.5 ft	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
	PD052	10/1/2015	1.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD052	10/1/2015	2.5 ft	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
	PD053	10/1/2015	0-0.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD054	10/1/2015	0-0.5 ft	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28
	PD055	10/1/2015	0-0.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
	PD056	10/1/2015	0-0.5 ft	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
	PD056	10/1/2015	1.5 ft	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28
	PD057	10/1/2015	0-0.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	0.24 J	<0.23	0.24 J
	PD057	10/1/2015	1.5 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	PD057	10/1/2015	3 ft	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
	PD058	10/1/2015	0-0.5 ft	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
	PD058	10/1/2015	1.5 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	PD059	10/1/2015	0-0.5 ft	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
	PD059	10/1/2015	1.5 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	PD065	10/1/2015	0-0.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD066	10/1/2015	0-0.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
	PD067	10/1/2015	0-0.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD067	10/1/2015	1.5 ft	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22
	PD067	10/1/2015	3 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	PD068	10/1/2015	0-0.5 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	PD069	10/20/2015	0-0.5 ft	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.13	0.13
	PD070	10/20/2015	0-0.5 ft	<2.2	<2.2	<2.2	<2.2	<2.2	35.3 J	10.0 J	45.3 J
	PD070	4/25/2019	1 ft	<0.119	<0.397	<0.546	<0.407	<0.164	17.30	<0.0596	17.3
	PD070	4/25/2019	1.5 ft	<0.137	<0.457	<0.629	<0.469	<0.189	<0.120	<0.0686	<0.629
	PD070	4/25/2019	2.5 ft	<0.136	<0.453	<0.623	<0.465	<0.187	<0.119	<0.0680	<0.623
	PD070	4/25/2019	3.5 ft	<0.136	<0.454	<0.624	<0.465	<0.187	<0.119	<0.0681	<0.624
	PD071	10/20/2015	0-0.5 ft	<0.10	<0.10	<0.10	<0.10	<0.10	0.62	0.26	0.88
	PD072	10/20/2015	0-0.5 ft	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	0.09	0.086
	PD073	10/20/2015	0-0.5 ft	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	0.23	0.23
	PD074	10/20/2015	0-0.5 ft	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	0.14	0.14
	PD075	10/20/2015	0-0.5 ft	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.11	0.11
	PD076	10/20/2015	0-0.5 ft	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.12	0.12
	PD077	10/20/2015	0-0.5 ft	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.12	0.12
	PD083	4/24/2019	0-0.5 ft	<0.150	<0.501	<0.689	<0.514	<0.207	<0.132	<0.0752	<0.689
	PD083	4/24/2019	1 ft	<0.142	<0.475	<0.653	<0.487	<0.196	<0.125	<0.0712	<0.653
	PD083	4/24/2019	2.5 ft	<0.141	<0.471	<0.647	<0.482	<0.194	<0.124	<0.0706	<0.647
	PD084	4/24/2019	0-0.5 ft	<0.135	<0.451	<0.620	<0.462	<0.186	<0.118	<0.0676	<0.620

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD084	4/24/2019	1 ft	<0.138	<0.460	<0.633	<0.472	<0.190	<0.121	<0.0690	<0.633
	PD085	4/24/2019	0-0.5 ft	<0.138	<0.459	<0.631	<0.470	<0.189	<0.120	<0.0688	<0.631
	PD085	4/24/2019	1 ft	<0.135	<0.451	<0.621	<0.463	<0.186	<0.118	<0.0677	<0.621
	PD086	4/24/2019	0-0.5 ft	<0.151	<0.502	<0.690	<0.514	<0.207	<0.132	<0.0753	<0.690
	PD086	4/24/2019	1 ft	<0.154	<0.512	<0.704	<0.525	<0.211	0.209 J	<0.0768	0.209
	PD086	4/24/2019	2.5 ft	<0.137	<0.456	<0.627	<0.468	<0.188	<0.120	<0.0684	<0.627
	PD087	4/24/2019	0-0.5 ft	<0.152	<0.506	<0.696	<0.519	<0.209	<0.133	<0.0759	<0.696
	PD087	4/24/2019	1 ft	<0.158	<0.526	<0.723	<0.539	<0.217	<0.138	2.13	2.13
	PD088	4/24/2019	0-0.5 ft	<0.141	<0.469	<0.645	<0.481	<0.193	<0.123	<0.0703	<0.645
	PD089	4/24/2019	0-0.5 ft	<0.155	<0.517	<0.711	<0.530	<0.213	0.158 J	<0.0776	0.158
	PD089	4/24/2019	1 ft	<0.153	<0.509	<0.700	<0.522	<0.210	0.379 J	<0.0763	0.379
	PD090	4/24/2019	0-0.5 ft	<0.133	<0.445	<0.611	<0.456	<0.183	<0.117	<0.0667	<0.611
	PD091	4/24/2019	0-0.5 ft	<0.140	<0.468	<0.644	<0.480	<0.193	0.189 J	<0.0702	0.189
	PD091	4/24/2019	1 ft	<0.134	<0.448	<0.616	<0.459	<0.185	<0.118	<0.0672	<0.616
	PD091	4/24/2019	2.5 ft	<0.136	<0.453	<0.623	<0.464	<0.187	<0.119	<0.0680	<0.623
	PD092	4/24/2019	0-0.5 ft	<0.141	<0.469	<0.646	<0.481	<0.194	49.40	<0.0704	49.4
	PD092	4/24/2019	1 ft	<0.140	<0.466	<0.641	<0.478	<0.192	32.20	<0.0699	32.2
	PD092	4/24/2019	2.5 ft	<0.137	<0.458	<0.630	<0.469	<0.189	0.764 J	<0.0687	0.764
	PD093	4/24/2019	0-0.5 ft	<0.126	<0.420	<0.578	<0.431	<0.173	0.189 J	<0.0631	0.189
	PD093	4/24/2019	1 ft	<0.133	<0.443	<0.609	<0.454	<0.183	0.788 J	<0.0665	0.788
	PD094	4/24/2019	0-0.5 ft	<0.0303	<0.101	<0.139	<0.104	<0.0417	1.36	<0.0152	1.36
	PD094	4/24/2019	1 ft	<0.126	<0.421	<0.579	<0.431	<0.174	11.70	<0.0631	11.7
	PD094	4/24/2019	2.5 ft	<0.135	<0.451	<0.620	<0.462	<0.186	3	<0.0676	3
	PD094	4/24/2019	4 ft	<0.140	<0.467	<0.642	<0.479	<0.193	0.223 J	<0.0701	0.223
	PD095	4/24/2019	0-0.5 ft	<0.147	<0.490	<0.674	<0.502	<0.202	34.70	<0.0735	34.7
	PD095	4/24/2019	1 ft	<0.153	<0.509	<0.699	<0.521	<0.210	146.00	<0.0763	146
	PD096	4/24/2019	0-0.5 ft	<0.136	<0.453	<0.623	<0.464	<0.187	7.50	<0.0680	7.5
	PD097	4/24/2019	0-0.5 ft	<0.138	<0.460	<0.633	<0.472	<0.190	2.30	<0.0691	2.3
	PD097	4/24/2019	1 ft	<0.139	<0.465	<0.639	<0.476	<0.192	<0.122	<0.0697	<0.639
	PD098	4/24/2019	0-0.5 ft	<0.141	<0.470	<0.646	<0.482	<0.194	0.750 J	<0.0705	0.75
	PD099	4/24/2019	0-0.5 ft	<0.00295	<0.00984	<0.0135	<0.0101	<0.00406	1.77	<0.00148	1.77
	PD099	4/24/2019	1 ft	<0.00301	<0.0100	<0.0138	<0.0103	<0.00414	2.92	<0.00151	2.92
	PD099	4/24/2019	2.5 ft	<0.00291	<0.00971	<0.0133	<0.00995	<0.00400	0.305	<0.00146	0.305
	PD099	4/24/2019	4 ft	<0.146	<0.485	<0.667	<0.497	<0.200	0.261 J	<0.0728	0.261
	PD100	4/24/2019	0-0.5 ft	<0.00321	<0.0107	<0.0147	<0.0110	<0.00441	3.61	<0.00160	3.61
	PD100	4/24/2019	1 ft	<0.166	<0.552	<0.759	<0.566	<0.228	6.96	<0.0828	6.96
	PD101	4/24/2019	0-0.5 ft	<0.150	<0.500	<0.688	<0.513	<0.206	4.82	<0.0750	4.82
	PD102	4/24/2019	0-0.5 ft	<0.00305	<0.0102	<0.0140	<0.0104	<0.00420	2.30	<0.00153	2.3
	PD102	4/24/2019	1 ft	<0.158	<0.527	<0.724	<0.540	<0.217	57.70	<0.0790	57.7
	PD103	4/24/2019	0-0.5 ft	<0.148	<0.492	<0.677	<0.504	<0.203	<0.129	<0.0738	<0.677
	PD104	4/24/2019	0-0.5 ft	<0.00282	<0.00941	<0.0129	<0.00964	<0.00388	0.26	<0.00141	0.259
	PD104	4/24/2019	1 ft	<0.00280	<0.00932	<0.0128	<0.00955	<0.00384	0.03	<0.00140	0.0287
	PD104	4/24/2019	2.5 ft	<0.139	<0.463	<0.636	<0.474	<0.191	<0.121	<0.0694	<0.636
	PD104	4/24/2019	4 ft	<0.138	<0.459	<0.631	<0.470	<0.189	0.284 J	<0.0688	0.284
	PD105	4/24/2019	0-0.5 ft	<0.00293	<0.00975	<0.0134	<0.0100	<0.00402	0.98	<0.00146	0.98
	PD105	4/24/2019	1 ft	<0.146	<0.486	<0.668	<0.498	<0.200	0.232 J	<0.0729	0.232
	PD106	4/24/2019	0-0.5 ft	<0.148	<0.492	<0.677	<0.504	<0.203	3.76	<0.0738	3.76
	PD107	4/24/2019	0-0.5 ft	<0.00263	<0.00876	<0.0120	<0.00898	<0.00361	0.08	<0.00131	0.0822

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD107	4/24/2019	1 ft	<0.128	<0.428	<0.588	<0.439	<0.177	<0.112	<0.0642	<0.588
	PD108	4/24/2019	0-0.5 ft	<0.132	<0.440	<0.605	<0.451	<0.182	<0.116	<0.0660	<0.605
	PD109	4/24/2019	0-0.5 ft	<0.163	<0.542	<0.745	<0.556	<0.224	22.30	<0.0813	22.3
	PD109	4/24/2019	1 ft	<0.156	<0.521	<0.717	<0.534	<0.215	18.50	<0.0782	18.5
	PD110	4/24/2019	0-0.5 ft	<0.149	<0.495	<0.681	<0.508	<0.204	13.90	<0.0743	13.9
	PD111	4/24/2019	0-0.5 ft	<0.141	<0.472	<0.648	<0.483	<0.195	1.12	<0.0707	1.12
	PD111	4/24/2019	1 ft	<0.137	<0.458	<0.630	<0.470	<0.189	<0.120	<0.0687	<0.630
	PD112	4/24/2019	0-0.5 ft	<0.127	<0.424	<0.583	<0.435	<0.175	<0.111	<0.0636	<0.583
	PD113	4/24/2019	0-0.5 ft	<0.00271	<0.00905	<0.0124	<0.00927	<0.00373	0.07	<0.00136	0.0659
	PD113	4/24/2019	1 ft	<0.00269	<0.00896	<0.0123	<0.00918	<0.00369	0.0174 J	<0.00134	0.0174
	PD113	4/24/2019	2.5 ft	<0.143	<0.477	<0.656	<0.489	<0.197	<0.125	<0.0716	<0.656
	PD113	4/24/2019	4 ft	<0.142	<0.473	<0.650	<0.485	<0.195	0.587 J	<0.0709	0.587
	PD114	4/24/2019	0-0.5 ft	<0.0301	<0.100	<0.138	<0.103	<0.0414	7.66	<0.0151	7.66
	PD114	4/24/2019	1 ft	<0.155	<0.518	<0.712	<0.531	<0.214	5.38	<0.0776	5.38
	PD115	4/24/2019	0-0.5 ft	<0.0273	<0.0908	<0.125	<0.0931	<0.0375	4.45	<0.0136	4.45
	PD115	4/24/2019	1 ft	<0.137	<0.458	<0.629	<0.469	<0.189	0.425 J	<0.0686	0.425
	PD116	4/24/2019	0-0.5 ft	<0.144	<0.480	<0.660	<0.492	<0.198	0.837 J	<0.0720	0.837
	PD117	4/24/2019	0-0.5 ft	<0.158	<0.525	<0.722	<0.538	<0.217	8.18	<0.0788	8.18
	PD118	4/24/2019	0.5 ft	<0.00288	<0.00961	<0.0132	<0.00985	<0.00396	0.07	<0.00144	0.0728
	PD118	4/24/2019	1 ft	<0.00285	<0.00952	<0.0131	<0.00975	<0.00393	0.07	<0.00143	0.072
	PD118	4/24/2019	2.5 ft	<0.00305	<0.0102	<0.0140	<0.0104	<0.00420	0.0483	<0.00153	0.0483
	PD118	4/24/2019	4 ft	<0.139	<0.464	<0.638	<0.475	<0.191	<0.122	<0.0696	<0.638
	PD119	4/24/2019	0-0.5 ft	<0.145	<0.484	<0.665	<0.496	<0.200	4.07	<0.0726	4.07
	PD119	4/24/2019	1 ft	<0.184	<0.613	<0.843	<0.629	<0.253	34.80	<0.0920	34.8
	PD120	4/24/2019	0-0.5 ft	<0.174	<0.579	<0.796	<0.593	<0.239	27.20	<0.0868	27.2
	PD121	4/24/2019	0.5 ft	<0.0291	<0.0971	<0.134	<0.0996	<0.0401	2.20	<0.0146	2.2
	PD121	4/24/2019	1 ft	<0.171	<0.570	<0.784	<0.584	<0.235	58.80	<0.0855	58.8
	PD122	4/24/2019	0-0.5 ft	<0.166	<0.554	<0.762	<0.568	<0.229	1.20	<0.0831	1.2
	PD123	4/23/2019	0-0.5 ft	<0.00278	<0.00926	<0.0127	<0.00949	<0.00382	0.09	<0.00139	0.0876
	PD123	4/23/2019	0-2 ft	<0.139	<0.464	<0.638	<0.475	<0.191	<0.122	<0.0696	<0.638
	PD123	4/23/2019	1 ft	<0.00281	<0.00937	<0.0129	<0.00960	<0.00386	0.62	<0.00141	0.615
	PD123	4/23/2019	2.5 ft	<0.143	<0.477	<0.656	<0.489	<0.197	<0.125	<0.0716	<0.656
	PD123	4/23/2019	4 ft	<0.142	<0.475	<0.653	<0.487	<0.196	<0.125	<0.0712	<0.653
	PD124	4/23/2019	0-0.5 ft	<0.00269	<0.00895	<0.0123	<0.00918	<0.00369	0.29	<0.00134	0.291
	PD124	4/23/2019	1 ft	<0.00274	<0.00912	<0.0125	<0.00935	<0.00376	0.10	<0.00137	0.0979
	PD124	4/23/2019	2.5 ft	<0.141	<0.471	<0.648	<0.483	<0.194	<0.124	<0.0707	<0.648
	PD124	4/23/2019	4 ft	<0.161	<0.536	<0.737	<0.550	<0.221	<0.141	<0.0804	<0.737
	PD125	4/25/2019	0-0.5 ft	<0.148	<0.494	<0.680	<0.507	<0.204	50.80	<0.0742	50.8
	PD125	4/25/2019	1 ft	<0.145	<0.482	<0.663	<0.494	<0.199	2.38	<0.0723	2.38
	PD125	4/25/2019	2.5 ft	<0.139	<0.464	<0.638	<0.475	<0.191	2.1	<0.0696	2.1
	PD126	4/23/2019	0-0.5 ft	<0.00303	<0.0101	<0.0139	<0.0104	<0.00417	73.60	<0.00151	73.6
	PD126	4/23/2019	1 ft	<0.146	<0.486	<0.668	<0.498	<0.201	0.955 J	<0.0729	0.955
	PD126	4/23/2019	2.5 ft	<0.148	<0.492	<0.676	<0.504	<0.203	<0.129	<0.0738	<0.676
	PD127	4/23/2019	0-0.5 ft	<0.00329	<0.0110	<0.0151	<0.0112	<0.00452	43.90	<0.00164	43.9
	PD127	4/23/2019	0-2 ft	<0.142	<0.473	<0.650	<0.484	<0.195	<0.124	<0.0709	<0.650
	PD127	4/23/2019	1 ft	<0.00294	<0.00979	<0.0135	<0.0100	<0.00404	0.31	<0.00147	0.311
	PD127	4/23/2019	2.5 ft	<0.146	<0.486	<0.668	<0.498	<0.201	<0.128	<0.0729	<0.668
	PD128	4/25/2019	0-0.5 ft	<0.144	<0.478	<0.658	<0.490	<0.197	4.31	<0.0718	4.31

Table 1

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Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD128	4/25/2019	1 ft	<0.162	<0.540	<0.743	<0.554	<0.223	107.00	<0.0811	107
	PD128	4/25/2019	2.5 ft	<0.137	<0.458	<0.630	<0.470	<0.189	<0.120	<0.0687	<0.630
	PD129	4/23/2019	0-0.5 ft	<0.00287	<0.00955	<0.0131	<0.00979	<0.00394	14.40	<0.00143	14.4
	PD129	4/23/2019	0-2 ft	<0.00267	<0.00890	<0.0122	<0.00912	<0.00367	<0.0251	<0.00133	<0.0251
	PD129	4/23/2019	1 ft	<0.00273	<0.00909	<0.0125	<0.00932	<0.00375	0.06	<0.00136	0.0611
	PD129	4/23/2019	2.5 ft	<0.131	<0.438	<0.602	<0.449	<0.181	<0.115	<0.0657	<0.602
	PD129	4/23/2019	4 ft	<0.131	<0.436	<0.600	<0.447	<0.180	<0.114	<0.0654	<0.600
	PD130	4/23/2019	0-0.5 ft	<0.00337	<0.0112	<0.0155	<0.0115	<0.00464	28.70	<0.00169	28.7
	PD130	4/23/2019	0-2 ft	<0.152	<0.508	<0.699	<0.521	<0.210	127.00	<0.0762	127
	PD130	4/23/2019	1 ft	<0.0349	<0.116	<0.160	<0.119	<0.0480	1.80	<0.0175	1.8
	PD130	4/23/2019	2.5 ft	<0.142	<0.473	<0.650	<0.485	<0.195	<0.124	<0.0709	<0.650
	PD130	4/23/2019	4 ft	<0.137	<0.456	<0.627	<0.468	<0.188	<0.120	<0.0685	<0.627
	PD131	4/23/2019	0-0.5 ft	<0.00315	<0.0105	<0.0144	<0.0107	<0.00432	11.20	<0.00157	11.2
	PD131	4/23/2019	0-2 ft	<0.141	<0.470	<0.646	<0.482	<0.194	8.71	<0.0705	8.71
	PD131	4/23/2019	1 ft	<0.00288	<0.00962	<0.0132	<0.00986	<0.00397	4.51	<0.00144	4.51
	PD131	4/23/2019	2.5 ft	<0.144	<0.481	<0.661	<0.493	<0.198	6.77	<0.0721	6.77
	PD131	4/23/2019	4 ft	<0.142	<0.474	<0.652	<0.486	<0.196	<0.125	<0.0712	<0.652
	PD132	4/23/2019	0-0.5 ft	<0.00295	<0.00984	<0.0135	<0.0101	<0.00406	0.15	<0.00148	0.151
	PD132	4/23/2019	0-2 ft	<0.147	<0.489	<0.672	<0.501	<0.202	<0.128	<0.0733	<0.672
	PD132	4/23/2019	1 ft	<0.00293	<0.00977	<0.0134	<0.0100	<0.00403	0.03	<0.00147	0.0322
	PD132	4/23/2019	2.5 ft	<0.140	<0.465	<0.639	<0.477	<0.192	<0.122	<0.0698	<0.639
	PD134	4/23/2019	0-0.5 ft	<0.00312	<0.0104	<0.0143	<0.0107	<0.00430	16.80	<0.00156	16.8
	PD134	4/23/2019	0-2 ft	<0.146	<0.487	<0.670	<0.499	<0.201	<0.128	<0.0731	<0.670
	PD134	4/23/2019	1 ft	<0.00297	<0.00990	<0.0136	<0.0101	<0.00408	0.42	<0.00148	0.418
	PD134	4/23/2019	2.5 ft	<0.137	<0.457	<0.628	<0.468	<0.189	<0.120	<0.0685	<0.628
	PD134	4/23/2019	4 ft	<0.145	<0.482	<0.663	<0.494	<0.199	<0.127	<0.0723	<0.663
	PD135	4/23/2019	0-0.5 ft	<0.00311	<0.0104	<0.0143	<0.0106	<0.00428	9.25	<0.00156	9.25
	PD135	4/23/2019	0-2 ft	<0.150	<0.500	<0.688	<0.513	<0.206	26.00	<0.0750	26.0
	PD135	4/23/2019	1 ft	<0.00286	<0.00953	<0.0131	<0.00976	<0.00393	0.42	<0.00143	0.42
	PD135	4/23/2019	2.5 ft	<0.143	<0.478	<0.657	<0.490	<0.197	0.600 J	<0.0717	0.6
	PD135	4/23/2019	4 ft	<0.144	<0.481	<0.662	<0.493	<0.199	0.283 J	<0.0722	0.283
	PD136	4/23/2019	0.5 ft	<0.00281	<0.00937	<0.0129	<0.00960	<0.00387	0.34	<0.00141	0.335
	PD136	4/23/2019	1 ft	<0.00316	<0.0105	<0.0145	<0.0108	<0.00434	0.89	<0.00158	0.886
	PD136	4/23/2019	4 ft	<0.173	<0.578	<0.795	<0.592	<0.238	0.328 J	<0.0867	0.328
	PD137	4/23/2019	0-0.5 ft	<0.00296	<0.00987	<0.0136	<0.0101	<0.00407	5.53	<0.00148	5.53
	PD137	4/23/2019	0-2 ft	<0.140	<0.465	<0.640	<0.477	<0.192	0.162 J	<0.0698	0.162
	PD137	4/23/2019	1 ft	<0.00303	<0.0101	<0.0139	<0.0104	<0.00417	64.30	<0.00152	64.3
	PD137	4/23/2019	2.5 ft	<0.143	<0.477	<0.656	<0.489	<0.197	0.307 J	<0.0715	0.307
	PD137	4/23/2019	4 ft	<0.137	<0.457	<0.628	<0.468	<0.188	1.37	<0.0685	1.37
	PD138	4/23/2019	0-0.5 ft	<0.00331	<0.0110	<0.0152	<0.0113	<0.00456	0.37	<0.00166	0.367
	PD138	4/23/2019	0-2 ft	<0.137	<0.456	<0.627	<0.468	<0.188	<0.120	<0.0684	<0.627
	PD138	4/23/2019	1 ft	<0.00281	<0.00937	<0.0129	<0.00960	<0.00386	0.12	<0.00141	0.124
	PD138	4/23/2019	2.5 ft	<0.136	<0.453	<0.623	<0.464	<0.187	<0.119	<0.0680	<0.623
	PD138	4/23/2019	4 ft	<0.138	<0.461	<0.634	<0.473	<0.190	<0.121	<0.0692	<0.634
	PD139	4/23/2019	0-0.5 ft	<0.00290	<0.00968	<0.0133	<0.00992	<0.00399	23.60	<0.00145	23.6
	PD139	4/23/2019	0-2 ft	<0.150	<0.499	<0.686	<0.512	<0.206	38.40	<0.0749	38.4
	PD139	4/23/2019	1 ft	<0.0142	<0.0475	<0.0653	<0.0486	<0.0196	621.00	<0.00712	621
	PD139	4/23/2019	2.5 ft	<0.138	<0.460	<0.633	<0.472	<0.190	0.484 J	<0.0691	0.484

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD139	4/23/2019	4 ft	<0.132	<0.441	<0.607	<0.452	<0.182	<0.116	<0.0662	<0.607
	PD140	4/25/2019	0-0.5 ft	<0.139	<0.462	<0.636	<0.474	<0.191	<0.121	<0.0693	<0.636
	PD140	4/25/2019	1 ft	<0.136	<0.452	<0.622	<0.463	<0.186	<0.119	<0.0678	<0.622
	PD140	4/25/2019	2.5 ft	<0.144	<0.479	<0.659	<0.491	<0.198	<0.126	<0.0719	<0.659
	PD140	4/25/2019	4 ft	<0.129	<0.430	<0.591	<0.441	<0.177	<0.113	0.144 J	0.144
	PD141	4/25/2019	0-0.5 ft	<0.134	<0.445	<0.612	<0.456	<0.184	<0.117	<0.0668	<0.612
	PD141	4/25/2019	1 ft	<0.132	<0.441	<0.606	<0.452	<0.182	<0.116	<0.0661	<0.606
	PD141	4/25/2019	2.5 ft	<0.129	<0.431	<0.593	<0.442	<0.178	<0.113	<0.0647	<0.593
	PD141	4/25/2019	4 ft	<0.136	<0.453	<0.623	<0.464	<0.187	<0.119	<0.0680	<0.623
	PD142	4/25/2019	0-0.5 ft	<0.149	<0.495	<0.681	<0.508	<0.204	11.40	<0.0743	11.4
	PD142	4/25/2019	1 ft	<0.142	<0.475	<0.653	<0.487	<0.196	<0.125	<0.0712	<0.653
	PD142	4/25/2019	2.5 ft	<0.135	<0.449	<0.617	<0.460	<0.185	<0.118	<0.0673	<0.617
	PD142	4/25/2019	4 ft	<0.138	<0.461	<0.634	<0.473	<0.190	<0.121	<0.0692	<0.634
	PD143	4/25/2019	0-0.5 ft	<0.142	<0.472	<0.649	<0.484	<0.195	0.189 J	<0.0708	0.189
	PD143	4/25/2019	1 ft	<0.141	<0.470	<0.646	<0.482	<0.194	<0.123	<0.0705	<0.646
	PD143	4/25/2019	2.5 ft	<0.140	<0.468	<0.644	<0.480	<0.193	<0.123	<0.0702	<0.644
	PD143	4/25/2019	4 ft	<0.142	<0.473	<0.651	<0.485	<0.195	<0.124	<0.0710	<0.651
	PD144	4/25/2019	0-0.5 ft	<0.129	<0.431	<0.593	<0.442	<0.178	<0.113	<0.0647	<0.593
	PD144	4/25/2019	1 ft	<0.136	<0.454	<0.625	<0.466	<0.187	<0.119	<0.0682	<0.625
	PD144	4/25/2019	2.5 ft	<0.132	<0.441	<0.607	<0.452	<0.182	<0.116	<0.0662	<0.607
	PD144	4/25/2019	4 ft	<0.134	<0.445	<0.612	<0.456	<0.184	<0.117	<0.0668	<0.612
	PD145	4/25/2019	0-0.5 ft	<0.146	<0.486	<0.669	<0.499	<0.201	8.54	<0.0730	8.54
	PD145	4/25/2019	1 ft	<0.137	<0.458	<0.630	<0.469	<0.189	0.252 J	<0.0687	0.252
	PD145	4/25/2019	2.5 ft	<0.137	<0.458	<0.630	<0.470	<0.189	<0.120	0.300 J	0.3
	PD145	4/25/2019	4 ft	<0.142	<0.473	<0.650	<0.485	<0.195	<0.124	0.388 J	0.388
	PD146	4/25/2019	0-0.5 ft	<0.135	<0.452	<0.621	<0.463	<0.186	0.543 J	<0.0677	0.543
	PD146	4/25/2019	1 ft	<0.138	<0.460	<0.633	<0.472	<0.190	<0.121	<0.0690	<0.633
	PD146	4/25/2019	2.5 ft	<0.135	<0.449	<0.618	<0.461	<0.185	<0.118	<0.0674	<0.618
	PD146	4/25/2019	4 ft	<0.126	<0.421	<0.580	<0.432	<0.174	<0.111	<0.0632	<0.580
	PD147	4/25/2019	0-0.5 ft	<0.140	<0.468	<0.643	<0.480	<0.193	34.80	<0.0702	34.8
	PD147	4/25/2019	1 ft	<0.139	<0.462	<0.635	<0.473	<0.190	<0.121	<0.0693	<0.635
	PD147	4/25/2019	2.5 ft	<0.126	<0.421	<0.578	<0.431	<0.173	<0.110	<0.0631	<0.578
	PD148	4/25/2019	0-0.5 ft	<0.133	<0.443	<0.609	<0.454	<0.183	0.606 J	<0.0664	0.606
	PD148	4/25/2019	1 ft	<0.140	<0.467	<0.643	<0.479	<0.193	<0.123	<0.0701	<0.643
	PD148	4/25/2019	2.5 ft	<0.125	<0.418	<0.575	<0.428	<0.172	<0.110	<0.0627	<0.575
	PD148	4/25/2019	4 ft	<0.124	<0.413	<0.568	<0.423	<0.170	<0.108	<0.0619	<0.568
	PD149	4/25/2019	0-0.5 ft	<0.155	<0.517	<0.711	<0.530	<0.213	28.70	<0.0775	28.7
	PD149	4/25/2019	1 ft	<0.143	<0.475	<0.653	<0.487	<0.196	<0.125	<0.0713	<0.653
	PD149	4/25/2019	2.5 ft	<0.129	<0.429	<0.590	<0.440	<0.177	<0.113	<0.0644	<0.590
	PD149	4/25/2019	4 ft	<0.125	<0.417	<0.573	<0.427	<0.172	<0.109	<0.0625	<0.573
	PD150	4/25/2019	0-0.5 ft	<0.156	<0.520	<0.715	<0.533	<0.214	39.00	<0.0780	39.0
	PD150	4/25/2019	1 ft	<0.145	<0.482	<0.663	<0.494	<0.199	17.20	<0.0723	17.2
	PD150	4/25/2019	2.5 ft	<0.136	<0.454	<0.625	<0.466	<0.187	<0.119	<0.0682	<0.625
	PD150	4/25/2019	4 ft	<0.135	<0.450	<0.619	<0.462	<0.186	<0.118	<0.0676	<0.619
	PD151	4/25/2019	0-0.5 ft	<0.150	<0.499	<0.686	<0.511	<0.206	7.12	<0.0748	7.12
	PD151	4/25/2019	1 ft	<0.170	<0.567	<0.779	<0.581	<0.234	1.10 J	<0.0850	1.1
	PD151	4/25/2019	2.5 ft	<0.139	<0.462	<0.636	<0.474	<0.191	<0.121	<0.0693	<0.636
	PD151	4/25/2019	4 ft	<0.141	<0.469	<0.645	<0.480	<0.193	<0.123	<0.0703	<0.645

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD152	4/25/2019	0-0.5 ft	<0.133	<0.442	<0.608	<0.453	<0.182	<0.116	<0.0663	<0.608
	PD152	4/24/2019	1 ft	<0.142	<0.472	<0.649	<0.484	<0.195	0.523 J	<0.0708	0.523
	PD152	4/25/2019	1 ft	<0.139	<0.462	<0.636	<0.474	<0.191	<0.121	<0.0693	<0.636
	PD152	4/24/2019	2 ft	<0.141	<0.469	<0.645	<0.481	<0.193	<0.123	<0.0704	<0.645
	PD152	4/25/2019	2.5 ft	<0.134	<0.447	<0.614	<0.458	<0.184	<0.117	<0.0670	<0.614
	PD152	4/25/2019	4 ft	<0.126	<0.422	<0.580	<0.432	<0.174	<0.111	<0.0632	<0.580
	PD153	4/25/2019	0-0.5 ft	<0.151	<0.502	<0.691	<0.515	<0.207	8.47	<0.0754	8.47
	PD153	4/25/2019	1 ft	<0.133	<0.443	<0.609	<0.454	<0.183	<0.116	<0.0665	<0.609
	PD153	4/25/2019	2.5 ft	<0.129	<0.428	<0.589	<0.439	<0.177	<0.112	<0.0643	<0.589
	PD153	4/25/2019	4 ft	<0.126	<0.421	<0.579	<0.432	<0.174	<0.111	<0.0632	<0.579
	PD154	4/25/2019	0-0.5 ft	<0.140	<0.466	<0.640	<0.477	<0.192	0.388 J	<0.0699	0.388
	PD154	4/25/2019	1 ft	<0.135	<0.450	<0.619	<0.462	<0.186	<0.118	<0.0676	<0.619
	PD154	4/25/2019	2.5 ft	<0.135	<0.450	<0.619	<0.461	<0.186	<0.118	<0.0675	<0.619
	PD154	4/25/2019	4 ft	<0.123	<0.409	<0.562	<0.419	<0.169	3.55	<0.0613	3.55
	PD155	4/25/2019	0-0.5 ft	<0.162	<0.540	<0.743	<0.554	<0.223	19.60	<0.0811	19.6
	PD155	4/25/2019	1 ft	<0.139	<0.465	<0.639	<0.477	<0.192	5.45	<0.0697	5.45
	PD155	4/25/2019	2.5 ft	<0.135	<0.449	<0.617	<0.460	<0.185	<0.118	<0.0673	<0.617
	PD155	4/25/2019	4 ft	<0.136	<0.452	<0.621	<0.463	<0.186	0.235 J	<0.0678	0.235
	PD156	4/25/2019	0-0.5 ft	<0.137	<0.457	<0.628	<0.468	<0.188	8.43	<0.0685	8.43
	PD156	4/25/2019	1 ft	<0.149	<0.495	<0.681	<0.507	<0.204	22.50	<0.0743	22.5
	PD156	4/25/2019	2.5 ft	<0.139	<0.463	<0.637	<0.475	<0.191	<0.122	<0.0695	<0.637
	PD157	4/25/2019	0-0.5 ft	<0.137	<0.456	<0.627	<0.467	<0.188	<0.120	<0.0684	<0.627
	PD157	4/25/2019	1 ft	<0.133	<0.444	<0.611	<0.455	<0.183	<0.117	<0.0666	<0.611
	PD157	4/25/2019	2.5 ft	<0.134	<0.446	<0.613	<0.457	<0.184	<0.117	<0.0669	<0.613
	PD157	4/25/2019	4 ft	<0.131	<0.438	<0.602	<0.449	<0.181	<0.115	0.94	0.94
	PD158	4/25/2019	0-0.5 ft	<0.131	<0.437	<0.602	<0.448	<0.180	0.174 J	<0.0656	0.174
	PD158	4/25/2019	1 ft	<0.133	<0.442	<0.608	<0.453	<0.182	<0.116	<0.0663	<0.608
	PD158	4/25/2019	2.5 ft	<0.136	<0.454	<0.624	<0.466	<0.187	<0.119	<0.0681	<0.624
	PD159	4/25/2019	0-0.5 ft	<0.146	<0.486	<0.669	<0.499	<0.201	16.10	<0.0730	16.1
	PD159	4/25/2019	1 ft	<0.135	<0.450	<0.618	<0.461	<0.186	1.21	<0.0675	1.21
	PD159	4/25/2019	2.5 ft	<0.138	<0.460	<0.632	<0.471	<0.190	0.218 J	<0.0690	0.218
	PD160	4/25/2019	0-0.5 ft	<0.182	<0.605	<0.832	<0.621	<0.250	84.90	<0.0908	84.9
	PD160	4/25/2019	1 ft	<0.159	<0.529	<0.728	<0.542	<0.218	2.02	<0.0794	2.02
	PD160	4/25/2019	2.5 ft	<0.149	<0.496	<0.681	<0.508	<0.204	<0.130	<0.0743	<0.681
	PD160	4/25/2019	4 ft	<0.143	<0.478	<0.658	<0.490	<0.197	<0.126	<0.0717	<0.658
	PD161	4/25/2019	0-0.5 ft	<0.153	<0.510	<0.702	<0.523	<0.210	17.00	<0.0765	17.0
	PD161	4/25/2019	1 ft	<0.141	<0.469	<0.645	<0.481	<0.193	<0.123	<0.0703	<0.645
	PD161	4/25/2019	2.5 ft	<0.145	<0.482	<0.663	<0.494	<0.199	<0.127	<0.0723	<0.663
	PD162	4/25/2019	0-0.5 ft	<0.149	<0.496	<0.682	<0.508	<0.205	18.60	<0.0744	18.6
	PD162	4/25/2019	1 ft	<0.135	<0.449	<0.617	<0.460	<0.185	<0.118	<0.0673	<0.617
	PD162	4/25/2019	2.5 ft	<0.139	<0.463	<0.637	<0.475	<0.191	<0.122	<0.0694	<0.637
	PD163	4/25/2019	0-0.5 ft	<0.153	<0.511	<0.702	<0.524	<0.211	2.14	<0.0766	2.14
	PD163	4/25/2019	1 ft	<0.163	<0.542	<0.746	<0.556	<0.224	4.20	<0.0814	4.2
	PD163	4/25/2019	2.5 ft	<0.145	<0.483	<0.664	<0.495	<0.199	230	<0.0725	230
	PD163	4/25/2019	4 ft	<0.119	<0.396	<0.545	<0.406	<0.163	<0.104	<0.0594	<0.545
	PD164	4/25/2019	0-0.5 ft	<0.155	<0.517	<0.710	<0.529	<0.213	8.93	<0.0775	8.93
	PD164	4/25/2019	1 ft	<0.169	<0.564	<0.776	<0.578	<0.233	136.00	<0.0846	136
	PD164	4/25/2019	2.5 ft	<0.146	<0.487	<0.669	<0.499	<0.201	0.379 J	<0.0730	0.379

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD165	4/25/2019	0-0.5 ft	<0.168	<0.561	<0.771	<0.575	<0.231	61.50	<0.0841	61.5
	PD165	4/25/2019	1 ft	<0.135	<0.451	<0.620	<0.463	<0.186	0.151 J	<0.0677	0.151
	PD166	4/25/2019	0-0.5 ft	<0.165	<0.549	<0.755	<0.563	<0.226	6.57	<0.0823	6.57
	PD166	4/25/2019	1 ft	<0.161	<0.537	<0.738	<0.550	<0.221	11.10	<0.0805	11.1
	PD166	4/25/2019	2.5 ft	<0.146	<0.486	<0.668	<0.498	<0.200	88.6	<0.0729	88.6
	PD166	4/25/2019	4 ft	<0.117	<0.390	<0.537	<0.400	<0.161	0.597 J	<0.0586	0.597
	PD167	4/25/2019	0-0.5 ft	<0.137	<0.456	<0.627	<0.468	<0.188	142.00	<0.0684	142
	PD167	4/25/2019	1 ft	<0.168	<0.562	<0.772	<0.576	<0.232	20.70	<0.0842	20.7
	PD167	4/25/2019	2.5 ft	<0.143	<0.478	<0.657	<0.490	<0.197	0.585 J	<0.0717	0.585
	PD168	4/25/2019	0-0.5 ft	<0.130	<0.432	<0.594	<0.443	<0.178	0.569 J	<0.0648	0.569
	PD168	4/25/2019	1 ft	<0.133	<0.444	<0.610	<0.455	<0.183	<0.116	<0.0666	<0.610
	PD168	4/25/2019	2.5 ft	<0.135	<0.451	<0.620	<0.462	<0.186	<0.118	<0.0677	<0.620
	PD169	4/25/2019	0-0.5 ft	<0.173	<0.577	<0.793	<0.591	<0.238	25.10	<0.0865	25.1
	PD169	4/25/2019	1 ft	<0.151	<0.504	<0.693	<0.517	<0.208	1.58	<0.0756	1.58
	PD169	4/25/2019	2.5 ft	<0.148	<0.494	<0.679	<0.506	<0.204	<0.130	<0.0741	<0.679
	PD169	4/25/2019	4 ft	<0.153	<0.509	<0.699	<0.521	<0.210	<0.133	<0.0763	<0.699
	PD170	4/25/2019	0-0.5 ft	<0.138	<0.460	<0.633	<0.472	<0.190	0.511 J	<0.0690	0.511
	PD170	4/25/2019	1 ft	<0.135	<0.449	<0.618	<0.461	<0.185	<0.118	<0.0674	<0.618
	PD170	4/25/2019	2.5 ft	<0.139	<0.463	<0.637	<0.474	<0.191	<0.122	<0.0694	<0.637
	PD171	4/25/2019	0-0.5 ft	<0.131	<0.435	<0.598	<0.446	<0.179	<0.114	<0.0653	<0.598
	PD171	4/25/2019	1 ft	<0.137	<0.456	<0.627	<0.468	<0.188	<0.120	<0.0684	<0.627
	PD171	4/25/2019	2.5 ft	<0.132	<0.440	<0.605	<0.451	<0.182	<0.116	<0.0660	<0.605
	PD172	4/26/2019	0-0.5 ft	<0.135	<0.449	<0.618	<0.461	<0.185	<0.118	<0.0674	<0.618
	PD172	4/26/2019	1 ft	<0.133	<0.444	<0.610	<0.455	<0.183	<0.117	<0.0666	<0.610
	PD172	4/26/2019	2.5 ft	<0.126	<0.419	<0.577	<0.430	<0.173	<0.110	<0.0629	<0.577
	PD173	4/26/2019	0-0.5 ft	<0.147	<0.490	<0.674	<0.502	<0.202	<0.129	<0.0735	<0.674
	PD173	4/26/2019	1 ft	<0.133	<0.443	<0.609	<0.454	<0.183	<0.116	<0.0664	<0.609
	PD173	4/26/2019	2.5 ft	<0.139	<0.462	<0.635	<0.473	<0.190	<0.121	<0.0693	<0.635
	PD174	4/26/2019	0-0.5 ft	<0.131	<0.438	<0.602	<0.449	<0.181	1.25	<0.0657	1.25
	PD174	4/26/2019	1 ft	<0.128	<0.426	<0.586	<0.437	<0.176	<0.112	<0.0639	<0.586
	PD174	4/26/2019	2.5 ft	<0.126	<0.420	<0.577	<0.430	<0.173	0.164 J	<0.0630	0.164
	PD175	4/26/2019	0-0.5 ft	<0.142	<0.473	<0.650	<0.485	<0.195	2.86	<0.0710	2.86
	PD175	4/26/2019	1 ft	<0.145	<0.483	<0.664	<0.495	<0.199	<0.127	<0.0724	<0.664
	PD175	4/26/2019	2.5 ft	<0.136	<0.455	<0.625	<0.466	<0.188	<0.119	<0.0682	<0.625
	PD176	4/25/2019	0-0.5 ft	<0.143	<0.478	<0.658	<0.490	<0.197	5.92	<0.0717	5.92
	PD176	4/25/2019	1 ft	<0.138	<0.460	<0.633	<0.472	<0.190	7.19	<0.0690	7.19
	PD176	4/25/2019	2.5 ft	<0.132	<0.439	<0.604	<0.450	<0.181	<0.115	<0.0659	<0.604
	PD177	4/25/2019	0-0.5 ft	<0.138	<0.460	<0.632	<0.471	<0.190	7.44	<0.0690	7.44
	PD177	4/25/2019	1 ft	<0.147	<0.489	<0.672	<0.501	<0.202	3.55	<0.0733	3.55
	PD177	4/25/2019	2.5 ft	<0.136	<0.454	<0.624	<0.465	<0.187	0.624 J	<0.0681	0.624
	PD178	4/25/2019	0-0.5 ft	<0.144	<0.481	<0.661	<0.493	<0.198	114.00	<0.0721	114
	PD178	4/25/2019	1 ft	<0.141	<0.469	<0.644	<0.480	<0.193	1.65	<0.0703	1.65
	PD178	4/25/2019	2.5 ft	<0.135	<0.448	<0.617	<0.460	<0.185	0.372 J	<0.0673	0.372
	PD179	4/25/2019	0-0.5 ft	<0.135	<0.448	<0.616	<0.460	<0.185	0.366 J	<0.0673	0.366
	PD179	4/25/2019	1 ft	<0.136	<0.453	<0.623	<0.465	<0.187	<0.119	<0.0680	<0.623
	PD179	4/25/2019	2.5 ft	<0.134	<0.447	<0.614	<0.458	<0.184	<0.117	<0.0670	<0.614
	PD180	4/25/2019	0-0.5 ft	<0.164	<0.548	<0.754	<0.562	<0.226	2.38	<0.0822	2.38
	PD180	4/25/2019	1 ft	<0.158	<0.527	<0.724	<0.540	<0.217	3.57	<0.0790	3.57

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD180	4/25/2019	2.5 ft	<0.143	<0.475	<0.653	<0.487	<0.196	1.26	<0.0713	1.26
	PD180	4/25/2019	4 ft	<0.120	<0.399	<0.549	<0.409	<0.165	0.652 J	<0.0598	0.652
	PD181	4/25/2019	0-0.5 ft	<0.161	<0.537	<0.739	<0.551	<0.222	2.93	<0.0806	2.93
	PD181	4/25/2019	1 ft	<0.146	<0.488	<0.671	<0.500	<0.201	6.81	<0.0732	6.81
	PD181	4/25/2019	2.5 ft	<0.126	<0.421	<0.579	<0.432	<0.174	<0.111	<0.0632	<0.579
	PD182	4/25/2019	0-0.5 ft	<0.161	<0.536	<0.737	<0.550	<0.221	2.17	<0.0804	2.17
	PD182	4/26/2019	0-0.5 ft	<0.162	<0.541	<0.744	<0.554	<0.223	0.715 J	<0.0811	0.715
	PD182	4/25/2019	1 ft	<0.138	<0.459	<0.632	<0.471	<0.189	<0.121	<0.0689	<0.632
	PD182	4/26/2019	1 ft	<0.138	<0.459	<0.631	<0.470	<0.189	<0.120	<0.0688	<0.631
	PD182	4/25/2019	2.5 ft	<0.129	<0.430	<0.591	<0.440	<0.177	<0.113	<0.0645	<0.591
	PD182	4/26/2019	2.5 ft	<0.139	<0.465	<0.639	<0.476	<0.192	<0.122	<0.0697	<0.639
	PD183	4/25/2019	0-0.5 ft	<0.119	<0.396	<0.545	<0.406	<0.163	4.64	<0.0594	4.64
	PD183	4/25/2019	1 ft	<0.119	<0.397	<0.545	<0.406	<0.164	<0.104	<0.0595	<0.545
	PD183	4/25/2019	2.5 ft	<0.136	<0.454	<0.624	<0.465	<0.187	<0.119	<0.0681	<0.624
	PD184	4/26/2019	0-0.5 ft	<0.135	<0.451	<0.620	<0.462	<0.186	<0.118	<0.0676	<0.620
	PD184	4/26/2019	1 ft	<0.135	<0.452	<0.621	<0.463	<0.186	<0.119	<0.0677	<0.621
	PD184	4/26/2019	2.5 ft	<0.121	<0.405	<0.557	<0.415	<0.167	<0.106	<0.0607	<0.557
	PD185	4/26/2019	0-0.5 ft	<0.152	<0.508	<0.699	<0.521	<0.210	5.87	<0.0762	5.87
	PD185	4/26/2019	1 ft	<0.149	<0.496	<0.682	<0.508	<0.205	2.30	<0.0744	2.3
	PD185	4/26/2019	2.5 ft	<0.134	<0.446	<0.613	<0.457	<0.184	<0.117	<0.0669	<0.613
	PD186	4/26/2019	0-0.5 ft	<0.141	<0.470	<0.646	<0.482	<0.194	<0.123	<0.0705	<0.646
	PD186	4/26/2019	1 ft	<0.138	<0.462	<0.635	<0.473	<0.190	<0.121	<0.0692	<0.635
	PD186	4/26/2019	2.5 ft	<0.140	<0.466	<0.641	<0.477	<0.192	<0.122	<0.0699	<0.641
	PD187	4/26/2019	0-0.5 ft	<0.151	<0.504	<0.692	<0.516	<0.208	4.63	<0.0755	4.63
	PD187	4/26/2019	1 ft	<0.143	<0.478	<0.657	<0.490	<0.197	<0.125	<0.0717	<0.657
	PD187	4/26/2019	2.5 ft	<0.142	<0.474	<0.651	<0.486	<0.195	<0.124	<0.0711	<0.651
	PD188	4/26/2019	0-0.5 ft	<0.136	<0.452	<0.622	<0.464	<0.187	0.169 J	<0.0678	0.169
	PD188	4/26/2019	1 ft	<0.136	<0.453	<0.622	<0.464	<0.187	<0.119	<0.0679	<0.622
	PD188	4/26/2019	2.5 ft	<0.133	<0.442	<0.608	<0.453	<0.183	<0.116	<0.0664	<0.608
	PD189	4/26/2019	0-0.5 ft	<0.155	<0.517	<0.711	<0.530	<0.213	3.62	<0.0776	3.62
	PD189	4/26/2019	1 ft	<0.153	<0.510	<0.701	<0.522	<0.210	3.26	<0.0764	3.26
	PD189	4/26/2019	2.5 ft	<0.138	<0.461	<0.634	<0.473	<0.190	<0.121	<0.0692	<0.634
	PD190	4/26/2019	0-0.5 ft	<0.152	<0.508	<0.698	<0.520	<0.209	7.31	<0.0762	7.31
	PD190	4/26/2019	1 ft	<0.162	<0.540	<0.743	<0.554	<0.223	3.03	<0.0811	3.03
	PD190	4/26/2019	2.5 ft	<0.144	<0.480	<0.660	<0.492	<0.198	0.318 J	<0.0720	0.318
	PD191	4/26/2019	0-0.5 ft	<0.147	<0.491	<0.675	<0.503	<0.203	2.22	<0.0737	2.22
	PD191	4/26/2019	1 ft	<0.154	<0.513	<0.705	<0.525	<0.211	29.20	<0.0769	29.2
	PD191	4/26/2019	2.5 ft	<0.168	<0.561	<0.772	<0.575	<0.232	18.9	<0.0842	18.9
	PD191	4/26/2019	4 ft	<0.118	<0.393	<0.541	<0.403	<0.162	<0.103	<0.0590	<0.541
	PD192	4/26/2019	0-0.5 ft	<0.155	<0.516	<0.709	<0.529	<0.213	1.39	<0.0774	1.39
	PD192	4/26/2019	1 ft	<0.162	<0.539	<0.742	<0.553	<0.223	1.02 J	<0.0809	1.02
	PD192	4/26/2019	2.5 ft	<0.171	<0.571	<0.784	<0.585	<0.235	4.81	<0.0856	4.81
	PD192	4/26/2019	4 ft	<0.120	<0.399	<0.549	<0.409	<0.165	<0.105	<0.0599	<0.549
	PD193	4/26/2019	0-0.5 ft	<0.164	<0.546	<0.751	<0.560	<0.225	0.523 J	<0.0819	0.523
	PD193	4/26/2019	1 ft	<0.174	<0.579	<0.797	<0.594	<0.239	0.171 J	<0.0869	0.171
	PD193	4/26/2019	2.5 ft	<0.167	<0.557	<0.766	<0.571	<0.230	1.29	<0.0836	1.29
	PD194	4/26/2019	0-0.5 ft	<0.166	<0.552	<0.759	<0.566	<0.228	1.39	<0.0828	1.39
	PD194	4/26/2019	1 ft	<0.161	<0.538	<0.739	<0.551	<0.222	14.50	<0.0807	14.5

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD194	4/26/2019	2.5 ft	<0.134	<0.446	<0.613	<0.457	<0.184	0.520 J	<0.0668	0.52
	PD194	4/26/2019	4 ft	<0.116	<0.387	<0.533	<0.397	<0.160	<0.102	<0.0581	<0.533
	PD195	4/26/2019	0-0.5 ft	<0.168	<0.559	<0.769	<0.573	<0.231	0.259 J	<0.0839	0.259
	PD195	4/26/2019	1 ft	<0.176	<0.585	<0.805	<0.600	<0.241	1.57	<0.0878	1.57
	PD195	4/26/2019	2.5 ft	<0.141	<0.469	<0.645	<0.481	<0.193	<0.123	<0.0703	<0.645
	PD196	4/26/2019	0-0.5 ft	<0.157	<0.523	<0.720	<0.536	<0.216	3.03	<0.0785	3.03
	PD196	4/26/2019	1 ft	<0.152	<0.505	<0.695	<0.518	<0.208	7.82	<0.0758	7.82
	PD196	4/26/2019	2.5 ft	<0.130	<0.434	<0.597	<0.445	<0.179	<0.114	<0.0652	<0.597
	PD197	4/26/2019	0-0.5 ft	<0.170	<0.568	<0.781	<0.582	<0.234	0.624 J	<0.0852	0.624
	PD197	4/26/2019	1 ft	<0.168	<0.559	<0.768	<0.573	<0.231	0.578 J	<0.0838	0.578
	PD197	4/26/2019	2.5 ft	<0.174	<0.581	<0.799	<0.596	<0.240	4.77	<0.0871	4.77
	PD197	4/26/2019	4 ft	<0.118	<0.395	<0.543	<0.405	<0.163	<0.104	<0.0592	<0.543
	PD198	4/26/2019	0-0.5 ft	<0.159	<0.529	<0.728	<0.543	<0.218	16.40	<0.0794	16.4
	PD198	4/26/2019	1 ft	<0.169	<0.564	<0.775	<0.578	<0.233	1.84	<0.0846	1.84
	PD198	4/26/2019	2.5 ft	<0.175	<0.582	<0.800	<0.597	<0.240	3.66	<0.0873	3.66
	PD198	4/26/2019	4 ft	<0.117	<0.389	<0.534	<0.398	<0.160	1.72	<0.0583	1.72
	PD199	4/26/2019	0-0.5 ft	<0.160	<0.532	<0.732	<0.545	<0.219	0.538 J	<0.0798	0.538
	PD199	4/26/2019	1 ft	<0.159	<0.531	<0.729	<0.544	<0.219	1.57	<0.0796	1.57
	PD199	4/26/2019	2.5 ft	<0.134	<0.446	<0.613	<0.457	<0.184	1.8	<0.0669	1.8
	PD199	4/26/2019	4 ft	<0.120	<0.399	<0.549	<0.409	<0.165	<0.105	<0.0599	<0.549
	PD200	4/26/2019	0-0.5 ft	<0.141	<0.470	<0.646	<0.481	<0.194	1.01	<0.0704	1.01
	PD200	4/26/2019	1 ft	<0.134	<0.445	<0.612	<0.456	<0.184	<0.117	<0.0668	<0.612
	PD200	4/26/2019	2.5 ft	<0.138	<0.460	<0.632	<0.471	<0.190	<0.121	<0.0690	<0.632
	PD201	4/26/2019	0-0.5 ft	<0.143	<0.475	<0.654	<0.487	<0.196	1.08	<0.0713	1.08
	PD201	4/26/2019	1 ft	<0.140	<0.465	<0.639	<0.477	<0.192	<0.122	<0.0698	<0.639
	PD201	4/26/2019	2.5 ft	<0.141	<0.469	<0.646	<0.481	<0.194	<0.123	<0.0704	<0.646
	PD203	5/1/2019	0-0.5 ft	<0.174	<0.579	<0.796	<0.593	<0.239	73.20	<0.0868	73.2
	PD203	5/1/2019	1 ft	<0.168	<0.558	<0.768	<0.572	<0.230	5.12	<0.0838	5.12
	PD203	5/1/2019	2 ft	<0.151	<0.504	<0.692	<0.516	<0.208	<0.132	<0.0755	<0.692
	PD204	5/1/2019	0-0.5 ft	<0.127	<0.423	<0.582	<0.434	<0.175	0.677 J	<0.0635	0.677
	PD204	5/1/2019	1 ft	<0.127	<0.422	<0.580	<0.433	<0.174	<0.111	<0.0633	<0.580
	PD204	5/1/2019	1.5 ft	<0.129	<0.432	<0.593	<0.442	<0.178	<0.113	<0.0647	<0.593
	PD205	5/1/2019	0-0.5 ft	<0.145	<0.482	<0.662	<0.494	<0.199	0.299 J	<0.0723	0.299
	PD205	5/1/2019	1 ft	<0.143	<0.476	<0.655	<0.488	<0.196	<0.125	<0.0714	<0.655
	PD205	5/1/2019	2 ft	<0.141	<0.472	<0.649	<0.483	<0.195	<0.124	<0.0707	<0.649
	PD206	5/1/2019	0-0.5 ft	<0.134	<0.446	<0.613	<0.457	<0.184	10.30	<0.0669	10.3
	PD206	5/1/2019	1 ft	<0.133	<0.442	<0.608	<0.453	<0.182	1.33	<0.0664	1.33
	PD206	5/1/2019	2 ft	<0.137	<0.455	<0.626	<0.467	<0.188	<0.120	<0.0683	<0.626
	PD207	5/2/2019	0-0.5 ft	<0.133	<0.443	<0.610	<0.454	<0.183	7.86	<0.0665	7.86
	PD207	5/2/2019	1 ft	<0.133	<0.443	<0.609	<0.454	<0.183	1.29	<0.0665	1.29
	PD207	5/2/2019	2 ft	<0.135	<0.449	<0.618	<0.461	<0.185	<0.118	<0.0674	<0.618
	PD208	5/2/2019	0-0.5 ft	<0.137	<0.456	<0.627	<0.467	<0.188	89.20	<0.0684	89.2
	PD208	5/2/2019	1 ft	<0.135	<0.449	<0.618	<0.460	<0.185	2.04	<0.0674	2.04
	PD208	5/2/2019	2 ft	<0.139	<0.462	<0.635	<0.474	<0.191	<0.121	<0.0693	<0.635
	PD209	5/2/2019	0-0.5 ft	<0.148	<0.494	<0.679	<0.507	<0.204	42.50	<0.0741	42.5
	PD209	5/2/2019	1 ft	<0.133	<0.443	<0.609	<0.454	<0.183	1.78	<0.0664	1.78
	PD209	5/2/2019	2 ft	<0.136	<0.455	<0.625	<0.466	<0.188	0.215 J	<0.0682	0.215
	PD210	5/2/2019	0-0.5 ft	<0.136	<0.452	<0.622	<0.464	<0.187	3.41	<0.0678	3.41

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD210	5/2/2019	1 ft	<0.129	<0.431	<0.592	<0.442	<0.178	0.461 J	<0.0646	0.461
	PD210	5/2/2019	1.5 ft	<0.137	<0.457	<0.628	<0.468	<0.189	1.72	<0.0686	1.72
	PD211	5/2/2019	0-0.5 ft	<0.133	<0.445	<0.611	<0.456	<0.183	0.263 J	<0.0667	0.263
	PD211	5/2/2019	1 ft	<0.130	<0.433	<0.595	<0.444	<0.179	0.380 J	<0.0649	0.38
	PD211	5/2/2019	1.5 ft	<0.131	<0.437	<0.601	<0.448	<0.180	0.131 J	<0.0656	0.131
	PD212	5/2/2019	0-0.5 ft	<0.144	<0.481	<0.661	<0.493	<0.198	54.20	<0.0721	54.2
	PD212	5/2/2019	1 ft	<0.139	<0.464	<0.637	<0.475	<0.191	0.388 J	<0.0695	0.388
	PD212	5/2/2019	2 ft	<0.134	<0.448	<0.616	<0.459	<0.185	<0.118	<0.0672	<0.616
	PD213	5/2/2019	0-0.5 ft	<0.127	<0.424	<0.583	<0.434	<0.175	0.714 J	<0.0635	0.714
	PD213	5/2/2019	1 ft	<0.131	<0.438	<0.602	<0.449	<0.181	<0.115	<0.0656	<0.602
	PD213	5/2/2019	1.5 ft	<0.129	<0.432	<0.593	<0.442	<0.178	<0.113	<0.0647	<0.593
	PD214	5/2/2019	0-0.5 ft	<0.126	<0.420	<0.577	<0.430	<0.173	<0.110	<0.0630	<0.577
	PD214	5/2/2019	1 ft	<0.135	<0.451	<0.620	<0.463	<0.186	0.330 J	<0.0677	0.33
	PD214	5/2/2019	2 ft	<0.131	<0.435	<0.599	<0.446	<0.180	<0.114	<0.0653	<0.599
	PD215	5/2/2019	0-0.5 ft	<0.126	<0.419	<0.576	<0.430	<0.173	<0.110	<0.0629	<0.576
	PD215	5/2/2019	1 ft	<0.130	<0.433	<0.595	<0.444	<0.179	<0.114	<0.0649	<0.595
	PD215	5/2/2019	2 ft	<0.134	<0.447	<0.615	<0.458	<0.184	<0.117	<0.0671	<0.615
	PD216	7/10/2019	0-0.5 ft	<0.147	<0.490	<0.674	<0.502	<0.202	1.47	<0.0735	1.47
	PD216	7/10/2019	1 ft	<0.165	<0.549	<0.755	<0.563	<0.226	0.793 J	<0.0824	0.793 J
	PD216	7/10/2019	2 ft	<0.170	<0.567	<0.780	<0.582	<0.234	0.695 J	<0.0851	0.695 J
	PD217	7/10/2019	0-0.5 ft	<0.146	<0.487	<0.670	<0.500	<0.201	2.21	<0.0731	2.21
	PD217	7/10/2019	1 ft	<0.133	<0.445	<0.612	<0.456	<0.183	1.49	<0.0667	1.49
	PD217	7/10/2019	2 ft	<0.136	<0.452	<0.621	<0.463	<0.186	0.182 J	<0.0678	0.182 J
	PD218	7/10/2019	0-0.5 ft	<0.148	<0.494	<0.679	<0.506	<0.204	0.722 J	<0.0740	0.722 J
	PD218	7/10/2019	1 ft	<0.135	<0.451	<0.621	<0.463	<0.186	4.33	<0.0677	4.33
	PD218	7/10/2019	2 ft	<0.127	<0.422	<0.581	<0.433	<0.174	<0.111	<0.0634	<0.581
	PD219	7/10/2019	0-0.5 ft	<0.151	<0.505	<0.694	<0.517	<0.208	2.15	<0.0757	2.15
	PD219	7/10/2019	1 ft	<0.170	<0.565	<0.777	<0.579	<0.233	0.675 J	<0.0848	0.675 J
	PD219	7/10/2019	2 ft	<0.161	<0.537	<0.738	<0.550	<0.221	2.64	<0.0805	2.64
	PD220	7/10/2019	0-0.5 ft	<0.00304	<0.0101	<0.0139	<0.0104	<0.00418	0.25	<0.00152	0.253
	PD220	7/10/2019	1 ft	<0.154	<0.514	<0.707	<0.527	<0.212	0.533 J	<0.0771	0.533 J
	PD220	7/10/2019	2 ft	<0.168	<0.559	<0.769	<0.573	<0.231	1.18 J	<0.0839	1.18 J
	PD221	7/10/2019	0-0.5 ft	<0.158	<0.527	<0.724	<0.540	<0.217	0.523 J	<0.0790	0.523 J
	PD221	7/10/2019	1 ft	<0.166	<0.555	<0.763	<0.568	<0.229	0.289 J	<0.0832	0.289 J
	PD221	7/10/2019	2 ft	<0.160	<0.535	<0.735	<0.548	<0.221	8.18	<0.0802	8.18
	PD222	7/10/2019	0-0.5 ft	<0.155	<0.517	<0.711	<0.530	<0.213	0.926 J	<0.0776	0.926 J
	PD222	7/10/2019	1 ft	<0.161	<0.538	<0.740	<0.551	<0.222	2.10	<0.0807	2.10
	PD222	7/10/2019	2 ft	<0.161	<0.536	<0.737	<0.549	<0.221	3.96	<0.0804	3.96
	PD223	7/10/2019	0-0.5 ft	<0.151	<0.504	<0.693	<0.517	<0.208	0.929 J	<0.0756	0.929 J
	PD223	7/10/2019	1 ft	<0.163	<0.545	<0.749	<0.558	<0.225	2.90	<0.0817	2.90
	PD223	7/10/2019	2 ft	<0.177	<0.590	<0.811	<0.605	<0.243	0.293 J	<0.0885	0.293 J
	PD224	7/10/2019	0-0.5 ft	<0.145	<0.484	<0.666	<0.496	<0.200	1.87	<0.0727	1.87
	PD224	7/10/2019	1 ft	<0.156	<0.519	<0.713	<0.532	<0.214	1.19	<0.0778	1.19
	PD224	7/10/2019	2 ft	<0.160	<0.532	<0.732	<0.546	<0.220	0.576 J	<0.0799	0.576 J
	PD225	7/10/2019	0-0.5 ft	<0.149	<0.498	<0.684	<0.510	<0.205	<0.131	<0.0746	<0.684
	PD225	7/10/2019	1 ft	<0.137	<0.457	<0.629	<0.469	<0.189	0.237 J	<0.0686	0.237 J
	PD225	7/10/2019	2 ft	<0.136	<0.452	<0.622	<0.464	<0.187	<0.119	<0.0679	<0.622
	PD226	7/10/2019	0-0.5 ft	<0.147	<0.490	<0.674	<0.503	<0.202	3.66	<0.0735	3.66

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	PD226	7/10/2019	1 ft	<0.135	<0.451	<0.620	<0.462	<0.186	1.49	<0.0676	1.49
	PD226	7/10/2019	2 ft	<0.133	<0.444	<0.610	<0.455	<0.183	0.200 J	<0.0666	0.200 J
	PD227	7/10/2019	0-0.5 ft	<0.155	<0.515	<0.708	<0.528	<0.212	0.679 J	<0.0773	0.679 J
	PD227	7/10/2019	1 ft	<0.154	<0.513	<0.706	<0.526	<0.212	0.578 J	<0.0770	0.578 J
	PD227	7/10/2019	2 ft	<0.159	<0.531	<0.729	<0.544	<0.219	2.87	<0.0796	2.87
	SB152	4/15/2013	0-1 ft	<38.0	<75.9	<38.0	<38.0	<38.0	112.00	<38.0	112
	SB152	4/15/2013	3.5 ft	<0.018	<0.037	<0.018	<0.018	<0.018	0.035 J	<0.018	0.035 J
	SB264	11/2/2016	0-0.5 ft	<0.21	<0.21	<0.21	<0.21	<0.21	1.80	0.47	2.27
	SB264	11/2/2016	3 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	SB265	11/2/2016	0-0.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	8.20	1.10	9.3
	SB265	4/23/2019	1 ft	<0.00308	<0.0103	<0.0141	<0.0105	<0.00424	10.60	<0.00154	10.6
	SB265	4/23/2019	2.5 ft	<0.00280	<0.00933	<0.0128	<0.00956	<0.00385	0.0128 J	<0.00140	0.0128
	SB265	11/2/2016	3 ft	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
	SB266	11/2/2016	2 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	SB266	11/2/2016	3.5 ft	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
	SB266	11/2/2016	0-0.5 ft	<0.26	<0.26	<0.26	<0.26	<0.26	0.63	<0.26	0.63
	SB267	11/2/2016	2 ft	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	SB267	4/23/2019	2.5 ft	<0.00318	<0.0106	<0.0146	<0.0109	<0.00437	0.0167 J	<0.00159	0.0167
	SB267	11/2/2016	3.5 ft	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
	SB267	11/2/2016	0-0.5 ft	<65.2	<65.2	<65.2	<65.2	<65.2	465.00	<65.2	465
	SB267	4/23/2019	0-2 ft	<0.157	<0.524	<0.721	<0.538	<0.216	0.789 J	<0.0787	0.789
	SB267	4/23/2019	1 ft	<0.00309	<0.0103	<0.0142	<0.0105	<0.00425	1.30	<0.00154	1.3
	SB325	3/8/2018	0-0.5 ft	<0.0271	<0.0904	<0.124	<0.0926	<0.0373	<0.0237	0.88	0.883
	SB326	3/21/2018	0-0.5 ft	<0.00264	<0.00879	<0.0121	<0.00900	<0.00362	<0.00231	0.05	0.0516
	SB326	3/21/2018	2 ft	<0.00258	<0.00861	<0.0118	<0.00882	<0.00355	<0.00226	0.00348 J	0.00348 J
	SB326	3/21/2018	5 ft	<0.00251	<0.00836	<0.0115	<0.00857	<0.00345	<0.00219	0.00230 J	0.00230 J
	SB327	3/21/2018	2 ft	<0.0147	<0.0492	<0.0676	<0.0504	<0.0203	<0.0129	0.0278 J	0.0278 J
	SB327	3/21/2018	5 ft	<0.00296	<0.00987	<0.0136	<0.0101	<0.00407	<0.00259	<0.00148	<0.0136
	SB327	3/21/2018	0-0.5 ft	<0.0156	<0.0519	<0.0713	<0.0532	<0.0214	<0.0136	2.18	2.18
	SB328	3/21/2018	2 ft	<0.00280	<0.00933	<0.0128	<0.00956	<0.00385	<0.00245	<0.00140	<0.0128
	SB328	3/21/2018	5 ft	<0.00286	<0.00955	<0.0131	<0.00978	<0.00394	<0.00251	0.0258	0.0258
	SB328	3/21/2018	0-0.5 ft	<0.0342	<0.114	<0.157	<0.117	<0.0470	<0.0299	4.22	4.22
	SB329	3/21/2018	2 ft	<0.00291	<0.00969	<0.0133	<0.00993	<0.00400	<0.00254	<0.00145	<0.0133
	SB329	3/21/2018	5 ft	<0.00289	<0.00962	<0.0132	<0.00986	<0.00397	<0.00253	<0.00144	<0.0132
	SB329	3/21/2018	0-0.5 ft	<0.00293	<0.00976	<0.0134	<0.0100	<0.00402	<0.00256	0.40	0.403
	SB330	3/21/2018	2 ft	<0.00293	<0.00978	<0.0135	<0.0100	<0.00404	<0.00257	<0.00147	<0.0135
	SB330	3/21/2018	5 ft	<0.00289	<0.00965	<0.0133	<0.00989	<0.00398	<0.00253	<0.00145	<0.0133
	SB330	3/21/2018	0-0.5 ft	<0.0148	<0.0494	<0.0679	<0.0506	<0.0204	<0.0130	0.41	0.411
	SB334	4/23/2019	0-0.5 ft	<0.00318	<0.0106	<0.0146	<0.0109	<0.00437	17.40	<0.00159	17.4
	SB334	4/23/2019	1 ft	<0.00280	<0.00934	<0.0128	<0.00957	<0.00385	0.42	<0.00140	0.421
	SB334	4/23/2019	2.5 ft	<0.140	<0.467	<0.642	<0.479	<0.193	<0.123	<0.0701	<0.642
	SB335	4/23/2019	2.5 ft	<0.132	<0.440	<0.604	<0.451	<0.181	<0.115	<0.0659	<0.604
	SB335	4/23/2019	0-0.5 ft	<0.00285	<0.00949	<0.0131	<0.00973	<0.00392	3.06	<0.00142	3.06
	SB335	4/23/2019	1 ft	<0.00266	<0.00887	<0.0122	<0.00909	<0.00366	0.09	<0.00133	0.0903
	SB336	4/23/2019	0-0.5 ft	<0.0176	<0.0586	<0.0805	<0.0600	<0.0242	21.00	<0.00878	21
	SB336	4/23/2019	0-2 ft	<0.143	<0.476	<0.654	<0.488	<0.196	<0.125	<0.0714	<0.654
	SB336	4/23/2019	1 ft	<0.00304	<0.0101	<0.0139	<0.0104	<0.00418	0.19	<0.00152	0.186
	SB336	4/23/2019	2.5 ft	<0.161	<0.535	<0.736	<0.548	<0.221	<0.140	<0.0803	<0.736

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
North Palo Duro Creek	SB337	4/23/2019	2.5 ft	<0.127	<0.423	<0.581	<0.433	<0.174	<0.111	<0.0634	<0.581
	SB337	4/23/2019	0-0.5 ft	<0.126	<0.421	<0.579	<0.432	<0.174	1.07	<0.0632	1.07
	SB337	4/23/2019	1 ft	<0.130	<0.433	<0.595	<0.444	<0.179	<0.114	<0.0649	<0.595
	SB338	4/23/2019	0-0.5 ft	<0.00306	<0.0102	<0.0140	<0.0104	<0.00420	25.60	<0.00153	25.6
	SB338	4/23/2019	0-2 ft	<0.163	<0.544	<0.748	<0.558	<0.225	37.60	<0.0816	37.6
	SB338	4/23/2019	1 ft	<0.00319	<0.0106	<0.0146	<0.0109	<0.00439	3.94	<0.00160	3.94
	SB338	4/23/2019	2.5 ft	<0.141	<0.471	<0.648	<0.483	<0.194	<0.124	<0.0707	<0.648
	SB339	4/23/2019	2.5 ft	<0.141	<0.470	<0.646	<0.482	<0.194	<0.123	<0.0705	<0.646
	SB339	4/23/2019	0-0.5 ft	<0.00330	<0.0110	<0.0151	<0.0113	<0.00454	59.70	<0.00165	59.7
	SB339	4/23/2019	1 ft	<0.00304	<0.0101	<0.0139	<0.0104	<0.00418	0.23	<0.00152	0.234
	SB340	4/23/2019	0-0.5 ft	<0.148	<0.492	<0.677	<0.505	<0.203	1.87	<0.0739	1.87
	SB340	4/23/2019	0-2 ft	<0.139	<0.463	<0.637	<0.475	<0.191	<0.122	<0.0695	<0.637
	SB340	4/23/2019	1 ft	<0.145	<0.482	<0.663	<0.494	<0.199	<0.127	<0.0723	<0.663
	SB340	4/23/2019	2.5 ft	<0.137	<0.456	<0.627	<0.468	<0.188	<0.120	<0.0684	<0.627
	SB341	4/26/2019	2.5 ft	<0.135	<0.449	<0.617	<0.460	<0.185	<0.118	<0.0673	<0.617
	SB341	4/26/2019	0-0.5 ft	<0.137	<0.457	<0.629	<0.469	<0.189	0.181 J	<0.0686	0.181
	SB341	4/26/2019	1 ft	<0.139	<0.462	<0.635	<0.474	<0.191	<0.121	<0.0693	<0.635
	SB342	4/26/2019	0-0.5 ft	<0.142	<0.473	<0.650	<0.485	<0.195	<0.124	<0.0709	<0.650
	SB342	4/26/2019	1 ft	<0.148	<0.494	<0.679	<0.506	<0.204	<0.130	<0.0741	<0.679
	SB342	4/26/2019	2.5 ft	<0.139	<0.463	<0.636	<0.474	<0.191	<0.121	<0.0694	<0.636
	SB343	4/26/2019	2.5 ft	<0.147	<0.491	<0.675	<0.503	<0.203	<0.129	<0.0737	<0.675
	SB343	4/26/2019	0-0.5 ft	<0.138	<0.461	<0.634	<0.473	<0.190	0.898 J	<0.0692	0.898
	SB343	4/26/2019	1 ft	<0.137	<0.456	<0.627	<0.467	<0.188	<0.120	<0.0684	<0.627
	SB344	5/1/2019	0-0.5 ft	<0.149	<0.497	<0.684	<0.510	<0.205	1.61	<0.0746	1.61
	SB344	5/1/2019	1 ft	<0.139	<0.465	<0.639	<0.477	<0.192	<0.122	<0.0697	<0.639
	SB344	5/1/2019	2 ft	<0.140	<0.468	<0.643	<0.479	<0.193	<0.123	<0.0701	<0.643
	SB345	5/1/2019	2 ft	<0.140	<0.467	<0.642	<0.479	<0.193	3.44	<0.0700	3.44
	SB345	5/1/2019	0-0.5 ft	<0.146	<0.486	<0.668	<0.498	<0.200	1.64	<0.0728	1.64
	SB345	5/1/2019	1 ft	<0.162	<0.541	<0.744	<0.554	<0.223	159.00	<0.0811	159
	SB346	5/1/2019	0-0.5 ft	<0.158	<0.528	<0.726	<0.541	<0.218	3.50	<0.0792	3.5
	SB346	5/1/2019	1 ft	<0.142	<0.474	<0.652	<0.486	<0.195	<0.124	<0.0711	<0.652
	SB346	5/1/2019	2 ft	<0.141	<0.470	<0.646	<0.482	<0.194	<0.123	<0.0705	<0.646
	SB347	5/1/2019	2 ft	<0.141	<0.470	<0.646	<0.482	<0.194	<0.123	<0.0705	<0.646
	SB347	5/1/2019	0-0.5 ft	<0.159	<0.531	<0.731	<0.545	<0.219	2.82	<0.0797	2.82
	SB347	5/1/2019	1 ft	<0.141	<0.470	<0.646	<0.481	<0.194	<0.123	0.0994 J	0.0994
	SB348	5/1/2019	0-0.5 ft	<0.167	<0.555	<0.764	<0.569	<0.229	2.18	<0.0833	2.18
	SB348	5/1/2019	1 ft	<0.173	<0.578	<0.795	<0.592	<0.238	12.30	<0.0867	12.3
	SB348	5/1/2019	2 ft	<0.150	<0.499	<0.686	<0.512	<0.206	<0.131	<0.0749	<0.686
	SB350	5/1/2019	2 ft	<0.142	<0.474	<0.652	<0.486	<0.196	<0.125	<0.0711	<0.652
	SB350	5/1/2019	0-0.5 ft	<0.180	<0.600	<0.825	<0.615	<0.247	23.90	<0.0900	23.9
	SB350	5/1/2019	1 ft	<0.148	<0.494	<0.679	<0.506	<0.204	0.772 J	<0.0741	0.772
	SB351	5/1/2019	0-0.5 ft	<0.161	<0.535	<0.736	<0.548	<0.221	30.30	<0.0803	30.3
	SB351	5/1/2019	1 ft	<0.165	<0.551	<0.758	<0.565	<0.227	183.00	<0.0827	183
	SB351	5/1/2019	2 ft	<0.140	<0.466	<0.640	<0.477	<0.192	7.65	<0.0699	7.65
	SB352	5/1/2019	2 ft	<0.136	<0.453	<0.623	<0.464	<0.187	<0.119	<0.0679	<0.623
	SB352	5/1/2019	0-0.5 ft	<0.160	<0.533	<0.732	<0.546	<0.220	8.06	<0.0799	8.06
	SB352	5/1/2019	1 ft	<0.139	<0.463	<0.637	<0.475	<0.191	<0.122	<0.0694	<0.637

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
Remelt Pond	SB063	10/19/2011	0-0.5 ft	<0.0188	<0.0375	<0.0188	<0.0188	<0.0188	<0.0188	<0.0188	<0.0375
	SB090	10/18/2011	0-0.5 ft	<0.096	<0.192	<0.096	<0.096	<0.096	1.56	<0.096	1.56
	SB090	10/19/2011	1-2 ft	<0.0195	<0.039	<0.0195	<0.0195	<0.0195	0.169	<0.0195	0.169
	SB090	10/19/2011	4-5 ft	<0.019	<0.0379	<0.019	<0.019	<0.019	0.0784	<0.019	0.0784
	SB091	10/19/2011	0-0.5 ft	<0.0212	<0.0424	<0.0212	<0.0212	<0.0212	<0.0212	<0.0212	<0.0424
	SB112	3/14/2012	0-0.5 ft	<0.0189	<0.0377	<0.0189	<0.0189	<0.0189	0.23	<0.0189	0.227
	SB113	3/14/2012	0-0.5 ft	<0.396	<0.792	<0.396	<0.396	<0.396	5.67 J	<0.396	5.67 J
	SB113	3/14/2012	4-5 ft	<0.0196	<0.0393	<0.0196	<0.0196	<0.0196	<0.0196	<0.0196	<0.0393
	SB114	3/14/2012	0-0.5 ft	<0.0912	<0.182	<0.0912	<0.0912	<0.0912	0.90	<0.0912	0.9
	SB118	3/15/2012	0-0.5 ft	<19.8	<39.6	<19.8	<19.8	<19.8	498.00	<19.8	498
	SB118	3/15/2012	2 ft	<0.0948	<0.19	<0.0948	<0.0948	<0.0948	1.3	<0.0948	1.3
	SB118	3/15/2012	4-5 ft	<0.0191	<0.0382	<0.0191	<0.0191	<0.0191	0.278	<0.0191	0.278
	SB181	8/7/2013	0-0.5 ft	<0.018	<0.037	<0.018	<0.018	<0.018	<0.018	<0.018	<0.037
	SB182	8/7/2013	0-0.5 ft	<0.019	<0.037	<0.019	<0.019	<0.019	<0.019	<0.019	<0.037
	SB244	9/15/2016	0-0.5 ft	<0.030	<0.12	<0.21	<0.41	<0.039	0.061 J	<0.039	0.061 J
	SB252	9/15/2016	2 ft	<0.034	<0.099	<0.045	<0.10	<0.027	0.62	<0.051	0.62
	SB252	9/15/2016	3.5 ft	<0.039	<0.11	<0.051	<0.11	<0.031	<0.044	<0.058	<0.11
	SB252	9/15/2016	0-0.5 ft	<0.033	<0.095	<0.043	<0.096	<0.026	0.17 J	<0.049	0.17 J
	SB253	9/16/2016	0-0.5 ft	<0.037	<0.10	<0.048	<0.11	<0.029	0.20 J	<0.055	0.20 J
	SB253	9/15/2016	2 ft	<0.040	<0.11	<0.052	<0.12	<0.032	<0.045	<0.060	<0.12
	SB253	9/15/2016	3.5 ft	<0.039	<0.11	<0.051	<0.11	<0.031	<0.044	<0.058	<0.11
	SB254	9/15/2016	2 ft	<0.34	<0.99	<0.45	<1.0	<0.27	-25.3	4.1 J	29.4
	SB254	9/15/2016	3 ft	<0.034	<0.098	<0.045	<0.099	<0.027	0.6	0.15 J	0.75
	SB254	9/16/2016	0-0.5 ft	<0.033	<0.093	<0.043	<0.094	<0.026	0.16 J	<0.049	0.16 J
	SB272	11/1/2016	0-0.5 ft	<0.040	<0.12	<0.053	<0.12	<0.032	<0.046	<0.060	<0.12
	SB272	11/1/2016	2 ft	<0.041	<0.12	<0.054	<0.12	<0.033	<0.046	<0.061	<0.12
	SB272	11/1/2016	3.5 ft	<0.044	<0.13	<0.057	<0.13	<0.035	<0.049	<0.065	<0.13
	SB273	11/1/2016	3 ft	<0.035	<0.10	<0.046	<0.10	<0.028	<0.039	<0.052	<0.10
	SB273	11/2/2016	0-0.5 ft	<0.040	<0.11	<0.052	<0.12	<0.032	0.11 J	<0.059	0.11 J
	SB274	11/1/2016	3 ft	<0.036	<0.10	<0.048	<0.10	<0.029	5	<0.054	5
	SB274	11/3/2016	0-0.5 ft	<0.037	<0.10	<0.048	<0.11	<0.029	<0.041	<0.054	<0.11
	SB353	7/11/2019	0-0.5 ft	<0.133	<0.442	<0.608	<0.453	<0.182	0.266 J	<0.0663	0.266 J
	SB353	7/11/2019	1.00	<0.134	<0.448	<0.616	<0.459	<0.185	24.40	<0.0672	24.4
	SB353	7/11/2019	2 ft	<0.137	<0.457	<0.628	<0.468	<0.189	1.94	<0.0686	1.94
	SB354	7/11/2019	2 ft	<0.133	<0.442	<0.608	<0.453	<0.182	<0.116	<0.0663	<0.608
	SB354	7/11/2019	0-0.5 ft	<0.129	<0.431	<0.593	<0.442	<0.178	0.700 J	<0.0647	0.700 J
	SB354	7/11/2019	1.00	<0.131	<0.437	<0.600	<0.447	<0.180	<0.115	<0.0655	<0.600
	SB355	1/0/1900	0-0.5 ft	<0.133	<0.445	<0.611	<0.456	<0.183	0.520 J	<0.0667	0.520 J
	SB355	7/11/2019	1.00	<0.131	<0.435	<0.599	<0.446	<0.180	0.179 J	<0.0653	0.179 J
	SB355	7/11/2019	2 ft	<0.130	<0.432	<0.594	<0.443	<0.178	1.52	<0.0648	1.52
	SB356	7/11/2019	2 ft	<0.130	<0.434	<0.596	<0.444	<0.179	<0.114	<0.0650	<0.596
	SB356	7/11/2019	0-0.5 ft	<0.127	<0.423	<0.582	<0.434	<0.174	<0.111	<0.0634	<0.582
	SB356	7/11/2019	1.00	<0.131	<0.438	<0.602	<0.449	<0.181	<0.115	<0.0657	<0.602
	SB357	7/11/2019	0-0.5 ft	<0.132	<0.442	<0.607	<0.453	<0.182	0.170 J	<0.0662	0.170 J
	SB357	7/11/2019	1.00	<0.132	<0.440	<0.606	<0.451	<0.182	2.47	<0.0661	2.47
	SB357	7/11/2019	2 ft	<0.132	<0.439	<0.604	<0.450	<0.181	2.53	<0.0659	2.53
	SB358	7/11/2019	2 ft	<0.134	<0.447	<0.614	<0.458	<0.184	<0.117	<0.0670	<0.614

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
Remelt Pond	SB358	7/11/2019	0-0.5 ft	<0.131	<0.438	<0.603	<0.449	<0.181	<0.115	<0.0657	<0.603
	SB358	7/11/2019	1.00	<0.131	<0.437	<0.601	<0.448	<0.180	<0.115	<0.0656	<0.601
	SB359	7/11/2019	0-0.5 ft	<0.131	<0.438	<0.603	<0.449	<0.181	<0.115	<0.0657	<0.603
	SB359	7/11/2019	1.00	<0.131	<0.437	<0.601	<0.448	<0.180	<0.115	<0.0656	<0.601
	SB359	7/11/2019	2 ft	<0.134	<0.446	<0.613	<0.457	<0.184	<0.117	<0.0669	<0.613
	SB360	7/11/2019	2 ft	<0.00263	<0.00875	<0.0120	<0.00897	<0.00361	0.0110 J	<0.00131	0.0110 J
	SB360	7/11/2019	0-0.5 ft	<0.00265	<0.00883	<0.0121	<0.00905	<0.00364	0.16	<0.00132	0.159
	SB360	7/11/2019	1.00	0.27	<0.00893	<0.0123	<0.00915	<0.00368	<0.00234	0.29	0.559
	SB361	7/11/2019	2 ft	<0.136	<0.453	<0.623	<0.464	<0.187	<0.119	<0.0679	<0.623
	SB361	7/11/2019	0-0.5 ft	<0.134	<0.445	<0.612	<0.457	<0.184	<0.117	<0.0668	<0.612
SB361	7/11/2019	2.00	<0.130	<0.434	<0.597	<0.445	<0.179	<0.114	<0.0651	<0.597	
Waste Pit Area	AT01	10/18/2017	0-3 ft	<0.00238	<0.00794	<0.0109	<0.00813	<0.00327	0.0102 J	<0.00119	0.0102 J
	FR004	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	<0.0058	<0.0041	<0.017
	FR005	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.47	0.25	0.72
	FR006	3/12/2014	0-0.5 ft	<0.0051	<0.016	<0.017	<0.0024	<0.0040	<0.0056	<0.0041	<0.017
	FR007	3/12/2014	0-0.5 ft	<0.0051	<0.016	<0.017	<0.0024	<0.0040	<0.0057	<0.0041	<0.017
	FR008	3/12/2014	0-0.5 ft	<0.0051	<0.016	<0.017	<0.0024	<0.0040	0.011 J	0.0095 J	0.0205 J
	FR009	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.10	0.06	0.164
	FR010	3/12/2014	0-0.5 ft	<0.010	<0.032	<0.034	<0.0049	<0.0081	0.49	0.29	0.78
	PD007	12/17/2013	0-0.5 ft	<0.027	<0.083	<0.088	<0.013	<0.021	1.30	0.74	2.04
	PD013	12/17/2013	0-0.5 ft	<0.028	<0.087	<0.092	<0.013	<0.022	1.60	1.20	2.8
	PD023	5/2/2014	0-0.5 ft	<0.020	<0.080	<0.085	<0.012	<0.021	0.92	<0.017	0.92
	PD024	5/2/2014	0-0.5 ft	<0.042	<0.17	<0.18	<0.026	<0.043	2.30	<0.035	2.3
	SB190	11/20/2013	0-0.5 ft	<0.057	<0.18	<0.19	<0.027	<0.045	1.50	1.00	2.5
	SB191	11/20/2013	0-0.5 ft	<0.011	<0.034	<0.036	<0.0052	<0.0087	0.59 J	0.44 J	1.03 J
	SB197	11/20/2013	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.022 J	0.042 J	0.064 J
	SB198A	11/2/2016	4 ft	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
	SB200	11/20/2013	0-0.5 ft	<0.0055	<0.017	<0.018	<0.0026	<0.0044	<0.0061	0.012 J	0.012 J
	SB201	11/20/2013	0-0.5 ft	<0.0059	<0.018	<0.020	<0.0028	<0.0047	<0.0066	0.0073 J	0.0073 J
	SB203	11/21/2013	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.21	0.19	0.40
	SB204A	9/16/2016	0-0.5 ft	<0.040	<0.11	<0.052	<0.12	<0.032	3.70	0.91	4.61
	SB204A	9/16/2016	2 ft	<0.030	<0.087	<0.040	<0.088	<0.024	<0.034	<0.045	<0.088
	SB204A	9/16/2016	3.5 ft	<0.037	<0.11	<0.048	<0.11	<0.029	<0.041	<0.055	<0.11
	SB205	11/21/2013	0-0.5 ft	<0.0050	<0.015	<0.016	<0.0024	<0.0040	0.0074 J	<0.0040	0.0074 J
	SB206	11/21/2013	0-0.5 ft	<0.0053	<0.017	<0.018	<0.0025	<0.0042	0.13	0.09	0.216
	SB207	11/21/2013	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.04	0.06	0.099
	SB207	11/21/2013	3.5 ft	<0.010	<0.032	<0.034	<0.0049	<0.0082	0.19	0.42	0.61
	SB208	11/21/2013	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.012 J	0.022 J	0.034 J
	SB209	11/21/2013	4.5 ft	<0.010	<0.032	<0.034	<0.0050	<0.0083	0.63 J	0.38 J	1.01 J
	SB210	11/21/2013	0-0.5 ft	<0.0057	<0.018	<0.019	<0.0027	<0.0045	0.022 J	0.042 J	0.064 J
	SB211	12/17/2013	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	0.04	0.07	0.114
	SB212	11/20/2013	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	0.04	0.08	0.118
	SB213	3/12/2014	0-0.5 ft	<0.0056	<0.017	<0.018	<0.0027	<0.0044	0.07	0.09	0.162
	SB214	3/12/2014	0-0.5 ft	<0.0057	<0.018	<0.019	<0.0027	<0.0045	0.07	0.08	0.152
	SB215	3/12/2014	0-0.5 ft	<0.0056	<0.017	<0.018	<0.0027	<0.0044	0.033 J	0.06	0.092
	SB215	5/2/2014	5 ft	<0.0043	<0.017	<0.018	<0.0026	<0.0044	<0.0061	<0.0036	<0.018
	SB216	3/12/2014	0-0.5 ft	<0.0054	<0.017	<0.018	<0.0026	<0.0043	0.021 J	0.030 J	0.051 J

Table 1

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (0.5 Acre Source Area):				--	--	--	--	--	--	--	7.7
Waste Pit Area	SB216	11/4/2016	0-0.5 ft	<0.038	<0.11	<0.050	<0.11	<0.030	0.34 J	<0.057	0.34 J

Notes:

- 1) Data are presented in milligrams per kilogram (mg/kg).
- 2) Bolded/shaded data meet or exceed the noted regulatory threshold.
- 3) J = Concentration was detected at less than the quantitation limit and is an estimated value.
- 4) < = below laboratory detection limit.

Table 2

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Stormwater Trench Area
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (30 Acre Source Area):				--	--	--	--	--	--	--	7.1
Stormwater Trench	FR001	3/12/2014	0-0.5 ft	<0.0051	<0.016	<0.017	<0.0024	<0.0041	<0.0057	<0.0041	<0.017
	FR002	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	<0.0057	<0.0041	<0.017
	FR003	3/12/2014	0-0.5 ft	<0.26	<0.82	<0.87	<0.13	<0.21	0.90	0.33 J	1.23
	FR011	3/12/2014	0-0.5 ft	<0.10	<0.32	<0.34	<0.049	<0.082	5.50	3.00	8.5
	FR012	3/12/2014	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	0.22	0.17	0.39
	FR013	3/12/2014	0-0.5 ft	<0.0053	<0.016	<0.017	<0.0025	<0.0042	<0.0059	<0.0042	<0.017
	FR014	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.0075 J	0.018 J	0.0255 J
	FR015	3/12/2014	0-0.5 ft	<0.0052	<0.016	<0.017	<0.0025	<0.0041	0.06	0.05	0.110
	SB001	10/14/2011	0-0.5 ft	<0.0061	<0.0331	<0.0144	<0.0021	<0.0122	<0.0122	<0.0046	<0.0331
	SB003	12/1/2011	0-0.5 ft	<0.18	<0.36	<0.18	<0.18	<0.18	1.20	<0.18	1.2
	SB003	12/1/2011	1-2 ft	<0.0179	<0.0359	<0.0179	<0.0179	<0.0179	0.263	<0.0179	0.263
	SB003	12/1/2011	4-5 ft	<0.0166	<0.0331	<0.0166	<0.0166	<0.0166	0.0465	<0.0166	0.0465
	SB004	12/1/2011	4-5 ft	<0.0176	<0.0352	<0.0176	<0.0176	<0.0176	<0.0176	<0.0176	<0.0352
	SB004	12/1/2011	0-0.5 ft	<0.0177	<0.0354	<0.0177	<0.0177	<0.0177	<0.0177	<0.0177	<0.0354
	SB005	12/1/2011	0-0.5 ft	<0.0197	<0.0394	<0.0197	<0.0197	<0.0197	0.20	<0.0197	0.201
	SB005	12/1/2011	4-5 ft	<9.96	<19.9	<9.96	<9.96	<9.96	143	<9.96	143
	SB006	12/1/2011	4-5 ft	<1.92	<3.85	<1.92	<1.92	<1.92	33.4	<1.92	33.4
	SB006	12/1/2011	0-0.5 ft	<0.0196	<0.0392	<0.0196	<0.0196	<0.0196	0.07	<0.0196	0.067
	SB007	12/1/2011	0-0.5 ft	<0.0198	<0.0396	<0.0198	<0.0198	<0.0198	0.29	<0.0198	0.287
	SB007	12/1/2011	4-5 ft	<0.0221	<0.0442	<0.0221	<0.0221	<0.0221	0.391 J	<0.0221	0.391 J
	SB008	12/1/2011	4-5 ft	<0.0176	<0.0352	<0.0176	<0.0176	<0.0176	0.104	<0.0176	0.104
	SB008	12/1/2011	0-0.5 ft	<0.0175	<0.0349	<0.0175	<0.0175	<0.0175	0.25	<0.0175	0.254
	SB089	10/14/2011	0-0.5 ft	<0.0059	<0.0319	<0.0138	<0.002	<0.0117	<0.0117	<0.0045	<0.0319
	SB120	4/19/2012	0-1 ft	<1.97	<3.94	<1.97	<1.97	<1.97	31.50	<1.97	31.5
	SB121	4/19/2012	0-1 ft	<4.05	<8.09	<4.05	<4.05	<4.05	82.50	<4.05	82.5
	SB121	4/19/2012	4 ft	<3.86	<7.72	<3.86	<3.86	<3.86	38.4	<3.86	38.4
	SB139	7/11/2012	0-0.5 ft	<0.020	<0.040	<0.020	<0.020	<0.020	<0.020	0.035 J	0.035 J
	SB139	7/11/2012	3.5 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.24	<0.018	0.24
	SB140	7/11/2012	0-0.5 ft	<0.018	<0.037	<0.018	<0.018	<0.018	0.10	<0.018	0.097
	SB141	7/11/2012	0-0.5 ft	<0.018	<0.037	<0.018	<0.018	<0.018	<0.018	<0.018	<0.037
	SB142	1/0/1900	0-0.5 ft	<0.018	<0.035	<0.018	<0.018	<0.018	0.04	<0.018	0.04
	SB143	7/11/2012	0-0.5 ft	<184	<367	<184	<184	<184	3220.00	<184	3,220
	SB143	4/16/2013	3 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.12	<0.018	0.12
	SB144	7/11/2012	0-0.5 ft	<0.023	<0.046	<0.023	<0.023	<0.023	<0.023	<0.023	<0.046
	SB145	7/11/2012	0-0.5 ft	<0.017	<0.035	<0.017	<0.017	<0.017	0.38	<0.017	0.38
	SB150	4/15/2013	0-1 ft	<0.39	<0.78	<0.39	<0.39	<0.39	4.00	<0.39	4.0
	SB150	4/15/2013	5 ft	<0.20	<0.40	<0.20	<0.20	<0.20	1.4	<0.20	1.4
	SB151	4/15/2013	0-1 ft	<0.022	<0.043	<0.022	<0.022	<0.022	0.66	<0.022	0.66
	SB153	4/15/2013	0-1 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.10	<0.018	0.095
	SB153	4/15/2013	4 ft	<0.018	<0.035	<0.018	<0.018	<0.018	0.018 J	<0.018	0.018 J
	SB154	4/15/2013	4 ft	<0.022	<0.044	<0.022	<0.022	<0.022	<0.022	<0.022	<0.044
	SB154	4/15/2013	0-1 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.68	<0.019	0.68
	SB155	4/15/2013	0-1 ft	<17.8	<35.6	<17.8	<17.8	<17.8	208.00	<17.8	208
	SB156	4/16/2013	0-1 ft	<0.017	<0.035	<0.017	<0.017	<0.017	0.11	<0.017	0.11
	SB158	4/16/2013	0-5 ft	<0.092	<0.18	<0.092	<0.092	<0.092	0.83	<0.092	0.83
	SB159	4/16/2013	4 ft	<0.018	<0.036	<0.018	<0.018	<0.018	<0.018	<0.018	<0.036

Table 2

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Stormwater Trench Area
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (30 Acre Source Area):				--	--	--	--	--	--	--	7.1
Stormwater Trench	SB159	4/16/2013	0-0.5 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.34	<0.019	0.34
	SB160	4/16/2013	0-0.5 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.07	<0.018	0.068
	SB161	4/16/2013	0-0.5 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.12	<0.018	0.12
	SB162	4/16/2013	0-0.5 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.25	<0.018	0.25
	SB163	4/16/2013	0-0.5 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.09	<0.019	0.086
	SB163	4/16/2013	4 ft	<0.017	<0.035	<0.017	<0.017	<0.017	<0.017	<0.017	<0.035
	SB172	8/7/2013	3 ft	<0.017	<0.035	<0.017	<0.017	<0.017	0.093 J	<0.017	0.093 J
	SB172	8/7/2013	0-0.5 ft	<0.90	<1.8	<0.90	<0.90	<0.90	10.20	<0.90	10.2
	SB173	8/7/2013	0-0.5 ft	<0.98	<2.0	<0.98	<0.98	<0.98	12.80	<0.98	12.8
	SB173	8/7/2013	3 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.028 J	<0.019	0.028 J
	SB174	8/7/2013	3 ft	<17.8	<35.5	<17.8	<17.8	<17.8	160 J	<17.8	160 J
	SB174	8/7/2013	0-0.5 ft	<17.5	<35.0	<17.5	<17.5	<17.5	227.00	<17.5	227
	SB175	8/7/2013	0-0.5 ft	<0.18	<0.35	<0.18	<0.18	<0.18	2.60	<0.18	2.6
	SB176	8/7/2013	0-0.5 ft	<8.7	<17.4	<8.7	<8.7	<8.7	111.00	<8.7	111
	SB176	8/7/2013	3 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.10 J	<0.018	0.10 J
	SB177	8/7/2013	0-0.5 ft	<0.019	<0.037	<0.019	<0.019	<0.019	0.40	<0.019	0.40
	SB178	8/7/2013	0-0.5 ft	<0.018	<0.035	<0.018	<0.018	<0.018	0.031 J	<0.018	0.031 J
	SB179	8/7/2013	0-0.5 ft	<0.018	<0.036	<0.018	<0.018	<0.018	0.10	<0.018	0.10
	SB180	8/7/2013	0-0.5 ft	<0.017	<0.035	<0.017	<0.017	<0.017	0.56	<0.017	0.56
	SB202	11/20/2013	0-0.5 ft	<0.053	<0.16	<0.17	<0.025	<0.042	2.20	1.50	3.7
	SB202	11/20/2013	4.5 ft	<0.0054	<0.017	<0.018	<0.0026	<0.0043	<0.0060	<0.0043	<0.018
	SB278	11/4/2016	0-0.5 ft	<0.037	<0.11	<0.049	<0.11	<0.029	<0.042	<0.055	<0.11
	SB278	11/4/2016	2.5 ft	<0.036	<0.10	<0.047	<0.10	<0.029	<0.040	<0.054	<0.10
	SB279	11/3/2016	2.5 ft	<0.038	<0.11	<0.050	<0.11	<0.030	<0.043	<0.057	<0.11
	SB279	11/3/2016	0-0.5 ft	<0.035	<0.10	<0.046	<0.10	<0.028	<0.039	<0.052	<0.10
	SB280	11/3/2016	0-0.5 ft	<0.036	<0.10	<0.048	<0.10	<0.029	<0.041	<0.054	<0.10
	SB280	11/3/2016	2.5 ft	<0.036	<0.10	<0.047	<0.10	<0.029	<0.041	<0.054	<0.10
	SB281	11/4/2016	2.5 ft	<0.041	<0.12	<0.053	<0.12	<0.032	<0.046	<0.061	<0.12
	SB281	11/4/2016	0-0.5 ft	<0.036	<0.10	<0.048	<0.11	<0.029	<0.041	<0.054	<0.11
	SB282	11/4/2016	0-0.5 ft	<0.039	<0.11	<0.051	<0.11	<0.031	0.40 J	<0.058	0.40 J
	SB282	11/4/2016	2.5 ft	<0.042	<0.12	<0.055	<0.12	<0.033	<0.047	<0.062	<0.12
	SB283	11/4/2016	2.5 ft	<0.040	<0.12	<0.053	<0.12	<0.032	<0.045	<0.060	<0.12
	SB283	11/4/2016	0-0.5 ft	<0.042	<0.12	<0.055	<0.12	<0.033	<0.047	<0.062	<0.12
	SB362	4/21/2020	0-0.5 ft	<0.0858	<0.0858	<0.0858	<0.0858	<0.0858	7.64	<0.0566	7.64
	SB363	4/21/2020	0-0.5 ft	<0.0103	<0.0103	<0.0103	<0.0103	<0.0103	0.65	<0.00679	0.652
	SB364	4/21/2020	0-0.5 ft	<0.00952	<0.00952	<0.00952	<0.00952	<0.00952	0.88	<0.00628	0.882
	SB365	4/21/2020	0-0.5 ft	<0.00900	<0.00900	<0.00900	<0.00900	<0.00900	0.85	<0.00593	0.845
	SB366	1/0/1900	0-0.5 ft	<0.00898	<0.00898	<0.00898	<0.00898	<0.00898	0.05	<0.00592	0.0523
	SB367	4/21/2020	0-0.5 ft	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	0.34	<0.00622	0.343
	SB368	4/21/2020	0-0.5 ft	<0.00910	<0.00910	<0.00910	<0.00910	<0.00910	0.23	<0.00600	0.230
	SB369	4/21/2020	0-0.5 ft	<0.00941	<0.00941	<0.00941	<0.00941	<0.00941	0.33	<0.00621	0.329
	SB370	4/21/2020	0-0.5 ft	<0.00947	<0.00947	<0.00947	<0.00947	<0.00947	0.23	<0.00624	0.234
	SB371	4/21/2020	0-0.5 ft	<0.00943	<0.00943	<0.00943	<0.00943	<0.00943	0.87	<0.00621	0.867
	SB372	4/21/2020	0-0.5 ft	<0.00902	<0.00902	<0.00902	<0.00902	<0.00902	0.21	<0.00595	0.209
	TW001comp	4/18/2012	0-3 ft	<0.019	<0.038	<0.019	<0.019	<0.019	<0.019	<0.019	<0.038
	TW002comp	4/18/2012	0-5 ft	<0.020	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040

Table 2

Summary of PCB Analytical Results in Surface Deposits/Soils (<5 ft bgs)
Stormwater Trench Area
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
Tier 1 Commercial/Industrial (C/I) Soil ^{Tot} Soil _{Comb} (30 Acre Source Area):				--	--	--	--	--	--	--	7.1
Stormwater Trench	TW003comp	4/19/2012	0-5.5 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.029 J	<0.019	0.029 J

Notes:

- 1) Data are presented in milligrams per kilogram (mg/kg).
- 2) Bolded/shaded data meet or exceed the noted regulatory threshold.
- 3) J = Concentration was detected at less than the quantitation limit and is an estimated value.
- 4) < = below laboratory detection limit.

Table 3

Summary of PCB Analytical Results in Subsurface Soils (>5 ft bgs)
Former Cactus Facilities
Moore County, Texas
EPA ID TXD041230426

Area of Concern	Sample Location	Sample Date	Sample Depth	Polychlorinated Biphenyls (PCBs)							
				Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
TSCA Non-Residential Clean-Up Level (Low Occupany):				--	--	--	--	--	--	--	25.0
North Palo Duro Creek	PD044	4/26/2019	5 ft	<0.151	<0.504	<0.693	<0.517	<0.208	4.53	<0.0757	4.53
	PD044	4/26/2019	6 ft	<0.119	<0.395	<0.543	<0.405	<0.163	<0.104	<0.0593	<0.543
	PD044	10/1/2015	7 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	PD045	10/1/2015	7.5 ft	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
	PD136	4/23/2019	5 ft	<0.154	<0.513	<0.706	<0.526	<0.212	<0.135	<0.0770	<0.706
	PD136	4/23/2019	6 ft	<0.146	<0.485	<0.668	<0.498	<0.200	<0.127	<0.0728	<0.668
	SB152	4/15/2013	7.5 ft	<0.019	<0.038	<0.019	<0.019	<0.019	0.19	<0.019	0.19
	SB326	3/21/2018	5 ft	<0.00251	<0.00836	<0.0115	<0.00857	<0.00345	<0.00219	0.00230 J	0.00230 J
	SB328	3/21/2018	5 ft	<0.00286	<0.00955	<0.0131	<0.00978	<0.00394	<0.00251	0.0258	0.0258
	SB329	3/21/2018	5 ft	<0.00289	<0.00962	<0.0132	<0.00986	<0.00397	<0.00253	<0.00144	<0.0132
	SB330	3/21/2018	5 ft	<0.00289	<0.00965	<0.0133	<0.00989	<0.00398	<0.00253	<0.00145	<0.0133
Remelt Pond	SB118	3/15/2012	9 ft	<0.0192	<0.0385	<0.0192	<0.0192	<0.0192	0.0584	<0.0192	0.0584
	SB118	3/15/2012	17 ft	<0.0187	<0.0375	<0.0187	<0.0187	<0.0187	0.0386	<0.0187	0.0386
	SB244	9/15/2016	5 ft	<0.038	<0.16	<0.27	<0.53	<0.050	<0.044	<0.050	<0.53
Stormwater Trench	SB150	4/15/2013	5 ft	<0.20	<0.40	<0.20	<0.20	<0.20	1.4	<0.20	1.4
Waste Pit Area	SB193	11/20/2013	5 ft	<1.0	<3.1	<3.3	<0.48	<0.79	82.3	34.9	117.2
	SB215	5/2/2014	5 ft	<0.0043	<0.017	<0.018	<0.0026	<0.0044	<0.0061	<0.0036	<0.018

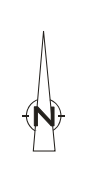
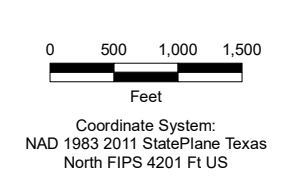
Notes:

- 1) Data are presented in milligrams per kilogram (mg/kg).
- 2) Bolded/shaded data meet or exceed the noted regulatory threshold.
- 3) J = Concentration was detected at less than the quantitation limit and is an estimated value.
- 4) < = below laboratory detection limit.

Figures



Source: NAIP Aerial

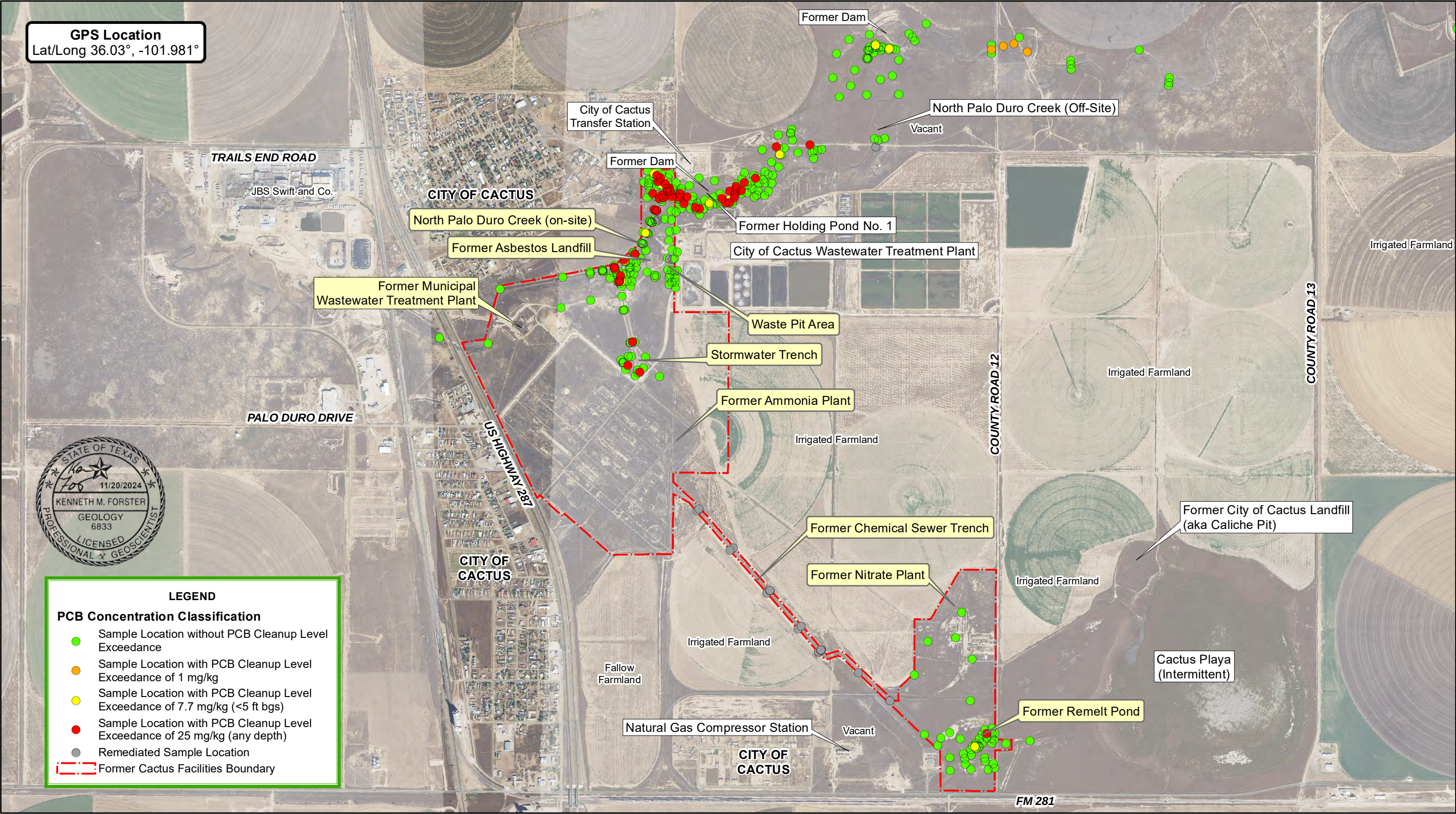


PHILLIPS 66 COMPANY
FORMER CACTUS FACILITIES, CACTUS, TEXAS
RISK-BASED PCB CLEANUP PLAN

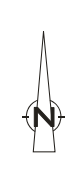
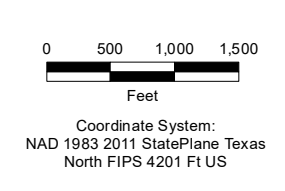
SITE DETAILS MAP

075039-00
May 4, 2021

FIGURE 2



Source: Texas Natural Resources Information System

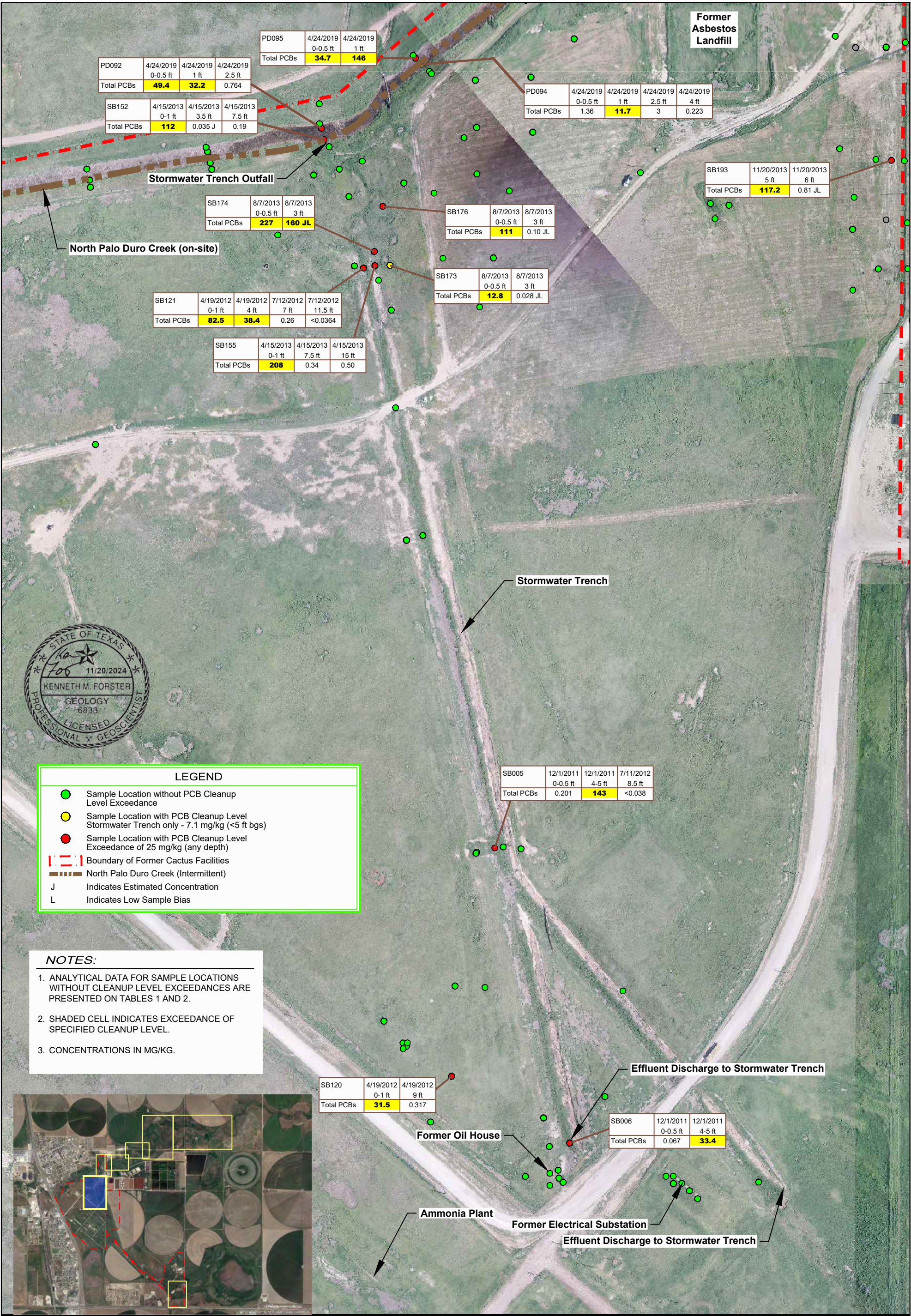


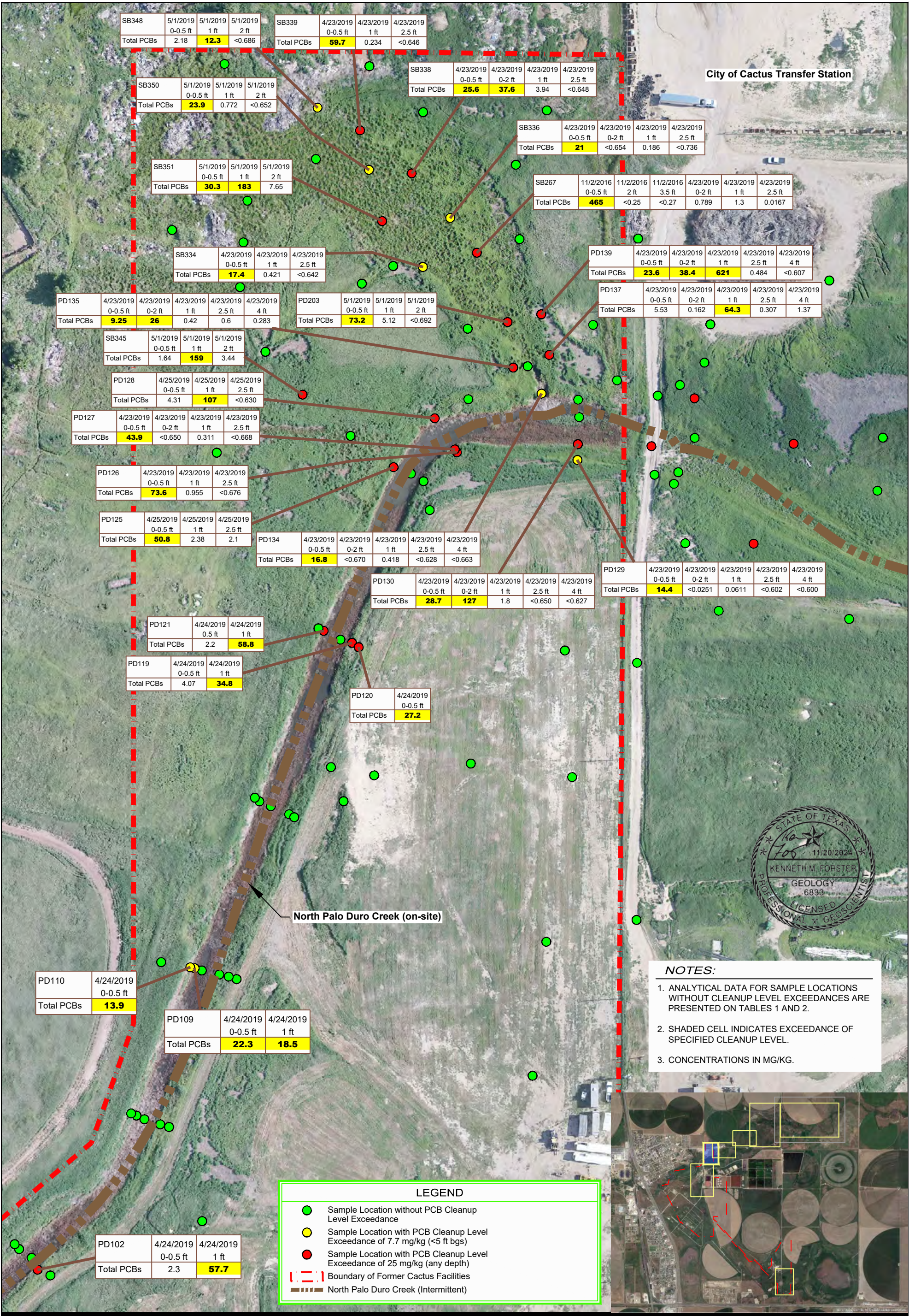
PHILLIPS 66 COMPANY
FORMER CACTUS FACILITIES, CACTUS, TEXAS
RISK-BASED PCB CLEANUP PLAN

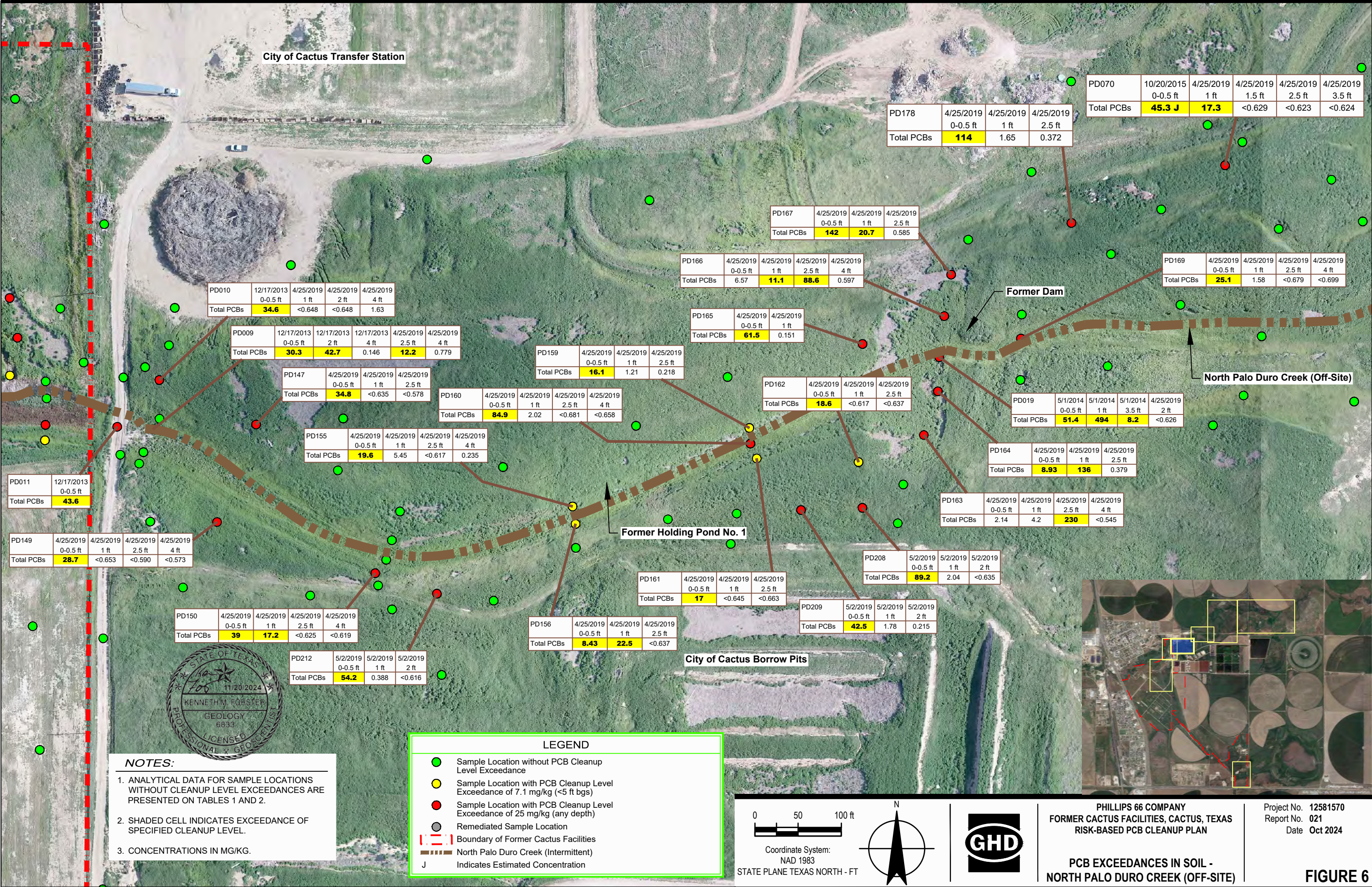
PCB SOIL CONCENTRATIONS OVERVIEW MAP

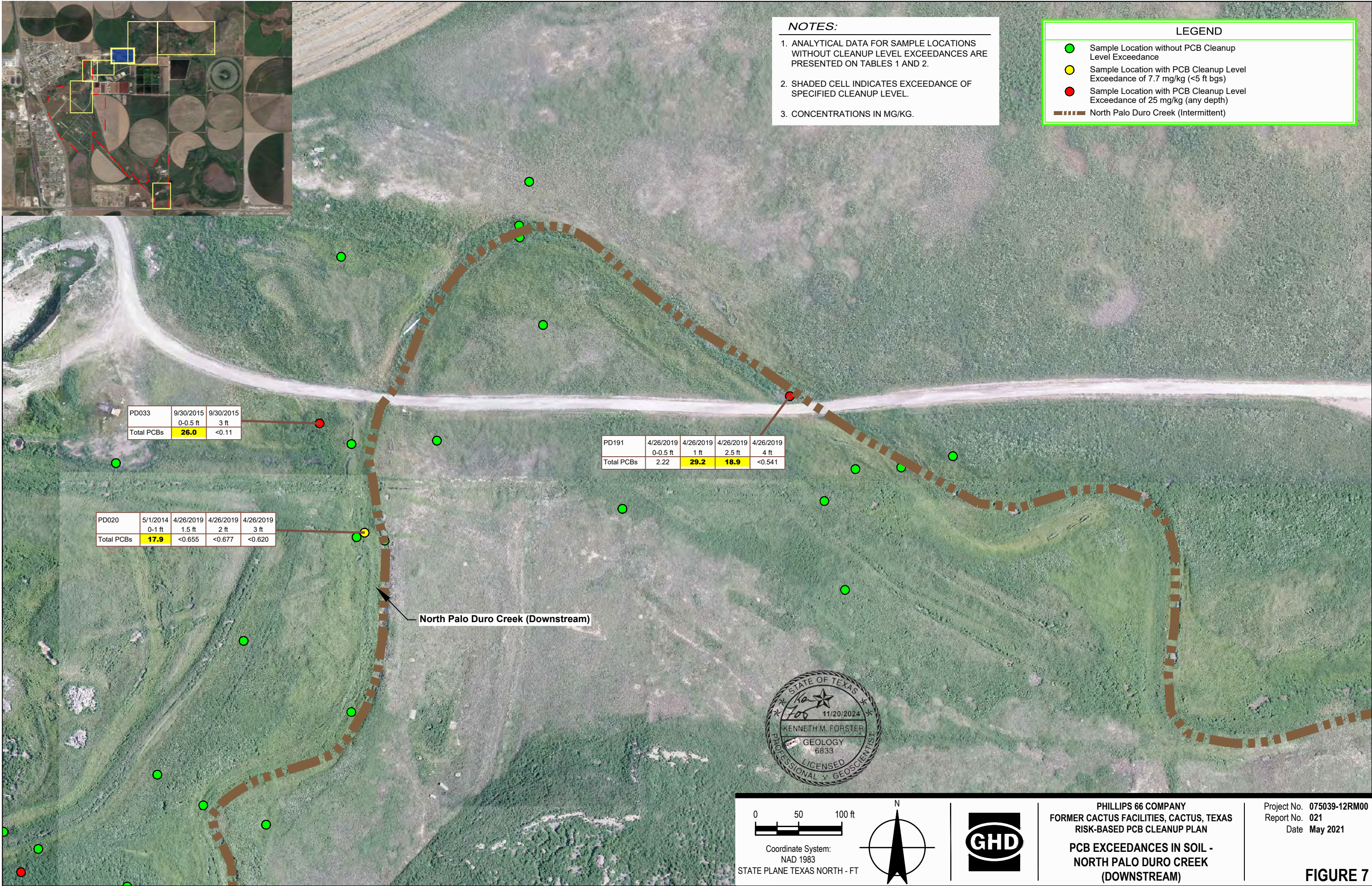
12581570
Oct 24, 2024

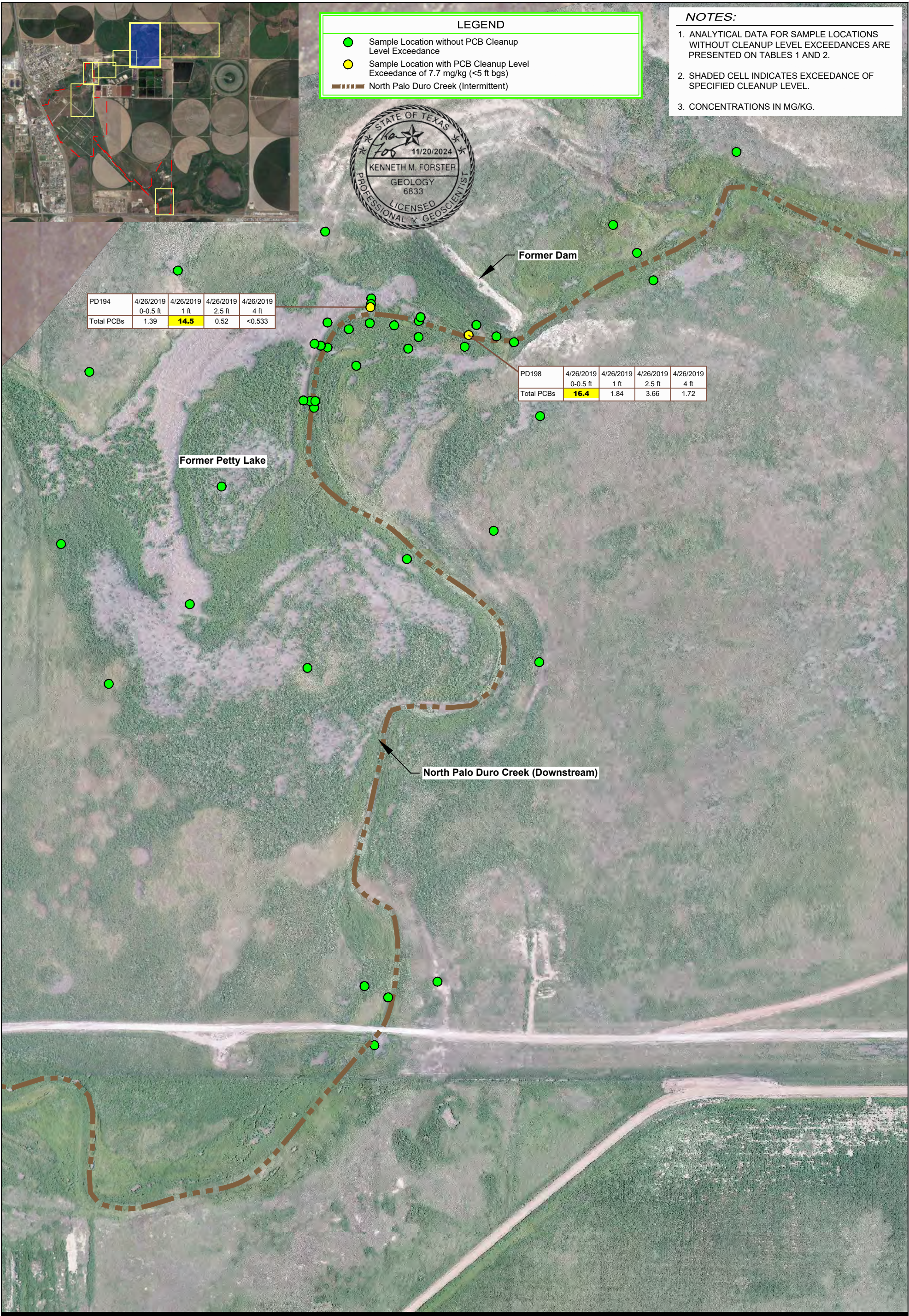
FIGURE 3

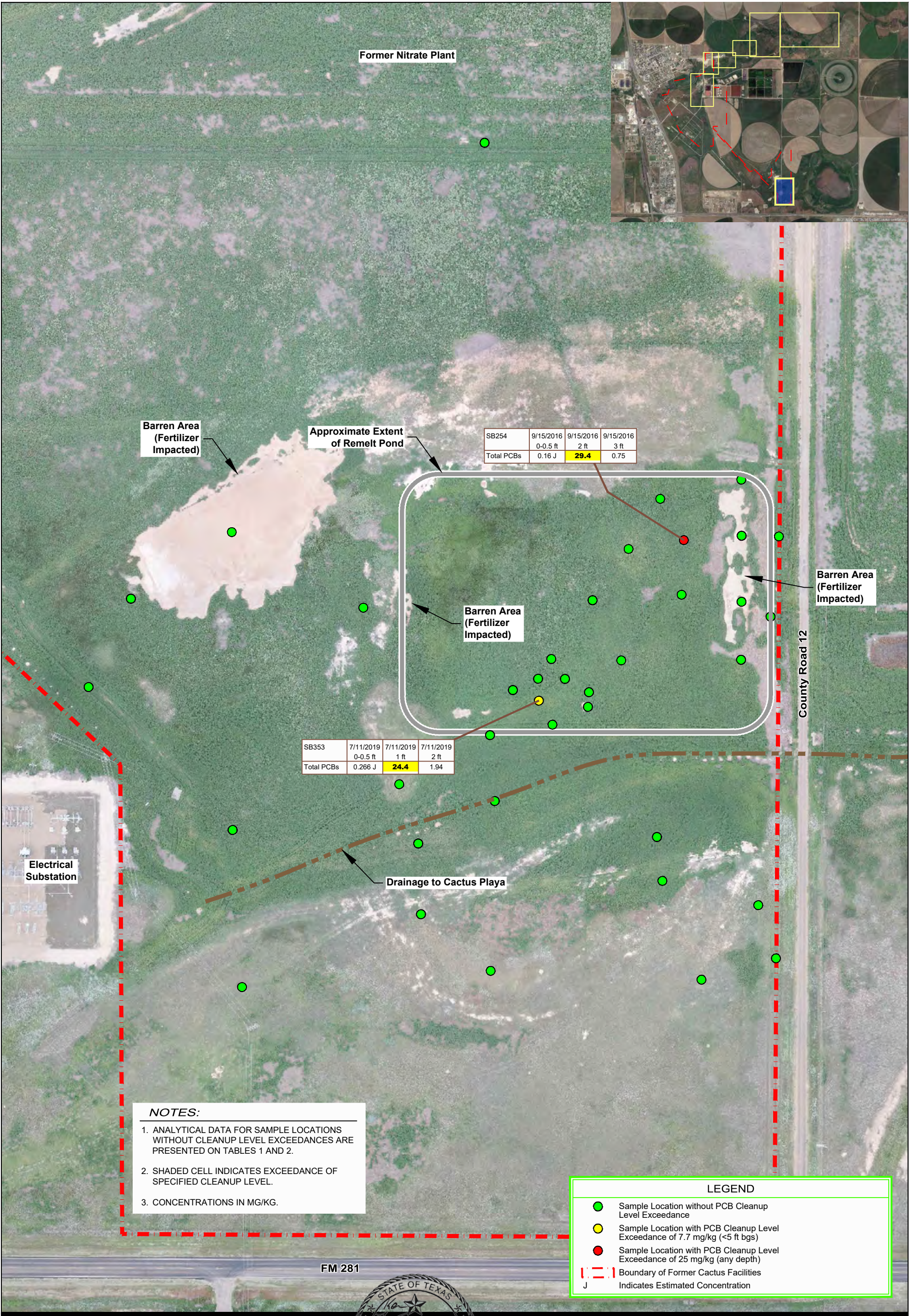


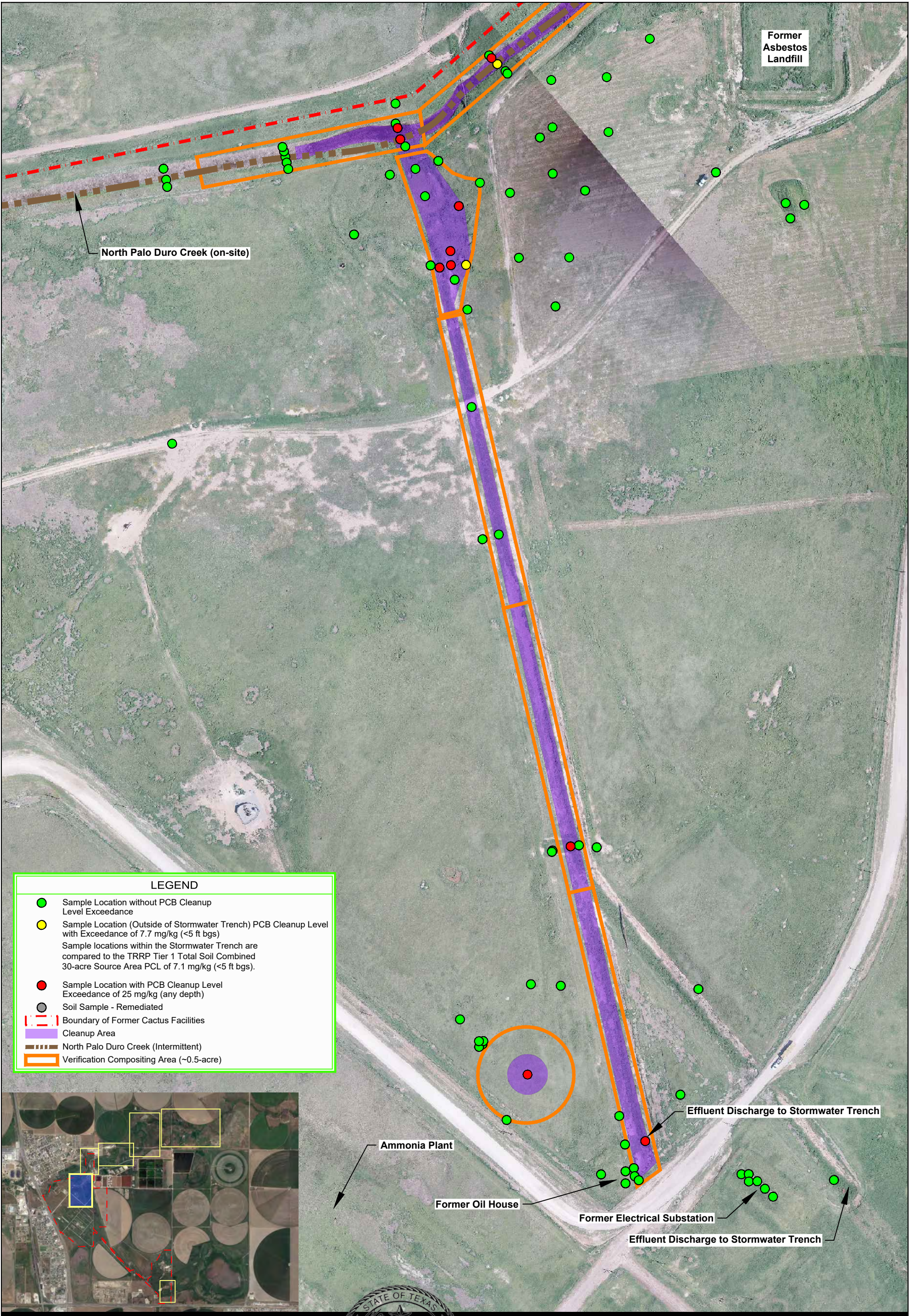


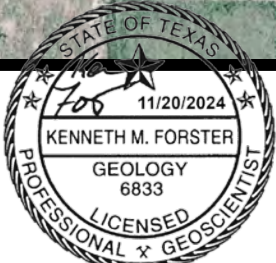
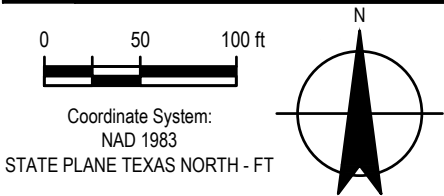
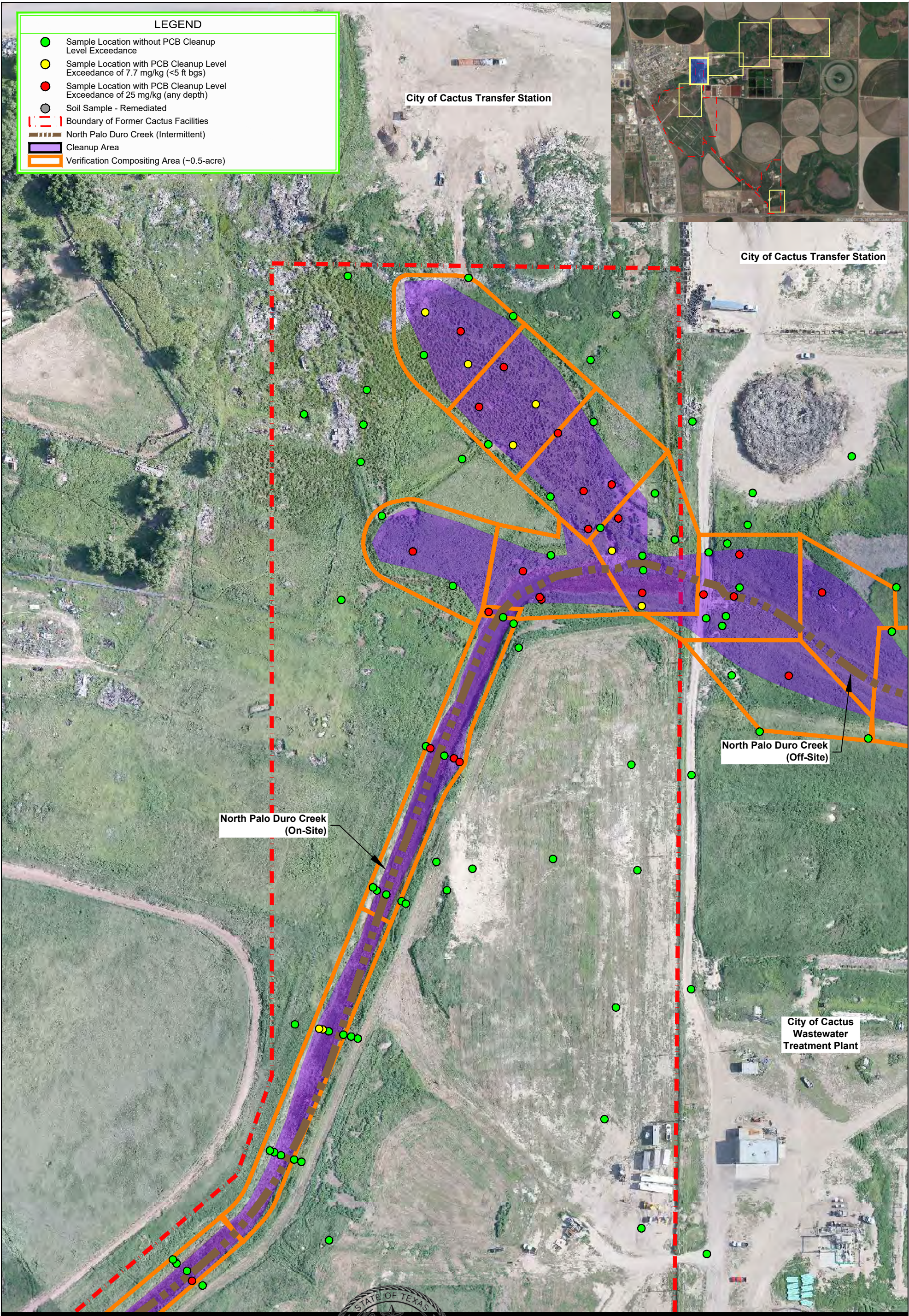










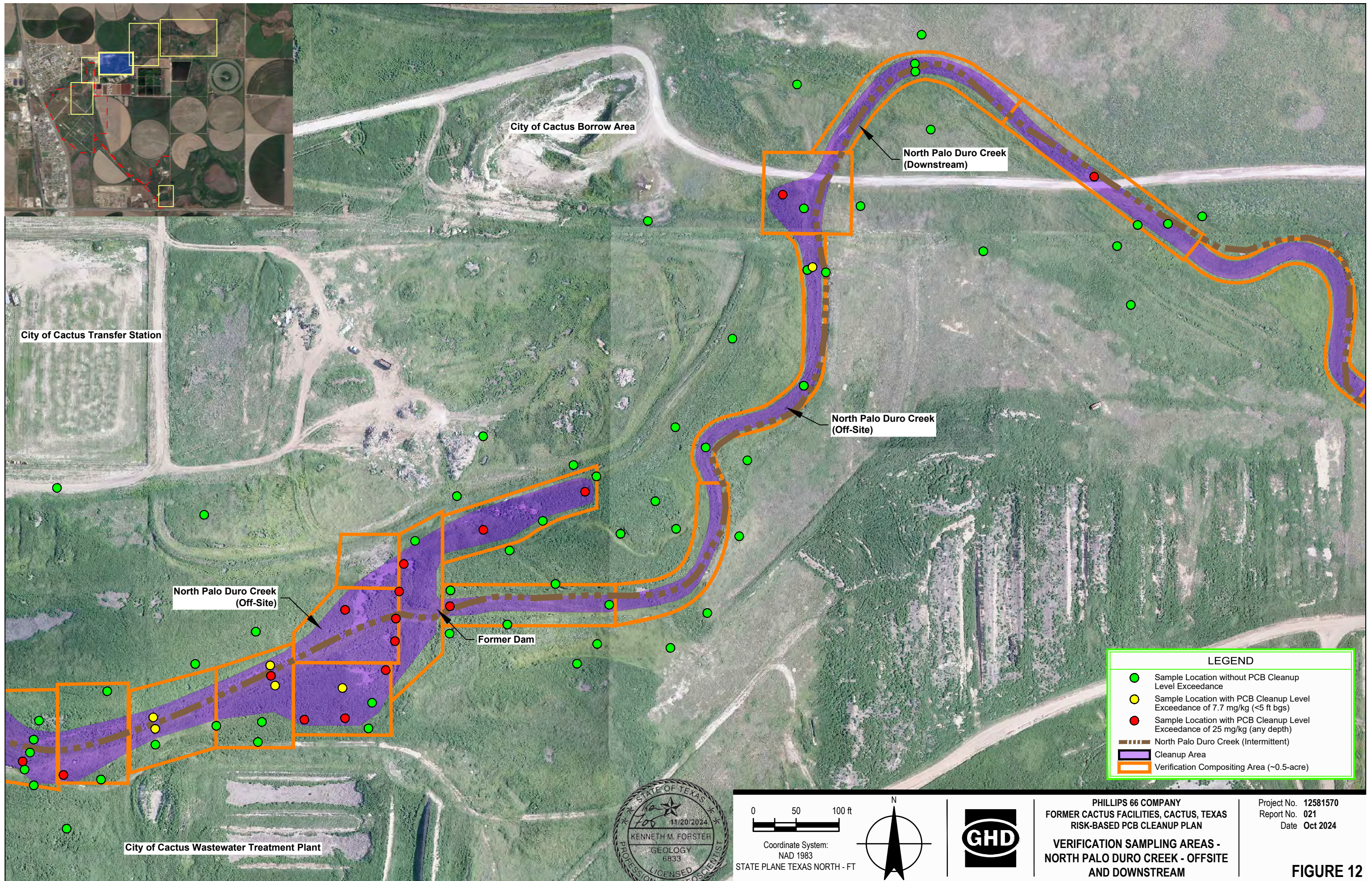


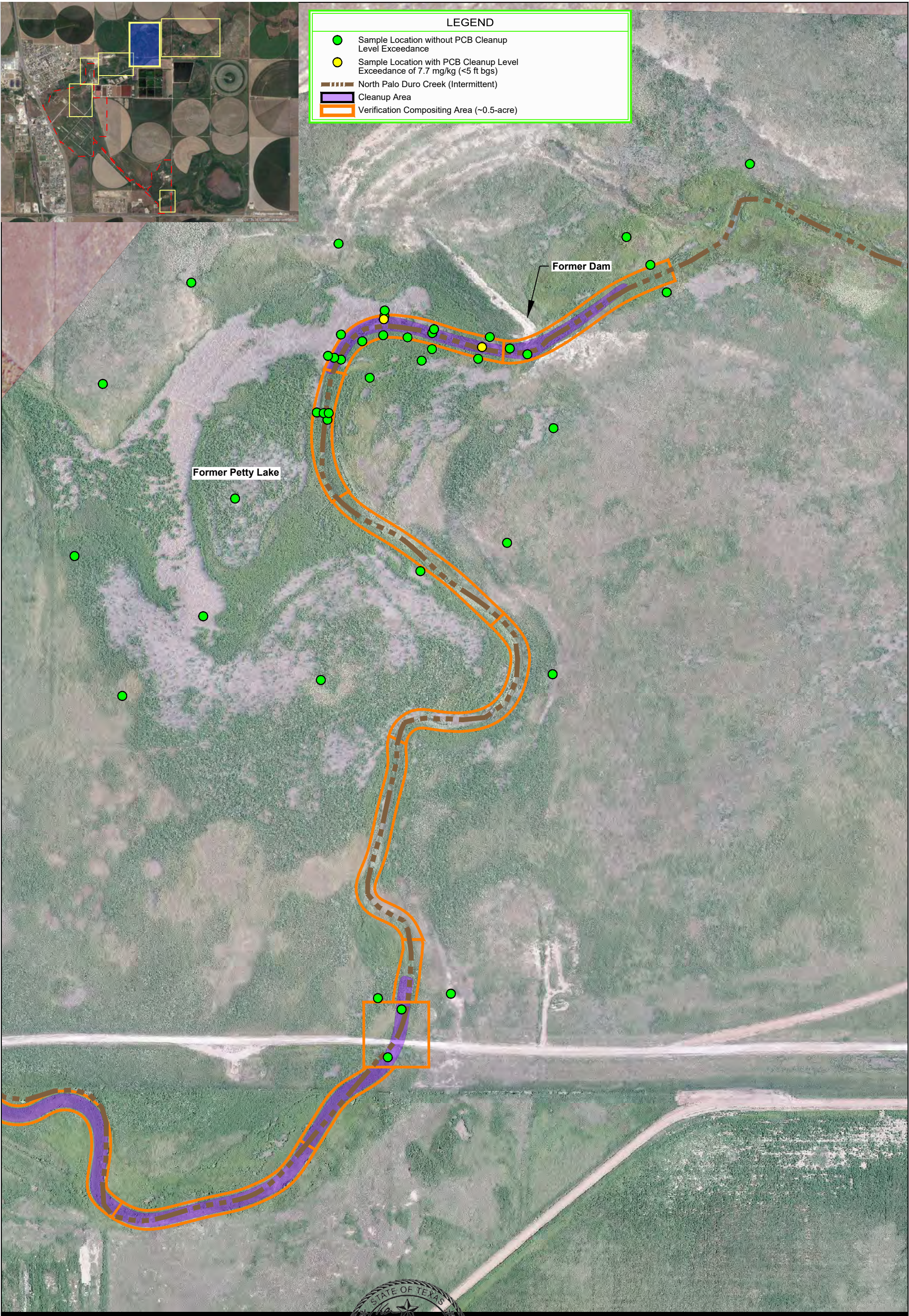
PHILLIPS 66 COMPANY
FORMER CACTUS FACILITIES, CACTUS, TEXAS
RISK-BASED PCB CLEANUP PLAN

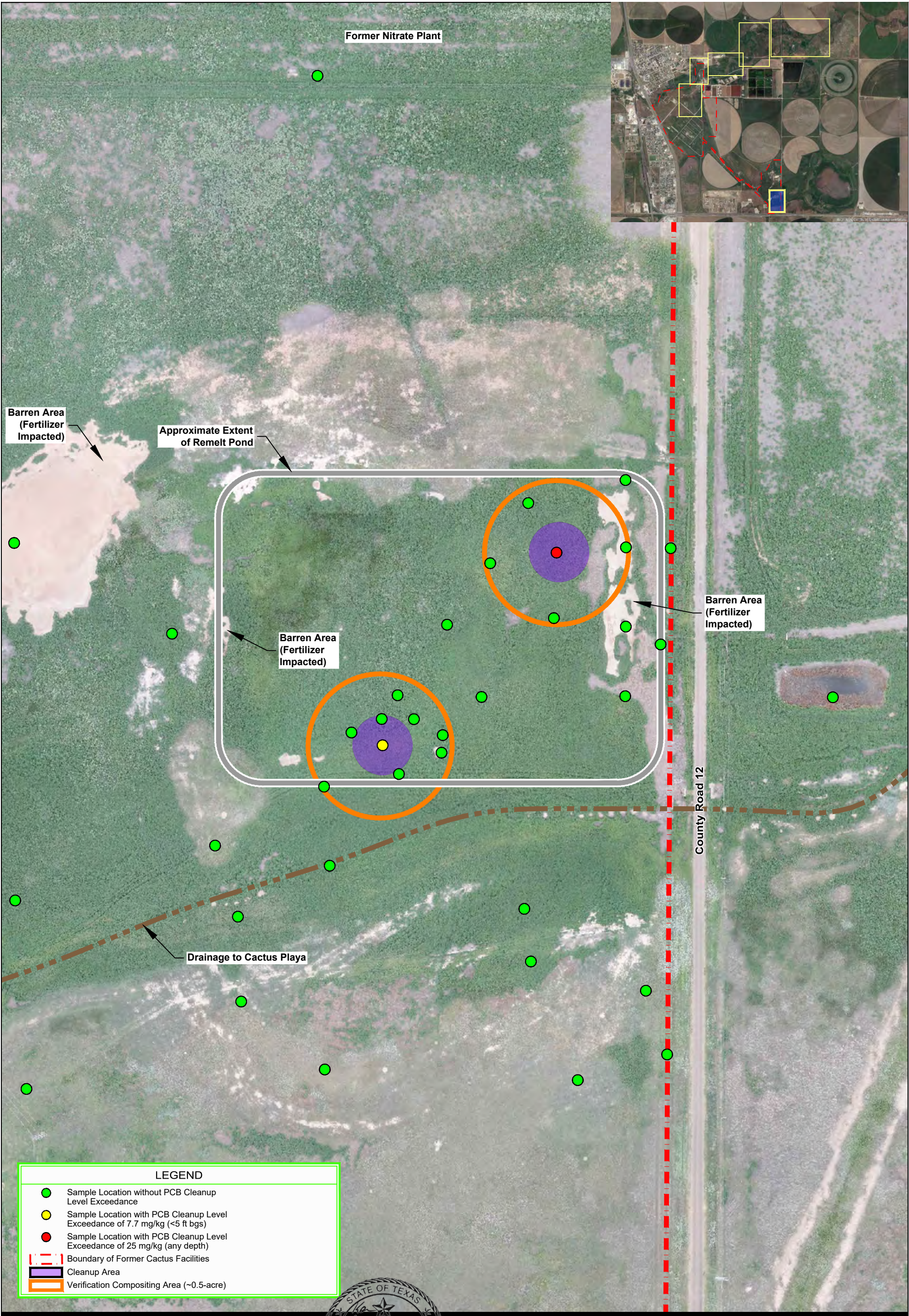
VERIFICATION SAMPLING AREAS -
NORTH PALO DURO CREEK - ONSITE

Project No. 12581570
Report No. 021
Date Oct 2024

FIGURE 11







Appendices

Appendix A

**Derivation of PCB Remediation Goals for
Soil and Sediment Laboratory Analytical
Reports (Excerpted to Relevant Data)**



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

December 28, 2011

Trent Ripley
CRA
2770 Springlake Road
Suite 800
Dallas, TX 75234

RE: Project 60111367
Project ID: FORMER CACTUS PLANT (075039)

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on December 02, 2011. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Anna Custer", with a stylized flourish at the end.

Anna Custer
anna.custer@pacelabs.com
1(913)599-5665



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Cover No Results 12/28/2011 09:1



Laboratory Certifications

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Client: COP CRA TX

Project ID: FORMER CACTUS PLANT (075039)

9608 Loiret Boulevard, Lenexa, KS 66219

A2LA Certification #: 2456.01

Arkansas Certification #: 05-008-0

Illinois Certification #: 001191

Iowa Certification #: 118

Kansas Certification IDs

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-08-TX

Utah Certification #: 9135995665

12/28/2011 09:13:19



REPORT OF LABORATORY ANALYSIS

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Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Client: COP CRA TX

Project ID: FORMER CACTUS PLANT (075039)

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-113011-JR-SB61(0'-0.5')	60111367001	SOIL	30-Nov-11 08:15	02-Dec-11 14:20
075039-113011-JR-SB61(4'-5')	60111367003	SOIL	30-Nov-11 08:23	02-Dec-11 14:20
075039-113011-JR-SB60(0'-0.5')	60111367004	SOIL	30-Nov-11 09:05	02-Dec-11 14:20
075039-113011-JR-SB60(4'-5')	60111367006	SOIL	30-Nov-11 09:13	02-Dec-11 14:20
075039-113011-JR-SB59(0'-0.5')	60111367007	SOIL	30-Nov-11 09:55	02-Dec-11 14:20
075039-113011-JR-SB59(4'-5')	60111367009	SOIL	30-Nov-11 10:02	02-Dec-11 14:20
075039-113011-JR-SB58(0'-0.5')	60111367010	SOIL	30-Nov-11 10:25	02-Dec-11 14:20
075039-113011-JR-SB58(1'-2')	60111367011	SOIL	30-Nov-11 10:29	02-Dec-11 14:20
075039-113011-JR-SB58(4'-5')	60111367012	SOIL	30-Nov-11 10:33	02-Dec-11 14:20
075039-113011-JR-SB57(0'-0.5')	60111367013	SOIL	30-Nov-11 11:05	02-Dec-11 14:20
075039-113011-JR-SB57(4'-5')	60111367015	SOIL	30-Nov-11 11:13	02-Dec-11 14:20
075039-113011-JR-SB56(0'-0.5')	60111367016	SOIL	30-Nov-11 11:35	02-Dec-11 14:20
075039-113011-JR-SB56(4'-5')	60111367018	SOIL	30-Nov-11 11:43	02-Dec-11 14:20
075039-113011-JR-SB52(0'-0.5')	60111367019	SOIL	30-Nov-11 12:07	02-Dec-11 14:20
075039-113011-JR-SB52(1'-2')	60111367020	SOIL	30-Nov-11 12:11	02-Dec-11 14:20
075039-113011-JR-SB52(4'-5')	60111367021	SOIL	30-Nov-11 12:14	02-Dec-11 14:20
075039-113011-JR-SB51(0'-0.5')	60111367022	SOIL	30-Nov-11 12:45	02-Dec-11 14:20
075039-113011-JR-SB51(1'-2')	60111367023	SOIL	30-Nov-11 12:48	02-Dec-11 14:20
075039-113011-JR-SB51(4'-5')	60111367024	SOIL	30-Nov-11 12:51	02-Dec-11 14:20
075039-113011-JR-SB49(0'-0.5')	60111367025	SOIL	30-Nov-11 13:40	02-Dec-11 14:20
075039-113011-JR-SB49(1'-2')	60111367026	SOIL	30-Nov-11 13:43	02-Dec-11 14:20
075039-113011-JR-SB49(4'-5')	60111367027	SOIL	30-Nov-11 13:47	02-Dec-11 14:20
075039-113011-JR-SB51(7'-8')	60111367028	SOIL	30-Nov-11 13:05	02-Dec-11 14:20
075039-113011-JR-SB36(0'-0.5')	60111367029	SOIL	30-Nov-11 14:17	02-Dec-11 14:20
075039-113011-JR-SB35(0'-0.5')	60111367031	SOIL	30-Nov-11 14:45	02-Dec-11 14:20
075039-120111-JR-SB7(0'-0.5')	60111367033	SOIL	01-Dec-11 08:55	02-Dec-11 14:20
075039-120111-JR-SB7(4'-5')	60111367035	SOIL	01-Dec-11 09:02	02-Dec-11 14:20
075039-120111-JR-SB6(0'-0.5')	60111367036	SOIL	01-Dec-11 09:40	02-Dec-11 14:20
075039-120111-JR-SB6(4'-5')	60111367038	SOIL	01-Dec-11 09:47	02-Dec-11 14:20
075039-120111-JR-SB8(0'-0.5')	60111367039	SOIL	01-Dec-11 10:23	02-Dec-11 14:20
075039-120111-JR-SB8(4'-5')	60111367041	SOIL	01-Dec-11 10:30	02-Dec-11 14:20
075039-120111-JR-SB5(0'-0.5')	60111367042	SOIL	01-Dec-11 11:00	02-Dec-11 14:20
075039-120111-JR-SB5(4'-5')	60111367044	SOIL	01-Dec-11 11:07	02-Dec-11 14:20
075039-120111-JR-SB3(0'-0.5')	60111367045	SOIL	01-Dec-11 12:00	02-Dec-11 14:20
075039-120111-JR-SB3(1'-2')	60111367046	SOIL	01-Dec-11 12:03	02-Dec-11 14:20
075039-120111-JR-SB3(4'-5')	60111367047	SOIL	01-Dec-11 12:07	02-Dec-11 14:20
075039-120111-JR-SB4(0'-0.5')	60111367048	SOIL	01-Dec-11 13:00	02-Dec-11 14:20
075039-120111-JR-SB4(4'-5')	60111367050	SOIL	01-Dec-11 13:08	02-Dec-11 14:20
TRIP BLANK	60111367051	WATER	01-Dec-11 00:00	02-Dec-11 14:20



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

The following blank results were above reporting limits:

Batch GCSV/11647 sample 921445 PCB-1248 (Aroclor 1248)

Laboratory Control Samples:

LCS recoveries outside of QC limits are qualified in the Report of Quality Control section.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogates:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB61(0-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367001

Matrix: Soil

% Moisture: 10.646 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0363	0.0726	0.0363	0.733	07-Dec-11 21:13 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0181	0.0363	0.0181	0.733	07-Dec-11 21:13 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

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Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB61(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367003

Matrix: Soil

% Moisture: 13.524 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0378	0.0756	0.0378	0.764	15-Dec-11 15:48 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0189	0.0378	0.0189	0.764	15-Dec-11 15:48 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

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Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB60(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367004

Matrix: Soil

% Moisture: 35.748 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0513	0.103	0.0513	1.04	07-Dec-11 21:30 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0257	0.0513	0.0257	1.04	07-Dec-11 21:30 NAW

7 compound(s) reported

Protocol 12/28/2011 09:13:23

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB60(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367006

Matrix: Soil

% Moisture: 18.536 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0404	0.0808	0.0404	0.816	15-Dec-11 16:06 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0202	0.0404	0.0202	0.816	15-Dec-11 16:06 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB59(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367007

Matrix: Soil

% Moisture: 11.914 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	10	U	<0.186	0.373	0.186	7.53	08-Dec-11 13:43 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	10	U	<0.373	0.746	0.373	7.53	08-Dec-11 13:43 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	10	U	<0.186	0.373	0.186	7.53	08-Dec-11 13:43 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	10	U	<0.186	0.373	0.186	7.53	08-Dec-11 13:43 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	10	U	<0.186	0.373	0.186	7.53	08-Dec-11 13:43 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	10		1.87	0.373	0.186	7.53	08-Dec-11 13:43 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	10	U	<0.186	0.373	0.186	7.53	08-Dec-11 13:43 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB59(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367009

Matrix: Soil

% Moisture: 13.28 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0187	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0375	0.0750	0.0375	0.757	15-Dec-11 16:23 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0187	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0187	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0187	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	J J	0.0226	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0187	0.0375	0.0187	0.757	15-Dec-11 16:23 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB58(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367010

Matrix: Soil

% Moisture: 32.324 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0243	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0486	0.0973	0.0486	0.982	07-Dec-11 22:05 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0243	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0243	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0243	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1		0.159	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0243	0.0486	0.0243	0.982	07-Dec-11 22:05 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB58(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367012

Matrix: Soil

% Moisture: 17.687 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0200	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0399	0.0799	0.0399	0.807	15-Dec-11 16:41 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0200	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0200	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0200	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1		0.0582	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0200	0.0399	0.0200	0.807	15-Dec-11 16:41 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB57(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367013

Matrix: Soil

% Moisture: 18.324 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0199	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0398	0.0796	0.0398	0.804	07-Dec-11 22:23 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0199	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0199	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0199	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1		0.0900	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0199	0.0398	0.0199	0.804	07-Dec-11 22:23 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB57(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367015

Matrix: Soil

% Moisture: 35.206 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0505	0.101	0.0505	1.02	15-Dec-11 16:58 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0253	0.0505	0.0253	1.02	15-Dec-11 16:58 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB56(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367016

Matrix: Soil

% Moisture: 41.948 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0564	0.113	0.0564	1.14	07-Dec-11 22:40 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0282	0.0564	0.0282	1.14	07-Dec-11 22:40 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB56(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367018

Matrix: Soil

% Moisture: 16.107 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0384	0.0768	0.0384	0.776	15-Dec-11 17:51 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 17:51 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB52(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367019

Matrix: Soil

% Moisture: 13.056 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	200	U	<3.75	7.50	3.75	152.	08-Dec-11 14:01 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	200	U	<7.50	15.0	7.50	152.	08-Dec-11 14:01 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	200	U	<3.75	7.50	3.75	152.	08-Dec-11 14:01 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	200	U	<3.75	7.50	3.75	152.	08-Dec-11 14:01 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	200	U	<3.75	7.50	3.75	152.	08-Dec-11 14:01 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	200		56.5	7.50	3.75	152.	08-Dec-11 14:01 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	200	U	<3.75	7.50	3.75	152.	08-Dec-11 14:01 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

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Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB52(1'-2')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367020

Matrix: Soil

% Moisture: 13.14 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	500	U	<9.39	18.8	9.39	379.	16-Dec-11 11:30 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	500	U	<18.8	37.5	18.8	379.	16-Dec-11 11:30 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	500	U	<9.39	18.8	9.39	379.	16-Dec-11 11:30 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	500	U	<9.39	18.8	9.39	379.	16-Dec-11 11:30 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	500	U	<9.39	18.8	9.39	379.	16-Dec-11 11:30 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	500		104.	18.8	9.39	379.	16-Dec-11 11:30 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	500	U	<9.39	18.8	9.39	379.	16-Dec-11 11:30 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB52(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367021

Matrix: Soil

% Moisture: 15.501 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

8082 GCS PCB SW

Collected: 30-Nov-11

Received: 02-Dec-11

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	5	U	<0.0949	0.190	0.0949	3.83	16-Dec-11 11:48 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	5	U	<0.190	0.380	0.190	3.83	16-Dec-11 11:48 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	5	U	<0.0949	0.190	0.0949	3.83	16-Dec-11 11:48 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	5	U	<0.0949	0.190	0.0949	3.83	16-Dec-11 11:48 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	5	U	<0.0949	0.190	0.0949	3.83	16-Dec-11 11:48 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	5		1.26	0.190	0.0949	3.83	16-Dec-11 11:48 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	5	U	<0.0949	0.190	0.0949	3.83	16-Dec-11 11:48 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB51(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367022

Matrix: Soil

% Moisture: 9.786 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	500	U	<8.98	18.0	8.98	363.	08-Dec-11 14:18 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	500	U	<18.0	35.9	18.0	363.	08-Dec-11 14:18 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	500	U	<8.98	18.0	8.98	363.	08-Dec-11 14:18 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	500	U	<8.98	18.0	8.98	363.	08-Dec-11 14:18 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	500	U	<8.98	18.0	8.98	363.	08-Dec-11 14:18 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	500		97.8	18.0	8.98	363.	08-Dec-11 14:18 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	500	U	<8.98	18.0	8.98	363.	08-Dec-11 14:18 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB51(1'-2')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367023

Matrix: Soil

% Moisture: 19.339 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	500	U	<9.90	19.8	9.90	400.	16-Dec-11 12:23 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	500	U	<19.8	39.6	19.8	400.	16-Dec-11 12:23 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	500	U	<9.90	19.8	9.90	400.	16-Dec-11 12:23 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	500	U	<9.90	19.8	9.90	400.	16-Dec-11 12:23 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	500	U	<9.90	19.8	9.90	400.	16-Dec-11 12:23 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	500		128.	19.8	9.90	400.	16-Dec-11 12:23 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	500	U	<9.90	19.8	9.90	400.	16-Dec-11 12:23 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB51(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367024

Matrix: Soil

% Moisture: 40.209 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	5	U	<0.135	0.270	0.135	5.46	16-Dec-11 12:40 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	5	U	<0.270	0.540	0.270	5.46	16-Dec-11 12:40 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	5	U	<0.135	0.270	0.135	5.46	16-Dec-11 12:40 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	5	U	<0.135	0.270	0.135	5.46	16-Dec-11 12:40 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	5	U	<0.135	0.270	0.135	5.46	16-Dec-11 12:40 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	5		1.55	0.270	0.135	5.46	16-Dec-11 12:40 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	5	U	<0.135	0.270	0.135	5.46	16-Dec-11 12:40 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB49(0'-0.5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367025

Matrix: Soil

% Moisture: 18.472 corrected

Description: none

Prep Level: Soil

Batch: 225388

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 05-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0198	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0397	0.0793	0.0397	0.801	08-Dec-11 00:08 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0198	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0198	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0198	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1		0.386	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0198	0.0397	0.0198	0.801	08-Dec-11 00:08 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Client: COP CRA TX

Client ID: 075039-113011-JR-SB49(4'-5')

Project: 60111367

Project ID: FORMER CACTUS PLANT (075039)

Site: none

Lab ID: 60111367027

Matrix: Soil

% Moisture: 16.156 corrected

Description: none

Prep Level: Soil

Batch: 226387

Method: EPA 8082

Collected: 30-Nov-11

Received: 02-Dec-11

8082 GCS PCB SW

Prepared: 13-Dec-11

Units: mg/kg

CAS No.	Analyte	Dilution	Qu	Result	MQL	SQL	UQL	Analysis
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0384	0.0768	0.0384	0.776	15-Dec-11 19:18 NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0192	0.0384	0.0192	0.776	15-Dec-11 19:18 NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol 12/28/2011 09:13:23



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 225388

Project: 60111367

LCS: 921446

07-Dec-11 10:08

MS: 921447

07-Dec-11 20:38

Units: mg/kg

MSD: 921448

07-Dec-11 20:55

Original for MS: Client Sample 60111367001

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	MSD RPD	QC Limits		Max	Qu
											LCS	MS/MSD	RPD	
PCB-1016 (Aroclor 1016)	0.166	0.178	108	0.165	0.00	0.211	0.2	114	108	5	64 - 114	29 - 150		29
PCB-1260 (Aroclor 1260)	0.166	0.167	101	0.165	0.00	0.184	0.186	99	101	1	54 - 119	37 - 126		29
2 compound(s) reported														

* denotes recovery outside of QC limits.



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 225560

Project: 60111367

LCS: 921854

08-Dec-11 15:37

MS: 921855

08-Dec-11 15:55

Units: mg/kg

MSD: 921856

08-Dec-11 16:12

Original for MS: Client Sample 60111367031

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	MSD RPD	QC Limits		Max	Qu
											LCS	MS/MSD	RPD	
PCB-1016 (Aroclor 1016)	0.165	0.159	96	0.165	0.00	0.198	0.171	111	97	15	64 - 114	29 - 150		29
PCB-1260 (Aroclor 1260)	0.165	0.152	92	0.165	0.00	0.496	0.472	277 *	268 *	5	54 - 119	37 - 126		29
2 compound(s) reported														

* denotes recovery outside of QC limits.

MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 226387

Project: 60111367

LCS: 925271

15-Dec-11 14:56

MS: 925272

15-Dec-11 15:13

Units: mg/kg

MSD: 925273

15-Dec-11 15:31

Original for MS: Client Sample 60111367003

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	MSD RPD	QC Limits		Max	Qu
											LCS	MS/MSD	RPD	
PCB-1016 (Aroclor 1016)	0.163	0.146	89	0.165	0.00	0.209	0.196	109	103	6	64 - 114	29 - 150		29
PCB-1260 (Aroclor 1260)	0.163	0.148	91	0.165	0.00	0.183	0.173	96	91	5	54 - 119	37 - 126		29
2 compound(s) reported														

* denotes recovery outside of QC limits.

MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 225388

Project: 60111367

Method: Soil EPA 8082

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
921447	075039-113011-JR-...(920823MS)		91	93						
921448	075039-113011-JR-...(920823MS)		91	94						
60111367029	075039-113011-JR-SB36(0'-0.5')		95	97						
60111367025	075039-113011-JR-SB49(0'-0.5')		98	94						
60111367022	075039-113011-JR-SB51(0'-0.5')		0 D	0 D						
60111367019	075039-113011-JR-SB52(0'-0.5')		0 D	0 D						
60111367016	075039-113011-JR-SB56(0'-0.5')		64	102						
60111367013	075039-113011-JR-SB57(0'-0.5')		86	96						
60111367010	075039-113011-JR-SB58(0'-0.5')		55	100						
60111367007	075039-113011-JR-SB59(0'-0.5')		0 D	0 D						
60111367004	075039-113011-JR-SB60(0'-0.5')		76	83						
60111367001	075039-113011-JR-SB61(0'-0.5')		93	93						
921445	BLANK for HBN 225388 [OEXT/		92	95						
921446	LCS for HBN 225388 [OEXT/313		98	99						

QC limits:

15-120

35-124

Sur 1: Decachlorobiphenyl (S)

Sur 2: Tetrachloro-m-xylene (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 225560

Project: 60111367

Method: Soil EPA 8082

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
921855	075039-113011-JR-...(920871MS)		82	90						
921856	075039-113011-JR-...(920871MS)		83	87						
60111367031	075039-113011-JR-SB35(0'-0.5')		79	85						
60111367045	075039-120111-JR-SB3(0'-0.5')		0 D	0 D						
60111367047	075039-120111-JR-SB3(4'-5')		80	77						
60111367048	075039-120111-JR-SB4(0'-0.5')		80	76						
60111367050	075039-120111-JR-SB4(4'-5')		80	80						
60111367042	075039-120111-JR-SB5(0'-0.5')		83	85						
60111367044	075039-120111-JR-SB5(4'-5')		0 D	0 D						
60111367036	075039-120111-JR-SB6(0'-0.5')		87	88						
60111367038	075039-120111-JR-SB6(4'-5')		0 D	0 D						
60111367033	075039-120111-JR-SB7(0'-0.5')		80	85						
60111367035	075039-120111-JR-SB7(4'-5')		149 *	82						
60111367039	075039-120111-JR-SB8(0'-0.5')		73	74						
921853	BLANK for HBN 225560 [OEXT/		84	84						
921854	LCS for HBN 225560 [OEXT/313		90	91						
QC limits:			15-120	35-124						
Sur 1: Decachlorobiphenyl (S)										
Sur 2: Tetrachloro-m-xylene (S)										

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Batch: 226387

Project: 60111367

Method: Soil EPA 8082

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
925272	075039-113011-JR-...(920827MS)		93	192 *						
925273	075039-113011-JR-...(920827MS)		92	213 *						
60111367027	075039-113011-JR-SB49(4'-5')		73	86						
60111367023	075039-113011-JR-SB51(1'-2')		0 D	0 D						
60111367024	075039-113011-JR-SB51(4'-5')		77	87						
60111367020	075039-113011-JR-SB52(1'-2')		0 D	0 D						
60111367021	075039-113011-JR-SB52(4'-5')		95	90						
60111367018	075039-113011-JR-SB56(4'-5')		94	88						
60111367015	075039-113011-JR-SB57(4'-5')		91	86						
60111367012	075039-113011-JR-SB58(4'-5')		85	82						
60111367009	075039-113011-JR-SB59(4'-5')		90	87						
60111367006	075039-113011-JR-SB60(4'-5')		87	88						
60111367003	075039-113011-JR-SB61(4'-5')		89	194 *						
60111367046	075039-120111-JR-SB3(1'-2')		73	77						
60111367041	075039-120111-JR-SB8(4'-5')		77	79						
925270	BLANK for HBN 226387 [OEXT/		87	86						
925271	LCS for HBN 226387 [OEXT/314		94	88						

QC limits:

15-120

35-124

Sur 1: Decachlorobiphenyl (S)

Sur 2: Tetrachloro-m-xylene (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Organics Method Blank

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Blank ID: BLANK for HBN 225388

Project: 60111367

Lab ID: 921445

Prep Level: Soil

Batch: 225388

Method: Soil EPA 8082
8082 GCS PCB SW

Prepared: 05-Dec-11

						Units: <u>mg/kg</u>			
						Reporting			
CAS Numb	Analyte	Dilution	Qu	Result		MQL	SQL	Analysis	
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0164		0.0328	0.0164	07-Dec-11 09:51	NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0328		0.0656	0.0328	07-Dec-11 09:51	NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0164		0.0328	0.0164	07-Dec-11 09:51	NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0164		0.0328	0.0164	07-Dec-11 09:51	NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1		0.307		0.0328	0.0164	07-Dec-11 09:51	NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0164		0.0328	0.0164	07-Dec-11 09:51	NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0164		0.0328	0.0164	07-Dec-11 09:51	NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

12/28/2011 09:13:42



Organics Method Blank

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Blank ID: BLANK for HBN 225560

Project: 60111367

Lab ID: 921853

Prep Level: Soil

Batch: 225560

Method: Soil EPA 8082
8082 GCS PCB SW

Prepared: 06-Dec-11

					Units: <u>mg/kg</u>				
					Reporting				
CAS Numb	Analyte	Dilution	Qu	Result	MQL	SQL	Analysis		
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0324	0.0647	0.0324	08-Dec-11	15:20	NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0162	0.0324	0.0162	08-Dec-11	15:20	NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

12/28/2011 09:13:42



Organics Method Blank

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Blank ID: BLANK for HBN 226387

Project: 60111367

Lab ID: 925270

Prep Level: Soil

Batch: 226387

Method: Soil EPA 8082
8082 GCS PCB SW

Prepared: 13-Dec-11

						Units: <u>mg/kg</u>			
						Reporting			
CAS Numb	Analyte	Dilution	Qu	Result		MQL	SQL	Analysis	
12674-11-2	PCB-1016 (Aroclor 1016)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW
11104-28-2	PCB-1221 (Aroclor 1221)	1	U	<0.0323		0.0646	0.0323	15-Dec-11 14:38	NAW
11141-16-5	PCB-1232 (Aroclor 1232)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW
53469-21-9	PCB-1242 (Aroclor 1242)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW
12672-29-6	PCB-1248 (Aroclor 1248)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW
11097-69-1	PCB-1254 (Aroclor 1254)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW
11096-82-5	PCB-1260 (Aroclor 1260)	1	U	<0.0161		0.0323	0.0161	15-Dec-11 14:38	NAW

7 compound(s) reported

ND denotes Not Detected at or above the adjusted reporting limit or PQL.

SQL sample quantitation limit, MQL method quant limit, UQL upper quant limit.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

12/28/2011 09:13:42



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Analyte	Method	Unadjusted MQL	Reporting Units
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.0660	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.0330	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.0330	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.0660	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.0330	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.0660	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.0330	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.0660	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.0660	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.0330	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.0330	mg/kg

12/28/2011 09:13:46



Definitions/Qualifiers

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Value	Description
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
B-	Analyte detected in method blank but was not detected in the associated samples.
D4	Sample was diluted due to the presence of high levels of target analytes.
D4	Sample was diluted due to the presence of high target analytes.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. samples may be biased high.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high. samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
3274	Surrogate recovery outside control limits due to matrix interferences.
R1	RPD value was outside control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
Z3	Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank.
S0	Surrogate recovery outside laboratory control limits.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
ND	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
MDL	The adjusted method detection limit.
LCS(D)	Laboratory Control Sample (Duplicate).
MS(D)	Matrix Spike (Duplicate).

12/28/2011 09:13:48



Definitions/Qualifiers

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

Project: 60111367

Value	Description
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

TRRP LABORATORY REVIEW CHECKLIST

Laboratory Name:		Pace Analytical Services, Inc.	LRC Date:		12/28/2011		
Project Name:		FORMER CACTUS PLANT (075039)	Lab Job Number:		60111367		
Reviewer Name:		Anna Custer					
# ¹	A ²	Description	Yes	No	NA³	NR⁴	
R1	OI	CHAIN-OF-CUSTODY (COC):					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	Auto				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	SAMPLE AND QUALITY CONTROL (QC) IDENTIFICATION:					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	TEST REPORTS:					
		Were samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		If required for the project, were TICs reported?			X		
R4	O	SURROGATE RECOVERY DATA:					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			6
R5	OI	TEST REPORTS/SUMMARY FORMS FOR BLANK SAMPLES:					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			4
R6	OI	LABORATORY CONTROL SAMPLES (LCSs):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			5L
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD) DATA:					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			5M
		Were MS/MSD RPDs within the laboratory QC limits?		X			5MD
R8	OI	ANALYTICAL DUPLICATE DATA:					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	METHOD QUANTITATION LIMITS (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	OTHER PROBLEMS/ANOMALIES:					
		Are all known problems/anomalies/special conditions noted in this LCR and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X				

R-Required items S-Available if requested 2-O=organic, I=inorganic 3-NA=Not applicable 4-NR=Not reviewed 5-ER=Exception report #

TRRP LABORATORY REVIEW CHECKLIST

Laboratory Name:		Pace Analytical Services, Inc.	LRC Date:		12/28/2011	
Project Name:		FORMER CACTUS PLANT (075039)	Lab Job Number:		60111367	
Reviewer Name:		Anna Custer				
# ¹	A ²	Description	Yes	No	NA³	NR⁴
S1	OI	INITIAL CALIBRATION (ICAL)				
		Were response factors and/or relative response factors for each analyte within QC limits?	X			
		Were percent RSDs or correlation coefficient criteria met?	X			
		Was the number of standards recommended in the method used for all analytes?	X			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		Are ICAL data available for all instruments used?	X			
		Has the initial calibration curve been verified using an appropriate second source standard?	X			
S2	OI	INITIAL AND CONTINUING CALIBRATION VERIFICATION (ICCV)				
		Was the CCV analyzed at the method-required frequency?	X			
		Were percent differences for each analyte within the method-required QC limits?	X			
		Was the ICAL curve verified for each analyte?	X			
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X			
S3	O	MASS SPECTRAL TUNING:				
		Was the appropriate compound for the method used for tuning?	X			
		Were ion abundance data within the method-required QC limits?	X			
S4	O	INTERNAL STANDARD (IS):				
		Were IS area counts and retention times within the method-required QC limits?	X			
S5	OI	RAW DATA (NELAC SECTION 5.5.10):				
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		2) Were data associated with manual integrations flagged on the raw data?	X			
S6	O	DUAL COLUMN CONFIRMATION:				
		Did dual column confirmation results meet the method-required QC?	X			
S7	O	TENTATIVELY IDENTIFIED COMPOUNDS (TICs):				
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X	
S8	I	INTERFERENCE CHECK SAMPLE (ICS) RESULTS:				
		1) Were percent recoveries within method QC limits?	X			
S9	I	SERIAL DILUTIONS, POST DIGESTION SPIKES, AND METHOD OF STANDARD ADDITIONS				
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X			
S10	OI	METHOD DETECTION LIMIT (MDL) STUDIES:				
		Was a MDL study performed for each reported analyte?	X			
		Is the MDL either adjusted or supported by the analysis of DCSs?	X			
S11	OI	PROFICIENCY TEST REPORTS				
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	STANDARDS DOCUMENTATION:				
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	COMPOUND/ANALYTE IDENTIFICATION PROCEDURES:				
		Are the procedures for compound/analyte identification documented?	X			
S14	OI	DEMONSTRATION OF ANALYST COMPETENCY (DOC)				
		Was DOC conducted consistent with NELAC Chapter 5?	X			
		Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	VERIFICATION/VALIDATION DOCUMENTATION FOR METHODS (NELAC CHAPTER 5)				
		Are all the methods used to generate the data documented, verified and validated, where applicable?	X			
S16	OI	LABORATORY STANDARD OPERATING PROCEDURES (SOPs):				
		Are laboratory SOPs current and on file for each method performed?	X			

R-Required items S-Available if requested 2-O=organic, I=inorganic 3-NA=Not applicable 4-NR=Not reviewed 5-ER=Exception report #

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory Name:	Pace Analytical Services, Inc.	LRC Date:	12/28/2011
Project Name:	FORMER CACTUS PLANT (075039)	Lab Job Number:	60111367
Reviewer Name:	Anna Custer		
ER #	FORMER CACTUS PLANT (075039)		
4	Blank 921445 batch GCSV/11647 PCB-1248 (Aroclor 1248) hit 307ug/kg RL 32.8ug/kg. No hits in any sample.		
5L	LCS 925073 batch MSV/42400 2-Butanone (MEK) Rec 131% limits 66-123%. 655 0 / 655		
5L	LCS 925073 batch MSV/42400 2-Hexanone Rec 144% limits 79-127%. 719 0 / 719		
5L	LCS 925073 batch MSV/42400 Acetone Rec 222% limits 63-123%. 1110 0 / 1110		
5M	MS 921614 batch WETA/18531 Nitrogen, Ammonia Rec 143% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 921615 batch WETA/18531 Nitrogen, Ammonia Rec 234% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 921619 batch WETA/18532 Nitrogen, Ammonia Rec 141% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 921620 batch WETA/18532 Nitrogen, Ammonia Rec 143% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 921855 batch GCSV/11667 PCB-1260 (Aroclor 1260) Rec 277% limits 37-126%. LCS OK for failed MS/MSD.		
5M	MS 922151 batch WETA/18556 Nitrogen, Nitrate Rec 152% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 922152 batch WETA/18556 Nitrogen, Nitrite Rec 88% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 922156 batch WETA/18557 Nitrogen, Nitrate Rec 89% limits 90-110%. LCS OK for failed MS/MSD.		
5M	MS 925108 batch ICP/14123 Copper Rec 1823% limits 75-125%. LCS OK for failed MS/MSD.		
5M	MS 927691 batch MERC/5854 Mercury Rec 71% limits 75-125%. LCS OK for failed MS/MSD.		
5M	MSD 921856 batch GCSV/11667 PCB-1260 (Aroclor 1260) Rec 268% limits 37-126%. LCS OK for failed MS/MSD.		
5M	MSD 925109 batch ICP/14123 Copper Rec 1561% limits 75-125%. LCS OK for failed MS/MSD.		
5M	MSD 927692 batch MERC/5854 Mercury Rec 238% limits 75-125%. LCS OK for failed MS/MSD.		
5MD	MSD 922021 batch GCSV/11646 TPH Total (C06-C35) RPD 21% limits 20%.		
5MD	MSD 927692 batch MERC/5854 Mercury RPD 42% limits 20%.		
6	MS 925272 batch GCSV/11702 Tetrachloro-m-xylene (S) Rec 192% limits 35-124. 0 / .19		
6	MSD 925273 batch GCSV/11702 Tetrachloro-m-xylene (S) Rec 213% limits 35-124. 0 / .21		
6	PS 60111367003 batch GCSV/11702 Tetrachloro-m-xylene (S) Rec 194% limits 35-124. 0 / 64.2		
6	PS 60111367007 batch GCSV/11647 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367007 batch GCSV/11647 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367019 batch GCSV/11647 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367019 batch GCSV/11647 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367020 batch GCSV/11702 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367020 batch GCSV/11702 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367022 batch GCSV/11647 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367022 batch GCSV/11647 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367023 batch GCSV/11702 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367023 batch GCSV/11702 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367035 batch GCSV/11667 Decachlorobiphenyl (S) Rec 149% limits 15-120. 0 / 49.1		
6	PS 60111367038 batch GCSV/11667 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367038 batch GCSV/11667 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367044 batch GCSV/11667 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367044 batch GCSV/11667 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		
6	PS 60111367045 batch GCSV/11667 Decachlorobiphenyl (S) Rec 0% limits 15-120. Sampled was diluted.		
6	PS 60111367045 batch GCSV/11667 Tetrachloro-m-xylene (S) Rec 0% limits 35-124. Sampled was diluted.		

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Requested Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	CBA	Report To:	Tina Ripley	Attention:	
Address:	2200 Spring Lake Pl. Suite 800 Dearborn MI 48124-7539	Copy To:		Company Name:	
Email To:	triples@cia-world.com	Purchase Order No.:		Address:	
Phone:	313-331-8600	Project Name:	Lamar Center Plot	Pace Quote Reference:	
Fax:		Project Number:	075039	Pace Project Manager:	
Requested Due Date/TAT:	EDA			Pace Profile #:	
				REGULATORY AGENCY	
				☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____	
				Site Location STATE: TX	
Page: 1 of 5		1373713			

[illegible]

***Important Note:** By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07. 15-May-2007

Section A Requested Client Information: Company: <u>CDA</u> Address: <u>2222 Highway 100 Pl. Suite 800</u> Email To: <u>Donald Tr 782334</u> Phone: <u>408-248-2500</u> Fax: <u>408-248-2503</u> Requested Due Date/TAT: <u>5/22/24</u>		Section B Required Project Information: Report To: <u>David P. Kelly</u> Copy To: _____ Purchase Order No.: _____ Project Name: _____ Project Number: _____		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Page: <u>2</u> of <u>5</u> 1373714		REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____			
Site Location _____ STATE: _____					

[illegible]

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Section A	Section B	Section C
Required Client Information:	Required Project Information:	Invoice Information:
Company: <i>CRA</i>	Report To: <i>J. J. Jones</i>	Attention:
Address: <i>7725 W. Highland St. #800</i>	Copy To:	Company Name:
Email To: <i>J. J. Jones</i>	Purchase Order No.:	Address:
Phone: <i>901-201-2700</i>	Project Name: <i>CRF 167</i>	Pace Quote Reference:
Fax: <i>901-201-2700</i>	Pace Project Manager:	Pace Profile #:
Requested Due Date/TAT: <i>5/1/00</i>	Project Number: <i>075130</i>	
		REGULATORY AGENCY
		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____
		Site Location
		STATE: _____

[illegible][illegible]

***Important Note:** By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Copy To:	Company Name:			REGULATORY AGENCY	
Address:	Address:			☐ NPDES	☐ GROUND WATER
				☐ UST	☐ RCRA
Email To:	Purchase Order No.:			☐ DRINKING WATER	☐ OTHER
Phone:	Project Name:			Site Location	
Fax:	Project Number:			STATE:	
Requested Due Date/TAT:	Pace Quote Reference:				
	Pace Project Manager:				
	Pace Profile #:				

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				Samples Intact (Y/N)
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)		



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

April 11, 2013

Trent Ripley
CRA
2770 Springlake Road
Suite 800
Dallas, TX 75234

RE: Pace Project 60119885
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on April 23, 2012. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Flanagan".

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-12-3



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

04/11/2013 15:14:28

Pace Package 1 of 35



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60119885

Client: COP CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-04182012-TR-TW01COMP	60119885004	Solid	04/18/2012 15:00	04/23/2012 09:00
075039-04182012-TR-TW020(0-3)	60119885005	Solid	04/18/2012 16:15	04/23/2012 09:00
075039-04182012-TR-TW02(0-5)	60119885006	Solid	04/18/2012 16:35	04/23/2012 09:00
075039-04182012-TR-TW02MS(0-2)	60119885007	Solid	04/18/2012 16:50	04/23/2012 09:00
075039-04182012-TR-TW02COMP	60119885008	Solid	04/18/2012 16:55	04/23/2012 09:00
075039-04192012-TR-TW030(0-3)	60119885009	Solid	04/19/2012 08:45	04/23/2012 09:00
075039-04192012-TR-TW03(0-5)	60119885010	Solid	04/19/2012 09:30	04/23/2012 09:00
075039-04192012-TR-TW03MS(0-2)	60119885011	Solid	04/19/2012 09:35	04/23/2012 09:00
075039-04192012-TR-TW03COMP	60119885012	Solid	04/19/2012 09:40	04/23/2012 09:00
075039-04192012-TR-TW04O(0-1)	60119885013	Solid	04/19/2012 16:15	04/23/2012 09:00
075039-04192012-TR-TW04(0-2)	60119885014	Solid	04/19/2012 16:25	04/23/2012 09:00
075039-04192012-TR-TW04MS(0-2)	60119885015	Solid	04/19/2012 16:35	04/23/2012 09:00
075039-04192012-TR-TW04COMP	60119885016	Solid	04/19/2012 16:40	04/23/2012 09:00
075039-04192012-TR-TW050(0-1)	60119885017	Solid	04/19/2012 17:25	04/23/2012 09:00
075039-04192012-TR-TW05(0-3)	60119885018	Solid	04/19/2012 17:45	04/23/2012 09:00
075039-04192012-TR-TW05MS(0-2)	60119885019	Solid	04/19/2012 17:50	04/23/2012 09:00
075039-04192012-TR-TW05COMP	60119885020	Solid	04/19/2012 17:55	04/23/2012 09:00
075039-04192012-TR-TW060(0-1)	60119885021	Solid	04/19/2012 18:50	04/23/2012 09:00
075039-04192012-TR-TW06(0-3)	60119885022	Solid	04/19/2012 16:05	04/23/2012 09:00
075039-04192012-TR-TW06MS(0-2)	60119885023	Solid	04/19/2012 19:15	04/23/2012 09:00
075039-04192012-TR-TW06COMP	60119885024	Solid	04/19/2012 19:20	04/23/2012 09:00



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60119885

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

All MS or MSD recoveries were within QC limits.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60119885 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

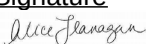
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
04/11/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW04COMP

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885016

Moisture: 19.2%

Pace Project No.: 60119885

Collected: 04/19/2012 16:40

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Chromium	1	18.6		mg/kg	0.48	0.054	05/02/2012 13:20	04/27/2012 11:05	241272	60ICP4
Copper	1	65.8		mg/kg	0.95	0.079	05/02/2012 13:20	04/27/2012 11:05	241272	60ICP4
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.041	U	mg/kg	0.081	0.041	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1254 (Aroclor 1254)	1	0.17		mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.041	0.020	04/27/2012 17:58	04/24/2012 00:00	241065	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW050(0-1)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885017

Moisture: 18.9%

Pace Project No.: 60119885

Collected: 04/19/2012 17:25

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.081	0.040	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:06	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW05(0-3)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885018

Moisture: 19.9%

Pace Project No.: 60119885

Collected: 04/19/2012 17:45

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.081	0.040	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	1	0.029	J	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	05/08/2012 15:24	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW05MS(0-2)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885019

Moisture: 21.2%

Pace Project No.: 60119885

Collected: 04/19/2012 17:50

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	10	< 0.21	U	mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	10	< 0.42	U	mg/kg	0.83	0.42	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	10	< 0.21	U	mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	10	< 0.21	U	mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	10	< 0.21	U	mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	10	2.4		mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	10	< 0.21	U	mg/kg	0.42	0.21	05/08/2012 22:41	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW05COMP

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885020

Moisture: 19.4%

Pace Project No.: 60119885

Collected: 04/19/2012 17:55

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Chromium	1	20.0		mg/kg	0.59	0.067	05/02/2012 13:22	04/27/2012 11:05	241272	60ICP4
Copper	1	63.8		mg/kg	1.2	0.097	05/02/2012 13:22	04/27/2012 11:05	241272	60ICP4
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.081	0.040	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1254 (Aroclor 1254)	1	0.64		mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	04/27/2012 18:15	04/24/2012 00:00	241065	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW060(0-1)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885021

Moisture: 16.1%

Pace Project No.: 60119885

Collected: 04/19/2012 18:50

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.039	U	mg/kg	0.078	0.039	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	1	0.12		mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.039	0.020	05/08/2012 15:59	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW06(0-3)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885022

Moisture: 18.7%

Pace Project No.: 60119885

Collected: 04/19/2012 16:05

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	10	< 0.20	U	mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	10	< 0.40	U	mg/kg	0.80	0.40	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	10	< 0.20	U	mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	10	< 0.20	U	mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	10	< 0.20	U	mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	10	2.2		mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	10	< 0.20	U	mg/kg	0.40	0.20	05/08/2012 22:58	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW06MS(0-2)

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885023

Moisture: 23.1%

Pace Project No.: 60119885

Collected: 04/19/2012 19:15

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	100	< 2.1	U	mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1221 (Aroclor 1221)	100	< 4.2	U	mg/kg	8.4	4.2	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1232 (Aroclor 1232)	100	< 2.1	U	mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1242 (Aroclor 1242)	100	< 2.1	U	mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1248 (Aroclor 1248)	100	< 2.1	U	mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1254 (Aroclor 1254)	100	33.7		mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8
PCB-1260 (Aroclor 1260)	100	< 2.1	U	mg/kg	4.2	2.1	05/08/2012 23:16	05/07/2012 00:00	242780	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: COP CRA TX

Client ID: 075039-04192012-TR-TW06COMP

Project ID: 075039 FORMER CACTUS

Lab ID: 60119885024

Moisture: 19.4%

Pace Project No.: 60119885

Collected: 04/19/2012 19:20

Received: 04/23/2012 09:00

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
Analytical Method: EPA 6010					Preparation Method: EPA 3050					
Chromium	1	25.8		mg/kg	0.53	0.060	05/02/2012 13:25	04/27/2012 11:05	241272	60ICP4
Copper	1	202		mg/kg	1.1	0.088	05/02/2012 13:25	04/27/2012 11:05	241272	60ICP4
8082 GCS PCB SW										
Analytical Method: EPA 8082					Preparation Method: EPA 3546					
PCB-1016 (Aroclor 1016)	20	< 0.40	U	mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1221 (Aroclor 1221)	20	< 0.81	U	mg/kg	1.6	0.81	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1232 (Aroclor 1232)	20	< 0.40	U	mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1242 (Aroclor 1242)	20	< 0.40	U	mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1248 (Aroclor 1248)	20	< 0.40	U	mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1254 (Aroclor 1254)	20	7.1		mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8
PCB-1260 (Aroclor 1260)	20	< 0.40	U	mg/kg	0.81	0.40	04/27/2012 18:33	04/24/2012 00:00	241065	60GCS8



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 241360
Method: ASTM D2974

Pace Project No.: 60119885
Instrument ID: 60OEXT

Blank: 987939

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	04/26/2012 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 241362
Method: ASTM D2974

Pace Project No.: 60119885
Instrument ID: 60OEXT

Blank: 987944

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	04/26/2012 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 241065
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60119885
Instrument ID: 60GCS8

Blank: 986760

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	04/26/2012 18:39	04/24/2012 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2012 18:39	04/24/2012 00:00

Laboratory Control Sample: 986761

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	0.17	0.13	mg/kg	80	64-114	
PCB-1260 (Aroclor 1260)	0.17	0.16	mg/kg	99	54-119	

Matrix Spike: 986762

Matrix Spike Duplicate: 986763

Original for Sample: Batch sample 60119793001

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.019	0.19	0.19	0.20	0.20	mg/kg	103	103	29-150	0	29	
PCB-1260 (Aroclor 1260)	<0.019	0.19	0.19	0.19	0.19	mg/kg	99	98	37-126	1	29	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 242780
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60119885
Instrument ID: 60GCS8

Blank: 994293

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	05/08/2012 13:21	05/07/2012 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	05/08/2012 13:21	05/07/2012 00:00

Laboratory Control Sample: 994294

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	0.16	0.13	mg/kg	82	64-114	
PCB-1260 (Aroclor 1260)	0.16	0.17	mg/kg	102	54-119	

Matrix Spike: 994295

Matrix Spike Duplicate: 994296

Original for Sample: Project sample 075039-04192012-TR-TW050(0-1)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.020	0.21	0.2	0.20	0.18	mg/kg	100	87	29-150	15	29	
PCB-1260 (Aroclor 1260)	<0.020	0.21	0.2	0.22	0.20	mg/kg	109	96	37-126	13	29	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 241065
Method: EPA 8082

Pace Project No.: 60119885

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
986760	BLANK for HBN 241065		93	89						
986761	LCS for HBN 241065		91	92						
986762	BORROW 01(985373MS)		87	90						
986763	BORROW 01(985373MSD)		87	89						
60119885004	075039-04182012-TR-		86	91						
60119885008	075039-04182012-TR-		85	90						
60119885012	075039-04192012-TR-		90	86						
60119885016	075039-04192012-TR-		94	88						
60119885020	075039-04192012-TR-		91	87						
60119885024	075039-04192012-TR-	S4,S4,D4	0 *	0 *						

QC Limits: 15-120 35-124

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 242780
Method: EPA 8082

Pace Project No.: 60119885

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
994293	BLANK for HBN 242780		92	86						
994294	LCS for HBN 242780		94	87						
60119885017	075039-04192012-TR-		78	75						
994295	075039-04192012-T...		84	82						
994296	075039-04192012-...		78	69						
60119885018	075039-04192012-TR-		92	87						
60119885019	075039-04192012-TR-	S4,S4,D4	0 *	0 *						
60119885021	075039-04192012-TR-		86	83						
60119885022	075039-04192012-TR-	S4,S4,D4	0 *	0 *						
60119885023	075039-04192012-TR-	S4,S4,D4	0 *	0 *						

QC Limits: 15-120 35-124

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60119885

Analyte	Method	Unadjusted MQL	Reporting Units
Chromium	EPA 6010	0.50	mg/kg
Copper	EPA 6010	1.0	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg



Pace Project No.: 60119885

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

D4	Sample was diluted due to the presence of high levels of target analytes.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

TRRP LABORATORY REVIEW CHECKLIST									
Laboratory		Pace Analytical Services, Inc.		LRC Date:		04/11/2013			
Project Name:		075039 FORMER CACTUS FACILITY		Laboratory Job Number:		60119885			
Reviewer Name:		Alice Flanagan		Prep Batch Number(s):		See exception report.			
# ¹	A ²	Description			Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X				
		Were all departures from standard conditions described in an exception report?			X				
R2	OI	Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X				
R3	OI	Test reports							
		Were all samples prepared and analyzed within holding times?			X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?			X				
		Were calculations checked by a peer or supervisor?			X				
		Were all analyte identifications checked by a peer or supervisor?			X				
		Were sample detection limits reported for all analytes not detected?			X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?					X		
		If required for the project, are TICs reported?					X		
R4	O	Surrogate recovery data							
		Were surrogates added prior to extraction?			X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			R4.2
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?			X				
		Were blanks analyzed at the appropriate frequency?			X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?			X				
		Were blank concentrations < MQL?			X				
R6	OI	Laboratory control samples (LCS):							
		Were all COCs included in the LCS?				X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X				
		Were LCSs analyzed at the required frequency?			X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?			X				
		Was the LCSD RPD within QC limits?			X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?				X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?			X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X				
		Were MS/MSD RPDs within laboratory QC limits?			X				
R8	OI	Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?			X				
		Were analytical duplicates analyzed at the appropriate frequency?			X				
		Were RPDs or relative standard deviations within the laboratory QC limits?			X				
R9	OI	Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?			X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X				
		Are unadjusted MQLs and DCSSs included in the laboratory data package?			X				
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?			X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?			X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?			X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		04/11/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60119885		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	04/11/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60119885
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	241065,241272,241360,241362,242780
ER #¹	Description		
R4.2	Sample #60119885019: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 15-120%.		
R4.2	Sample #60119885019: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 35-124%.		
R4.2	Sample #60119885022: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 15-120%.		
R4.2	Sample #60119885022: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 35-124%.		
R4.2	Sample #60119885023: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 15-120%.		
R4.2	Sample #60119885023: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 35-124%.		
R4.2	Sample #60119885024: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 15-120%.		
R4.2	Sample #60119885024: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 35-124%.		
R6.1	LCS sample in batch #241268: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #241268: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #241268: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #241268: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #241268: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #241747: Copper is not spiked.		
R6.1	LCS sample in batch #242850: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #242850: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #242850: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #242850: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #242850: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #241268: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #241268: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #241268: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #241268: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #241268: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #241747: Copper is not spiked.		
R7.1	MS sample for batch #242850: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #242850: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #242850: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #242850: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #242850: PCB-1254 (Aroclor 1254) is not spiked.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: 36267
PAGE 1 OF 2

Address: Dallas TX P.M. Trust Pkwy
Phone: 972/331-8500 Fax: tripey@conestoga.com

(See Reverse Side for Instructions)

Project No/Phase/Task Code: <u>015039/TH500</u>		Laboratory Name: <u>Pace - Lina</u>		Lab Location:		SSOW ID:	
Project Name: <u>Tommy Cocks Facility</u>		Lab Contact: <u>Alie Tracy</u>		Lab Quote No:		Cooler No:	
Project Location: <u>Cocks TX</u>		Container Quantity & Preservation		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier: <u>FedEx</u>	
Chemistry Contact: <u>Art Corley</u>		SAMPLE TYPE		PRESERVATION		Airbill No:	
Sample(s): <u>Mat Ripky</u>		Matrix Code		Unpreserved		Date Shipped: <u>4/23/2012</u>	
Item		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
1		015039-04182012-TR-TW010(0-1)		4/18/12 1415		a1	
2		-TW01(0-3)		1435		a2	
3		-TW01(0-3)		1455		a3	
4		-TW01ms(0-3)		1500		a4	
5		-TW01comp		1500		a5	
6		-TW020(0-3)		1615		a6	
7		-TW02(0-5)		1635		a7	
8		-TW02ms(0-2)		1650		a8	
9		-TW02comp		1655		a9	
1		015039-04192012-TR-TW030(0-3)		4/19/12 0815		a10	
1		-TW03(0-5)		0930		a11	
1		-TW03ms(0-2)		0935		a12	
1		-TW03comp		0940		a13	
1		-TW040(0-1)		1615		a14	
1		-TW04(0-2)		1625		a15	

Total Number of Containers:		Notes/ Special Requirements:	
All Samples in Cooler must be on COC		TRIP Report	

REQUISITIONED BY		DATE		COMPANY		RECEIVED BY		DATE		TIME	
<u>[Signature]</u>		4/23/2012 1110		CRA		1. FedEx		Pace		4/23/12 0900	
						2. E Broderick					
						3.					

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: 36265

PAGE 2 OF 2

Address: _____

Phone: _____

Fax: _____

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 075033/2400		Laboratory Name: Pace		Lab Location: Leans KS		SSOW ID:	
Project Name: James Lakes Facility		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact:		Unpreserved		Hydrochloric Acid (HCl)		Nitric Acid (HNO ₃)	
Sampler(s):		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		Methanol/Water (Soil)	
		VOC		EnCores 3x5-g, 1x25-g		Other:	
		Total Containers/Sample		MS/MSD Request		Date Shipped:	
		Carrier:		Airbill No:		COMMENTS/ SPECIAL INSTRUCTIONS:	
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yyyy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (g) or Comp (c)		
1	075033-04192012-TR-TW04ms (0-2) 4/19/2012 1635	4/19/2012	1635	50	C		015 016
2	-TW02/camp		1640				016 017
3	-TW05 (0-1)		1725				017 018
4	-TW05 (0-3)		1745				018 019
5	-TW05ms (0-2)		1750				019 020
6	-TW05/camp		1755				020 021
7	-TW06a (0-1)		1850				021 022
8	-TW06 (0-3)		1905				022 023 024 025
9	-TW06ms (0-2)		1915				023 024
10	-TW06/camp		1930				024 025
11							
12							
13							
14							
15							
Total Number of Containers:				Notes/ Special Requirements:			
All Samples in Cooler must be on COC							
Relinquished By:		DATE: 4/20/2012		RECEIVED BY: 1. E Brackett		COMPANY: Pace	
DATE: 4/20/2012		TIME: 1110		DATE: 4/23/12		TIME: 0900	
1.							
2.							
3.							

**Sample Condition Upon Receipt – ESI Tech Specs**Client Name: COP - CRAProject #: 60119885Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Optional

Tracking #: 873413257632Pace Shipping Label Used? Yes ☒ No ☐Proj Due Date: 5/4

Proj Name:

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐Thermometer Used: T-191 / T-194Type of Ice: Wet ☒ Blue ☐ None ☐ Samples received on ice, cooling process has begun.
(circle one)Cooler Temperature: 2-4Date and initials of person examining contents: 4/23/12 [Signature]

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	
-Pace containers used:	☒ Yes ☐ No ☐ N/A	9.
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	
-Includes date/time/ID/analyses Matrix: <u>SL</u>		13.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐ Yes ☒ No	Initial when completed
Trip Blank present:	☐ Yes ☐ No ☒ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Project sampled in USDA Regulated Area:	☒ Yes ☐ No ☐ N/A	17. List State: <u>TX</u>

Client Notification/ Resolution:Copy COC to Client? Y ☒ N ☐Field Data Required? Y ☐ N ☒

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]Date: 4/23/12**Temp Log:** Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: <u>1435</u>	Start:
End: <u>1439</u>	End:
Temp:	Temp:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the NCDENR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: 36267
PAGE 1 OF 2

(See Reverse Side for Instructions)

Address: Dallas TX 9401 Trout Fork
Phone: 972-330-3300 Fax: 972-330-3300

Project No/ Phase/Task Code: 075039-714500		Laboratory Name: Dallas TX 9401 Trout Fork		Lab Location:		SSOW ID:	
Project Name: Trout Fork Facility		Lab Contact: John Trout		Lab Quote No:		Cooler No:	
Project Location: Dallas TX		Chemistry Contact: John Trout		Carrier: Fulky		Airbill No:	
Sampler(s): Trout Fork		Date Shipped: 4/16/02		Date Shipped:		COMMENTS/ SPECIAL INSTRUCTIONS: Place in add'l sample as marked with yr. 4/16/02 TR	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yy)		TIME (hh:mm)		ANALYSIS REQUESTED (See Back of COC for Definitions)	
1 075039-04182012-TR-TW01a(0-1)		4/16/02		1415		C. 6010	
2 -TW01(0-3)		4/16/02		1435		MS/MSD Request	
3 -TW01(0-3)		4/16/02		1455			
4 -TW01ms(0-3)		4/16/02		1500			
5 -TW01ms(0-3)		4/16/02		1520			
6 -TW02a(0-3)		4/16/02		1615			
7 -TW02(0-5)		4/16/02		1635			
8 -TW02ms(0-2)		4/16/02		1650			
9 -TW02ms(0-2)		4/16/02		1655			
1 075039-04182012-TR-TW03a(0-1)		4/16/02		1715			
1 -TW03(0-5)		4/16/02		1730			
2 -TW03ms(0-2)		4/16/02		1735			
3 -TW03ms(0-2)		4/16/02		1740			
4 -TW04a(0-1)		4/16/02		1745			
5 -TW04(0-2)		4/16/02		1745			
Total Number of Containers:		Total Number of Containers:		Notes/ Special Requirements:		TRP Report	
All Samples in Cooler must be on COC		RECEIVED BY		COMPANY		DATE	
TIME		TIME		TIME		TIME	
1. Fulky		1. Fulky		1. Fulky		1. Fulky	
2.		2.		2.		2.	
3.		3.		3.		3.	



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 36265
PAGE 2 OF 2

(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: <i>0003/17400</i>		Laboratory Name: <i>Lab</i>		Lab Location: <i>Lab 15</i>		SSOW ID:	
Project Name: <i>Trans-Lake County</i>		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		Carrier:	
Chemistry Contact:		Matrix Code (see back of COC)		Grab (G) or Comp (C)		Airbill No:	
Sampler(s):		DATE (mm/dd/yy)		TIME (h:mm)		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yy)		TIME (h:mm)		COMMENTS/SPECIAL INSTRUCTIONS:	
1 00039-0419202-TR-TW05 (0-2) 1/19/02 1635 50		1/19/02		1635 50		MS/MSD Request	
2 -TW05 (0-1)		1/19/02		1715		C 6010	
3 -TW05 (0-1)		1/19/02		1715		X	
4 -TW05 (0-3)		1/19/02		1745		X	
5 -TW05 (0-2)		1/19/02		1730		X	
6 -TW05 (0-1)		1/19/02		1715		X	
7 -TW06 (0-1)		1/19/02		1850		X	
8 -TW06 (0-3)		1/19/02		1905		X	
9 -TW06 (0-2)		1/19/02		1915		X	
10 -TW06 (0-1)		1/19/02		1920		X	
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CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO: 36267
PAGE 1 OF 2
(See Reverse Side for Instructions)

Address: Dallas TX 9401 Trout Ridge
Phone: 972-330-3300 Fax: 972-330-3300

Project No/ Phase/Task Code: 075039/74500		Laboratory Name: CRA		Lab Location:		SSOW ID:	
Project Name: Trout Ridge Facility		Lab Contact: John Trout		Lab Quote No:		Cooler No:	
Project Location: CRA		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		Carrier: Fulky	
Chemistry Contact: John Trout		Matrix Code (see back of COC)		Grab (G) or Comp (C)		Airbill No:	
Sampler(s): Trout Ridge		DATE (mm/dd/yyyy)		TIME (hr:min)		Date Shipped: 4/18/02	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hr:min)		MS/MSD Request	
1 075039-04182012-TR-TW020(0-1)		4/18/02		1415		1268082	
2 -TW020(0-3)		4/18/02		1435		C, 6010	
3 -TW020(0-3)		4/18/02		1455		X	
4 -TW020(0-3)		4/18/02		1500		X	
5 -TW020(0-3)		4/18/02		1615		X	
6 -TW020(0-5)		4/18/02		1635		X	
7 -TW020(0-5)		4/18/02		1650		X	
8 -TW020(0-5)		4/18/02		1655		X	
9 -TW020(0-5)		4/18/02		1655		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		1715		X	
1 -TW020(0-5)		4/18/02		1730		X	
2 -TW020(0-5)		4/18/02		1735		X	
3 -TW020(0-5)		4/18/02		1740		X	
4 -TW020(0-5)		4/18/02		1745		X	
5 -TW020(0-5)		4/18/02		1750		X	
6 -TW020(0-5)		4/18/02		1755		X	
7 -TW020(0-5)		4/18/02		1800		X	
8 -TW020(0-5)		4/18/02		1805		X	
9 -TW020(0-5)		4/18/02		1810		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		1815		X	
1 -TW020(0-5)		4/18/02		1820		X	
2 -TW020(0-5)		4/18/02		1825		X	
3 -TW020(0-5)		4/18/02		1830		X	
4 -TW020(0-5)		4/18/02		1835		X	
5 -TW020(0-5)		4/18/02		1840		X	
6 -TW020(0-5)		4/18/02		1845		X	
7 -TW020(0-5)		4/18/02		1850		X	
8 -TW020(0-5)		4/18/02		1855		X	
9 -TW020(0-5)		4/18/02		1900		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		1905		X	
1 -TW020(0-5)		4/18/02		1910		X	
2 -TW020(0-5)		4/18/02		1915		X	
3 -TW020(0-5)		4/18/02		1920		X	
4 -TW020(0-5)		4/18/02		1925		X	
5 -TW020(0-5)		4/18/02		1930		X	
6 -TW020(0-5)		4/18/02		1935		X	
7 -TW020(0-5)		4/18/02		1940		X	
8 -TW020(0-5)		4/18/02		1945		X	
9 -TW020(0-5)		4/18/02		1950		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		1955		X	
1 -TW020(0-5)		4/18/02		2000		X	
2 -TW020(0-5)		4/18/02		2005		X	
3 -TW020(0-5)		4/18/02		2010		X	
4 -TW020(0-5)		4/18/02		2015		X	
5 -TW020(0-5)		4/18/02		2020		X	
6 -TW020(0-5)		4/18/02		2025		X	
7 -TW020(0-5)		4/18/02		2030		X	
8 -TW020(0-5)		4/18/02		2035		X	
9 -TW020(0-5)		4/18/02		2040		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2045		X	
1 -TW020(0-5)		4/18/02		2050		X	
2 -TW020(0-5)		4/18/02		2055		X	
3 -TW020(0-5)		4/18/02		2100		X	
4 -TW020(0-5)		4/18/02		2105		X	
5 -TW020(0-5)		4/18/02		2110		X	
6 -TW020(0-5)		4/18/02		2115		X	
7 -TW020(0-5)		4/18/02		2120		X	
8 -TW020(0-5)		4/18/02		2125		X	
9 -TW020(0-5)		4/18/02		2130		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2135		X	
1 -TW020(0-5)		4/18/02		2140		X	
2 -TW020(0-5)		4/18/02		2145		X	
3 -TW020(0-5)		4/18/02		2150		X	
4 -TW020(0-5)		4/18/02		2155		X	
5 -TW020(0-5)		4/18/02		2200		X	
6 -TW020(0-5)		4/18/02		2205		X	
7 -TW020(0-5)		4/18/02		2210		X	
8 -TW020(0-5)		4/18/02		2215		X	
9 -TW020(0-5)		4/18/02		2220		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2225		X	
1 -TW020(0-5)		4/18/02		2230		X	
2 -TW020(0-5)		4/18/02		2235		X	
3 -TW020(0-5)		4/18/02		2240		X	
4 -TW020(0-5)		4/18/02		2245		X	
5 -TW020(0-5)		4/18/02		2250		X	
6 -TW020(0-5)		4/18/02		2255		X	
7 -TW020(0-5)		4/18/02		2300		X	
8 -TW020(0-5)		4/18/02		2305		X	
9 -TW020(0-5)		4/18/02		2310		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2315		X	
1 -TW020(0-5)		4/18/02		2320		X	
2 -TW020(0-5)		4/18/02		2325		X	
3 -TW020(0-5)		4/18/02		2330		X	
4 -TW020(0-5)		4/18/02		2335		X	
5 -TW020(0-5)		4/18/02		2340		X	
6 -TW020(0-5)		4/18/02		2345		X	
7 -TW020(0-5)		4/18/02		2350		X	
8 -TW020(0-5)		4/18/02		2355		X	
9 -TW020(0-5)		4/18/02		2400		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2405		X	
1 -TW020(0-5)		4/18/02		2410		X	
2 -TW020(0-5)		4/18/02		2415		X	
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5 -TW020(0-5)		4/18/02		2430		X	
6 -TW020(0-5)		4/18/02		2435		X	
7 -TW020(0-5)		4/18/02		2440		X	
8 -TW020(0-5)		4/18/02		2445		X	
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10 075039-04182012-TR-TW020(0-1)		4/18/02		2455		X	
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2 -TW020(0-5)		4/18/02		2465		X	
3 -TW020(0-5)		4/18/02		2470		X	
4 -TW020(0-5)		4/18/02		2475		X	
5 -TW020(0-5)		4/18/02		2480		X	
6 -TW020(0-5)		4/18/02		2485		X	
7 -TW020(0-5)		4/18/02		2490		X	
8 -TW020(0-5)		4/18/02		2495		X	
9 -TW020(0-5)		4/18/02		2500		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2505		X	
1 -TW020(0-5)		4/18/02		2510		X	
2 -TW020(0-5)		4/18/02		2515		X	
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8 -TW020(0-5)		4/18/02		2545		X	
9 -TW020(0-5)		4/18/02		2550		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2555		X	
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2 -TW020(0-5)		4/18/02		2565		X	
3 -TW020(0-5)		4/18/02		2570		X	
4 -TW020(0-5)		4/18/02		2575		X	
5 -TW020(0-5)		4/18/02		2580		X	
6 -TW020(0-5)		4/18/02		2585		X	
7 -TW020(0-5)		4/18/02		2590		X	
8 -TW020(0-5)		4/18/02		2595		X	
9 -TW020(0-5)		4/18/02		2600		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2605		X	
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2 -TW020(0-5)		4/18/02		2615		X	
3 -TW020(0-5)		4/18/02		2620		X	
4 -TW020(0-5)		4/18/02		2625		X	
5 -TW020(0-5)		4/18/02		2630		X	
6 -TW020(0-5)		4/18/02		2635		X	
7 -TW020(0-5)		4/18/02		2640		X	
8 -TW020(0-5)		4/18/02		2645		X	
9 -TW020(0-5)		4/18/02		2650		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2655		X	
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2 -TW020(0-5)		4/18/02		2665		X	
3 -TW020(0-5)		4/18/02		2670		X	
4 -TW020(0-5)		4/18/02		2675		X	
5 -TW020(0-5)		4/18/02		2680		X	
6 -TW020(0-5)		4/18/02		2685		X	
7 -TW020(0-5)		4/18/02		2690		X	
8 -TW020(0-5)		4/18/02		2695		X	
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2 -TW020(0-5)		4/18/02		2715		X	
3 -TW020(0-5)		4/18/02		2720		X	
4 -TW020(0-5)		4/18/02		2725		X	
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7 -TW020(0-5)		4/18/02		2740		X	
8 -TW020(0-5)		4/18/02		2745		X	
9 -TW020(0-5)		4/18/02		2750		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2755		X	
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2 -TW020(0-5)		4/18/02		2765		X	
3 -TW020(0-5)		4/18/02		2770		X	
4 -TW020(0-5)		4/18/02		2775		X	
5 -TW020(0-5)		4/18/02		2780		X	
6 -TW020(0-5)		4/18/02		2785		X	
7 -TW020(0-5)		4/18/02		2790		X	
8 -TW020(0-5)		4/18/02		2795		X	
9 -TW020(0-5)		4/18/02		2800		X	
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5 -TW020(0-5)		4/18/02		2830		X	
6 -TW020(0-5)		4/18/02		2835		X	
7 -TW020(0-5)		4/18/02		2840		X	
8 -TW020(0-5)		4/18/02		2845		X	
9 -TW020(0-5)		4/18/02		2850		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2855		X	
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2 -TW020(0-5)		4/18/02		2865		X	
3 -TW020(0-5)		4/18/02		2870		X	
4 -TW020(0-5)		4/18/02		2875		X	
5 -TW020(0-5)		4/18/02		2880		X	
6 -TW020(0-5)		4/18/02		2885		X	
7 -TW020(0-5)		4/18/02		2890		X	
8 -TW020(0-5)		4/18/02		2895		X	
9 -TW020(0-5)		4/18/02		2900		X	
10 075039-04182012-TR-TW020(0-1)		4/18/02		2905		X	
1 -TW020(0-5)		4/18/02		2910		X	
2 -TW020(0-5)		4/18/02		2915		X	
3 -TW020(0-5)		4/18/02		2920		X	
4 -TW020(0-5)		4/18/02		2925		X	
5 -TW020(0-5)		4/18/02		2930		X	
6 -TW020(0-5							



CHAIN OF CUSTODY RECORD

COC NO: 36265

PAGE 2 OF 2

(See Reverse Side for Instructions)

Address: _____

Phone: _____ Fax: _____

[illegible]

Pace Package 35 of 35

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT -- ALL FIELDS MUST BE COMPLETED ACCURATELY

CRA Form: COC-10B (20110804)

GOLDENROD – Sampling Crew

PINK – Shipper

YELLOW – Receiving Laboratory Copy

WHITE – Fully Executed Copy (CRA)

Distribution:



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

REVISED

April 11, 2013

Trent Ripley
P66 CRA TX

RE: Pace Project 60125107
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2012. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Flanagan".

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-12-3



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

04/11/2013 14:34:05

Pace Package 1 of 61



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60125107

Client: P66 CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-071212-TR-SB121(3.5)	60125107001	Solid	07/12/2012 08:23	07/13/2012 08:40
075039-071212-TR-SB121(7)	60125107002	Solid	07/12/2012 08:25	07/13/2012 08:40
075039-071212-TR-SB121(11.5)	60125107003	Solid	07/12/2012 08:28	07/13/2012 08:40
075039-071212-TR-SB146(0-0.5)	60125107004	Solid	07/12/2012 09:45	07/13/2012 08:40
075039-071212-TR-SB146(5.5)	60125107005	Solid	07/12/2012 09:48	07/13/2012 08:40
075039-071212-TR-SB146(7)	60125107006	Solid	07/12/2012 09:53	07/13/2012 08:40
075039-071212-TR-SB146(12.5)	60125107007	Solid	07/12/2012 10:00	07/13/2012 08:40
075039-071212-TR-TW-04(5.5)	60125107008	Solid	07/12/2012 10:15	07/13/2012 08:40
075039-071212-TR-TW-04(9.5)	60125107009	Solid	07/12/2012 10:18	07/13/2012 08:40
075039-071212-TR-TW-04(13.5)	60125107010	Solid	07/12/2012 10:23	07/13/2012 08:40
075039-071212-TR-SB49(6)	60125107011	Solid	07/12/2012 11:05	07/13/2012 08:40
075039-071212-TR-SB49(9.5)	60125107012	Solid	07/12/2012 11:03	07/13/2012 08:40
075039-071212-TR-SB49(12)	60125107013	Solid	07/12/2012 11:14	07/13/2012 08:40
075039-071212-TR-SB147(1.5)	60125107014	Solid	07/12/2012 11:37	07/13/2012 08:40
075039-071212-TR-SB147(8)	60125107015	Solid	07/12/2012 11:40	07/13/2012 08:40
075039-071212-TR-SB147(12)	60125107016	Solid	07/12/2012 11:45	07/13/2012 08:40
075039-071212-TR-SB147(16.5)	60125107017	Solid	07/12/2012 11:47	07/13/2012 08:40
075039-071212-TR-SB147(19)	60125107018	Solid	07/12/2012 12:05	07/13/2012 08:40
075039-071212-TR-SB51(10)	60125107019	Solid	07/12/2012 13:40	07/13/2012 08:40
075039-071212-TR-SB51(13.5)	60125107020	Solid	07/12/2012 13:43	07/13/2012 08:40
075039-071212-TR-SB51(16.5)	60125107021	Solid	07/12/2012 13:50	07/13/2012 08:40
075039-071212-TR-TW05(10)	60125107022	Solid	07/12/2012 14:03	07/13/2012 08:40
075039-071212-TR-TW05(16)	60125107023	Solid	07/12/2012 14:13	07/13/2012 08:40
075039-071212-TR-SB52(9.5)	60125107024	Solid	07/12/2012 14:50	07/13/2012 08:40
075039-071212-TR-SB52(13.5)	60125107025	Solid	07/12/2012 14:55	07/13/2012 08:40
075039-071212-TR-SB52(17.5)	60125107026	Solid	07/12/2012 15:00	07/13/2012 08:40
075039-071212-TR-SB52(21)	60125107027	Solid	07/12/2012 15:08	07/13/2012 08:40



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60125107

Holding Times:

These holding times were exceeded due to sample receipt or re-extraction after the holding time expired.
Please see the exception report.

Sample 60125107006 analysis 8270 Solid MSSV Microwave
Sample 60125107012 analysis 8270 Solid MSSV Microwave
Sample 60125107019 analysis 8270 Solid MSSV Microwave
Sample 60125107025 analysis 8270 Solid MSSV Microwave

Blanks:

The following blank results were above reporting limits:

Batch MSV/47019 sample 1028772 2-Butanone (MEK)
Batch ICP/15672 sample 1033396 Chromium
Batch GCSV/12824 sample 1033485 TPH (C06-C12)
Batch GCSV/12824 sample 1033485 TPH Total (C06-C35)
Batch MSV/47260 sample 1034441 2-Butanone (MEK)

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60125107 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

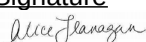
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
04/11/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB146(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107004

Moisture: 19.5%

Pace Project No.: 60125107

Collected: 07/12/2012 09:45

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	2	394		mg/kg	2.1	0.17	07/24/2012 15:03	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	100	< 2.0	U	mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	100	< 4.1	U	mg/kg	8.1	4.1	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	100	< 2.0	U	mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	100	< 2.0	U	mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	100	< 2.0	U	mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	100	20.3		mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	100	< 2.0	U	mg/kg	4.1	2.0	07/26/2012 03:37	07/20/2012 00:00	252164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB146(5.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107005

Moisture: 12%

Pace Project No.: 60125107

Collected: 07/12/2012 09:48

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	2	853		mg/kg	2.0	0.17	07/24/2012 15:05	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.075	0.037	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 03:50	07/20/2012 00:00	252164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB49(9.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107012

Moisture: 25.2%

Pace Project No.: 60125107

Collected: 07/12/2012 11:03

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	2	2930		mg/kg	2.2	0.18	07/24/2012 15:07	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.043	U	mg/kg	0.086	0.043	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.022	U	mg/kg	0.043	0.022	07/26/2012 04:29	07/20/2012 00:00	252164	60GCS8
8260/5035A Volatile Organics										
		Analytical Method: EPA 8260								
Acetone	1	< 0.013	U	mg/kg	0.027	0.013	07/26/2012 14:05		252669	60MSVB
Benzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Bromobenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Bromochloromethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Bromodichloromethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Bromoform	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Bromomethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
2-Butanone (MEK)	1	0.0086	J,B	mg/kg	0.013	0.0067	07/26/2012 14:05		252669	60MSVB
n-Butylbenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
sec-Butylbenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
tert-Butylbenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Carbon disulfide	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Carbon tetrachloride	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Chlorobenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Chloroethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Chloroform	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Chloromethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
2-Chlorotoluene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
4-Chlorotoluene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dibromo-3-chloropropane	1	< 0.0067	U	mg/kg	0.013	0.0067	07/26/2012 14:05		252669	60MSVB
Dibromochloromethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dibromoethane (EDB)	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Dibromomethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dichlorobenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,3-Dichlorobenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,4-Dichlorobenzene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
Dichlorodifluoromethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,1-Dichloroethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dichloroethane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dichloroethene (Total)	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,1-Dichloroethene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
cis-1,2-Dichloroethene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
trans-1,2-Dichloroethene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,2-Dichloropropane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,3-Dichloropropane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
2,2-Dichloropropane	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
1,1-Dichloropropene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
cis-1,3-Dichloropropene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB
trans-1,3-Dichloropropene	1	< 0.0033	U	mg/kg	0.0067	0.0033	07/26/2012 14:05		252669	60MSVB

04/11/2013 14:34:05

Pace Package 11 of 61



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB147(1.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107014

Moisture: 12.5%

Pace Project No.: 60125107

Collected: 07/12/2012 11:37

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.075	0.037	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 04:41	07/20/2012 00:00	252164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB147(8)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107015

Moisture: 14.6%

Pace Project No.: 60125107

Collected: 07/12/2012 11:40

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	2	6.2		mg/kg	2.1	0.17	07/24/2012 15:16	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.039	U	mg/kg	0.077	0.039	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.039	0.019	07/26/2012 04:54	07/20/2012 00:00	252164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-TW05(10)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107022

Moisture: 11.8%

Pace Project No.: 60125107

Collected: 07/12/2012 14:03

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	2	11.5		mg/kg	2.2	0.18	07/24/2012 15:20	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.075	0.037	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.037	0.019	07/26/2012 05:07	07/20/2012 00:00	252164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-071212-TR-SB52(9.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60125107024

Moisture: 18.9%

Pace Project No.: 60125107

Collected: 07/12/2012 14:50

Received: 07/13/2012 08:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	20	5810		mg/kg	19.9	1.7	07/25/2012 14:36	07/23/2012 17:15	252272	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1221 (Aroclor 1221)	10	< 0.40	U	mg/kg	0.80	0.40	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1232 (Aroclor 1232)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1242 (Aroclor 1242)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1248 (Aroclor 1248)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1254 (Aroclor 1254)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
PCB-1260 (Aroclor 1260)	10	< 0.20	U	mg/kg	0.40	0.20	07/26/2012 05:20	07/20/2012 00:00	252164	60GCS8
8260 MSV 5035A VOA										
		Analytical Method: EPA 8260								
Acetone	100	< 1.2	U	mg/kg	2.5	1.2	07/26/2012 14:21		252669	60MSVB
Benzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Bromobenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Bromochloromethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Bromodichloromethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Bromoform	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Bromomethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
2-Butanone (MEK)	100	< 0.61	U	mg/kg	1.2	0.61	07/26/2012 14:21		252669	60MSVB
n-Butylbenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
sec-Butylbenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
tert-Butylbenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Carbon disulfide	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Carbon tetrachloride	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Chlorobenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Chloroethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Chloroform	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Chloromethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
2-Chlorotoluene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
4-Chlorotoluene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dibromo-3-chloropropane	100	< 0.61	U	mg/kg	1.2	0.61	07/26/2012 14:21		252669	60MSVB
Dibromochloromethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dibromoethane (EDB)	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Dibromomethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dichlorobenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,3-Dichlorobenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,4-Dichlorobenzene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
Dichlorodifluoromethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,1-Dichloroethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dichloroethane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dichloroethene (Total)	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,1-Dichloroethene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
cis-1,2-Dichloroethene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
trans-1,2-Dichloroethene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,2-Dichloropropane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,3-Dichloropropane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
2,2-Dichloropropane	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
1,1-Dichloropropene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
cis-1,3-Dichloropropene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB
trans-1,3-Dichloropropene	100	< 0.31	U	mg/kg	0.61	0.31	07/26/2012 14:21		252669	60MSVB

04/11/2013 14:34:06

Pace Package 20 of 61



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 252164
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60125107
Instrument ID: 60GCS8

Blank: 1032624

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.066	0.033	07/24/2012 15:04	07/20/2012 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	07/24/2012 15:04	07/20/2012 00:00

Laboratory Control Sample: 1032625

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	0.16	0.16	mg/kg	99	54-129	
PCB-1260 (Aroclor 1260)	0.16	0.16	mg/kg	99	62-129	

Matrix Spike: 1032626

Matrix Spike Duplicate: 1032627

Original for Sample: Project sample 075039-071212-TR-SB121(7)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.019	0.19	0.19	0.18	0.18	mg/kg	94	96	41-144	2	35	
PCB-1260 (Aroclor 1260)	<0.019	0.19	0.19	0.32	0.36	mg/kg	168	189	28-156	12	31	M1



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 252164
Method: EPA 8082

Pace Project No.: 60125107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1032624	BLANK for HBN 252164		84	87						
1032625	LCS for HBN 252164		88	91						
60125107002	075039-071212-TR-		78	86						
1032626	075039-071212-TR...		81	86						
1032627	075039-071212-T...		79	86						
60125107003	075039-071212-TR-		79	83						
60125107004	075039-071212-TR-	S4,S4,D4	0 *	0 *						
60125107005	075039-071212-TR-		80	82						
60125107012	075039-071212-TR-SB49		76	81						
60125107014	075039-071212-TR-		78	85						
60125107015	075039-071212-TR-		78	84						
60125107019	075039-071212-TR-SB51		123	121						
60125107022	075039-071212-TR-		76	82						
60125107024	075039-071212-TR-SB52	D3,S2	121	879 *						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 251163
Method: EPA 8260

Pace Project No.: 60125107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1028772	BLANK for HBN 251163		100	98	98	99				
1028773	LCS for HBN 251163		102	99	101	100				
60125107019	075039-071212-TR-SB51		110	99	103	99				
60125107026	075039-071212-TR-SB52		99	99	95	102				
QC Limits:			73-135	78-125	78-122	80-123				
Surr 1: 1,2-Dichloroethane-d4 (S)										
Surr 2: 4-Bromofluorobenzene (S)										
Surr 3: Dibromofluoromethane (S)										
Surr 4: Toluene-d8 (S)										



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 252669
Method: EPA 8260

Pace Project No.: 60125107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1034441	BLANK for HBN 252669		95	97	97	101				
1035751	BLANK for HBN 252669		95	95	91	101				
1034442	LCS for HBN 252669		94	94	101	101				
1035752	LCS for HBN 252669		93	95	99	101				
60125107006	075039-071212-TR-		96	96	97	101				
1034443	075039-071212-TR...		97	95	94	101				
1034444	075039-071212-T...		96	97	98	101				
60125107012	075039-071212-TR-SB49		98	92	96	101				
60125107024	075039-071212-TR-SB52		93	95	95	100				

QC Limits: 73-135 78-125 78-122 80-123

Surr 1: 1,2-Dichloroethane-d4 (S)
Surr 2: 4-Bromofluorobenzene (S)
Surr 3: Dibromofluoromethane (S)
Surr 4: Toluene-d8 (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 260768
Method: EPA 8270

Pace Project No.: 60125107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1066013	BLANK for HBN 260768		65	73	77	72	77	91		
1066014	LCS for HBN 260768		72	71	76	71	74	87		
60125107006	075039-071212-TR-		60	70	69	67	70	89		
60125107012	075039-071212-TR-SB49	S2	41 *	65	1 *	60	59	78		
1066015	075039-071212-TR...	S2	36 *	65	1 *	59	63	78		
1066016	075039-071212-T...	S2	41 *	67	1 *	61	66	82		
60125107019	075039-071212-TR-SB51		60	74	66	70	68	82		
60125107025	075039-071212-TR-SB52	S4	0 *	0 *	0 *	0 *	0 *	0 *		

QC Limits: 44-120 28-145 45-120 21-145 43-120 29-158

Surr 1: 2,4,6-Tribromophenol (S)

Surr 5: Phenol-d6 (S)

Surr 2: 2-Fluorobiphenyl (S)

Surr 6: Terphenyl-d14 (S)

Surr 3: 2-Fluorophenol (S)

Surr 4: Nitrobenzene-d5 (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 252304
Method: TNRCC 1005

Pace Project No.: 60125107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1033485	BLANK for HBN 252304		80	100						
1033486	LCS for HBN 252304		111	109						
1033487	LCSD for HBN 252304		112	108						
60125107002	075039-071212-TR-		83	101						
60125107019	075039-071212-TR-SB51		83	102						
1033488	075039-071212-TR...		111	107						
1033489	075039-071212-T...		109	114						
60125107024	075039-071212-TR-SB52		91	108						
60125107026	075039-071212-TR-SB52		86	99						

QC Limits: 70-130 70-130

Surr 1: 1-Chlorooctane (S)

Surr 2: o-Terphenyl (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60125107

Analyte	Method	Unadjusted MQL	Reporting Units
Nitrogen, Ammonia	EPA 350.1	2.0	mg/kg
Chromium	EPA 6010	0.50	mg/kg
Copper	EPA 6010	1.0	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
Acetone	EPA 8260	0.020	mg/kg
Benzene	EPA 8260	0.0050	mg/kg
Bromobenzene	EPA 8260	0.0050	mg/kg
Bromochloromethane	EPA 8260	0.0050	mg/kg
Bromodichloromethane	EPA 8260	0.0050	mg/kg
Bromoform	EPA 8260	0.0050	mg/kg
Bromomethane	EPA 8260	0.0050	mg/kg
2-Butanone (MEK)	EPA 8260	0.010	mg/kg
n-Butylbenzene	EPA 8260	0.0050	mg/kg
sec-Butylbenzene	EPA 8260	0.0050	mg/kg
tert-Butylbenzene	EPA 8260	0.0050	mg/kg
Carbon disulfide	EPA 8260	0.0050	mg/kg
Carbon tetrachloride	EPA 8260	0.0050	mg/kg
Chlorobenzene	EPA 8260	0.0050	mg/kg
Chloroethane	EPA 8260	0.0050	mg/kg
Chloroform	EPA 8260	0.0050	mg/kg
Chloromethane	EPA 8260	0.0050	mg/kg
2-Chlorotoluene	EPA 8260	0.0050	mg/kg
4-Chlorotoluene	EPA 8260	0.0050	mg/kg
1,2-Dibromo-3-	EPA 8260	0.010	mg/kg
Dibromochloromethane	EPA 8260	0.0050	mg/kg
1,2-Dibromoethane (EDB)	EPA 8260	0.0050	mg/kg
Dibromomethane	EPA 8260	0.0050	mg/kg
1,2-Dichlorobenzene	EPA 8260	0.0050	mg/kg
1,3-Dichlorobenzene	EPA 8260	0.0050	mg/kg
1,4-Dichlorobenzene	EPA 8260	0.0050	mg/kg
Dichlorodifluoromethane	EPA 8260	0.0050	mg/kg
1,1-Dichloroethane	EPA 8260	0.0050	mg/kg
1,2-Dichloroethane	EPA 8260	0.0050	mg/kg
1,2-Dichloroethene (Total)	EPA 8260	0.0050	mg/kg
1,1-Dichloroethene	EPA 8260	0.0050	mg/kg
cis-1,2-Dichloroethene	EPA 8260	0.0050	mg/kg
trans-1,2-Dichloroethene	EPA 8260	0.0050	mg/kg

04/11/2013 14:34:07

Pace Package 49 of 61



Pace Project No.: 60125107

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1e	Compound 2,4-dimethyl-1-nitrobenzene co-elutes with compound 1,2-Dimethyl-3-nitrobenzene, therefore the laboratory is reporting only 1,2-Dimethyl-3-nitrobenzene. This co-elution has caused an elevated report limit for reporting 1,2-Dimethyl-3-nitrobenzene.
B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H2	Extraction or preparation conducted outside EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

TRRP LABORATORY REVIEW CHECKLIST									
Laboratory		Pace Analytical Services, Inc.		LRC Date:		04/11/2013			
Project Name:		075039 FORMER CACTUS FACILITY		Laboratory Job Number:		60125107			
Reviewer Name:		Alice Flanagan		Prep Batch Number(s):		See exception report.			
# ¹	A ²	Description			Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X				
		Were all departures from standard conditions described in an exception report?			X				
R2	OI	Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X				
R3	OI	Test reports							
		Were all samples prepared and analyzed within holding times?				X			R3.1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?			X				
		Were calculations checked by a peer or supervisor?			X				
		Were all analyte identifications checked by a peer or supervisor?			X				
		Were sample detection limits reported for all analytes not detected?			X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X				
		If required for the project, are TICs reported?					X		
R4	O	Surrogate recovery data							
		Were surrogates added prior to extraction?			X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			R4.2
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?			X				
		Were blanks analyzed at the appropriate frequency?			X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?			X				
		Were blank concentrations < MQL?			X				
R6	OI	Laboratory control samples (LCS):							
		Were all COCs included in the LCS?				X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X				
		Were LCSs analyzed at the required frequency?			X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?			X				
		Was the LCSD RPD within QC limits?			X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?				X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?			X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?				X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?				X			R7.4
R8	OI	Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?			X				
		Were analytical duplicates analyzed at the appropriate frequency?			X				
		Were RPDs or relative standard deviations within the laboratory QC limits?			X				
R9	OI	Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?			X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X				
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?			X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?			X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?			X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		04/11/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60125107		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	04/11/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60125107
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	251158,251163,251182,252062,252164
Batch #'s Cont:	252222,252225,252272,252304,252669,260768		
ER #¹	Description		
R3.1	Sample 60125107006, 8270 Solid MSSV Microwave. Run on 09/24/12 00:00 is 59 days past hold. Prepped after hold date.		
R3.1	Sample 60125107012, 8270 Solid MSSV Microwave. Run on 09/24/12 00:00 is 59 days past hold. Prepped after hold date.		
R3.1	Sample 60125107019, 8270 Solid MSSV Microwave. Run on 09/24/12 00:00 is 59 days past hold. Prepped after hold date.		
R3.1	Sample 60125107025, 8270 Solid MSSV Microwave. Run on 09/24/12 00:00 is 59 days past hold. Prepped after hold date.		
R4.2	MS Sample #1066015: 2,4,6-Tribromophenol (S) 36% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	MS Sample #1066015: 2-Fluorophenol (S) 1% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	MSD Sample #1066016: 2,4,6-Tribromophenol (S) 41% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	MSD Sample #1066016: 2-Fluorophenol (S) 1% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60125107004: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60125107004: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60125107012: 2,4,6-Tribromophenol (S) 41% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60125107012: 2-Fluorophenol (S) 1% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60125107024: Tetrachloro-m-xylene (S) 879% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60125107025: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60125107025: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60125107025: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60125107025: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60125107025: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60125107025: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R6.1	LCS sample in batch #252395: TPH (>C12-C28) is not spiked.		
R6.1	LCS sample in batch #252395: TPH (>C28-C35) is not spiked.		
R6.1	LCS sample in batch #252395: TPH (C06-C12) is not spiked.		
R6.1	LCS sample in batch #252466: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #252466: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #252466: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #252466: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #252466: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #252395: TPH (>C12-C28) is not spiked.		
R7.1	MS sample for batch #252395: TPH (>C28-C35) is not spiked.		
R7.1	MS sample for batch #252395: TPH (C06-C12) is not spiked.		
R7.1	MS sample for batch #252466: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #252466: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #252466: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #252466: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #252466: PCB-1254 (Aroclor 1254) is not spiked.		
R7.3	MS Sample #1032626: PCB-1260 (Aroclor 1260) 168% spike recovery outside laboratory QC limit of 28-156%.		
R7.3	MS Sample #1033398: Chromium 63% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1033398: Copper -320% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1066015: 1,2-Dimethyl-3-nitrobenzene 152% spike recovery outside laboratory QC limit of 50-150%.		
R7.3	MSD Sample #1032627: PCB-1260 (Aroclor 1260) 189% spike recovery outside laboratory QC limit of 28-156%.		
R7.3	MSD Sample #1033399: Copper -116% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1066016: 1,2-Dimethyl-3-nitrobenzene 1% spike recovery outside laboratory QC limit of 50-150%.		
R7.4	MSD Sample #1066016: 1,2-Dimethyl-3-nitrobenzene RPD of 34 exceeds laboratory QC limit of 30.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: 36284
PAGE 1 OF 2
(See Reverse Side for Instructions)

Address: 2220 Spring Lake Rd Ste 200 Beltsville, MD 21051
Phone: 972-331-8500 Fax: 972-331-8500
E-mail: info@conestoga-rovers.com

Project No/Phase/Task Code: 075039/BA00		Laboratory Name: CRA		Lab Location: Leaves KS		SSOW ID:	
Project Name: Foran Leakes family		Lab Contact: Alice Plummer		Lab Quote No:		Cooler No:	
Project Location: Leaves TX		Container Quantity & Preservation		Analysis Requested (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Art Greedy artgreedy@earthlink.net		Sample Type		Total Containers/Sample		Airbill No:	
Sampler(s): T. Kipley		Matrix Code (see back of COC)		Other: 1/c		Date Shipped: 7/12/2012	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
1 075039-07022-TR-SB12(3.5)		7/12/12		0823		01	
2 SB12(7)				0825		02	
3 SB12(11.5)				0828		03	
4 SB14(10-0.5)				0945		04	
5 SB14(5.5)				0948		05	
6 SB14(7)				0953		06	
7 SB14(12.5)				1002		07	
8 TW04(6.5)				1015		08	
9 TW04(9.5)				1018		09	
10 TW04(13.5)				1023		10	
11 SB49(6)				1105		11	
12 SB49(9.5)				1103		12	
13 SB49(12)				1114		13	
14 SB14(1.5)				1137		14	
15 SB14(7.5)				1140		15	
Total Number of Containers: 15		Notes/ Special Requirements: TLP Report		2, 3, 2			
All Samples in Cooler must be on COC		RECEIVED BY		COMPANY		DATE	
TIME		TIME		TIME		TIME	
1. Fed by		7/12/2012 1100		P		7/13/12 840	
2. J. Kipley							
3.							



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: 36299

PAGE 2 OF 2

Address: _____

Phone: _____ Fax: _____

(See Reverse Side for Instructions)

Project No/Phase/Task Code: <u>075039/BAS</u>			Laboratory Name:		Lab Location:		SSOW ID:																				
Project Name: <u>Winnipeg Landfill</u>			Lab Contact:		Lab Quote No:		Cooler No:																				
Project Location:			SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION				ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:																
Chemistry Contact:			Matrix Code (see back of COC)		Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)		Nitric Acid (HNO ₃)		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		Methanol/Water (Soil VOC)		EnCores 3x5-g, 1x25-g		Other: <u>1cc</u>		Total Containers/Sample		MS/MSD Request		
Sampler(s):			DATE (mm/dd/yyyy)		TIME (hh:mm)																	Date Shipped:		COMMENTS/ SPECIAL INSTRUCTIONS:			
1			075039-071212-TR-SB 47(121)		7/12/12 1145		SO																	016		(w/6.5u)	
2			SB 147(16.5)		1147																	017					
3			SB 149 (19)		1205																	018					
4			SB 51(10)		1340																	019					
5			SB 51(13.5)		1343																	020					
6			SB 51(16.5)		1350																	021					
7			TW 05(10)		1403																	022					
8			TW 05(46)		1413																	023					
9			SB 52(9.5)		1450																	024					
10			SB 52(13.5)		1455																	025					
11			SB 52(17.5)		1500																	026					
12			SB 52(21)		1508																	027					
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Sample Condition Upon Receipt

Client Name: CBA TX

Project # 60125107

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #: 8005 995 707 Pace Shipping Label Used? ☒ Yes ☐ No

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ No

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other

Thermometer Used: T-19D / T-194

Type of Ice: wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.3

Temperature should be above freezing to 6°C

Comments:

Date and Initials of person examining

contents: JS 7/13/12 950

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☒ Yes ☐ No ☐ N/A	7. <u>ASAP</u>
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	9.
-Pace containers used:	☒ Yes ☐ No ☐ N/A	
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	13.
-Includes date/time/ID/analyses Matrix: <u>soils</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☒ Yes ☐ No	Initial when completed <u>MLK</u> Lot # of added preservative
Trip Blank present:	☐ Yes ☒ No ☒ N/A	15.
Pace Trip Blank lot # (if purchased): <u>MLK</u>		
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Project sampled in USDA Regulated Area:	☐ Yes ☒ No ☒ N/A	17. List State: <u>Cactus TX</u> <u>not USDA</u> <u>a</u>

Client Notification/ Resolution:

Copy COC to Client?

Y / N

Field Data Required?

Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: MLK

Date: 7/13/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)



COC NO.: 36284

Address: 2270 Springlake Rd Ste 800 Dallas TX
 Phone: 972-381-8500 Fax: PM: Trent Lipley
11/15/04 PAGE 1 OF 2
 (See Reverse Side for Instructions)

Distribution: WHITE — Fully Executed Copy (CRA)
YELLOW — Receiving Laboratory Copy
PINK — Shipper
GOLDENROD — Sampling Crew
CRA Form: COC-105 (20110804)

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

PINK – Shipper

GOLDENROD — Sampling Crew

CRA Form: COC-10B (20110804)



CHAIN OF CUSTODY RECORD

COC NO: 36299

PAGE 2 OF 2

(See Reverse Side for Instructions)

Address:

Phone:

Fax:

Project No/ Phase/Task Code:

075039/34

Project Name:

lame: *lame: Cactus Form*

Project Location:

Chemistry Contact:

Sampler(s):

[illegible]

TAT Required in business days (use separate COCs for different TATs):

Days required in business days (use separate sheet for other: ☒ 1 Week ☐ 2 Week ☐ 3 Days ☐ 2 Days ☐ 1 Day

Get Involved By

COMPANY

DATE _____

TIME

RE

IVED BY

COMPANY

DATE _____

TIME

Page Package 59 of 61

THE CHAIN OF CUSTODY IS A / LEGAL DOCUMENT -- ALL FIELDS MUST BE COMPLETED ACCURATELY

3

VIEW NOW

PINK — Shinner

GOLDENROD — Sampling Crew

CRA Form: COC-10B (20110804)

CHAIN OF CUSTODY RECORD

Address: 2270 Sprinkler Rd Ste 200 6/15/78

Phone: 972-381-9500

Fax: 911: West Knap

COC NO.: 36284

PAGE / OF 2

(See Reverse Side for Instructions)

Project No / Phase/Task Code: 075039/BASD		Laboratory Name: Kare		Lab Location: Leaves 15		SSOW ID:									
Project Name: Former Leakes Facility		Lab Contact: Alice Plummer		Lab Quote No:		Cooler No:									
Project Location: Leaves TX		Container Quantity & Preservation		Analysis Requested (See Back of COC for Definitions)		Carrier:									
Chemistry Contact: Art Grady agart@agcworld.com		Sample Type		Total Containers/Sample		Airbill No:									
Sampler(s): 1. Fipky		Matrix Code		Other: <i>nic</i>		Date Shipped: 12/12/12									
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yyyy)	TIME (hh:mm)	Grab (g) or Comp (c)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:		
1	075039-071212-TX-SB121(3.5)	7/12/12	0823	30									1 (USFM)		
2	SB121(7.1)		0825										02		
3	SB121(11.5)		0828										03		
4	SB146(10.5)		0945										04		
5	SB146(5.5)		0948										05		
6	SB146(7.1)		0953										06		
7	SB146(12.5)		1002										07		
8	TW04(6.5)		1015										08		
9	TW04(9.5)		1018										09		
10	TW04(13.5)		1023										010		
11	SB49(6.1)		1105										011		
12	SB49(9.5)		1103										012		
13	SB49(12.1)		1114										013		
14	SB147(1.5)		1137										014		
15	SB147(8.1)		1140										015		
Total Number of Containers: 15				All Samples in Cooler must be on COC				Notes/ Special Requirements: Please analyze as indicated on TLP Report "L" TX 7/19/12 2.3.2							
TA: Required in business days (use separate COCs for different TAs): Day ☐ 1 ☐ 2 ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: ASAP				RECEIVED BY: [Signature]				DATE: 7/12/12				COMPANY: CCH			
Page 60 of 60				1. [Signature]				2. [Signature]				3. [Signature]			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

WHITE – Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PiNK – Shipper

GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)



CHAIN OF CUSTODY RECORD

COC NO.: 36299 PAGE 2 OF 2
(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

075039/343

Name: Terrell Lauchus Fournier

Chemistry Contact:

[illegible]

TAT Required in business days (use separate COCs for different TATs):

How long has your child been in the program? ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Weeks ☐ Other: _____

BEI MONSTER BY

COMPANY

DATE _____

TIME

100

2000

RE

REIVED B

Figure 1

1000

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

COMPANY

[illegible]

DA

10

TIME

1

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

22

VEILOW – Receiving Laboratory Copy

PINK – Shinner

GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

REVISED

June 05, 2013

Trent Ripley
P66 CRA TX
2270 Springlake Road Suite 800
Dallas, TX 75234

RE: Pace Project 60134393
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2012. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Alice Flanagan".

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-13-4



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

06/05/2013 08:42:54
Pace Package 1 of 47



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60134393

Client: P66 CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-121127-TR-SB146A(4.5')	60134393001	Solid	11/27/2012 13:55	11/30/2012 08:35
075039-121127-TR-SB146A(10')	60134393002	Solid	11/27/2012 14:00	11/30/2012 08:35
075039-121127-TR-SB146A(17.5')	60134393003	Solid	11/27/2012 14:40	11/30/2012 08:35
075039-121127-TR-SB146A(21.5')	60134393004	Solid	11/27/2012 14:50	11/30/2012 08:35
075039-121127-TR-SB146A(22.5')	60134393005	Solid	11/27/2012 15:15	11/30/2012 08:35
075039-121127-TR-SB49A(4.5')	60134393006	Solid	11/27/2012 15:50	11/30/2012 08:35
075039-121127-TR-SB49A(9')	60134393007	Solid	11/27/2012 15:55	11/30/2012 08:35
075039-121127-TR-SB49A(11.5')	60134393008	Solid	11/27/2012 16:00	11/30/2012 08:35
075039-121127-TR-SB49A(17')	60134393009	Solid	11/27/2012 16:30	11/30/2012 08:35
075039-121127-TR-SB49A(20')	60134393010	Solid	11/27/2012 16:40	11/30/2012 08:35
075039-121127-TR-SB49A(24')	60134393011	Solid	11/27/2012 16:50	11/30/2012 08:35
075039-121127-TR-SB49A(33')	60134393012	Solid	11/27/2012 17:10	11/30/2012 08:35
075039-121127-TR-SB49A(37')	60134393013	Solid	11/27/2012 17:20	11/30/2012 08:35
075039-121128-TR-SB49A(44')	60134393014	Solid	11/28/2012 09:30	11/30/2012 08:35
075039-121128-TR-SB49A(49')	60134393015	Solid	11/28/2012 09:40	11/30/2012 08:35
075039-121128-TR-SB51A(5.5')	60134393016	Solid	11/28/2012 10:30	11/30/2012 08:35
075039-121128-TR-SB51A(9.5')	60134393017	Solid	11/28/2012 10:35	11/30/2012 08:35
075039-121128-TR-SB51A(13.5')	60134393018	Solid	11/28/2012 10:40	11/30/2012 08:35
075039-121128-TR-SB51A(16')	60134393019	Solid	11/28/2012 10:50	11/30/2012 08:35
075039-121128-TR-SB52A(6')	60134393020	Solid	11/28/2012 13:55	11/30/2012 08:35
075039-121128-TR-SB52A(10')	60134393021	Solid	11/28/2012 14:00	11/30/2012 08:35
075039-121128-TR-SB52A(14')	60134393022	Solid	11/28/2012 14:05	11/30/2012 08:35
075039-121128-TR-SB52A(21')	60134393023	Solid	11/28/2012 14:35	11/30/2012 08:35
075039-121129-TR-SB52A(36.5')	60134393024	Solid	11/29/2012 10:00	11/30/2012 08:35
075039-121129-TR-SB52A(40.5')	60134393025	Solid	11/29/2012 10:05	11/30/2012 08:35
075039-121129-TR-SB52A(43.5')	60134393026	Solid	11/29/2012 10:20	11/30/2012 08:35
075039-121129-TR-SB51A(39.5')	60134393027	Solid	11/29/2012 13:05	11/30/2012 08:35
075039-121129-TR-SB51A(44')	60134393028	Solid	11/29/2012 13:15	11/30/2012 08:35
075039-121129-TR-SB148(0-0.5')	60134393029	Solid	11/29/2012 14:30	11/30/2012 08:35
075039-121129-TR-SB148(3')	60134393030	Solid	11/29/2012 14:32	11/30/2012 08:35
075039-121129-TR-SB148(7')	60134393031	Solid	11/29/2012 14:35	11/30/2012 08:35
075039-121129-TR-SB149(0-0.5')	60134393032	Solid	11/29/2012 14:39	11/30/2012 08:35
075039-121129-TR-SB149(3')	60134393033	Solid	11/29/2012 14:40	11/30/2012 08:35
075039-121129-TR-SB149(7')	60134393034	Solid	11/29/2012 14:43	11/30/2012 08:35



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60134393

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60134393 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

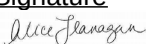
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
06/05/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-121128-TR-SB51A(13.5')

Project ID: 075039 FORMER CACTUS

Lab ID: 60134393018

Moisture: 22.2%

Pace Project No.: 60134393

Collected: 11/28/2012 10:40

Received: 11/30/2012 08:35

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.042	U	mg/kg	0.084	0.042	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.021	U	mg/kg	0.042	0.021	12/07/2012 19:12	12/06/2012 00:00	271557	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-121128-TR-SB51A(16')

Project ID: 075039 FORMER CACTUS

Lab ID: 60134393019

Moisture: 12.5%

Pace Project No.: 60134393

Collected: 11/28/2012 10:50

Received: 11/30/2012 08:35

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	10	314		mg/kg	11.4	5.7	12/12/2012 16:10		272389	60WTA0
8270 MSSV Semivolatiles										
		Analytical Method: EPA 8270				Preparation Method: EPA 3546				
1,3-Dimethyl-2-nitrobenzene	10	6.8		mg/kg	0.37	0.19	12/11/2012 20:10	12/06/2012 00:00	271563	60MSS4
1,2-Dimethyl-3-nitrobenzene	10	31.9		mg/kg	0.73	0.37	12/11/2012 20:10	12/06/2012 00:00	271563	60MSS4
1,2-Dimethyl-4-nitrobenzene	10	8.1		mg/kg	0.37	0.19	12/11/2012 20:10	12/06/2012 00:00	271563	60MSS4
1,3-Dimethyl-5-nitrobenzene	10	< 0.19	U	mg/kg	0.37	0.19	12/11/2012 20:10	12/06/2012 00:00	271563	60MSS4
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	20.7		mg/kg	11.4	4.2	12/03/2012 18:38	12/03/2012 11:05	271097	60WTA2
Nitrite as N	10	< 4.5	U	mg/kg	11.4	4.5	12/03/2012 18:38	12/03/2012 11:05	271097	60WTA2



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 271586
Method: ASTM D2974

Pace Project No.: 60134393
Instrument ID: 60OEXT

Blank: 1109559

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	12/06/2012 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 271587
Method: ASTM D2974

Pace Project No.: 60134393
Instrument ID: 60OEXT

Blank: 1109563

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	12/06/2012 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 271557
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60134393
Instrument ID: 60GCS8

Blank: 1109475

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	12/07/2012 18:37	12/06/2012 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	12/07/2012 18:37	12/06/2012 00:00

Laboratory Control Sample: 1109476

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	0.17	0.12	mg/kg	74	54-129	
PCB-1260 (Aroclor 1260)	0.17	0.16	mg/kg	98	62-129	

Matrix Spike: 1110432

Matrix Spike Duplicate: 1110433

Original for Sample: Project sample 075039-121128-TR-SB51A(13.5')

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.021	0.21	0.22	0.22	0.21	mg/kg	102	97	41-144	4	35	
PCB-1260 (Aroclor 1260)	<0.021	0.21	0.22	0.21	0.20	mg/kg	97	94	28-156	2	31	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 272226
Method: EPA 8260

Pace Project No.: 60134393
Instrument ID: 60MSVA

Blank: 1112117

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Benzene	1	U	<0.0025	mg/kg	0.0050	0.0025	12/10/2012 16:24	
Ethylbenzene	1	U	<0.0025	mg/kg	0.0050	0.0025	12/10/2012 16:24	
Toluene	1	U	<0.0025	mg/kg	0.0050	0.0025	12/10/2012 16:24	
Xylene (Total)	1	U	<0.0025	mg/kg	0.0050	0.0025	12/10/2012 16:24	

Laboratory Control Sample: 1112118

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
Benzene	0.1	0.099	mg/kg	99	78-120	
Ethylbenzene	0.1	0.10	mg/kg	102	77-120	
Toluene	0.1	0.10	mg/kg	102	76-120	
Xylene (Total)	0.3	0.29	mg/kg	98	76-120	

Matrix Spike: 1112119

Matrix Spike Duplicate: 1112120

Original for Sample: Project sample 075039-121128-TR-SB52A(21')

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
Benzene	<0.30	11.9	11.9	10.7	11.6	mg/kg	89	97	40-141	8	34	
Ethylbenzene	3.1	11.9	11.9	14.1	15.0	mg/kg	92	99	40-149	6	39	
Toluene	<0.30	11.9	11.9	11.4	12.4	mg/kg	93	101	40-143	8	39	
Xylene (Total)	40.5	35.9	35.9	78.4	79.8	mg/kg	106	109	40-147	2	40	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 271557
Method: EPA 8082

Pace Project No.: 60134393

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1109475	BLANK for HBN 271557		88	91						
1109476	LCS for HBN 271557		92	91						
60134393018	075039-121128-TR-		88	93						
1110432	075039-121128-TR...		91	92						
1110433	075039-121128-T...		90	92						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60134393

Analyte	Method	Unadjusted MQL	Reporting Units
Nitrogen, Ammonia	EPA 350.1	2.0	mg/kg
Copper	EPA 6010	1.0	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
Benzene	EPA 8260	0.0050	mg/kg
Ethylbenzene	EPA 8260	0.0050	mg/kg
Toluene	EPA 8260	0.0050	mg/kg
Xylene (Total)	EPA 8260	0.0050	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg
Nitrate as N	EPA 9056	1.0	mg/kg
Nitrite as N	EPA 9056	1.0	mg/kg



Pace Project No.: 60134393

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

TRRP LABORATORY REVIEW CHECKLIST									
Laboratory		Pace Analytical Services, Inc.		LRC Date:		06/05/2013			
Project Name:		075039 FORMER CACTUS FACILITY		Laboratory Job Number:		60134393			
Reviewer Name:		Alice Flanagan		Prep Batch Number(s):		See exception report.			
# ¹	A ²	Description			Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X				
		Were all departures from standard conditions described in an exception report?			X				
R2	OI	Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X				
R3	OI	Test reports							
		Were all samples prepared and analyzed within holding times?			X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?			X				
		Were calculations checked by a peer or supervisor?			X				
		Were all analyte identifications checked by a peer or supervisor?			X				
		Were sample detection limits reported for all analytes not detected?			X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X				
		If required for the project, are TICs reported?					X		
R4	O	Surrogate recovery data							
		Were surrogates added prior to extraction?			X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			R4.2
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?			X				
		Were blanks analyzed at the appropriate frequency?			X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?			X				
		Were blank concentrations < MQL?			X				
R6	OI	Laboratory control samples (LCS):							
		Were all COCs included in the LCS?				X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X				
		Were LCSs analyzed at the required frequency?			X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?			X				
		Was the LCSD RPD within QC limits?			X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?				X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?			X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?				X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?			X				
R8	OI	Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?			X				
		Were analytical duplicates analyzed at the appropriate frequency?			X				
		Were RPDs or relative standard deviations within the laboratory QC limits?			X				
R9	OI	Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?			X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X				
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?			X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?			X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?			X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST						
Laboratory		Pace Analytical Services, Inc.	LRC Date:		06/05/2013	
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60134393	
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.	
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴ ER # ⁵
S1	OI	Initial calibration (ICAL)				
		Were response factors and/or relative response factors for each analyte within QC limits?	X			
		Were percent RSDs or correlation coefficient criteria met?	X			
		Was the number of standards recommended in the method used for all analytes?	X			
		Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		Are ICAL data available for all instruments used?	X			
		Has the initial calibration curve been verified using an appropriate second source standard?	X			
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):				
		Was the CCV analyzed at the method-required frequency?	X			
		Were percent differences for each analyte within the method-required QC limits?	X			
		Was the ICAL curve verified for each analyte?	X			
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X			
S3	O	Mass spectral tuning				
		Was the appropriate compound for the method used for tuning?	X			
		Were ion abundance data within the method-required QC limits?	X			
S4	O	Internal standards (IS)				
		Were IS area counts and retention times within the method-required QC limits?			X	
S5	OI	Raw data (NELAC Section 5.5.10)				
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		Were data associated with manual integrations flagged on the raw data?	X			
S6	O	Dual column confirmation				
		Did dual column confirmation results meet the method-required QC?	X			
S7	O	Tentatively identified compounds (TICs)				
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X	
S8	I	Interference Check Sample (ICS) results				
		Were percent recoveries within method QC limits?	X			
S9	I	Serial dilutions, post digestion spikes, and method of standard additions				
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X			
S10	OI	Method detection limit (MDL) studies				
		Was a MDL study performed for each reported analyte?	X			
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X			
S11	OI	Proficiency test reports				
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	Standards documentation				
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	Compound/analyte identification procedures				
		Are the procedures for compound/analyte identification documented?	X			
S14	OI	Demonstration of analyst competency (DOC)				
		Was DOC conducted consistent with NELAC Chapter 5?	X			
		Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)				
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X			
S16	OI	Laboratory standard operating procedures (SOPs)				
		Are laboratory SOPs current and on file for each method performed?	X			

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	06/05/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60134393
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	271071,271097,271420,271557,271563
Batch #'s Cont:	271586,271587,272226,272389		
ER # ¹	Description		
R4.2	Sample #60134393006: Nitrobenzene-d5 (S) 159% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393009: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393009: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393009: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393009: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393009: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393009: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393012: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393012: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393012: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393012: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393012: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393012: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393015: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393015: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393015: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393015: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393015: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393015: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393019: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393019: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393019: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393019: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393019: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393019: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393022: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393022: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393022: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393022: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393022: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393022: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393023: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393023: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393023: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393023: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393023: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393023: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60134393026: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60134393026: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60134393026: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60134393026: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60134393026: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60134393026: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R6.1	LCS sample in batch #272070: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #272070: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #272070: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #272070: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #272070: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #272070: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #272070: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #272070: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #272070: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #272070: PCB-1254 (Aroclor 1254) is not spiked.		
R7.3	MS Sample #1107750: Copper 18% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1112639: Nitrogen, Ammonia 112% spike recovery outside laboratory QC limit of 90-110%.		

TRRP LABORATORY REVIEW CHECKLIST

Laboratory	Pace Analytical Services, Inc.	LRC Date:	06/05/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60134393
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	271071,271097,271420,271557,271563
Batch #'s Cont:	271586,271587,272226,272389		
R7.3	MSD Sample #1107751: Copper 5% spike recovery outside laboratory QC limit of 75-125%.		
1.	ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).		



Sample Condition Upon Receipt

WO#: 60134393



Client Name: CRA Project #: 60134393
Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐
Tracking #: 800182004217 Pace Shipping Label Used? Yes ☒ No ☐

Optional

Proj Due Date: 12/13

Proj Name:

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: T-191 T-194

Type of Ice: Wet Blue None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 0.1

Date and initials of person examining contents: 11/30/12 BA

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	9.
Pace containers used:	☒ Yes ☐ No ☐ N/A	10.
Containers intact:	☒ Yes ☐ No ☐ N/A	11.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	12.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	13.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	14.
Includes date/time/ID/analyses	Matrix: <u>SL</u>	15.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	17.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐ Yes ☒ No	Initial when completed
Trip Blank present:	☐ Yes ☐ No ☒ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		18.
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	19.
Project sampled in USDA Regulated Area:	☒ Yes ☐ No ☐ N/A	20. List State: <u>TX</u>

Client Notification/ Resolution:

Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AKF

Date: 11/30/12



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 2270 Springlake Rd, Ste 800 Dallas, TX

Phone: 214-331-8300

Pat: Tripky@conestoga.com

COC NO: 34709

PAGE 1 OF 3

(See Reverse Side for Instructions)

00134353

Project No/Phase/Task Code: 075039		Laboratory Name: None		Lab Location: Lawrence, KS		SSOW ID: 00134353	
Project Name: Tanner-Cactus Facility		Lab Contact: Hire Flanagan		Lab Quote No:		Cooler No:	
Project Location: Cactus, TX		Chemistry Contact: Art Greeley		Carrier:		Airbill No:	
Sampler(s): J. Tripky		Matrix Code (see back of COC)		SAMPLE TYPE		ANALYSIS REQUESTED (See Back of COC for Definitions)	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		DATE (mm/dd/yyyy)		TIME (hh:mm)		MS/MSD Request	
1 075039-121127-TR-SB146a (4.5')		11/27/12		1335		N/A	
2 SB146a (10')				1400		N/A	
3 SB146a (17.5')				1440		N/A	
4 SB146a (21.5')				1450		N/A	
5 SB146a (25.5')				1515		N/A	
6 SB49a (4.5')				1530		N/A	
7 SB49a (9')				1535		N/A	
8 SB49a (11.5')				1600		N/A	
9 SB49a (17')				1630		N/A	
10 SB49a (20')				1640		N/A	
11 SB49a (24')				1650		N/A	
12 SB49a (33.5')				1710		N/A	
13 SB49a (37')				1720		N/A	
14 -121128-TR-SB49a (44')		11/28/12		0930		N/A	
15 -121128-TR-SB49a (79')		11/28/12		0940		N/A	
TA Required in business days (use separate COCs for different TATs):		DATE		TIME		Notes/Special Requirements:	
☐ Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:		RELIQUISHED BY		COMPANY		RECEIVED BY	
1. [Signature]		CRA		11/29/2012 1600		1. [Signature]	
2. [Signature]						2. [Signature]	
3. [Signature]						3. [Signature]	
Total Number of Containers: 15		All Samples in Cooler must be on COC		Notes/Special Requirements: TRRP Report		Total Number of Containers: 15	
Carrier:		Airbill No:		Cooler No:		SSOW ID:	
Date Shipped: 11/29/2012		Comments/SPECIAL INSTRUCTIONS:		Carrier:		Airbill No:	
1 WGFU		001		001		001	
002		003		004		005	
006		007		008		009	
010		011		012		013	
014		015		016		017	
018		019		020		021	
022		023		024		025	
026		027		028		029	
030		031		032		033	
034		035		036		037	
038		039		040		041	
042		043		044		045	
046		047		048		049	
050		051		052		053	
054		055		056		057	
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066		067		068		069	
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854		855		856			



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 34710
PAGE 2 OF 3

Address:

Phone:

Fax:

(See Reverse Side for Instructions)

60134353

Project No/Phase/Task Code: 075039			Laboratory Name:			Lab Location:			SSOW ID:									
Project Name: Former Coates Facility			Lab Contact:			Lab Quote No:			Cooler No:									
Project Location: Coates TX			Chemistry Contact:			Carrier:			Airbill No:									
Sampler(s): J. R. Roper			Matrix Code			Grab (G) or Comp (C)			Unpreserved									
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yyyy)			TIME (hh:mm)			ANALYSIS REQUESTED (See Back of COC for Definitions)									
Item	1	075039-12/12/08-TL-SB51a(5.5')	11/28/12	1030	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
2	2	SB51a(9.5')	11/28/12	1035	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
3	3	SB51a(13.5')	11/28/12	1040	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
4	4	SB51a(16')	11/28/12	1050	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
5	5	SB52a(6')	11/28/12	1355	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
6	6	SB52a(10')	11/28/12	1400	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
7	7	SB52a(14')	11/28/12	1405	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
8	8	SB52a(21')	11/28/12	1435	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
9	9	075039-12/12/08-TL-SB52a(34.5')	11/29/12	1000	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
10	10	SB52a(40.5')	11/29/12	1005	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
11	11	SB52a(43.5')	11/29/12	1020	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
12	12	SB51a(38.5')	11/29/12	1305	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
13	13	SB51a(44')	11/29/12	1315	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
14	14	SB148(0-0.5')	11/29/12	1430	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
15	15	SB148(31')	11/29/12	1432	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: 170C	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
Total Required in business days (use separate COCs for different TATs):			Total Number of Containers:			All Samples in Cooler must be on COC			Notes/ Special Requirements:									
☐ Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:			DATE			RECEIVED BY			COMPANY									
RELINQUISHED BY			DATE			RECEIVED BY			COMPANY									
1. [Signature]			11/29/12			1. [Signature]			PASL KS									
2. [Signature]						2. [Signature]												
3. [Signature]						3. [Signature]												

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution:

WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: 34711
PAGE 3 OF 3

Address: _____ Phone: _____ Fax: _____

(See Reverse Side for Instructions)
00154393

Project No./Phase/Task Code: 075039			Laboratory Name:			Lab Location:			SSOW ID:		
Project Name: Damon Carver Family			Lab Contact:			Lab Quote No:			Cooler No:		
Project Location: Cactus TX			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			Carrier:		
Chemistry Contact:			Matrix Code			Unpreserved			MS/MSD Request		
Sampler(s): T. Ripley			Grab (G) or Comp (C)			Hydrochloric Acid (HCl)			Airbill No:		
DATE (mm/dd/yyyy)			TIME (hh:mm)			Nitric Acid (HNO ₃)			Date Shipped:		
1 075039-12/29-TR-5B/49(71)			12/29/12 1435			Sulfuric Acid (H ₂ SO ₄)			COMMENTS/ SPECIAL INSTRUCTIONS:		
2 5B/49(25)			1439			Methanol/Water (Soil)			1WGF4 031		
3 5B/49(31)			1440			EnCores 3x5-g, 1x25-g			032		
4 5B/49(71)			1443			Other:			033		
5						Total Containers/Sample			034		
6											
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Total Number of Containers: 4			Notes/ Special Requirements:		
All Samples in Cooler must be on COC					
Relinquished By: [Signature]			Received By: [Signature]		
DATE: 11/29/12			DATE: 11/30/12		
COMPANY: CHA			COMPANY: PASI KS		
TIME: 1600			TIME: 835		



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

REVISED

May 30, 2013

Trent Ripley
P66 CRA TX
2270 Springlake Road Suite 800
Dallas, TX 75234

RE: Pace Project 60142830
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on April 18, 2013. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Flanagan".

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-13-4



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

05/30/2013 08:26:39

Pace Package 1 of 88



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60142830

Client: P66 CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-041513-TR-SB150 (0-1')	60142830001	Solid	04/15/2013 14:05	04/18/2013 09:40
075039-041513-TR-SB150 (5')	60142830002	Solid	04/15/2013 14:10	04/18/2013 09:40
075039-041513-TR-SB150 (14.5')	60142830003	Solid	04/15/2013 14:15	04/18/2013 09:40
075039-041513-TR-SB151 (0-1)	60142830004	Solid	04/15/2013 14:25	04/18/2013 09:40
075039-041513-TR-SB151 (7)	60142830005	Solid	04/15/2013 14:35	04/18/2013 09:40
075039-041513-TR-SB152 (0-1)	60142830007	Solid	04/15/2013 14:50	04/18/2013 09:40
075039-041513-TR-SB152 (3.5)	60142830008	Solid	04/15/2013 14:52	04/18/2013 09:40
075039-041513-TR-SB152 (7.5)	60142830009	Solid	04/15/2013 14:55	04/18/2013 09:40
075039-041513-TR-SB153 (0-1)	60142830011	Solid	04/15/2013 15:15	04/18/2013 09:40
075039-041513-TR-SB153 (4)	60142830012	Solid	04/15/2013 15:18	04/18/2013 09:40
075039-041513-TR-SB154 (0-1)	60142830015	Solid	04/15/2013 15:30	04/18/2013 09:40
075039-041513-TR-SB154 (4)	60142830016	Solid	04/15/2013 15:33	04/18/2013 09:40
075039-041513-TR-SB155 (0-1)	60142830018	Solid	04/15/2013 16:06	04/18/2013 09:40
075039-041513-TR-SB155 (7.5)	60142830019	Solid	04/15/2013 16:08	04/18/2013 09:40
075039-041513-TR-SB155 (15)	60142830020	Solid	04/15/2013 16:12	04/18/2013 09:40
075039-041613-TR-SB166 (0-1)	60142830021	Solid	04/16/2013 08:35	04/18/2013 09:40
075039-041613-TR-SB166 (15)	60142830022	Solid	04/16/2013 08:45	04/18/2013 09:40
075039-041613-TR-SB167 (0-5)	60142830023	Solid	04/16/2013 09:08	04/18/2013 09:40
075039-041613-TR-SB167 (18.5)	60142830024	Solid	04/16/2013 09:15	04/18/2013 09:40
075039-041613-TR-SB168 (0-5)	60142830025	Solid	04/16/2013 09:45	04/18/2013 09:40
075039-041613-TR-SB168 (24)	60142830027	Solid	04/16/2013 10:05	04/18/2013 09:40
075039-041613-TR-SB169 (0-1)	60142830028	Solid	04/16/2013 10:25	04/18/2013 09:40
075039-041613-TR-SB169 (8)	60142830029	Solid	04/16/2013 10:30	04/18/2013 09:40
075039-041613-TR-SB169 (16)	60142830030	Solid	04/16/2013 11:15	04/18/2013 09:40
075039-041613-TR-SB169 (23)	60142830031	Solid	04/16/2013 11:20	04/18/2013 09:40
075039-041613-TR-SB156 (0-1)	60142830032	Solid	04/16/2013 12:50	04/18/2013 09:40
075039-041613-TR-SB156 (6)	60142830033	Solid	04/16/2013 12:53	04/18/2013 09:40
075039-041613-TR-SB158 (0-5)	60142830034	Solid	04/16/2013 13:25	04/18/2013 09:40
075039-041613-TR-SB158 (18)	60142830035	Solid	04/16/2013 13:33	04/18/2013 09:40
075039-041613-TR-SB159 (0-0.5)	60142830036	Solid	04/16/2013 13:55	04/18/2013 09:40
075039-041613-TR-SB159 (4)	60142830037	Solid	04/16/2013 13:56	04/18/2013 09:40
075039-041613-TR-SB160 (0-0.5)	60142830039	Solid	04/16/2013 15:05	04/18/2013 09:40
075039-041613-TR-SB161 (0-0.5)	60142830042	Solid	04/16/2013 15:20	04/18/2013 09:40
075039-041613-TR-SB162 (0-0.5)	60142830045	Solid	04/16/2013 15:34	04/18/2013 09:40
075039-041613-TR-SB143A (3)	60142830048	Solid	04/16/2013 16:45	04/18/2013 09:40
075039-041613-TR-SB143A (7.5)	60142830049	Solid	04/16/2013 16:48	04/18/2013 09:40
075039-041613-TR-SB163 (0-0.5)	60142830051	Solid	04/16/2013 17:06	04/18/2013 09:40
075039-041613-TR-SB163 (4)	60142830052	Solid	04/16/2013 17:08	04/18/2013 09:40



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60142830

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60142830 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | | |
|----------|---|
| X | R1 - Field chain-of-custody documentation; |
| X | R2 - Sample identification cross-reference; |
| X | R3 - Test reports (analytical data sheets) for each environmental sample that includes: <ul style="list-style-type: none">a. Items consistent with NELAC Chapter 5,b. Dilution factors,c. Preparation methods,d. Cleanup methods, ande. If required for the project, tentatively identified compounds (TICs). |
| X | R4 - Surrogate recovery data including: <ul style="list-style-type: none">a. Calculated recovery (%R), andb. The laboratory's surrogate QC limits. |
| X | R5 - Test reports/summary forms for blank samples; |
| X | R6 - Test reports/summary forms for laboratory control samples (LCSs) including: <ul style="list-style-type: none">a. LCS spiking amounts,b. Calculated %R for each analyte, andc. The laboratory's LCS QC limits. |
| X | R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including: <ul style="list-style-type: none">a. Samples associated with the MS/MSD clearly identified,b. MS/MSD spiking amounts,c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,d. Calculated %Rs and relative percent differences, ande. The laboratory's MS/MSD QC limits. |
| X | R8 - Laboratory analytical duplicate (if applicable) recovery and precision: <ul style="list-style-type: none">a. The amount of analyte measured in the duplicate,b. The calculated RPD, and,c. The laboratory's QC limits for analytical duplicated. |
| X | R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and |
| X | R10 - Other problems or anomalies. |

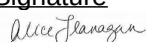
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
05/30/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041613-TR-SB166 (0-1)

Project ID: 075039 FORMER CACTUS

Lab ID: 60142830021

Moisture: 12.3%

Pace Project No.: 60142830

Collected: 04/16/2013 08:35

Received: 04/18/2013 09:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.018	U	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.074	0.037	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.018	U	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.018	U	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.018	U	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1254 (Aroclor 1254)	1	0.035	J	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.018	U	mg/kg	0.037	0.018	04/30/2013 15:16	04/24/2013 00:00	288164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041613-TR-SB167 (0-5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60142830023

Moisture: 13.4%

Pace Project No.: 60142830

Collected: 04/16/2013 09:08

Received: 04/18/2013 09:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	1	13.8		mg/kg	1.1	0.068	04/26/2013 14:40	04/25/2013 16:55	288498	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.038	U	mg/kg	0.076	0.038	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.038	0.019	04/30/2013 15:33	04/24/2013 00:00	288164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041613-TR-SB168 (0-5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60142830025

Moisture: 18.1%

Pace Project No.: 60142830

Collected: 04/16/2013 09:45

Received: 04/18/2013 09:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	1	136		mg/kg	1.1	0.065	04/26/2013 14:42	04/25/2013 16:55	288498	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.079	0.040	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1254 (Aroclor 1254)	1	0.13		mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	04/30/2013 16:25	04/24/2013 00:00	288164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041613-TR-SB169 (0-1)

Project ID: 075039 FORMER CACTUS

Lab ID: 60142830028

Moisture: 16.5%

Pace Project No.: 60142830

Collected: 04/16/2013 10:25

Received: 04/18/2013 09:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	1	38.6		mg/kg	1.2	0.070	04/26/2013 14:44	04/25/2013 16:55	288498	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.039	U	mg/kg	0.078	0.039	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1254 (Aroclor 1254)	1	0.061		mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.039	0.020	04/30/2013 16:43	04/24/2013 00:00	288164	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041613-TR-SB169 (8)

Project ID: 075039 FORMER CACTUS

Lab ID: 60142830029

Moisture: 16.1%

Pace Project No.: 60142830

Collected: 04/16/2013 10:30

Received: 04/18/2013 09:40

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	1	9.4		mg/kg	0.99	0.060	04/26/2013 14:46	04/25/2013 16:55	288498	60ICP4
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.039	U	mg/kg	0.078	0.039	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.039	0.019	05/06/2013 12:26	05/02/2013 00:00	289222	60GCS8



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288164
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60142830
Instrument ID: 60GCS8

Blank: 1175219

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	04/26/2013 01:31	04/24/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	04/26/2013 01:31	04/24/2013 00:00

Laboratory Control Sample: 1175220

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.16	0.17	mg/kg	101	62-129	M4



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288166
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60142830
Instrument ID: 60GCS8

Blank: 1175226

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	05/01/2013 13:31	04/24/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	05/01/2013 13:31	04/24/2013 00:00

Laboratory Control Sample: 1175227

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.17	0.20	mg/kg	123	62-129	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 289222
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60142830
Instrument ID: 60GCS8

Blank: 1179849

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U,CU	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	05/03/2013 13:28	05/02/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00
PCB-1260 (Aroclor 1260)	1	U,CU	<0.016	mg/kg	0.033	0.016	05/03/2013 13:28	05/02/2013 00:00

Laboratory Control Sample: 1179850

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.16	0.19	mg/kg	116	62-129	

Matrix Spike: 1180133

Matrix Spike Duplicate: 1180134

Original for Sample: Project sample 075039-041613-TR-SB169 (8)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1248 (Aroclor 1248)	<0.020	0.2	0.2	0.21	0.21	mg/kg	106	107	41-144	1	31	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 289956
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60142830
Instrument ID: 60GCS8

Blank: 1183418

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.066	0.033	05/13/2013 18:53	05/09/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	05/13/2013 18:53	05/09/2013 00:00

Laboratory Control Sample: 1183419

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.17	0.17	mg/kg	105	62-129	M4



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 291561
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60142830
Instrument ID: 60GCS8

Blank: 1190735

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.032	mg/kg	0.064	0.032	05/23/2013 13:09	05/21/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.032	0.016	05/23/2013 13:09	05/21/2013 00:00

Laboratory Control Sample: 1190736

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.16	0.15	mg/kg	93	62-129	

Matrix Spike: 1190737

Matrix Spike Duplicate: 1190738

Original for Sample: Project sample 075039-041613-TR-SB159 (4)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1248 (Aroclor 1248)	<0.018	0.18	0.18	0.18	0.18	mg/kg	99	99	41-144	1	31	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288164
Method: EPA 8082

Pace Project No.: 60142830

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1175219	BLANK for HBN 288164		92	98						
1175220	LCS for HBN 288164		87	97						
60142830001	075039-041513-TR-	S4,S4,D4	0 *	0 *						
60142830004	075039-041513-TR-		96	103						
60142830007	075039-041513-TR-	S4,S4,D4	0 *	0 *						
60142830008	075039-041513-TR-		81	97						
60142830011	075039-041513-TR-		92	102						
60142830012	075039-041513-TR-		94	109						
60142830015	075039-041513-TR-		95	117						
60142830018	075039-041513-TR-	S4,S4,D4	0 *	0 *						
60142830019	075039-041513-TR-		91	108						
60142830021	075039-041613-TR-		101	98						
60142830023	075039-041613-TR-		93	98						
60142830025	075039-041613-TR-		92	101						
60142830028	075039-041613-TR-		93	92						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288166
Method: EPA 8082

Pace Project No.: 60142830

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1175226	BLANK for HBN 288166		82	99						
1175227	LCS for HBN 288166		100	92						
60142830032	075039-041613-TR-	CH	101	88						
60142830033	075039-041613-TR-		88	84						
60142830034	075039-041613-TR-	S4,S4,D4	0 *	0 *						
60142830035	075039-041613-TR-		85	100						
60142830036	075039-041613-TR-	CH	129	97						
60142830039	075039-041613-TR-	CH	85	79						
60142830042	075039-041613-TR-	CH	85	97						
60142830045	075039-041613-TR-	CH	109	91						
60142830048	075039-041613-TR-	CH	99	94						
60142830049	075039-041613-TR-	CH	88	84						
60142830051	075039-041613-TR-	CH	102	103						
QC Limits:			36-131	34-132						
Surr 1: Decachlorobiphenyl (S)										
Surr 2: Tetrachloro-m-xylene (S)										

* denotes surrogate recovery outside of QC limits.



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 289222
Method: EPA 8082

Pace Project No.: 60142830

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1179849	BLANK for HBN 289222	CH	86	91						
1179850	LCS for HBN 289222	CH	88	96						
60142830029	075039-041613-TR-		94	95						
1180133	075039-041613-TR...		92	78						
1180134	075039-041613-T...		94	75						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 289956
Method: EPA 8082

Pace Project No.: 60142830

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1183418	BLANK for HBN 289956		88	89						
1183419	LCS for HBN 289956		91	87						
60142830002	075039-041513-TR-	S4,S4,D4	0 *	0 *						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 291561
Method: EPA 8082

Pace Project No.: 60142830

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1190735	BLANK for HBN 291561		77	88						
1190736	LCS for HBN 291561		79	94						
60142830003	075039-041513-TR-		61	64						
60142830005	075039-041513-TR-		76	85						
60142830009	075039-041513-TR-		76	85						
60142830016	075039-041513-TR-		67	75						
60142830020	075039-041513-TR-		77	87						
60142830037	075039-041613-TR-		76	87						
1190737	075039-041613-TR...		75	89						
1190738	075039-041613-T...		77	88						
60142830052	075039-041613-TR-		76	85						
QC Limits:			36-131	34-132						

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Detectability Check Samples

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60142830

Method: TNRCC 1005
Prep Method: TNRCC 1005

Matrix: Solid
Instrument ID: 60GCS9

Lab Sample ID	Parameters	CAS No.	Spike	SDL	Result	MQL	Units	Analysis Date	Prep Date
60139763001	TPH Total (C06-C35)		10.0	2.7	7.4	20.0	mg/kg	03/21/2013 05:18	03/20/2013 00:00



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60142830

Analyte	Method	Unadjusted MQL	Reporting Units
Chromium	EPA 6010	0.50	mg/kg
Copper	EPA 6010	1.0	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg
TPH (C06-C12)	TNRCC 1005	20.0	mg/kg
TPH Total (C06-C35)	TNRCC 1005	20.0	mg/kg
TPH (>C12-C28)	TNRCC 1005	20.0	mg/kg
TPH (>C28-C35)	TNRCC 1005	20.0	mg/kg



Pace Project No.: 60142830

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M4	A matrix spike/matrix spike duplicate was not performed for this batch due to sample dilution.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

TRRP LABORATORY REVIEW CHECKLIST									
Laboratory		Pace Analytical Services, Inc.		LRC Date:		05/30/2013			
Project Name:		075039 FORMER CACTUS FACILITY		Laboratory Job Number:		60142830			
Reviewer Name:		Alice Flanagan		Prep Batch Number(s):		See exception report.			
# ¹	A ²	Description			Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?			X				
		Were all departures from standard conditions described in an exception report?			X				
R2	OI	Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?			X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?			X				
R3	OI	Test reports							
		Were all samples prepared and analyzed within holding times?			X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?			X				
		Were calculations checked by a peer or supervisor?			X				
		Were all analyte identifications checked by a peer or supervisor?			X				
		Were sample detection limits reported for all analytes not detected?			X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?					X		
		If required for the project, are TICs reported?					X		
R4	O	Surrogate recovery data							
		Were surrogates added prior to extraction?			X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			R4.2
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?			X				
		Were blanks analyzed at the appropriate frequency?			X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?			X				
		Were blank concentrations < MQL?			X				
R6	OI	Laboratory control samples (LCS):							
		Were all COCs included in the LCS?				X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X				
		Were LCSs analyzed at the required frequency?			X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?			X				
		Was the LCSD RPD within QC limits?			X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?				X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?			X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?				X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?				X			R7.4
R8	OI	Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?			X				
		Were analytical duplicates analyzed at the appropriate frequency?			X				
		Were RPDs or relative standard deviations within the laboratory QC limits?			X				
R9	OI	Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?			X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?			X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?			X				
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?			X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?			X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?			X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		05/30/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60142830		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?		X			S2.2
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	05/30/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60142830
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	287822,288004,288008,288016,288164
Batch #'s Cont:	288166,288167,288498,289222,289956,289967,289973,290773,291561,292472		
ER #¹	Description		
R4.2	Sample #60142830001: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60142830001: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60142830002: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60142830002: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60142830007: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60142830007: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60142830018: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60142830018: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60142830034: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60142830034: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R6.1	LCS sample in batch #288099: TPH (>C12-C28) is not spiked.		
R6.1	LCS sample in batch #288099: TPH (>C28-C35) is not spiked.		
R6.1	LCS sample in batch #288099: TPH (C06-C12) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #288545: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #289003: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #289415: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #290296: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #292035: PCB-1260 (Aroclor 1260) is not spiked.		
R7.1	MS sample for batch #288099: TPH (>C12-C28) is not spiked.		
R7.1	MS sample for batch #288099: TPH (>C28-C35) is not spiked.		
R7.1	MS sample for batch #288099: TPH (C06-C12) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1016 (Aroclor 1016) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #289415: PCB-1260 (Aroclor 1260) is not spiked.		
R7.1	MS sample for batch #292035: PCB-1016 (Aroclor 1016) is not spiked.		
R7.1	MS sample for batch #292035: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #292035: PCB-1232 (Aroclor 1232) is not spiked.		

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	05/30/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60142830
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	287822,288004,288008,288016,288164
Batch #'s Cont:	288166,288167,288498,289222,289956,289967,289973,290773,291561,292472		
R7.1	MS sample for batch #292035: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #292035: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #292035: PCB-1260 (Aroclor 1260) is not spiked.		
R7.3	MS Sample #1183444: Mercury -101% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1183461: Chromium -415% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1183461: Copper -25% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1183461: Lead 74% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1183445: Mercury -86% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1183462: Chromium 141% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1183462: Copper -21% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1183462: Lead 60% spike recovery outside laboratory QC limit of 75-125%.		
R7.4	MSD Sample #1183462: Chromium RPD of 40 exceeds laboratory QC limit of 20.		
S2.2	Sample 60142830032, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830036, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830039, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830042, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830045, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830048, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830049, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
S2.2	Sample 60142830051, Method EPA 8082, Decachlorobiphenyl (S): CH - The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt

WO#: 60142830



60142830

Client Name: CRA

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 540544929313 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other 12pc

Thermometer Used: T-112 / T-194

Type of Ice: Wet Blue ☐ None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 4.6

Date and initials of person examining contents: 12-4-18-13

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	
Pace containers used:	☒ Yes ☐ No ☐ N/A	9.
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	
Includes date/time/ID/analyses Matrix: <u>SL</u>		13.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐ Yes ☒ No	Initial when completed
Trip Blank present:	☐ Yes ☐ No ☒ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Project sampled in USDA Regulated Area:	☐ Yes ☒ No ☐ N/A	17. List State:

Client Notification/ Resolution:

Copy COC to Client? Y ☒ N ☐

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AT

Date: 4/18/13



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

Address: 2270 Springdale Rd Ste 800 Dallas TX

Phone: 972/331-8800 Fax: info@crarovers.com

COC NO.: 34756

PAGE 1 OF 4

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 075039		Laboratory Name: Pac		Lab Location: Lennox KS		SSOW ID:	
Project Name: Turner Cactus Facility (Pkg)		Lab Contact: Alice Plamann		Lab Quote No:		Cooler No:	
Project Location: Cactus TX		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact: Art Garvey		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s): T. Papp		Matrix Code (see back of COC)		Other: 1C		Date Shipped:	
Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)		MS/MSD Request	
Nitric Acid (HNO ₃)		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		COMMENTS/ SPECIAL INSTRUCTIONS:	
Methanol/Water (Soil VOC)		EnCores 3x5-g, 1x25-g		PCB8082		1W6Fu	
TIME (hr:mm)		DATE (mm/dd/yyyy)		TIME (hr:mm)		61	
1 075039-041513-TK-SB150(0-1')		4/15/13		1405		62	
2 SB150(5')		4/15/13		1410		63	
3 SB150(14.5')		4/15/13		1415		64	
4 SB151(0-1')		4/15/13		1425		65	
5 SB151(7')		4/15/13		1435		66	
6 SB151(14')		4/15/13		1440		67	
7 SB152(0-1')		4/15/13		1450		68	
8 SB152(3.5')		4/15/13		1452		69	
9 SB152(7.5')		4/15/13		1455		70	
10 SB152(9.5')		4/15/13		1458		71	
11 SB153(0-1')		4/15/13		1515		72	
12 SB153(4')		4/15/13		1518		73	
13 SB153(7.5')		4/15/13		1522		74	
14 SB153(12.5')		4/15/13		1523		75	
15 SB154(10-1')		4/15/13		1530		015	

Total Number of Containers: 15
Total Samples in Cooler must be on COC: 15
Notes/ Special Requirements: TRPP Reporting in m/Lg

Relinquished By: T. Papp
Date: 4/17/2013
Company: CRA
Relinquished By: 1. Fudge
Date: 4/17/2013
Company: PHST
Relinquished By: 2. PHST
Date: 4/18/13
Company: PHST
Relinquished By: 3.
Date: 4/18/13
Company: PHST



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: 34757
PAGE 2 OF 4
(See Reverse Side for Instructions)

60947880

Address: _____
Phone: _____ Fax: _____

Project No/Phase/Task Code: 078039			Laboratory Name:		Lab Location:		SSOW ID:								
Project Name: <i>Tommy Cactus Family (P66)</i>			Lab Contact:		Lab Quote No:		Cooler No:								
Project Location: <i>Cactus, TX</i>			CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)										
Chemistry Contact:			SAMPLE TYPE		Carrier:										
Sampler(s):			Matrix Code (see back of COC)		Airbill No:										
DATE (mm/dd/yyyy)			TIME (hr:mm)		Date Shipped:										
1	078039-041513-TK-SB154(41)	4/15/2013	1533	50	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other: <i>KC</i>	Total Containers/Sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
2	<i>SB154(131)</i>		1535												126Fu
3	<i>SB155(011)</i>		1606												017
4	<i>SB155(751)</i>		1608												018
5	<i>SB155(151)</i>		1612												019
6	078039-041613-TK-SB166(10-11)	4/16/2013	0835												020
7	<i>SB166(151)</i>		0845												021
8	<i>SB167(0-51)</i>		0908												022
9	<i>SB167(1851)</i>		0915												023
10	<i>SB168(0-51)</i>		0945												024
11	<i>SB168(1751)</i>		0958												025
12	<i>SB168(241)</i>		1005												026
13	<i>SB169(0-11)</i>		1025												027
14	<i>SB169(81)</i>		1030												028
15	<i>SB169(161)</i>		1115												029
Total Number of Containers: 15			Notes/ Special Requirements:												

Relinquished By: *[Signature]* Date: 4/17/2013 Time: 1600
Company: CRA
Received By: *[Signature]* Date: 4/17/2013 Time: 1600
Company: PAST
All Samples in Cooler must be on COC



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

Address: _____ Phone: _____ Fax: _____

COC NO.: 34758

PAGE 3 OF 4

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 073039			Laboratory Name:		Lab Location:		SSOW ID:	
Project Name: Tolmie Creek Fac (Pac)			Lab Contact:		Lab Quote No:		Cooler No:	
Project Location: Carter, TX			SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact:			Grab (G) or Comp (C)		Unpreserved		Carrier:	
Sampler(s):			Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		Airbill No:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yyyy)		TIME (hr:min)		Date Shipped:	
1	073039-CH163-TL-SB169 (23')	SB156 (0-1')	4/16/13	1120	50	G	1	1W5Fu
2		SB156 (6')		1250				032
3		SB156 (6')		1253				033
4		SB158 (0-5')		1325				034
5		SB158 (18')		1333				035
6		SB159 (0-0.5')		1355				036
7		SB159 (4')		1352				037
8		SB159 (20')		140				038
9		SB160 (0-0.5')		1505				039
10		SB160 (3.5')		1508				040
11		SB160 (9.5')		1510				041
12		SB161 (0-0.5')		1520				042
13		SB161 (3.5')		1523				043
14		SB161 (9.5')		1525				044
15		SB162 (0-0.5')		1534				045

Total Number of Containers: 15

Notes/ Special Requirements:

Required in business days (use separate COCs for different TATs):

☐ Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1. [Signature]	CHA	4/17/13	1600	1. [Signature]	PASZ	4/17/13	
2. [Signature]				2. [Signature]		4/18/13	0940
3. [Signature]				3. [Signature]			



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 34759

Address:

PAGE 4 OF 4

Phone:

Fax:

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 03039		Laboratory Name:		Lab Location:		SSOW ID:	
Project Name: Toxics Lab. (Pac)		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location: Carter, TX		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Chemistry Contact:		SAMPLE TYPE		Total Containers/Sample		Airbill No:	
Sampler(s):		Grab (G) or Comp (C)		Other: KC		Date Shipped:	
Matrix Code		Unpreserved		EnCores 3x5-g, 1x25-g		MS/MSD Request	
DATE (mm/dd/yy)		TIME (hh:mm)		Sulfuric Acid (H ₂ SO ₄)		COMMENTS/ SPECIAL INSTRUCTIONS:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)				Nitric Acid (HNO ₃)		1W6F-u	
1 01039-04163-72-5662(3.5)		4/16/03 1535		Hydrochloric Acid (HCl)		417	
2 5662(9.5)		4/16/03 1538		Sodium Hydroxide (NaOH)		418	
3 5663a(3.5)		4/16/03 1645		Methanol/Water (Soil VOC)		419	
4 5663a(8.75)		4/16/03 1648		EnCores 3x5-g, 1x25-g		450	
5 5663a(15.75)		4/16/03 1653		Total Containers/Sample		451	
6 5663(0-0.5)		4/16/03 1706		Other: KC		452	
7 5663(4.1)		4/16/03 1708		MS/MSD Request			
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Notes/ Special Requirements:

Total Number of Containers: 7

All Samples in Cooler must be on COC

RELINQUISHED BY: [Signature]

DATE: 4/17/03

COMPANY: CRA

RECEIVED BY: 1. [Signature] 2. [Signature] 3. [Signature]

DATE: 4/17/03

COMPANY: PHASE

TIME: 0940



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: **34756**

PAGE **1** OF **4**

(See Reverse Side for Instructions)

Address: 200 Sample Rd. 2nd Fl. N. York, NY 10994

Phone: 914-450-1500 Fax: 914-450-1501

Project No/ Phase/Task Code:			Laboratory Name:		Lab Location:		SSOW ID:	
Project Name:			Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:			SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact:			Grab (G) or Comp (C)		Unpreserved		Carrier:	
Sampler(s):			Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		Airbill No:	
DATE (mm/dd/yy)			TIME (hr:min)		Nitric Acid (HNO ₃)		Date Shipped:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yy)		Sulfuric Acid (H ₂ SO ₄)		COMMENTS/ SPECIAL INSTRUCTIONS:	
1	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
2	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
3	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
4	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
5	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
6	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
7	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
8	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
9	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
10	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
11	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
12	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
13	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
14	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	
15	2004-04-08	2004-04-08	10:00	10:00	Grab (G)	Unpreserved	TPH 1005	

TAT Required in business days (use separate COCs for different TATs):		Total Number of Containers:		Notes/ Special Requirements:	
☐ 1 Day	☐ 2 Days	☐ 3 Days	☐ 1 Week	☐ 2 Week	☐ Other:
All Samples in Cooler must be on COC		15		TRP for 1005	

RELINQUISHED BY		RECEIVED BY		COMPANY		DATE		TIME	
1. <u>TPH</u>		1. <u>Fuller</u>		1. <u>Fuller</u>		1. <u>Fuller</u>		1. <u>Fuller</u>	
2. <u>TPH</u>		2. <u>Fuller</u>		2. <u>Fuller</u>		2. <u>Fuller</u>		2. <u>Fuller</u>	
3. <u>TPH</u>		3. <u>Fuller</u>		3. <u>Fuller</u>		3. <u>Fuller</u>		3. <u>Fuller</u>	

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: ☒ WHITE - Fully Executed Copy (CRA)

☐ YELLOW - Receiving Laboratory Copy

☐ PINK - Shipper

☐ GOLDENROD - Sampling Crew

CRA Form: COC-103 (20110304)



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34757** PAGE **2** OF **4**
(See Reverse Side for Instructions)

Address: _____ Phone: _____ Fax: _____

Project No/ Phase/Task Code: 07959				Laboratory Name:		Lab Location:		SSOW ID:	
Project Name: Frederick County Facility (P60)				Lab Contact:		Lab Quote No:		Cooler No:	
Project Location: Conestoga				SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact:				Grab (G) or Comp (C)		Unpreserved		Carrier:	
Sampler(s):				Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		Airbill No:	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)				DATE (mm/dd/yyyy)		TIME (hh:mm)		Date Shipped:	
1	17059-011513-TR-011514			4/11/03		1533		MS/MSD Request	
2	17059-011513-TR-011515			4/11/03		1535			
3	17059-011513-TR-011516			4/11/03		1626			
4	17059-011513-TR-011517			4/11/03		1628			
5	17059-011513-TR-011518			4/11/03		1642			
6	17059-011513-TR-011519			4/11/03		1655			
7	17059-011513-TR-011520			4/11/03		1705			
8	17059-011513-TR-011521			4/11/03		1708			
9	17059-011513-TR-011522			4/11/03		1715			
10	17059-011513-TR-011523			4/11/03		1725			
11	17059-011513-TR-011524			4/11/03		1735			
12	17059-011513-TR-011525			4/11/03		1745			
13	17059-011513-TR-011526			4/11/03		1755			
14	17059-011513-TR-011527			4/11/03		1805			
15	17059-011513-TR-011528			4/11/03		1815			

TAT Required in business days (use separate COCs for different TATs): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:				Total Number of Containers: 15		Notes/ Special Requirements:	
All Samples in Cooler must be on COC				RECEIVED BY		COMPANY	
RELINQUISHED BY				DATE		TIME	
1. [Signature]				4/11/03		1620	
2.							
3.							

DISTRIBUTION		DATE		TIME	
1. [Signature]		4/11/03		1620	
2.					
3.					

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE - Fully Executed Copy (CRA) YELLOW - Receiving Laboratory Copy PINK - Shipper GOLDENROD - Sampling Crew CRA Form: COC-105 (20110804)



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34758**
PAGE 3 OF 4
(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: <u>17-09</u>			Laboratory Name: _____		Lab Location: _____		SSOW ID: _____	
Project Name: <u>Sample to be tested (PAC)</u>			Lab Contact: _____		Lab Quote No: _____		Cooler No: _____	
Project Location: <u>Lab 74</u>			SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)	
Chemistry Contact: _____			Grab (G) or Comp (C)		Unpreserved		Carrier: _____	
Sampler(s): _____			Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		Airbill No: _____	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yyyy)		TIME (hh:mm)		Date Shipped: _____	
Item	1		17-09-19-03-17-03		11:00		31	
2	17-09-19-03-17-03		11:00		11:00		32	
3	17-09-19-03-17-03		11:00		11:00		33	
4	17-09-19-03-17-03		11:00		11:00		34	
5	17-09-19-03-17-03		11:00		11:00		35	
6	17-09-19-03-17-03		11:00		11:00		36	
7	17-09-19-03-17-03		11:00		11:00		37	
8	17-09-19-03-17-03		11:00		11:00		38	
9	17-09-19-03-17-03		11:00		11:00		39	
10	17-09-19-03-17-03		11:00		11:00		40	
11	17-09-19-03-17-03		11:00		11:00		41	
12	17-09-19-03-17-03		11:00		11:00		42	
13	17-09-19-03-17-03		11:00		11:00		43	
14	17-09-19-03-17-03		11:00		11:00		44	
15	17-09-19-03-17-03		11:00		11:00		45	
TAT Required in business days (use separate COCs for different TATs): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: _____			Total Number of Containers: _____		Notes/ Special Requirements: _____			
All Samples in Cooler must be on COC			RECEIVED BY		COMPANY		DATE	
1. <u>[Signature]</u>			1. <u>[Signature]</u>		1. <u>[Signature]</u>		1. <u>[Signature]</u>	
2. _____			2. _____		2. _____		2. _____	
3. _____			3. _____		3. _____		3. _____	

Distribution: WHITE - Fully Executed Copy (CRA) YELLOW - Receiving Laboratory Copy PINK - Shipper GOLDENROD - Sampling Crew

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

CRA Form: COC-105 (20110804)



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: **34759**
PAGE **2** OF **4**

(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code:				Laboratory Name:		Lab Location:		SSOW ID:	
Project Name:				Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:				Chemistry Contact:		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Sampler(s):				SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		Airbill No:	
Matrix Code				(see back of COC)		Unpreserved		Date Shipped:	
DATE (mm/dd/yyyy)				TIME (hh:mm)		Hydrochloric Acid (HCl)		MS/MSD Request	
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)				DATE (mm/dd/yyyy)		TIME (hh:mm)		COMMENTS/ SPECIAL INSTRUCTIONS:	
1	1201-1043-76-1 (100%)			11/04/03	1205	50%		AB882	
2	50% (30%)			11/04/03	1205	50%			
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100	50% (30%)			11/04/03	1205	50%			

TAT Required in business days (use separate COCs for different TATs):			
☐ 1 Day	☐ 2 Days	☐ 3 Days	☐ 1 Week
☐ 2 Week	☐ 3 Week	☐ 4 Week	☐ Other:
RELINQUISHED BY: _____			
DATE: _____			
COMPANY: _____			
RECEIVED BY: _____			
DATE: _____			
COMPANY: _____			
Notes/ Special Requirements:			



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 220 Spring Lake Rd. St. Louis, MO 63103

Phone: 314-500-5000 Fax: 314-500-5001

COC NO.: 34756

PAGE 1 OF 4

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 07039		Laboratory Name: Blue Planet		Lab Location: 10000		SSOW ID:	
Project Name: 10000		Lab Contact: 10000		Lab Quote No:		Cooler No:	
Project Location: 10000		Chemistry Contact: 10000		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:	
Sampler(s): 10000		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		Airbill No:	
Item		Matrix Code (see back of COC)		Grab (G) or Comp (C)		Date Shipped:	
1		07039-0415B-TR-5B152(10-1)		1415/13		MS/MSD Request	
2		5B152(10-1)		1415/13		Total Containers/Sample	
3		5B152(14-1)		1415/13		Other: 10000	
4		5B152(10-1)		1415/13		Encores 3x5-g, 1x25-g	
5		5B152(10-1)		1415/13		VOC	
6		5B152(10-1)		1415/13		Methanol/Water (Soil)	
7		5B152(10-1)		1415/13		Sodium Hydroxide (NaOH)	
8		5B152(10-1)		1415/13		Sulfuric Acid (H ₂ SO ₄)	
9		5B152(10-1)		1415/13		Nitric Acid (HNO ₃)	
10		5B152(10-1)		1415/13		Hydrochloric Acid (HCl)	
11		5B152(10-1)		1415/13		Unpreserved	
12		5B152(10-1)		1415/13		Grab (G) or Comp (C)	
13		5B152(10-1)		1415/13		Matrix Code	
14		5B152(10-1)		1415/13		DATE	
15		5B152(10-1)		1415/13		TIME	
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192		5B152(10-1)		1415/13		TIME	
193		5B152(10-1)		1415/13		TIME	
194		5B152(10-1)		1415/13		TIME	
195		5B152(10-1)		1415/13		TIME	
196		5B152(10-1)		1415/13		TIME	
197		5B152(10-1)		1415/13		TIME	
198		5B152(10-1)		1415/13		TIME	
199		5B152(10-1)		1415/13		TIME	
200		5B152(10-1)		1415/13		TIME	
201		5B152(10-1)		1415/13		TIME	
202		5B152(10-1)		1415/13		TIME	
203		5B152(10-1)		1415/13		TIME	
204		5B152(10-1)		1415/13		TIME	
205		5B152(10-1)		1415/13		TIME	
206							



CONESTOGA-ROVERS & ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: **34757**
PAGE **2** OF **4**
(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: 07039			Laboratory Name: _____			Lab Location: _____			SSOW ID: _____		
Project Name: Forrest Center Facility (P66)			Lab Contact: _____			Lab Quote No: _____			Cooler No: _____		
Project Location: Conestoga, TX			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)		
Chemistry Contact: _____			Grab (G) or Comp (C)			Unpreserved			Hydrochloric Acid (HCl)		
Nitric Acid (HNO ₃)			Sulfuric Acid (H ₂ SO ₄)			Sodium Hydroxide (NaOH)			Methanol/Water (Soil)		
EnCores 3x5-g, 1x25-g			Other: IC			Total Containers/Sample			MS/MSD Request		
Sampler(s):			Matrix Code			(see back of COC)			(G) or Comp (C)		
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)								
1	07039-041513-TR-SB19(14")	4/16/03	1533								
2	SB14(13")	4/16/03	1535								
3	SB155(10-1")	4/16/03	1606								
4	SB133(7.5")	4/16/03	1608								
5	SB155(15")	4/16/03	1612								
6	07039-041613-TR-SB16(10-1")	4/16/03	0835								
7	SB16(15")	4/16/03	0845								
8	SB167(10-5")	4/16/03	0908								
9	SB167(12.5")	4/16/03	0915								
10	SB168(10-5")	4/16/03	0945								
11	SB168(17.5")	4/16/03	0953								
12	SB168(24")	4/16/03	1005								
13	SB169(10-1")	4/16/03	1025								
14	SB169(21")	4/16/03	1030								
15	SB169(16")	4/16/03	1115								
Total Number of Containers: 15				Notes/ Special Requirements:							
All Samples in Cooler must be on COC											
RELINQUISHED BY: [Signature]				DATE: 4/17/03				RECEIVED BY: 1. Fuley			
COMPANY: CRA				TIME: 1600				COMPANY: 1. Fuley			
RELINQUISHED BY: [Signature]				DATE: 4/17/03				RECEIVED BY: 2. [Signature]			
COMPANY: CRA				TIME: 1600				COMPANY: 2. [Signature]			
RELINQUISHED BY: [Signature]				DATE: 4/17/03				RECEIVED BY: 3. [Signature]			
COMPANY: CRA				TIME: 1600				COMPANY: 3. [Signature]			

AT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO: 34758
PAGE 3 OF 4

(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: 07099		Laboratory Name:		Lab Location:		SSOW ID:										
Project Name: <i>Trinity Lakes Farm (PAC)</i>		Lab Contact:		Lab Quote No:		Cooler No:										
Project Location: <i>Canterbury, NY</i>		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:										
Chemistry Contact:						Airbill No:										
Sampler(s):		SAMPLE TYPE		Total Containers/Sample		Date Shipped:										
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)		Matrix Code (see back of COC)		Grab (G) or Comp (C)		MS/MSD Request										
Item	DATE (mm/dd/yy)	TIME (hh:mm)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: <i>KC</i>	<i>PCB 8082</i>	<i>TDH 1005</i>	<i>Cu</i>	<i>Hg</i>	<i>Nitrobenzene</i>
1	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	07/09/09	1100	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Total Number of Containers:		Notes/ Special Requirements:	
All Samples in Cooler must be on COC			
RELINQUISHED BY	DATE	COMPANY	TIME
<i>[Signature]</i>	07/09/09	CRA	1100
1. <i>Foley</i>		RECEIVED BY	DATE
2.		COMPANY	TIME
3.		COMPANY	TIME



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34759**

PAGE **4** OF **4**

Address: _____

Phone: _____

Fax: _____

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 075099				Laboratory Name: _____				Lab Location: _____				SSOW ID: _____							
Project Name: Trunk Lines Inc. (Pkg)				Lab Contact: _____				Lab Quote No: _____				Cooler No: _____							
Project Location: Yuba, TX				SAMPLE TYPE				CONTAINER QUANTITY & PRESERVATION				ANALYSIS REQUESTED (See Back of COC for Definitions)							
Chemistry Contact: _____				Grab (G) or Comp (C)				Unpreserved				Total Containers/Sample							
Sampler(s): _____				Matrix Code (see back of COC)				Hydrochloric Acid (HCl)				Nitric Acid (HNO ₃)							
				Sulfuric Acid (H ₂ SO ₄)				Sodium Hydroxide (NaOH)				Methanol/Water (Soil)							
				VOC				EnCores 3x5-g, 1x25-g				Other: KE							
				DATE (mm/dd/yyyy)				TIME (hh:mm)				MS/MSD Request							
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)																			
Item	1			1/27/09 - 14143-7820, B12 (35)			4/16/09 1535			50 g			AB8082						
	2			S142 (45')			5-33			1									
	3			S142 (31')			6-15			1									
	4			S142 (27')			11-43			1									
	5			S142 (15')			11-53			1									
	6			S142 (0-05')			1706			1									
	7			S142 (4')			1723			1									
	8																		
	9																		
	10																		
	11																		
	12																		
	13																		
	14																		
	15																		
	16																		
	17																		
	18																		
	19																		
	20																		
AT Required in business days (use separate COCs for different TATs):												Total Number of Containers: 7							
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:												All Samples in Cooler must be on COC							
RELINQUISHED BY				COMPANY				DATE				TIME							
SPM				CRA				4/16/09				1600							
RECEIVED BY				COMPANY				DATE				TIME							
SPM				CRA				4/16/09				1600							
1.																			
2.																			
3.																			
Notes/ Special Requirements:												DATE				TIME			



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 220 Sample Rd St. Louis, MO 63103

Phone: 314-500-5000

Fax: 314-500-5000

COC NO.: 34756

PAGE 1 OF 4

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 17039			Laboratory Name: PINK			Lab Location: Joplin, MO			SSOW ID:		
Project Name: 220 Sample Rd St. Louis, MO			Lab Contact: Mike Flanagan			Lab Quote No:			Cooler No:		
Project Location: 220 Sample Rd St. Louis, MO			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)		
Chemistry Contact: T. P. P. P.			Grab (g) or Comp (C)			Unpreserved			MS/MSD Request		
Sampler(s): T. P. P. P.			Matrix Code (see back of COC)			Hydrochloric Acid (HCl)			Nitric Acid (HNO3)		
			Sulfuric Acid (H2SO4)			Sodium Hydroxide (NaOH)			Methanol/Water (Soil)		
			EnCores 3x5-g, 1x25-g			Other: n/c			Total Containers/Sample		
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yyyy)			TIME (hh:mm)					
1	17039-0415B-TX-3B152(0-1)	3B152(0-1)	4/15/13	1410	1410						
2	3B152(15)	3B152(15)	4/15/13	1410	1410						
3	3B152(14.5)	3B152(14.5)	4/15/13	1410	1410						
4	3B152(10-1)	3B152(10-1)	4/15/13	1410	1410						
5	3B152(7)	3B152(7)	4/15/13	1410	1410						
6	3B152(14.1)	3B152(14.1)	4/15/13	1410	1410						
7	3B152(0-1)	3B152(0-1)	4/15/13	1410	1410						
8	3B152(3.5)	3B152(3.5)	4/15/13	1410	1410						
9	3B152(2.4)	3B152(2.4)	4/15/13	1410	1410						
10	3B152(9.5)	3B152(9.5)	4/15/13	1410	1410						
11	3B152(0-1)	3B152(0-1)	4/15/13	1410	1410						
12	3B152(4)	3B152(4)	4/15/13	1410	1410						
13	3B152(7.5)	3B152(7.5)	4/15/13	1410	1410						
14	3B152(17.5)	3B152(17.5)	4/15/13	1410	1410						
15	3B152(10-1)	3B152(10-1)	4/15/13	1410	1410						
Total Number of Containers: 15			Total Samples in Cooler must be on COC			Notes/ Special Requirements: TRPP Reporting in m/Lg					
RELINQUISHED BY: T. P. P. P.			DATE: 4/17/2013			TIME: 1410			COMPANY: PINK		
RECEIVED BY: 1. P. P. P.			DATE: 4/17/2013			TIME: 1410			COMPANY: PINK		
RECEIVED BY: 2. P. P. P.			DATE: 4/17/2013			TIME: 1410			COMPANY: PINK		
RECEIVED BY: 3. P. P. P.			DATE: 4/17/2013			TIME: 1410			COMPANY: PINK		



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34757**
PAGE **2** OF **4**

(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: 07039			Laboratory Name:			Lab Location:			SSOW ID:			
Project Name: Ferris Center Facility (P66)			Lab Contact:			Lab Quote No:			Cooler No:			
Project Location: Conestoga, TX			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)			
Chemistry Contact:			Matrix Code (see back of COC)			Grab (G) or Comp (C)			Total Containers/Sample			
Sampler(s):			DATE (mm/dd/yy)			TIME (hh:mm)			MS/MSD Request			
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other: IC
1	07039-041513-TR-SB19(14')	4/16/2013	1533	G								
2	SB14(13')		1535									
3	SB155(10-1')		1606									
4	SB133(7.5')		1608									
5	SB155(15')		1612									
6	07039-041513-TR-SB16(10-1')	4/16/2013	0835									
7	SB166(15')		0845									
8	SB167(10-5')		0903									
9	SB167(18.5')		0915									
10	SB168(10-5')		0945									
11	SB168(17.5')		0958									
12	SB168(24')		1005									
13	SB169(10-1')		1025									
14	SB169(3')		1030									
15	SB169(16')		1115									

Total Number of Containers: **15**

Notes/ Special Requirements:

All Samples in Cooler must be on COC

1. Fully

2.

3.

RELINQUISHED BY: **[Signature]**

COMPANY: **CRA**

DATE: **4/17/2013**

TIME: **1600**

RECEIVED BY:

COMPANY:

DATE:

TIME:



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34758**
PAGE **3** OF **4**

(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/Phase/Task Code: 03009			Laboratory Name:			Lab Location:			SSOW ID:		
Project Name: Trinity Lakes Farm (PAC)			Lab Contact:			Lab Quote No:			Cooler No:		
Project Location: Trinity Lakes Farm, TX			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)		
Chemistry Contact:			Matrix Code			Unpreserved			Total Containers/Sample		
Sampler(s):			DATE (mm/dd/yy)			TIME (hr:mm)			MS/MSD Request		
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yy)			TIME (hr:mm)			COMMENTS/ SPECIAL INSTRUCTIONS:		
1 03009-194013-TR-231			4/14/03			1120			✓ PCB 8082		
2 SB154 (10-1)			4/14/03			1250			✓ PCB 8082		
3 SB154 (6-1)			4/14/03			1253			✓ PCB 8082		
4 SB153 (10-5)			4/14/03			1305			✓ PCB 8082		
5 SB153 (10-5)			4/14/03			1333			✓ PCB 8082		
6 SB154 (10-5)			4/14/03			1355			✓ PCB 8082		
7 SB154 (10-5)			4/14/03			1356			✓ PCB 8082		
8 SB154 (10-5)			4/14/03			1440			✓ PCB 8082		
9 SB154 (10-5)			4/14/03			1505			✓ PCB 8082		
10 SB160 (3-5)			4/14/03			1508			✓ PCB 8082		
11 SB160 (3-5)			4/14/03			1510			✓ PCB 8082		
12 SB161 (10-5)			4/14/03			1520			✓ PCB 8082		
13 SB161 (3-5)			4/14/03			1523			✓ PCB 8082		
14 SB161 (3-5)			4/14/03			1535			✓ PCB 8082		
15 SB161 (3-5)			4/14/03			1531			✓ PCB 8082		

DATE Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
<i>[Signature]</i>	CRA	4/14/03	1600	<i>[Signature]</i>	PINK	4/17/03	

Notes/ Special Requirements:
All Samples in Cooler must be on COC



CHAIN OF CUSTODY RECORD

COC NO.: 34759

PAGE 4 OF 4

(See Reverse Side for Instructions)

Address:

Phone:

Fax:

Project No/ Phase/Task Code:										Laboratory Name:										Lab Location:										SSOW ID:									
Project Name:										Lab Contact:										Lab Quote No:										Cooler No:									
Project Location:										Container Quantity & Preservation										Analysis Requested (See Back of COC for Definitions)										Carrier:									
Chemistry Contact:										Sample Type										Total Containers/Sample										Airbill No:									
Sampler(s):										Matrix Code										Grab (g) or Comp (c)										Date Shipped:									
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)										DATE (mm/dd/yy)										TIME (hh:mm)										MS/MSD Request									
1										11/05/11										11:00										1									
2										11/05/11										11:05										2									
3										11/05/11										11:10										3									
4										11/05/11										11:15										4									
5										11/05/11										11:20										5									
6										11/05/11										11:25										6									
7										11/05/11										11:30										7									
8										11/05/11										11:35										8									
9										11/05/11										11:40										9									
10										11/05/11										11:45										10									
11										11/05/11										11:50										11									
12										11/05/11										11:55										12									
13										11/05/11										12:00										13									
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15										11/05/11										12:10										15									
16										11/05/11										12:15										16									
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18										11/05/11										12:25										18									
19										11/05/11										12:30										19									
20										11/05/11										12:35										20									
21										11/05/11										12:40										21									
22										11/05/11										12:45										22									
23										11/05/11										12:50										23									
24										11/05/11										12:55										24									
25										11/05/11										1:00										25									
26										11/05/11										1:05										26									
27										11/05/11										1:10										27									
28										11/05/11										1:15										28									
29										11/05/11										1:20										29									
30										11/05/11										1:25										30									
31										11/05/11										1:30										31									
32										11/05/11										1:35										32									
33										11/05/11										1:40										33									
34										11/05/11										1:45										34									
35										11/05/11										1:50										35									
36										11/05/11										1:55										36									
37										11/05/11										2:00										37									
38										11/05/11										2:05										38									
39										11/05/11										2:10										39									
40										11/05/11										2:15										40									
41										11/05/11										2:20										41									
42										11/05/11										2:25										42									
43										11/05/11										2:30										43									
44										11/05/11										2:35										44									
45										11/05/11										2:40										45									
46										11/05/11										2:45										46									
47										11/05/11										2:50										47									
48										11/05/11										2:55										48									
49										11/05/11										3:00										49									
50										11/05/11										3:05										50									
51										11/05/11										3:10										51									
52										11/05/11										3:15										52									
53										11/05/11										3:20										53									
54										11/05/11										3:25										54									
55										11/05/11										3:30										55									
56										11/05/11										3:35										56									
57										11/05/11										3:40										57									
58										11/05/11										3:45										58									
59										11/05/11										3:50										59									
60										11/05/11										3:55										60									
61										11/05/11										4:00										61									
62										11/05/11										4:05										62									
63										11/05/11										4:10										63									
64										11/05/11										4:15										64									
65										11/05/11										4:20										65									
66										11/05/11										4:25										66									
67										11/05/11										4:30																			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

WHITE – Fully Executed Copy (CRA)

PINK – Shipper

GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)



REVISED

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

June 06, 2013

Trent Ripley
P66 CRA TX
2270 Springlake Road Suite 800
Dallas, TX 75234

RE: Pace Project 60143026
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2013. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Flanagan".

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-13-4



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

06/06/2013 10:27:27



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60143026

Client: P66 CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-041713-TR-SB157(0-0.5)	60143026001	Solid	04/17/2013 08:50	04/20/2013 09:05
075039-041713-TR-SB157(4.5)	60143026002	Solid	04/17/2013 08:51	04/20/2013 09:05
075039-041713-TR-SB157(9.5)	60143026003	Solid	04/17/2013 09:18	04/20/2013 09:05
075039-041713-TR-SB157(14.5)	60143026004	Solid	04/17/2013 09:20	04/20/2013 09:05
075039-041713-TR-SB164(0-0.5)	60143026005	Solid	04/17/2013 09:35	04/20/2013 09:05
075039-041713-TR-SB164(4)	60143026006	Solid	04/17/2013 09:37	04/20/2013 09:05
075039-041713-TR-SB165(0-0.5)	60143026007	Solid	04/17/2013 09:42	04/20/2013 09:05
075039-041713-TR-SB165(3.5)	60143026008	Solid	04/17/2013 09:45	04/20/2013 09:05
075039-041713-TR-SB170(0-0.5)	60143026009	Solid	04/17/2013 13:35	04/20/2013 09:05
075039-041713-TR-SB170(6.5)	60143026010	Solid	04/17/2013 13:40	04/20/2013 09:05
075039-041713-TR-SB170(14.5)	60143026011	Solid	04/17/2013 13:43	04/20/2013 09:05
075039-041713-TR-SB170(17.5)	60143026012	Solid	04/17/2013 13:50	04/20/2013 09:05
075039-041813-TR-PD01(0-0.5)	60143026013	Solid	04/18/2013 11:30	04/20/2013 09:05
075039-041813-TR-PD02(0-0.5)	60143026014	Solid	04/18/2013 14:05	04/20/2013 09:05
075039-041813-TR-PD03(0-0.5)	60143026015	Solid	04/18/2013 15:00	04/20/2013 09:05
075039-041813-TR-TP09A(0-0.5)	60143026016	Solid	04/18/2013 16:02	04/20/2013 09:05
075039-041813-TR-TP09B(0-0.5)	60143026017	Solid	04/18/2013 16:05	04/20/2013 09:05
075039-041813-TR-TP09C(0-0.5)	60143026018	Solid	04/18/2013 16:07	04/20/2013 09:05
075039-041813-TR-TP09(0-0.5)	60143026019	Solid	04/18/2013 16:15	04/20/2013 09:05
075039-041913-TR-TP3A(0-0.5)	60143026020	Solid	04/19/2013 09:10	04/20/2013 09:05
075039-041913-TR-TP3B(0-0.5)	60143026021	Solid	04/19/2013 09:14	04/20/2013 09:05
075039-041913-TR-TP3C(0-0.5)	60143026022	Solid	04/19/2013 09:18	04/20/2013 09:05
075039-041913-TR-TP3(0-0.5)	60143026023	Solid	04/19/2013 09:20	04/20/2013 09:05
075039-041913-TR-SB171(0-0.5)	60143026024	Solid	04/19/2013 09:35	04/20/2013 09:05



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60143026

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60143026 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

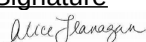
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
06/06/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041713-TR-SB170(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60143026009

Moisture: 27.9%

Pace Project No.: 60143026

Collected: 04/17/2013 13:35

Received: 04/20/2013 09:05

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	5	2130		mg/kg	6.5	0.39	04/30/2013 13:39	04/29/2013 10:55	288771	60ICP3
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	200	< 4.5	U	mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1221 (Aroclor 1221)	200	< 9.1	U	mg/kg	18.2	9.1	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1232 (Aroclor 1232)	200	< 4.5	U	mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1242 (Aroclor 1242)	200	< 4.5	U	mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1248 (Aroclor 1248)	200	< 4.5	U	mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1254 (Aroclor 1254)	200	23.2		mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8
PCB-1260 (Aroclor 1260)	200	< 4.5	U	mg/kg	9.1	4.5	05/06/2013 12:44	04/24/2013 00:00	288337	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-041713-TR-SB170(6.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60143026010

Moisture: 17.5%

Pace Project No.: 60143026

Collected: 04/17/2013 13:40

Received: 04/20/2013 09:05

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
6010 MET ICP										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Copper	5	504		mg/kg	5.5	0.33	04/30/2013 13:43	04/29/2013 10:55	288771	60ICP3
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.080	0.040	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	05/06/2013 00:35	04/24/2013 00:00	288337	60GCS8
8270 MSSV Semivolatiles										
		Analytical Method: EPA 8270				Preparation Method: EPA 3546				
1,3-Dimethyl-2-nitrobenzene	1	< 0.020	U	mg/kg	0.040	0.020	04/29/2013 15:32	04/25/2013 00:00	288367	60MSS4
1,2-Dimethyl-3-nitrobenzene	1	0.10		mg/kg	0.079	0.040	04/29/2013 15:32	04/25/2013 00:00	288367	60MSS4
1,2-Dimethyl-4-nitrobenzene	1	0.047		mg/kg	0.040	0.020	04/29/2013 15:32	04/25/2013 00:00	288367	60MSS4
1,3-Dimethyl-5-nitrobenzene	1	< 0.020	U	mg/kg	0.040	0.020	04/29/2013 15:32	04/25/2013 00:00	288367	60MSS4



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288337
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60143026
Instrument ID: 60GCS8

Blank: 1175772

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.032	mg/kg	0.065	0.032	05/05/2013 21:24	04/24/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.032	0.016	05/05/2013 21:24	04/24/2013 00:00

Laboratory Control Sample: 1175773

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1248 (Aroclor 1248)	0.16	0.19	mg/kg	113	62-129	

Matrix Spike: 1175774

Matrix Spike Duplicate: 1175775

Original for Sample: Project sample 075039-041713-TR-SB157(0-0.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1248 (Aroclor 1248)	<0.017	0.17	0.17	0.16	0.17	mg/kg	90	97	41-144	6	31	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288367
Method: EPA 8270
Prep Method: EPA 3546

Pace Project No.: 60143026
Instrument ID: 60MSS4

Blank: 1175898

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
1,2-Dimethyl-3-	1	U	<0.033	mg/kg	0.066	0.033	04/29/2013 14:06	04/25/2013 00:00
1,2-Dimethyl-4-	1	U	<0.017	mg/kg	0.033	0.017	04/29/2013 14:06	04/25/2013 00:00
1,3-Dimethyl-2-	1	U	<0.017	mg/kg	0.033	0.017	04/29/2013 14:06	04/25/2013 00:00
1,3-Dimethyl-5-	1	U	<0.017	mg/kg	0.033	0.017	04/29/2013 14:06	04/25/2013 00:00

Laboratory Control Sample: 1175899

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
1,2-Dimethyl-3-	1.7	1.3	mg/kg	80	50-150	
1,2-Dimethyl-4-	1.7	1.3	mg/kg	78	50-150	
1,3-Dimethyl-2-	1.7	1.3	mg/kg	77	50-150	
1,3-Dimethyl-5-	1.7	1.3	mg/kg	78	50-150	

Matrix Spike: 1175900

Matrix Spike Duplicate: 1175901

Original for Sample: Project sample 075039-041713-TR-SB170(6.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
1,2-Dimethyl-3-	0.10	1.9	2.1	1.8	1.9	mg/kg	86	90	50-150	7	30	
1,2-Dimethyl-4-	0.047	1.9	2.1	1.7	1.9	mg/kg	86	90	50-150	7	30	
1,3-Dimethyl-2-	<0.021	1.9	2.1	1.7	1.8	mg/kg	85	88	50-150	6	30	
1,3-Dimethyl-5-	<0.021	1.9	2.1	1.7	1.8	mg/kg	84	88	50-150	7	30	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 288337
Method: EPA 8082

Pace Project No.: 60143026

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1175772	BLANK for HBN 288337		98	97						
1175773	LCS for HBN 288337		95	97						
60143026001	075039-041713-TR-		97	95						
1175774	075039-041713-TR...		69	78						
1175775	075039-041713-T...		72	77						
60143026009	075039-041713-TR-	S4,S4,D4	0 *	0 *						
60143026010	075039-041713-TR-		90	106						
60143026013	075039-041813-TR-PD01		84	91						
60143026014	075039-041813-TR-PD02		89	94						
60143026015	075039-041813-TR-PD03		83	90						
60143026016	075039-041813-TR-		95	107						
60143026017	075039-041813-TR-		82	96						
60143026018	075039-041813-TR-	S4,S4,D4	0 *	0 *						

QC Limits: 36-131 34-132

Surr 1: Decachlorobiphenyl (S)

Surr 2: Tetrachloro-m-xylene (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60143026

Analyte	Method	Unadjusted MQL	Reporting Units
Arsenic	EPA 6010	1.0	mg/kg
Copper	EPA 6010	1.0	mg/kg
Barium	EPA 6010	1.0	mg/kg
Cadmium	EPA 6010	0.50	mg/kg
Chromium	EPA 6010	0.50	mg/kg
Lead	EPA 6010	0.50	mg/kg
Selenium	EPA 6010	1.5	mg/kg
Silver	EPA 6010	0.70	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg



Pace Project No.: 60143026

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S2	Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).
S4	Surrogate recovery not evaluated against control limits due to sample dilution.



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Tel: 913-599-5665
Fax: 913-599-1759

June 6, 2013

Trent Ripley
P66 CRA TX
2270 Springlake Road Suite 800
Dallas, TX 75234

RE: Revised Analytical Results for 075039 FORMER CACTUS FACILITY (Pace Project Number 60143026)

Dear Trent Ripley,

We have discovered a data import error in the processing of our ICP Metals analyses by EPA method 6010B. This error caused the use of default sample weights in the calculation of the concentration of metals in some samples from May 16th to May 23rd 2013. As a result, some of the reported analytical data for the EPA 6010B Metals were off from the true value due to the difference in the default sample weight and the actual sample weight used for analysis.

Once discovered, we initiated corrective action procedures which included a review of all data for this analysis to locate the origin of this data import error. The origin of this error came from a software communication issue with our Laboratory Information Management System (LIMS). This issue affected a limited number of samples that were analyzed during this time period. The above referenced Pace project number has been identified as being affected by this issue, and the analytical results have been revised accordingly. As a means to assist you in identifying the affected Metal results we have provided a cross reference table as an attachment to this cover letter.

Please accept our earnest apologies for any inconvenience this situation may have caused. One of Pace's most fundamental values is to supply only the highest quality data possible to our clients and it is our sincere hope that this isolated incident has not diminished your faith in our abilities to do so.

If you have any questions you can e-mail me at Jim.Brownfield@pacelabs.com or call my direct line at 913-563-1444.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jim Brownfield", is written over a light blue horizontal line.

Jim Brownfield
Quality Manager
Pace Analytical – Kansas



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
Tel: 913-599-5665
Fax: 913-599-1759

Cross Reference Table

Customer	Laboratory ID	Customer ID	Element	Original Result	Revised Result	Units
P66 CRA TX	60143026003	075039-041713-TR-SB157(9.5)	Cu	20.0	17.9	mg/kg

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		06/06/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60143026		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R4.2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?		X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?		X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?		X			R7.4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		06/06/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60143026		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	06/06/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60143026
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	288085,288087,288290,288337,288367
Batch #'s Cont:	288771,289973,291590		
ER #¹	Description		
R4.2	MS Sample #1175900: 2-Fluorophenol (S) 13% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	MS Sample #1175900: Phenol-d6 (S) 27% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	MSD Sample #1175901: 2-Fluorophenol (S) 10% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	MSD Sample #1175901: Phenol-d6 (S) 22% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60143026009: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60143026009: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R4.2	Sample #60143026010: 2-Fluorophenol (S) 11% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60143026010: Phenol-d6 (S) 25% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60143026012: 2,4,6-Tribromophenol (S) 36% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60143026012: 2-Fluorophenol (S) 36% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60143026018: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60143026018: Tetrachloro-m-xylene (S) 0% surrogate recovery outside of laboratory QC limits of 34-132%.		
R6.1	LCS sample in batch #288720: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #288720: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #288720: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #288720: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #288720: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #288720: PCB-1260 (Aroclor 1260) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1016 (Aroclor 1016) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #288720: PCB-1260 (Aroclor 1260) is not spiked.		
R7.3	MS Sample #1178154: Barium 58% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1178154: Chromium 1233% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1178154: Lead 69% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1178154: Selenium 42% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1183461: Copper -25% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1178155: Barium 70% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1178155: Chromium -782% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1178155: Copper 63% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1178155: Selenium 40% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1183462: Copper -21% spike recovery outside laboratory QC limit of 75-125%.		
R7.4	MSD Sample #1178155: Chromium RPD of 22 exceeds laboratory QC limit of 20.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt
ESI Tech Spec Client

WO# : 60143026



Client Name: COP CRA

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 5405 4492 9379 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: T-112 / T-194

Type of Ice: Wet Blue ☐ None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 2.0

Temperature should be above freezing to 6°C

Date and initials of person examining
contents: 4-20-13 BA

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush-Turn-Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	
Pace containers used:	☒ Yes ☐ No ☐ N/A	9.
Containers intact:	☒ Yes ☐ No ☐ N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	11.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	12.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	
Includes date/time/ID/analyses	Matrix: <u>SL</u>	13.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐ Yes ☒ No	Initial when completed
Trip Blank present:	☐ Yes ☐ No ☒ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	16.
Project sampled in USDA Regulated Area:	☐ Yes ☒ No ☐ N/A	17. List State: <u>Cactus TX</u>

Client Notification/ Resolution:

Copy COC to Client? Y ☐ N ☒

Field Data Required? Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AXF

Date: 4/22/13

Temp Log: Record start and finish times
when unpacking cooler, if >20 min,
recheck sample temps

Start: <u>0940</u>	Start:
End: <u>0950</u>	End:
Temp:	Temp:



COC NO.: 34775

Address: 22705 N. 26th Ave. Kd St 900 Valley TX

PAGE / OF 2

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 075039										Laboratory Name: Pare										Lab Location: Loppa KS										SSOW ID:																			
Project Name: Iron Cactus Facilities (P&G)										Lab Contact: Alice Flanagan										Lab Quote No:										Cooler No:																			
Project Location: Cactus, TX																																																	
Chemistry Contact: Art Grady																																																	
Sampler(s): T. R. Poley																																																	
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yyyy)	TIME (hh:mm)	CONTAINER QUANTITY & PRESERVATION										ANALYSIS REQUESTED (See Back of COC for Definitions)										COMMENTS/ SPECIAL INSTRUCTIONS:																							
1	075039-041113-TR-SB157(0.5) 4/11/13			4/11/13	0830	Matrix Code	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other: ice	Total Containers/Sample	MS/MSD Request																																
2	SB157(4.5)				0837													1WGFu 01																															
3	SB157(9.5)				0918													02																															
4	SB157(14.5)				0920													03																															
5	SB164(0.05)				0935													04																															
6	SB164(4)				0937													05																															
7	SB165(25)(0.5)				0942													06																															
8	SB165(35)				0945													07																															
9	SB170(0-0.5)				1335													08																															
10	SB170(6.5)				1340													09																															
11	SB170(14.5)				1343													010																															
12	SB170(17.5)				1350													011																															
13	075039-041113-TR-SB170(0.5) 4/11/13			4/11/13	1130													012																															
14	↓ ↓ ↓ PD02(0.05) ↓				1405													013																															
15	PD03(0.05) ↓				1500													014																															
TAT Required in business days (use separate COCs for different TATs):										Total Number of Containers: 15										Notes/ Special Requirements:																													
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:										All Samples in Cooler must be on COC										TRP Reporting in mg/kg																													
RELINQUISHED BY: [Signature]										DATE: 4/15/13										RECEIVED BY: 1. [Signature] 2. [Signature]										DATE: 4-20-13										TIME: 0905									
1. [Signature]										COMPANY: CFA										COMPANY: PASI KS										TIME: 0905																			
2. [Signature]										DATE: 4/15/13										DATE: 4-20-13										TIME: 0905																			
3. [Signature]										DATE: 4/15/13										DATE: 4-20-13										TIME: 0905																			

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GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)



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GOLDENROD – Sampling Crew



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: **34775**

PAGE **1** OF **2**

Address:

2205 Sample Rd St 800 Yellows TX

Phone:

972/381-5520

Fax:

972/381-5520

(See Reverse Side for Instructions)

Project No/ Phase/Task Code:

Laboratory Name:

Lab Location:

SSOW ID:

Project Name:

Lab Contact:

Lab Quote No:

Cooler No:

Project Location:

Sample Type

CONTAINER QUANTITY & PRESERVATION

ANALYSIS REQUESTED (See Back of COC for Definitions)

Carrier:

Chemistry Contact:

Matrix Code (see back of COC)

Grab (G) or Comp (C)

Unpreserved

Airbill No:

Sampler(s):

Hydrochloric Acid (HCl)

Nitric Acid (HNO₃)

Sulfuric Acid (H₂SO₄)

Sodium Hydroxide (NaOH)

Methanol/Water (Soil VOC)

EnCores 3x5-g, 1x25-g

Other: **HC**

SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)

DATE (mm/dd/yyyy)

TIME (hr:mm)

Total Containers/Sample

MS/MSD Request

COMMENTS/SPECIAL INSTRUCTIONS:

Date Shipped:

1 **07038-041113-7E-SB15(0.05)**

12/11/13

0850

GC

2

1

2

2

MS/MSD Request

2 **SB15(4.5')**

1

0851

1

1

1

2

2

MS/MSD Request

3 **SB15(9.5')**

1

0818

1

1

1

2

2

MS/MSD Request

4 **SB15(14.5')**

1

0900

1

1

1

2

2

MS/MSD Request

5 **SB16(17.0-0.5')**

1

0835

1

1

1

2

2

MS/MSD Request

6 **SB16(17.0-0.5')**

1

0837

1

1

1

2

2

MS/MSD Request

7 **SB16(17.0-0.5')**

1

0842

1

1

1

2

2

MS/MSD Request

8 **SB16(17.0-0.5')**

1

0845

1

1

1

2

2

MS/MSD Request

9 **SB17(10-0.5')**

1

1335

1

1

1

2

2

MS/MSD Request

10 **SB17(16.5')**

1

1340

1

1

1

2

2

MS/MSD Request

11 **SB17(14.5')**

1

1343

1

1

1

2

2

MS/MSD Request

12 **SB17(12.5')**

1

1350

1

1

1

2

2

MS/MSD Request

13 **07038-041113-7E-SB17(10-0.5')**

12/11/13

1130

1

1

1

2

2

MS/MSD Request

14 **SB17(10-0.5')**

1

1405

1

1

1

2

2

MS/MSD Request

15 **SB17(10-0.5')**

1

1405

1

1

1

2

2

MS/MSD Request

TAT Required in business days (use separate COCs for different TATs):

1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: ☐

Total Number of Containers: **15**

All Samples in Cooler must be on COC

Notes/ Special Requirements:

RELINQUISHED BY

COMPANY

DATE

TIME

RECEIVED BY

COMPANY

DATE

TIME

1.

1.

1.

1.

1.

1.

1.

1.

1.

1.

1.

1.

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COC NO.: 34776

PAGE 2 OF 2

Address:

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CHAIN OF CUSTODY RECORD

COC NO.: 34775

PAGE 1 OF 2

Address:

2270501m bkr ka st 800 koi/ks-7X

Phone: 912/331-5500

Fax: 712/497-1000

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 075039							Laboratory Name: Pace Chemicals						Lab Location: Lanes 15			SSOW ID:																
Project Name: Hummel Lake Facility (CAG)							Lab Contact: Alice Chambers						Lab Quote No:			Cooler No:																
Project Location: Lanes TX																																
Chemistry Contact: JTP/Kry																																
Sampler(s):																																
SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)							DATE (mm/dd/yyyy)		TIME (hh:mm)																							
Matrix Code (see back of COC)							Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)		Nitric Acid (HNO ₃)		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		Methanol/Water (Soil VOC)		EnCores 3x5-g, 1x25-g		Other: HCL		Total Containers/Sample		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:			
MS/MSD Request							Date Shipped:		COMMENTS/ SPECIAL INSTRUCTIONS:																							
1 07039-141113-TX-SB15(10-05) 12/11/13 0850 SS C																													Please analyze as irradiated by yr TR 5/8/2015.			
2 SB15(4.5')							0851																						Phase analyze as indicated by "Y" TR 5/16/2015			
3 SB15(9.5')							0918																									
4 SB15(14.5')							0930																									
5 SB15(19.05')							0935																									
6 SB15(24')							0937																									
7 SB15(25.15-0.5')							0942																									
8 SB15(3.5')							0945																									
9 SB15(10-0.5')							1335																									
10 SB15(6.5')							1340																									
11 SB15(14.5')							1343																									
12 SB15(17.5')							1350																									
13 07039-141113-TX-SB15(10-0.5') 12/11/13 1130																																
14 SB15(10-0.5')							1405																									
15 SB15(10-0.5')							1505																									
TAT Required in business days (use separate COCs for different TATs):							Total Number of Containers: 15		Notes/ Special Requirements: TRP Analyze in mg/kg																							
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:							All Samples in Cooler must be on COC																									
REINQUISHED BY							COMPANY		DATE		TIME		RECEIVED BY		COMPANY		DATE		TIME													
1. JTP/Kry							CH		12/11/2013		1055		1. Kelly																			
2.													2.																			
3.													3.																			

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**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO: **34776**

PAGE **2** OF **2**

Address: _____

Phone: _____

Fax: _____

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 07039			Laboratory Name: _____			Lab Location: _____			SSOW ID: _____		
Project Name: Sample for fuel for (PAC)			Lab Contact: _____			Lab Quote No: _____			Cooler No: _____		
Project Location: Carly, TX			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED (See Back of COC for Definitions)		
Chemistry Contact: Allyson			Matrix Code (see back of COC)			Grab (G) or Comp (C)			Unpreserved		
Sampler(s): _____			Hydrochloric Acid (HCl)			Nitric Acid (HNO ₃)			Sulfuric Acid (H ₂ SO ₄)		
			Sodium Hydroxide (NaOH)			Methanol/Water (Soil VOC)			EnCores 3x5-g, 1x25-g		
			Other: PCB 8052			Total Containers/Sample			MS/MSD Request		
			DATE (mm/dd/yy)			TIME (hh:mm)			Carrier: _____		
			SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)						Airbill No: _____		
			1 075039-1411813-7R-TP094(0-0.5) 04/11/13 1602 52 E						Date Shipped: _____		
			2 TP094(0-0.5) 1605						COMMENTS/ SPECIAL INSTRUCTIONS: _____		
			3 TP094(0-0.5) 1607								
			4 TP094(0-0.5) 1615								
			5 075039-041413-7R-TP034(0-0.5) 04/11/13 0910								
			6 TP034(0-0.5) 0914								
			7 TP034(0-0.5) 0918								
			8 TP034(0-0.5) 0920								
			9 SB71(0-0.5) 0935								
			1 0								
			1 1								
			1 1								
			1 2								
			1 3								
			1 4								
			1 5								
TAT Required in business days (use separate COCs for different TATs):			Total Number of Containers: 9			Notes/ Special Requirements: _____					
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: _____			All Samples in Cooler must be on COC								
RELINQUISHED BY			COMPANY			DATE			TIME		
1. [Signature]			CRA			04/11/2013			1035		
2. [Signature]			CRA			04/11/2013			1035		
3. [Signature]			CRA			04/11/2013			1035		

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution:

WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

September 06, 2013

Trent Ripley
P66 CRA TX
2270 Springlake Road Suite 800
Dallas, TX 75234

RE: Pace Project 60150720
Project ID: 075039 FORMER CACTUS FACILITY

Dear Trent Ripley:

Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2013. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Flanagan". The signature is fluid and cursive, with the first name "Alice" and last name "Flanagan" clearly distinguishable.

Alice Flanagan
alice.flanagan@pacelabs.com
(913)563-1409

Laboratory Certifications

Pace Kansas : Texas Certification #: T104704407-13-4



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

09/06/2013 12:22:53



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60150720

Client: P66 CRA TX
Project ID: 075039 FORMER CACTUS FACILITY

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-080713-TR-SB172(0-0.5)	60150720001	Solid	08/07/2013 10:18	08/09/2013 08:30
075039-080713-TR-SB172(3)	60150720002	Solid	08/07/2013 10:20	08/09/2013 08:30
075039-080713-TR-SB173(0-0.5)	60150720003	Solid	08/07/2013 10:30	08/09/2013 08:30
075039-080713-TR-SB173(3)	60150720004	Solid	08/07/2013 10:32	08/09/2013 08:30
075039-080713-TR-SB174(0-0.5)	60150720005	Solid	08/07/2013 10:39	08/09/2013 08:30
075039-080713-TR-SB174(3)	60150720006	Solid	08/07/2013 10:40	08/09/2013 08:30
075039-080713-TR-SB175(0-0.5)	60150720007	Solid	08/07/2013 10:40	08/09/2013 08:30
075039-080713-TR-SB176(0-0.5)	60150720009	Solid	08/07/2013 11:40	08/09/2013 08:30
075039-080713-TR-SB176(3)	60150720010	Solid	08/07/2013 11:42	08/09/2013 08:30
075039-080713-TR-SB177(0-0.5)	60150720011	Solid	08/07/2013 11:48	08/09/2013 08:30
075039-080713-TR-SB178(0-0.5)	60150720013	Solid	08/07/2013 11:54	08/09/2013 08:30
075039-080713-TR-SB179(0-0.5)	60150720015	Solid	08/07/2013 12:09	08/09/2013 08:30
075039-080713-TR-SB180(0-0.5)	60150720017	Solid	08/07/2013 12:28	08/09/2013 08:30
075039-080713-TR-SB181(0-0.5)	60150720019	Solid	08/07/2013 14:30	08/09/2013 08:30
075039-080713-TR-SB181(11.5)	60150720021	Solid	08/07/2013 14:38	08/09/2013 08:30
075039-080713-TR-SB182(0-0.5)	60150720022	Solid	08/07/2013 14:55	08/09/2013 08:30
075039-080713-TR-SB182(7.5)	60150720023	Solid	08/07/2013 14:59	08/09/2013 08:30
075039-080713-TR-SB183(0-0.5)	60150720024	Solid	08/07/2013 15:25	08/09/2013 08:30
075039-080713-TR-SB183(11.5)	60150720027	Solid	08/07/2013 15:35	08/09/2013 08:30
075039-080713-TR-SB183(19.5)	60150720028	Solid	08/07/2013 15:52	08/09/2013 08:30
075039-080713-TR-SB184(0-0.5)	60150720029	Solid	08/07/2013 16:13	08/09/2013 08:30
075039-080713-TR-SB184(11.5)	60150720031	Solid	08/07/2013 16:23	08/09/2013 08:30
075039-080713-TR-SB185(0-0.5)	60150720032	Solid	08/07/2013 16:37	08/09/2013 08:30
075039-080713-TR-SB185(11.5)	60150720034	Solid	08/07/2013 16:47	08/09/2013 08:30
075039-080713-TR-SB186(0-0.5)	60150720035	Solid	08/07/2013 17:00	08/09/2013 08:30
075039-080713-TR-SB186(11.5)	60150720037	Solid	08/07/2013 17:07	08/09/2013 08:30
075039-080713-TR-BG01	60150720038	Solid	08/08/2013 10:55	08/09/2013 08:30
075039-080713-TR-BG02	60150720039	Solid	08/08/2013 13:02	08/09/2013 08:30
075039-080713-TR-BG03	60150720040	Solid	08/08/2013 13:27	08/09/2013 08:30
075039-080713-TR-BG04	60150720041	Solid	08/08/2013 13:53	08/09/2013 08:30
075039-080713-TR-BG05	60150720042	Solid	08/08/2013 14:40	08/09/2013 08:30
075039-080713-TR-BG06	60150720043	Solid	08/08/2013 14:55	08/09/2013 08:30
075039-080713-TR-BG07	60150720044	Solid	08/08/2013 15:03	08/09/2013 08:30
075039-080713-TR-BG08	60150720045	Solid	08/08/2013 15:39	08/09/2013 08:30



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60150720

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60150720 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

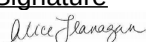
The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Flanagan

Signature


Official Title (Printed)
Project Manager

Date
09/06/2013



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB181(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720019

Moisture: 10.6%

Pace Project No.: 60150720

Collected: 08/07/2013 14:30

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	1.3	M1	mg/kg	1.1	0.060	08/20/2013 12:28		302975	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.074	0.037	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.018	U	mg/kg	0.037	0.018	08/23/2013 20:09	08/19/2013 00:00	303138	60GCS8
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	13.2		mg/kg	11.2	1.0	08/15/2013 19:52	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.1	U	mg/kg	11.2	1.1	08/15/2013 19:52	08/15/2013 13:00	302890	60WTA2



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB182(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720022

Moisture: 11.6%

Pace Project No.: 60150720

Collected: 08/07/2013 14:55

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	1.1	M1	mg/kg	1.1	0.061	08/29/2013 13:05		304558	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.037	U	mg/kg	0.074	0.037	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.019	U	mg/kg	0.037	0.019	08/30/2013 13:21	08/28/2013 00:00	304533	60GCS8
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	14.9		mg/kg	11.3	1.0	08/28/2013 18:25	08/28/2013 10:00	304580	60WTAD
Nitrite as N	10	< 1.1	U	mg/kg	11.3	1.1	08/28/2013 18:25	08/28/2013 10:00	304580	60WTAD



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB183(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720024

Moisture: 5.1%

Pace Project No.: 60150720

Collected: 08/07/2013 15:25

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	0.29	J	mg/kg	1.1	0.057	08/20/2013 12:32		302975	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.017	U	mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.035	U	mg/kg	0.069	0.035	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.017	U	mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.017	U	mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.017	U	mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1254 (Aroclor 1254)	1	0.26		mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.017	U	mg/kg	0.035	0.017	08/23/2013 20:27	08/19/2013 00:00	303138	60GCS8
8270 MSSV Semivolatiles										
		Analytical Method: EPA 8270				Preparation Method: EPA 3546				
1,3-Dimethyl-2-nitrobenzene	1	< 0.018	U	mg/kg	0.034	0.018	08/21/2013 00:35	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-3-nitrobenzene	1	< 0.034	U	mg/kg	0.068	0.034	08/21/2013 00:35	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-4-nitrobenzene	1	< 0.018	U	mg/kg	0.034	0.018	08/21/2013 00:35	08/19/2013 00:00	303139	60MSS4
1,3-Dimethyl-5-nitrobenzene	1	< 0.018	U	mg/kg	0.034	0.018	08/21/2013 00:35	08/19/2013 00:00	303139	60MSS4
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	< 0.95	U	mg/kg	10.5	0.95	08/15/2013 21:04	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.1	U	mg/kg	10.5	1.1	08/15/2013 21:04	08/15/2013 13:00	302890	60WTA2



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB184(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720029

Moisture: 7.8%

Pace Project No.: 60150720

Collected: 08/07/2013 16:13

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	2.6		mg/kg	1.1	0.059	08/20/2013 12:39		302975	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	5	< 0.089	U	mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1221 (Aroclor 1221)	5	< 0.18	U	mg/kg	0.36	0.18	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1232 (Aroclor 1232)	5	< 0.089	U	mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1242 (Aroclor 1242)	5	< 0.089	U	mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1248 (Aroclor 1248)	5	< 0.089	U	mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1254 (Aroclor 1254)	5	1.2		mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
PCB-1260 (Aroclor 1260)	5	< 0.089	U	mg/kg	0.18	0.089	08/23/2013 20:44	08/19/2013 00:00	303138	60GCS8
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	36.8		mg/kg	10.8	0.98	08/15/2013 21:48	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.1	U	mg/kg	10.8	1.1	08/15/2013 21:48	08/15/2013 13:00	302890	60WTA2



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB185(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720032

Moisture: 9.2%

Pace Project No.: 60150720

Collected: 08/07/2013 16:37

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	0.23	J	mg/kg	1.1	0.059	08/20/2013 12:41		302975	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.018	U	mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.036	U	mg/kg	0.072	0.036	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.018	U	mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.018	U	mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.018	U	mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1254 (Aroclor 1254)	1	0.060		mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.018	U	mg/kg	0.036	0.018	08/23/2013 14:23	08/20/2013 00:00	303330	60GCS8
8270 MSSV Semivolatiles										
		Analytical Method: EPA 8270				Preparation Method: EPA 3546				
1,3-Dimethyl-2-nitrobenzene	1	< 0.019	U	mg/kg	0.036	0.019	08/21/2013 02:39	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-3-nitrobenzene	1	< 0.036	U	mg/kg	0.073	0.036	08/21/2013 02:39	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-4-nitrobenzene	1	< 0.019	U	mg/kg	0.036	0.019	08/21/2013 02:39	08/19/2013 00:00	303139	60MSS4
1,3-Dimethyl-5-nitrobenzene	1	< 0.019	U	mg/kg	0.036	0.019	08/21/2013 02:39	08/19/2013 00:00	303139	60MSS4
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	10.7	J	mg/kg	11.0	0.99	08/15/2013 22:45	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.1	U	mg/kg	11.0	1.1	08/15/2013 22:45	08/15/2013 13:00	302890	60WTA2



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-SB186(0-0.5)

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720035

Moisture: 7.5%

Pace Project No.: 60150720

Collected: 08/07/2013 17:00

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	0.56	J	mg/kg	1.1	0.058	08/20/2013 12:43		302975	60WTA0
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.035	U	mg/kg	0.071	0.035	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.018	U	mg/kg	0.035	0.018	08/23/2013 14:40	08/20/2013 00:00	303330	60GCS8
8270 MSSV Semivolatiles										
		Analytical Method: EPA 8270				Preparation Method: EPA 3546				
1,3-Dimethyl-2-nitrobenzene	1	< 0.018	U	mg/kg	0.035	0.018	08/21/2013 03:20	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-3-nitrobenzene	1	< 0.035	U	mg/kg	0.071	0.035	08/21/2013 03:20	08/19/2013 00:00	303139	60MSS4
1,2-Dimethyl-4-nitrobenzene	1	< 0.018	U	mg/kg	0.035	0.018	08/21/2013 03:20	08/19/2013 00:00	303139	60MSS4
1,3-Dimethyl-5-nitrobenzene	1	< 0.018	U	mg/kg	0.035	0.018	08/21/2013 03:20	08/19/2013 00:00	303139	60MSS4
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	< 0.97	U	mg/kg	10.8	0.97	08/15/2013 23:14	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.1	U	mg/kg	10.8	1.1	08/15/2013 23:14	08/15/2013 13:00	302890	60WTA2



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: P66 CRA TX

Client ID: 075039-080713-TR-BG01

Project ID: 075039 FORMER CACTUS

Lab ID: 60150720038

Moisture: 17.5%

Pace Project No.: 60150720

Collected: 08/08/2013 10:55

Received: 08/09/2013 08:30

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
350.1 Ammonia										
		Analytical Method: EPA 350.1								
Nitrogen, Ammonia	1	22.0		mg/kg	1.2	0.065	08/20/2013 12:47		302975	60WTA0
6010 MET ICP Red. Interference										
		Analytical Method: EPA 6010				Preparation Method: EPA 3050				
Arsenic	1	4.8		mg/kg	1.1	0.32	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Barium	1	142		mg/kg	1.1	0.22	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Cadmium	1	0.69		mg/kg	0.54	0.054	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Chromium	1	16.8		mg/kg	0.54	0.13	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Lead	1	12.6		mg/kg	1.1	0.30	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Selenium	1	< 0.54	U	mg/kg	1.6	0.54	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
Silver	1	< 0.097	U	mg/kg	0.76	0.097	08/16/2013 14:20	08/15/2013 13:45	302875	60ICP3
7471 Mercury										
		Analytical Method: EPA 7471				Preparation Method: EPA 7471				
Mercury	1	< 0.0098	U	mg/kg	0.049	0.0098	08/21/2013 10:43	08/20/2013 16:15	303369	60HG03
8082 GCS PCB SW										
		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.040	U	mg/kg	0.080	0.040	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.020	U	mg/kg	0.040	0.020	08/23/2013 14:58	08/20/2013 00:00	303330	60GCS8
9056 IC Anions										
		Analytical Method: EPA 9056				Preparation Method: EPA 9056				
Nitrate as N	10	95.5		mg/kg	12.1	1.1	08/15/2013 23:43	08/15/2013 13:00	302890	60WTA2
Nitrite as N	10	< 1.2	U	mg/kg	12.1	1.2	08/15/2013 23:43	08/15/2013 13:00	302890	60WTA2



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303151
Method: ASTM D2974

Pace Project No.: 60150720
Instrument ID: 60OEXT

Blank: 1238161

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	08/19/2013 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303152
Method: ASTM D2974

Pace Project No.: 60150720
Instrument ID: 60OEXT

Blank: 1238163

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	08/19/2013 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 304730
Method: ASTM D2974

Pace Project No.: 60150720
Instrument ID: 60OEXT

Blank: 1244118

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	08/29/2013 00:00	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303138
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60150720
Instrument ID: 60GCS8

Blank: 1238116

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.032	mg/kg	0.065	0.032	08/23/2013 16:24	08/19/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.032	0.016	08/23/2013 16:24	08/19/2013 00:00

Laboratory Control Sample: 1238117

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1242 (Aroclor 1242)	0.17	0.17	mg/kg	100	62-129	M4



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303330
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60150720
Instrument ID: 60GCS8

Blank: 1238559

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.066	0.033	08/23/2013 13:14	08/20/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	08/23/2013 13:14	08/20/2013 00:00

Laboratory Control Sample: 1238560

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1242 (Aroclor 1242)	0.17	0.19	mg/kg	113	62-129	

Matrix Spike: 1238561

Matrix Spike Duplicate: 1238562

Original for Sample: Project sample 075039-080713-TR-SB185(0-0.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1242 (Aroclor 1242)	<0.018	0.19	0.19	0.18	0.18	mg/kg	99	99	41-144	0	31	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 304533
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60150720
Instrument ID: 60GCS8

Blank: 1243303

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.033	mg/kg	0.065	0.033	08/29/2013 21:44	08/28/2013 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.016	mg/kg	0.033	0.016	08/29/2013 21:44	08/28/2013 00:00

Laboratory Control Sample: 1243304

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1232 (Aroclor 1232)	0.16	0.16	mg/kg	96	62-129	

Matrix Spike: 1243305

Matrix Spike Duplicate: 1243306

Original for Sample: Project sample 075039-080713-TR-SB172(3)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1232 (Aroclor 1232)	<0.018	0.17	0.18	0.16	0.19	mg/kg	93	108	41-144	17	31	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303138
Method: EPA 8082

Pace Project No.: 60150720

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1238116	BLANK for HBN 303138		79							
1238117	LCS for HBN 303138		78							
60150720001	075039-080713-TR-	S4,D4	0 *							
60150720003	075039-080713-TR-	S4,D4	0 *							
60150720005	075039-080713-TR-	S4,D4	0 *							
60150720007	075039-080713-TR-	S4,D4	0 *							
60150720009	075039-080713-TR-	S4,D4	0 *							
60150720011	075039-080713-TR-		68							
60150720013	075039-080713-TR-		66							
60150720015	075039-080713-TR-		71							
60150720017	075039-080713-TR-		67							
60150720019	075039-080713-TR-		70							
60150720024	075039-080713-TR-		69							
60150720029	075039-080713-TR-	S4,D4	0 *							

QC Limits: 36-131

Surr 1: Decachlorobiphenyl (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 303330
Method: EPA 8082

Pace Project No.: 60150720

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1238559	BLANK for HBN 303330		79							
1238560	LCS for HBN 303330		87							
60150720032	075039-080713-TR-		72							
1238561	075039-080713-TR...		73							
1238562	075039-080713-T...		72							
60150720035	075039-080713-TR-		69							
60150720038	075039-080713-TR-BG01		60							
60150720039	075039-080713-TR-BG02		70							
60150720040	075039-080713-TR-BG03		67							
60150720041	075039-080713-TR-BG04		59							
60150720042	075039-080713-TR-BG05		64							
60150720043	075039-080713-TR-BG06		74							
60150720044	075039-080713-TR-BG07		71							
60150720045	075039-080713-TR-BG08		65							

QC Limits: 36-131

Surr 1: Decachlorobiphenyl (S)



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 304533
Method: EPA 8082

Pace Project No.: 60150720

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1243303	BLANK for HBN 304533		73							
1243304	LCS for HBN 304533		74							
60150720002	075039-080713-TR-		55							
1243305	075039-080713-TR...		66							
1243306	075039-080713-T...		74							
60150720004	075039-080713-TR-		62							
60150720006	075039-080713-TR-	S4,D4	0 *							
60150720010	075039-080713-TR-		63							
60150720022	075039-080713-TR-		64							

QC Limits: 36-131

Surr 1: Decachlorobiphenyl (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60150720

Analyte	Method	Unadjusted MQL	Reporting Units
Nitrogen, Ammonia	EPA 350.1	1.0	mg/kg
Copper	EPA 6010	1.0	mg/kg
Arsenic	EPA 6010	1.0	mg/kg
Barium	EPA 6010	1.0	mg/kg
Cadmium	EPA 6010	0.50	mg/kg
Chromium	EPA 6010	0.50	mg/kg
Lead	EPA 6010	1.0	mg/kg
Selenium	EPA 6010	1.5	mg/kg
Silver	EPA 6010	0.70	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.066	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg
Nitrate as N	EPA 9056	1.0	mg/kg
Nitrite as N	EPA 9056	1.0	mg/kg



Pace Project No.: 60150720

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1e	Post Digestion Spike Performed - 80% Recovery
2e	Post Digestion Spike Performed - 95% Recovery
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M4	A matrix spike/matrix spike duplicate was not performed for this batch due to sample dilution.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		09/06/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60150720		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R4.2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?		X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?		X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?		X			R7.4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		09/06/2013		
Project Name:		075039 FORMER CACTUS FACILITY	Laboratory Job Number:		60150720		
Reviewer Name:		Alice Flanagan	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	09/06/2013
Project Name:	075039 FORMER CACTUS FACILITY	Laboratory Job Number:	60150720
Reviewer Name:	Alice Flanagan	Prep Batch Number(s):	302875,302890,302975,303138,303139
Batch #'s Cont:	303151,303152,303330,303369,304533,304558,304580,304597,304730		
ER #¹	Description		
R4.2	Sample #60150720001: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720003: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720005: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720006: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720007: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720009: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R4.2	Sample #60150720027: 2,4,6-Tribromophenol (S) 0% surrogate recovery outside of laboratory QC limits of 44-120%.		
R4.2	Sample #60150720027: 2-Fluorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 28-145%.		
R4.2	Sample #60150720027: 2-Fluorophenol (S) 0% surrogate recovery outside of laboratory QC limits of 45-120%.		
R4.2	Sample #60150720027: Nitrobenzene-d5 (S) 0% surrogate recovery outside of laboratory QC limits of 21-145%.		
R4.2	Sample #60150720027: Phenol-d6 (S) 0% surrogate recovery outside of laboratory QC limits of 43-120%.		
R4.2	Sample #60150720027: Terphenyl-d14 (S) 0% surrogate recovery outside of laboratory QC limits of 29-158%.		
R4.2	Sample #60150720029: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 36-131%.		
R6.1	LCS sample in batch #303678: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #303678: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #303678: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #303678: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #303678: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #303678: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #303679: PCB-1260 (Aroclor 1260) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1016 (Aroclor 1016) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1254 (Aroclor 1254) is not spiked.		
R6.1	LCS sample in batch #304864: PCB-1260 (Aroclor 1260) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1016 (Aroclor 1016) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #303679: PCB-1260 (Aroclor 1260) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1016 (Aroclor 1016) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #304864: PCB-1260 (Aroclor 1260) is not spiked.		
R7.3	MS Sample #1236637: Barium 328% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1236637: Selenium 71% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1237127: Nitrogen, Ammonia 208% spike recovery outside laboratory QC limit of 80-120%.		
R7.3	MS Sample #1237129: Nitrogen, Ammonia 185% spike recovery outside laboratory QC limit of 80-120%.		
R7.3	MS Sample #1243397: Nitrogen, Ammonia 210% spike recovery outside laboratory QC limit of 80-120%.		
R7.3	MS Sample #1243467: Chromium -76% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1236638: Barium 321% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1236638: Chromium 265% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1236638: Copper 127% spike recovery outside laboratory QC limit of 75-125%.		
R7.4	MSD Sample #1236638: Chromium RPD of 36 exceeds laboratory QC limit of 20.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt

WO#: 60150720



Client Name: CRA

Courier: Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other ☐

Tracking #: 800182004228 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☒ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: T-112 / T-194

Type of Ice: (Vet) Blue ☐ None ☐ Samples received on ice, cooling process has begun.
(circle one)

Cooler Temperature: 1.1

Date and initials of person examining contents: 01/09/13

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody filled out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler name & signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient volume:	☒ Yes ☐ No ☐ N/A	8.
Correct containers used:	☒ Yes ☐ No ☐ N/A	9.
Pace containers used:	☒ Yes ☐ No ☐ N/A	10.
Containers intact:	☒ Yes ☐ No ☐ N/A	11.
Unpreserved 5035A soils frozen w/in 48hrs?	☐ Yes ☐ No ☒ N/A	12.
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A	13.
Sample labels match COC:	☒ Yes ☐ No ☐ N/A	14.
Includes date/time/ID/analyses	Matrix: <u>SL</u>	15.
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	16.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	17.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	☐ Yes ☒ No	Initial when completed
Trip Blank present:	☐ Yes ☐ No ☒ N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A	
Project sampled in USDA Regulated Area:	☒ Yes ☐ No ☐ N/A	17. List State: <u>TX</u>

Client Notification/ Resolution:

Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: XAX

Date: 01/09/13



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

Address: 2205 Springdale Rd St 800 Palms TX
Phone: 727-331-8800 Fax: 727-331-8800

Doc NO: 34778
PAGE 1 OF 3
(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 073039		Laboratory Name: Vac Analytical		Lab Location: Leno KS		SSOW ID:							
Project Name: Fort Mc Carthus Facility		Lab Contact: Alice Flanagan		Lab Quote No: 166 P# 45788314		Cooler No:							
Project Location: Carthus TX		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (See Back of COC for Definitions)		Carrier:							
Chemistry Contact: Art Greely		SAMPLE TYPE		Total Containers/Sample		Airbill No:							
Sampler(s): J. P. Gray		Matrix Code (see back of COC)		Other: (None)		Date Shipped: 8/9/13							
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yyyy)	TIME (hh:mm)	Grab (g) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
1	073039-080713-TR-SB172(0-0.5')	8/9/13	1018	50	G								1465u 61
2	SB172(3')		1020										62
3	SB173(0-0.5')		1030										63
4	SB173(3')		1032										64
5	SB174(0-0.5')		1039										65
6	SB174(3')		1040										66
7	SB175(0-0.5')		1116										67
8	SB175(3')		1118										68
9	SB176(0-0.5')		1140										69
10	SB176(3')		1142										70
11	SB177(0-0.5')		1143										71
12	SB177(3')		1150										72
13	SB178(0-0.5')		1154										73
14	SB178(3')		1155										74
15	SB179(0-0.5')		1209										75
TAT Required in business days (use separate COCs for different TATs):				Total Number of Containers: 15		Notes/ Special Requirements: Need TCEQ TRRP Rpt.							
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:				All Samples in Cooler must be on COC									
RELINQUISHED BY		COMPANY	DATE	TIME	RECEIVED BY		COMPANY	DATE	TIME				
1. [Signature]		CRA	8/9/13	1630	1. [Signature]		PAST	8/9/13	0830				
2. [Signature]					2. [Signature]								
3. [Signature]					3. [Signature]								



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 34779
PAGE 2 OF 3
(See Reverse Side for Instructions)

Address: _____
Phone: _____ Fax: _____

Project No/ Phase/Task Code: 075037			Laboratory Name:			Lab Location:			SSOW ID:									
Project Name: Cactus			Lab Contact:			Lab Quote No:			Cooler No:									
Project Location: Cactus TX									Carrier:									
Chemistry Contact:									Airbill No:									
Sampler(s):									Date Shipped:									
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	MATRIX CODE (see back of COC)	SAMPLE TYPE (Grab (G) or Comp (C))	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil)	VOC	EnCores 3x5-g, 1x25-g	Other: <i>ice</i>	Total Containers/Sample	ANALYSIS REQUESTED (See Back of COC for Definitions)	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
1	075037-08073-TR-SB179(3')	8/14/05	1210	50C	Grab (G)										1			126pm 06
2	SB180(0-0.5')		1228															067
3	SB180(3')		1230															018
4	SB181(0-0.5')		1430															019
5	SB181(3')		1432															020
6	SB181(11.5')		1438															021
7	SB182(0-0.5')		1435															022
8	SB182(7.5')		1459															023
9	SB183(0-0.5')		1525															024
10	SB183(5.5')		1527															025
11	SB183(7.5')		1530															026
12	SB183(11.5')		1535															027
13	SB183(19.5')		1532															028
14	SB184(0-0.5')		1613															029
15	SB184(7.5')		1618															030
TAT Required in business days (use separate COCs for different TATs):																		
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:																		
RELINQUISHED BY: <i>[Signature]</i>			COMPANY: CRA	DATE: 8/16/05	TIME: 1630	RECEIVED BY: <i>[Signature]</i>			COMPANY: PAST			DATE: 8/16/05	TIME: 0830					
1. <i>[Signature]</i>																		
2. <i>[Signature]</i>																		
3. <i>[Signature]</i>																		



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 34780

PAGE 3 OF 3

Address:

Phone:

Fax:

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 075039				Laboratory Name:				Lab Location:				SSOW ID:			
Project Name: Cactus				Lab Contact:				Lab Quote No:				Cooler No:			
Project Location: Cactus TX				Container Quantity & Preservation				Analysis Requested (See Back of COC for Definitions)				Carrier:			
Chemistry Contact:				Sample Type				Unpreserved				MS/MSD Request			
Sampler(s):				Matrix Code (see back of COC)				Grab (g) or Comp (C)				Total Containers/Sample			
Item				DATE (mm/dd/yyyy)				TIME (hh:mm)				Other:			
1 075039-080813-7R-5494(11.5)				8/12/03				1637				1			
2				5835(10-05)				1637							
3				5835(17.5)				1643							
4				5835(11.5)				1647							
5				58186(10-05)				1700							
6				58186(7.5)				1705							
7				58186(11.5)				1707							
8 075039-080813-7R-BG01				8/12/03				1055							
9				- BG02				1302							
10				BG03				1327							
11				BG04				1353							
12				BG05				1440							
13				BG06				1455							
14				BG07				1503							
15				BG08				1539							
TAT Required in business days (use separate COCs for different TATs):				Total Number of Containers: 15				Notes/ Special Requirements:							
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:				All Samples in Cooler must be on COC											
RELINQUISHED BY				DATE				RECEIVED BY				COMPANY			
1. [Signature]				8/12/03 1630				1. [Signature]				PAST			
2. [Signature]								2. [Signature]				PAST			
3. [Signature]								3. [Signature]				PAST			



**CONESTOGA-ROVERS
& ASSOCIATES**

CHAIN OF CUSTODY RECORD

COC NO.: **34779**
PAGE 2 OF 3
(See Reverse Side for Instructions)

Address: _____

Phone: _____

Fax: _____

Project No/ Phase/Task Code: <u>075D35</u>		Laboratory Name: _____		Lab Location: _____		SSOW ID: _____	
Project Name: <u>Carburs</u>		Lab Contact: _____		Lab Quote No: _____		Cooler No: _____	
Project Location: <u>Carburs TX</u>		SAMPLE TYPE		CONTAINER QUANTITY & PRESERVATION		ANALYSIS REQUESTED (SEE BACK OF COC FOR DETAILS)	
Chemistry Contact: _____		Grab (G) or Comp (C)		Unpreserved		Hydrochloric Acid (HCl)	
Sampler(s): _____		Matrix Code (see back of COC)		Nitric Acid (HNO ₃)		Sulfuric Acid (H ₂ SO ₄)	
				Sodium Hydroxide (NaOH)		Methanol/Water (Soil)	
				VOC		EnCores 3x5-g, 1x25-g	
				Other: <u>HC</u>		Total Containers/Sample	
						PCB 8082	
						N-hexane/N-hex	
						Ammonia	
						N-hexanes	
						MS/MSD Request	
						COMMENTS/SPECIAL INSTRUCTIONS	
1	<u>075D35-080713-TR-5A179(2)</u>	<u>11/10/03</u>	<u>1210</u>	<u>SC</u>			<u>016</u>
2	<u>5A180(0-0.5)</u>		<u>1223</u>				<u>017</u>
3	<u>5A181(3)</u>		<u>1230</u>				<u>018</u>
4	<u>5A181(10-0.5)</u>		<u>1430</u>				<u>019</u>
5	<u>5A181(3)</u>		<u>1457</u>				<u>020</u>
6	<u>5A181(11.5)</u>		<u>1453</u>				<u>021</u>
7	<u>5A182(0-0.5)</u>		<u>1455</u>				<u>022</u>
8	<u>5A182(7.5)</u>		<u>1454</u>				<u>023</u>
9	<u>5A183(0-0.5)</u>		<u>1455</u>				<u>024</u>
10	<u>5A183(3.5)</u>		<u>1457</u>				<u>025</u>
11	<u>5A183(7.5)</u>		<u>1530</u>				<u>026</u>
12	<u>5A183(11.5)</u>		<u>1535</u>				<u>027</u>
13	<u>5A183(18.5)</u>		<u>1537</u>				<u>028</u>
14	<u>5A184(0-0.5)</u>		<u>1613</u>				<u>029</u>
15	<u>5A184(17.5)</u>		<u>1613</u>				<u>030</u>

TAT Required in business days (use separate CPCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: _____

RECEIVED BY: [Signature] DATE: 8/6/03 TIME: 1630 COMPANY: CRA

1. 1. Fails
2. 2.
3. 3.

Total Number of Containers: 15 Notes/ Special Requirements: _____

All Samples in Cooler must be on COC

RECEIVED BY: _____ DATE: _____ TIME: _____ COMPANY: _____

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew

CRA Form: COC-10B (20110804)



CONESTOGA-ROVERS
& ASSOCIATES

CHAIN OF CUSTODY RECORD

COC NO.: 34780
PAGE 5 OF 3

Address: _____
Phone: _____
Fax: _____

(See Reverse Side for Instructions)

Project No/ Phase/Task Code:		Laboratory Name:		Lab Location:		SSOW ID:	
Project Name:		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:		Carrier:		Airbill No:		Date Shipped:	
Chemistry Contact:		ANALYSIS REQUESTED (See Back of COC for Instructions)		MS/MSD Request		COMMENTS/ SPECIAL INSTRUCTIONS:	
Sampler(s):		Total Containers/Sample		Other:		Date Shipped:	
SAMPLE IDENTIFICATION		Grab (g) or Comp (C)		Unpreserved		Date Shipped:	
DATE/TIME		Matrix Code (see back of COC)		Hydrochloric Acid (HCl)		Nitric Acid (HNO ₃)	
DATE/TIME		Sulfuric Acid (H ₂ SO ₄)		Sodium Hydroxide (NaOH)		Methanol/Water (Soil)	
DATE/TIME		VOC		Encores 3x5-g, 1x25-g		Other:	
1	075039-030713-TR-01001(11.5)	946/13	50 C				
2	075039-030713-TR-01002(11.5)	946/13	50 C				
3	075039-030713-TR-01003(11.5)	946/13	50 C				
4	075039-030713-TR-01004(11.5)	946/13	50 C				
5	075039-030713-TR-01005(11.5)	946/13	50 C				
6	075039-030713-TR-01006(11.5)	946/13	50 C				
7	075039-030713-TR-01007(11.5)	946/13	50 C				
8	075039-030713-TR-01008(11.5)	946/13	50 C				
9	075039-030713-TR-01009(11.5)	946/13	50 C				
10	075039-030713-TR-01010(11.5)	946/13	50 C				
11	075039-030713-TR-01011(11.5)	946/13	50 C				
12	075039-030713-TR-01012(11.5)	946/13	50 C				
13	075039-030713-TR-01013(11.5)	946/13	50 C				
14	075039-030713-TR-01014(11.5)	946/13	50 C				
15	075039-030713-TR-01015(11.5)	946/13	50 C				
16	075039-030713-TR-01016(11.5)	946/13	50 C				
17	075039-030713-TR-01017(11.5)	946/13	50 C				
18	075039-030713-TR-01018(11.5)	946/13	50 C				
19	075039-030713-TR-01019(11.5)	946/13	50 C				
20	075039-030713-TR-01020(11.5)	946/13	50 C				
21	075039-030713-TR-01021(11.5)	946/13	50 C				
22	075039-030713-TR-01022(11.5)	946/13	50 C				
23	075039-030713-TR-01023(11.5)	946/13	50 C				
24	075039-030713-TR-01024(11.5)	946/13	50 C				
25	075039-030713-TR-01025(11.5)	946/13	50 C				
26	075039-030713-TR-01026(11.5)	946/13	50 C				
27	075039-030713-TR-01027(11.5)	946/13	50 C				
28	075039-030713-TR-01028(11.5)	946/13	50 C				
29	075039-030713-TR-01029(11.5)	946/13	50 C				
30	075039-030713-TR-01030(11.5)	946/13	50 C				
31	075039-030713-TR-01031(11.5)	946/13	50 C				
32	075039-030713-TR-01032(11.5)	946/13	50 C				
33	075039-030713-TR-01033(11.5)	946/13	50 C				
34	075039-030713-TR-01034(11.5)	946/13	50 C				
35	075039-030713-TR-01035(11.5)	946/13	50 C				
36	075039-030713-TR-01036(11.5)	946/13	50 C				
37	075039-030713-TR-01037(11.5)	946/13	50 C				
38	075039-030713-TR-01038(11.5)	946/13	50 C				
39	075039-030713-TR-01039(11.5)	946/13	50 C				
40	075039-030713-TR-01040(11.5)	946/13	50 C				
41	075039-030713-TR-01041(11.5)	946/13	50 C				
42	075039-030713-TR-01042(11.5)	946/13	50 C				
43	075039-030713-TR-01043(11.5)	946/13	50 C				
44	075039-030713-TR-01044(11.5)	946/13	50 C				
45	075039-030713-TR-01045(11.5)	946/13	50 C				
46	075039-030713-TR-01046(11.5)	946/13	50 C				
47	075039-030713-TR-01047(11.5)	946/13	50 C				
48	075039-030713-TR-01048(11.5)	946/13	50 C				
49	075039-030713-TR-01049(11.5)	946/13	50 C				
50	075039-030713-TR-01050(11.5)	946/13	50 C				
51	075039-030713-TR-01051(11.5)	946/13	50 C				
52	075039-030713-TR-01052(11.5)	946/13	50 C				
53	075039-030713-TR-01053(11.5)	946/13	50 C				
54	075039-030713-TR-01054(11.5)	946/13	50 C				
55	075039-030713-TR-01055(11.5)	946/13	50 C				
56	075039-030713-TR-01056(11.5)	946/13	50 C				
57	075039-030713-TR-01057(11.5)	946/13	50 C				
58	075039-030713-TR-01058(11.5)	946/13	50 C				
59	075039-030713-TR-01059(11.5)	946/13	50 C				
60	075039-030713-TR-01060(11.5)	946/13	50 C				
61	075039-030713-TR-01061(11.5)	946/13	50 C				
62	075039-030713-TR-01062(11.5)	946/13	50 C				
63	075039-030713-TR-01063(11.5)	946/13	50 C				
64	075039-030713-TR-01064(11.5)	946/13	50 C				
65	075039-030713-TR-01065(11.5)	946/13	50 C				
66	075039-030713-TR-01066(11.5)	946/13	50 C				
67	075039-030713-TR-01067(11.5)	946/13	50 C				
68	075039-030713-TR-01068(11.5)	946/13	50 C				
69	075039-030713-TR-01069(11.5)	946/13	50 C				
70	075039-030713-TR-01070(11.5)	946/13	50 C				
71	075039-030713-TR-01071(11.5)	946/13	50 C				
72	075039-030713-TR-01072(11.5)	946/13	50 C				
73	075039-030713-TR-01073(11.5)	946/13	50 C				
74	075039-030713-TR-01074(11.5)	946/13	50 C				
75	075039-030713-TR-01075(11.5)	946/13	50 C				
76	075039-030713-TR-01076(11.5)	946/13	50 C				
77	075039-030713-TR-01077(11.5)	946/13	50 C				
78	075039-030713-TR-01078(11.5)	946/13	50 C				
79	075039-030713-TR-01079(11.5)	946/13	50 C				
80	075039-030713-TR-01080(11.5)	946/13	50 C				
81	075039-030713-TR-01081(11.5)	946/13	50 C				
82	075039-030713-TR-01082(11.5)	946/13	50 C				
83	075039-030713-TR-01083(11.5)	946/13	50 C				
84	075039-030713-TR-01084(11.5)	946/13	50 C				
85	075039-030713-TR-01085(11.5)	946/13	50 C				
86	075039-030713-TR-01086(11.5)	946/13	50 C				
87	075039-030713-TR-01087(11.5)	946/13	50 C				
88	075039-030713-TR-01088(11.5)	946/13	50 C				
89	075039-030713-TR-01089(11.5)	946/13	50 C				
90	075039-030713-TR-01090(11.5)	946/13	50 C				
91	075039-030713-TR-01091(11.5)	946/13	50 C				
92	075039-030713-TR-01092(11.5)	946/13	50 C				
93	075039-030713-TR-01093(11.5)	946/13	50 C				
94	075039-030713-TR-01094(11.5)	946/13	50 C				
95	075039-030713-TR-01095(11.5)	946/13	50 C				
96	075039-030713-TR-01096(11.5)	946/13	50 C				
97	075039-030713-TR-01097(11.5)	946/13	50 C				
98	075039-030713-TR-01098(11.5)	946/13	50 C				
99	075039-030713-TR-01099(11.5)	946/13	50 C				
100	075039-030713-TR-01100(11.5)	946/13	50 C				

Total Number of Containers: 15

Notes/ Special Requirements:

All Samples in Cooler must be on COC

TAT Required in business days (use separate COCs for different TATs):
☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other: .

RECEIVED BY: [Signature]

DATE: 8/6/2013

TIME: 1630

COMPANY: CRA

1. [Signature]

2. [Signature]

3. [Signature]

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YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew



CHAIN OF CUSTODY RECORD

Address: 2270 E. 8000 Rd. St. George, Va 22643

Phone: 773-552 For Flight to Canada. (cont)

COC NO.: 34778

PAGE / OF 3

(See Reverse Side for Instructions)

Project No./Phase/Task Code:	Project Name:	Project Location:	Chemistry Contact:	Sampler(s):	Matrix Code	Grab (g) or Comp (g)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Sol)	Eluents 3x5-9, 1x25-9	Other: (P/line)	Total Containers/Sample	MS/MSD Request	Lab Location:	SSOW ID:
00033	Harmon Center Facility	San Jose, CA	AS Stanchy	TR 8/27/03	58173 (0-0.5)	50											Phase amine as indicated by "X"	09/01/03
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
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					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)	1032												
					58173 (3')	1032												
					58173 (0-0.5)													

Distribution: WHITE -- Fully Executed Copy (CRA)

YELLOW – Receiving Laboratory Copy

PINK — Shipper

GOLDENROD—Sampling Crew



CHAIN OF CUSTODY RECORD

COC NO.: 34779

Address:

Phone:

202

(See Reverse Side for Instructions)

Project/No/Phase/Task Code:		Laboratory Name:		Lab Location:		SSOW ID:	
Project Name:		Lab Contact:		Lab Quote No:		Cooler No:	
Project Location:		Carrier:		Airbill No:		Date Shipped:	
Chemistry Contact:		MS/MSD Request		MS/MSD Request		MS/MSD Request	
Sampler(s):		MS/MSD Request		MS/MSD Request		MS/MSD Request	
1	175035-080715-TR-5A175431	4/1/03	1210	50	1	1	010
2	5A190(10-05)	1223	1	1	1	1	011
3	5A142(31)	1230	1	1	1	1	018
4	5A151(10-05)	1430	1	1	1	1	019
5	5A181(134)	1452	1	1	1	1	020
6	5A181(115)	1453	1	1	1	1	021
7	5A182(10-05)	1455	1	1	1	1	022
8	5A182(125)	1454	1	1	1	1	023
9	5A183(10-05)	1455	1	1	1	1	024
10	5A183(125)	1457	1	1	1	1	025
11	5A183(115)	1435	1	1	1	1	026
12	5A183(10-05)	1437	1	1	1	1	027
13	5A183(10-05)	1438	1	1	1	1	028
14	5A183(10-05)	1439	1	1	1	1	029
15	5A183(1175)	1413	1	1	1	1	030

TAT Required in business days (use separate COCs for different TATs):

☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 1 Week ☐ 2 Week ☐ Other:

Total Number of Containers: 5

All Samples in Cooler must be on COC

1. 175035-080715-TR-5A175431

2. 5A190(10-05)

3. 5A142(31)

4. 5A151(10-05)

5. 5A181(134)

6. 5A181(115)

7. 5A182(10-05)

8. 5A182(125)

9. 5A183(10-05)

10. 5A183(125)

11. 5A183(115)

12. 5A183(10-05)

13. 5A183(10-05)

14. 5A183(10-05)

15. 5A183(1175)

DATE: 4/1/03

TIME: 1210

COMPANY: 50

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PINK — Shipper

GOLDENROD—Sampling Crew

CRA Form: COC-105 (20110804)



CHAIN OF CUSTODY RECORD

COC NO.: 34780

PAGE 3 OF 3

(See Reverse Side for Instructions)

[illegible]

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ACCURATELY
GOLDENROD — Sampling Crew

CRA Form: COC-10B (20110804)



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

October 11, 2016

Jessica Wright
GHD Services
1755 Wittington Place
Suite 500
Dallas, TX 75234

RE: Pace Project 60228008
Project ID: 075039 P66 Fmr Cactus Facility

Dear Jessica Wright:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2016. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

REVISED

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Spiller". The script is fluid and cursive.

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665

Laboratory Certifications

Pace Kansas: Texas Certification #: T104704407



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

10/11/2016 14:23:32



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228008

Client: GHD Phillips 66 Texas
Project ID: 075039 P66 Fmr Cactus Facility

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-160914-JW-SB233(0-0.5)	60228008001	Solid	09/14/2016 09:58	09/17/2016 08:50
075039-160914-JW-SB233(2)	60228008002	Solid	09/14/2016 09:59	09/17/2016 08:50
075039-160914-JW-SB233(3.5)	60228008003	Solid	09/14/2016 10:00	09/17/2016 08:50
075039-160914-JW-SB234(0-0.5)	60228008004	Solid	09/14/2016 10:12	09/17/2016 08:50
075039-160914-JW-SB234(2)	60228008005	Solid	09/14/2016 10:13	09/17/2016 08:50
075039-160914-JW-SB234(3.5)	60228008006	Solid	09/14/2016 10:18	09/17/2016 08:50
075039-160914-JW-SB235(0-0.5)	60228008007	Solid	09/14/2016 10:29	09/17/2016 08:50
075039-160914-JW-SB235(2)	60228008008	Solid	09/14/2016 10:31	09/17/2016 08:50
075039-160914-JW-SB235(3.5)	60228008009	Solid	09/14/2016 10:33	09/17/2016 08:50
075039-160914-JW-SB231(0-0.5)	60228008010	Solid	09/14/2016 10:48	09/17/2016 08:50
075039-160914-JW-SB231(2)	60228008011	Solid	09/14/2016 10:50	09/17/2016 08:50
075039-160914-JW-SB231(3.5)	60228008012	Solid	09/14/2016 10:52	09/17/2016 08:50
075039-160914-JW-SB230(0-0.5)	60228008013	Solid	09/14/2016 11:09	09/17/2016 08:50
075039-160914-JW-SB230(2)	60228008014	Solid	09/14/2016 11:11	09/17/2016 08:50
075039-160914-JW-SB230(3.5)	60228008015	Solid	09/14/2016 11:13	09/17/2016 08:50
075039-160914-JW-SB118A(12)	60228008016	Solid	09/14/2016 11:48	09/17/2016 08:50
075039-160914-JW-SB118A(20)	60228008017	Solid	09/14/2016 12:00	09/17/2016 08:50
075039-160914-JW-SB237(4.5)	60228008018	Solid	09/14/2016 13:48	09/17/2016 08:50
075039-160914-JW-SB238(4.5)	60228008019	Solid	09/14/2016 13:59	09/17/2016 08:50
075039-160914-JW-SB236(4.5)	60228008020	Solid	09/14/2016 14:10	09/17/2016 08:50
075039-160914-JW-SB168A(10)	60228008021	Solid	09/14/2016 14:42	09/17/2016 08:50
075039-160914-JW-SB240(0-0.5)	60228008022	Solid	09/14/2016 14:55	09/17/2016 08:50
075039-160914-JW-SB240(13.5)	60228008023	Solid	09/14/2016 15:05	09/17/2016 08:50
075039-160914-JW-SB240(20)	60228008024	Solid	09/14/2016 15:18	09/17/2016 08:50
075039-160914-JW-SB169A(0-0.5)	60228008025	Solid	09/14/2016 15:35	09/17/2016 08:50
075039-160914-JW-SB169A(13.5)	60228008026	Solid	09/14/2016 15:43	09/17/2016 08:50
075039-160914-JW-SB169A(20)	60228008027	Solid	09/14/2016 15:48	09/17/2016 08:50
075039-160914-JW-SB052B(12)	60228008028	Solid	09/14/2016 16:05	09/17/2016 08:50
075039-160914-JW-SB052B(20)	60228008029	Solid	09/14/2016 16:20	09/17/2016 08:50



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228008

Holding Times:

All holding times were met.

Blanks:

The following blank results were above method detection limits:

Batch 447211 sample 1829108 Mercury

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60228008 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Spiller

Signature
Alice Spiller

Official Title (Printed)
Project Manager

Date
10/11/2016



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: GHD_Phillips 66 Texas

Client ID: 075039-160914-JW-SB240(0-0.5)

Project ID: 075039 P66 Fmr Cactus Facility

Lab ID: 60228008022

Moisture: 9.7%

Pace Project No.: 60228008

Collected: 09/14/2016 14:55

Received: 09/17/2016 08:50

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.045	U	mg/kg	0.55	0.045	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.13	U	mg/kg	0.55	0.13	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.059	U	mg/kg	0.55	0.059	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.13	U	mg/kg	0.55	0.13	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.036	U	mg/kg	0.55	0.036	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.051	U	mg/kg	0.55	0.051	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.068	U	mg/kg	0.55	0.068	09/30/2016 01:31	09/20/2016 00:00	447168	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: GHD_Phillips 66 Texas

Client ID: 075039-160914-JW-SB169A(0-0.5)

Project ID: 075039 P66 Fmr Cactus Facility

Lab ID: 60228008025

Moisture: 16.6%

Pace Project No.: 60228008

Collected: 09/14/2016 15:35

Received: 09/17/2016 08:50

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	10	< 0.37	U	mg/kg	4.5	0.37	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1221 (Aroclor 1221)	10	< 1.1	U	mg/kg	4.5	1.1	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1232 (Aroclor 1232)	10	< 0.49	U	mg/kg	4.5	0.49	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1242 (Aroclor 1242)	10	< 1.1	U	mg/kg	4.5	1.1	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1248 (Aroclor 1248)	10	< 0.30	U	mg/kg	4.5	0.30	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1254 (Aroclor 1254)	10	24.9		mg/kg	4.5	0.42	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8
PCB-1260 (Aroclor 1260)	10	2.3	J	mg/kg	4.5	0.56	09/30/2016 01:49	09/20/2016 00:00	447168	60GCS8



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447709
Method: ASTM D2974

Pace Project No.: 60228008
Instrument ID: 60OEXT

Blank: 1831389

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/23/2016 00:00	

Duplicate: 1831390

Original for Sample: Project sample 075039-160914-JW-SB233(0-0.5)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	4.3	4.2	%	2	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447710
Method: ASTM D2974

Pace Project No.: 60228008
Instrument ID: 60OEXT

Blank: 1831391

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/23/2016 00:00	

Duplicate: 1831392

Original for Sample: Project sample 075039-160914-JW-SB168A(10)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	11.8	11.8	%	0	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447168
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60228008
Instrument ID: 60GCS8

Blank: 1829039

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.037	mg/kg	0.45	0.037	09/29/2016 19:42	09/20/2016 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.11	mg/kg	0.45	0.11	09/29/2016 19:42	09/20/2016 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.049	mg/kg	0.45	0.049	09/29/2016 19:42	09/20/2016 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.11	mg/kg	0.45	0.11	09/29/2016 19:42	09/20/2016 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.029	mg/kg	0.45	0.029	09/29/2016 19:42	09/20/2016 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.042	mg/kg	0.45	0.042	09/29/2016 19:42	09/20/2016 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.055	mg/kg	0.45	0.055	09/29/2016 19:42	09/20/2016 00:00

Laboratory Control Sample: 1829040

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	1.8	1.8	mg/kg	98	69-125	
PCB-1260 (Aroclor 1260)	1.8	1.8	mg/kg	95	69-126	

Matrix Spike: 1829041

Matrix Spike Duplicate: 1829042

Original for Sample: Client sample 075039-160915-JW-SB253 (0-0.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.038	2.1	2.3	2.1	2.4	mg/kg	100	105	12-190	13	31	
PCB-1260 (Aroclor 1260)	<0.056	2.1	2.3	1.9	2.2	mg/kg	91	95	23-145	12	28	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447168
Method: EPA 8082

Pace Project No.: 60228008

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1829039	BLANK for HBN 447168		90							
1829040	LCS for HBN 447168		84							
1829041	075039-160915-JW...		84							
1829042	075039-160915-J...		82							
60228008022	075039-160914-JW-		79							
60228008025	075039-160914-JW-	S4	0 *							

QC Limits: 26-127

Surr 1: Decachlorobiphenyl (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228008

Analyte	Method	Unadjusted MQL	Reporting Units
Nitrogen, Ammonia	EPA 350.1	1.0	mg/kg
Arsenic	EPA 6010	1.0	mg/kg
Copper	EPA 6010	1.0	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.033	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg



Pace Project No.: 60228008

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1e	Post Digestion Spike Performed - 96.9% Recovery
B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228008

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228008022	075039-160914-JW-SB240(0-0.5)	EPA 3546	447168	EPA 8082	447588
60228008025	075039-160914-JW-SB169A(0-	EPA 3546	447168	EPA 8082	447588
60228008001	075039-160914-JW-SB233(0-0.5)	EPA 3050	447370	EPA 6010	447431
60228008002	075039-160914-JW-SB233(2)	EPA 3050	447370	EPA 6010	447431
60228008003	075039-160914-JW-SB233(3.5)	EPA 3050	447370	EPA 6010	447431
60228008004	075039-160914-JW-SB234(0-0.5)	EPA 3050	447370	EPA 6010	447431
60228008005	075039-160914-JW-SB234(2)	EPA 3050	447370	EPA 6010	447431
60228008006	075039-160914-JW-SB234(3.5)	EPA 3050	447370	EPA 6010	447431
60228008007	075039-160914-JW-SB235(0-0.5)	EPA 3050	447370	EPA 6010	447431
60228008008	075039-160914-JW-SB235(2)	EPA 3050	447370	EPA 6010	447431
60228008009	075039-160914-JW-SB235(3.5)	EPA 3050	447370	EPA 6010	447431
60228008010	075039-160914-JW-SB231(0-0.5)	EPA 3050	447370	EPA 6010	447431
60228008011	075039-160914-JW-SB231(2)	EPA 3050	447370	EPA 6010	447431
60228008012	075039-160914-JW-SB231(3.5)	EPA 3050	447370	EPA 6010	447431
60228008013	075039-160914-JW-SB230(0-0.5)	EPA 3050	447370	EPA 6010	447431
60228008014	075039-160914-JW-SB230(2)	EPA 3050	447370	EPA 6010	447431
60228008015	075039-160914-JW-SB230(3.5)	EPA 3050	447370	EPA 6010	447431
60228008016	075039-160914-JW-SB118A(12)	EPA 3050	447370	EPA 6010	447431
60228008017	075039-160914-JW-SB118A(20)	EPA 3050	447370	EPA 6010	447431
60228008028	075039-160914-JW-SB052B(12)	EPA 3050	447370	EPA 6010	447431
60228008029	075039-160914-JW-SB052B(20)	EPA 3050	447370	EPA 6010	447431
60228008021	075039-160914-JW-SB168A(10)	EPA 7471	447187	EPA 7471	447211
60228008023	075039-160914-JW-SB240(13.5)	EPA 3546	447163	EPA 8270	447310
60228008024	075039-160914-JW-SB240(20)	EPA 3546	447163	EPA 8270	447310
60228008026	075039-160914-JW-SB169A(13.5)	EPA 3546	447163	EPA 8270	447310
60228008027	075039-160914-JW-SB169A(20)	EPA 3546	447163	EPA 8270	447310



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228008

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228008001	075039-160914-JW-SB233(0-0.5)	ASTM D2974	447709		
60228008002	075039-160914-JW-SB233(2)	ASTM D2974	447709		
60228008003	075039-160914-JW-SB233(3.5)	ASTM D2974	447709		
60228008004	075039-160914-JW-SB234(0-0.5)	ASTM D2974	447709		
60228008005	075039-160914-JW-SB234(2)	ASTM D2974	447709		
60228008006	075039-160914-JW-SB234(3.5)	ASTM D2974	447709		
60228008007	075039-160914-JW-SB235(0-0.5)	ASTM D2974	447709		
60228008008	075039-160914-JW-SB235(2)	ASTM D2974	447709		
60228008009	075039-160914-JW-SB235(3.5)	ASTM D2974	447709		
60228008010	075039-160914-JW-SB231(0-0.5)	ASTM D2974	447709		
60228008011	075039-160914-JW-SB231(2)	ASTM D2974	447709		
60228008012	075039-160914-JW-SB231(3.5)	ASTM D2974	447709		
60228008013	075039-160914-JW-SB230(0-0.5)	ASTM D2974	447709		
60228008014	075039-160914-JW-SB230(2)	ASTM D2974	447709		
60228008015	075039-160914-JW-SB230(3.5)	ASTM D2974	447709		
60228008016	075039-160914-JW-SB118A(12)	ASTM D2974	447709		
60228008017	075039-160914-JW-SB118A(20)	ASTM D2974	447709		
60228008018	075039-160914-JW-SB237(4.5)	ASTM D2974	447709		
60228008019	075039-160914-JW-SB238(4.5)	ASTM D2974	447709		
60228008020	075039-160914-JW-SB236(4.5)	ASTM D2974	447709		
60228008021	075039-160914-JW-SB168A(10)	ASTM D2974	447710		
60228008022	075039-160914-JW-SB240(0-0.5)	ASTM D2974	447710		
60228008023	075039-160914-JW-SB240(13.5)	ASTM D2974	447710		
60228008024	075039-160914-JW-SB240(20)	ASTM D2974	447710		
60228008025	075039-160914-JW-SB169A(0-	ASTM D2974	447710		
60228008026	075039-160914-JW-SB169A(13.5)	ASTM D2974	447710		
60228008027	075039-160914-JW-SB169A(20)	ASTM D2974	447710		
60228008028	075039-160914-JW-SB052B(12)	ASTM D2974	447710		
60228008029	075039-160914-JW-SB052B(20)	ASTM D2974	447710		
60228008018	075039-160914-JW-SB237(4.5)	EPA 350.1	448298		
60228008019	075039-160914-JW-SB238(4.5)	EPA 350.1	448298		
60228008020	075039-160914-JW-SB236(4.5)	EPA 350.1	448298		

TRRP LABORATORY REVIEW CHECKLIST									
Laboratory		Pace Analytical Services, Inc.	LRC Date:		10/11/2016				
Project Name:		075039 P66 Fmr Cactus Facility	Laboratory Job Number:		60228008				
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵		
R1	OI	Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X						
		Were all departures from standard conditions described in an exception report?	X						
R2	OI	Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X						
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X						
R3	OI	Test reports							
		Were all samples prepared and analyzed within holding times?	X						
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X						
		Were calculations checked by a peer or supervisor?	X						
		Were all analyte identifications checked by a peer or supervisor?	X						
		Were sample detection limits reported for all analytes not detected?	X						
		Were all results for soil and sediment samples reported on a dry weight basis?	X						
		Were % moisture (or solids) reported for all soil and sediment samples?	X						
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?				X			
		If required for the project, are TICs reported?				X			
R4	O	Surrogate recovery data							
		Were surrogates added prior to extraction?	X						
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X					R4.2
R5	OI	Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?	X						
		Were blanks analyzed at the appropriate frequency?	X						
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X						
		Were blank concentrations < MQL?	X						
R6	OI	Laboratory control samples (LCS):							
		Were all COCs included in the LCS?		X					R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X						
		Were LCSs analyzed at the required frequency?	X						
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X						
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X						
		Was the LCSD RPD within QC limits?				X			
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?		X					R7.1
		Were MS/MSD analyzed at the appropriate frequency?	X						
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X					R7.3
		Were MS/MSD RPDs within laboratory QC limits?		X					R7.4
R8	OI	Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?	X						
		Were analytical duplicates analyzed at the appropriate frequency?	X						
		Were RPDs or relative standard deviations within the laboratory QC limits?	X						
R9	OI	Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?	X						
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X						
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X						
R10	OI	Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X						
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X						
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X						

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		10/11/2016		
Project Name:		075039 P66 Fmr Cactus Facility	Laboratory Job Number:		60228008		
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.		
#¹	A²	Description	Yes	No	NA³	NR⁴	ER #⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				
1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period; 2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	10/11/2016
Project Name:	075039 P66 Fmr Cactus Facility	Laboratory Job Number:	60228008
Reviewer Name:	Alice Spiller	Prep Batch Number(s):	447163,447168,447187,447370,447709
Batch #'s Cont:	447710,448298		
ER #¹	Description		
R4.2	Sample #60228008025: Decachlorobiphenyl (S) 0% surrogate recovery outside of laboratory QC limits of 26-127%.		
R6.1	LCS sample in batch #447588: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #447588: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #447588: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #447588: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #447588: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #447588: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #447588: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #447588: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #447588: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #447588: PCB-1254 (Aroclor 1254) is not spiked.		
R7.3	MS Sample #1830014: Copper 176% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1830015: Copper 128% spike recovery outside laboratory QC limit of 75-125%.		
R7.4	MSD Sample #1830015: Copper RPD of 29 exceeds laboratory QC limit of 20.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt
ESI Tech Spec Client

WO#: 60228008



Client Name: GHD P66 TK

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 8055 7828 4610 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: T-266 / T-239 Type of Ice: Wet Blue ☐ None ☐

Cooler Temperature (°C): As-read 3.5 Corr. Factor CF +1.1 CF -0.1 Corrected 4.6

Date and initials of person examining contents: Jan 9/17/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A
Sufficient volume:	☒ Yes ☐ No ☐ N/A
Correct containers used:	☒ Yes ☐ No ☐ N/A
Pace containers used:	☒ Yes ☐ No ☐ N/A
Containers intact:	☒ Yes ☐ No ☐ N/A
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐ Yes ☐ No ☒ N/A
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A
Sample labels match COC: Date / time / ID / analyses	☒ Yes ☐ No ☐ N/A
Samples contain multiple phases? Matrix: <u>SL</u>	☐ Yes ☒ No ☐ N/A
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐ Yes ☐ No ☒ N/A
Cyanide water sample checks: ☒ N/A	
Lead acetate strip turns dark? (Record only)	☐ Yes ☐ No
Potassium iodide test strip turns blue/purple? (Preserve)	☐ Yes ☐ No
Trip Blank present:	☐ Yes ☒ No ☐ N/A
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A
Samples from USDA Regulated Area: State: <u>TX</u>	☐ Yes ☒ No ☐ N/A
Additional labels attached to 5035A / TX1005 vials in the field?	☐ Yes ☐ No ☒ N/A

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: alice Date: 09/16/16

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1020 Start:

End: 1027 End:

Temp: Temp:



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD P66 TX	Report To:	Jessica Wright	Attention:	
Address:	1755 Wittington Place	Copy To:	Christopher Knight	Company Name:	GHD
City:	Dallas, TX 75234	Email:	edds@ghd.com	Address:	
Phone:		Purchase Order #:		Pace Quote:	
Project Name:	075039 P66 Fmr Cactus Facilities	Project Name:	075039 P66 Fmr Cactus Facilities	Pace Project Manager:	alice.spiller@pacelabs.com
Requested Due Date:		Project #:	075039	Pace Profile #:	9712, line 1

ITEM #	MATRIX	CODE	COLLECTED		DATE	TIME	SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	PRESERVATIVES							Y/N	Requested Analysis Filtered (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			START	END					H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other		Analyses Test	6010 Cu, Pb	7470 Mercury	6010 Cu	Ammonia	6010 As	8270 Nitrobenzenes	8082 PCBs	W6FW	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
1	075039-160914-JW-SB233(6-0.5)	DW	9/14/16	08:58			SLG	SLG																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN C	Received on	Ice (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
TPN / GHD		TPN / GHD	09/16/16	1500	[Signature]	09/16/16	0650	4.6		Y	Y	Y	Y
SAMPLER NAME AND SIGNATURE													
PRINT Name of SAMPLER: J. Wright													
SIGNATURE of SAMPLER: [Signature]													
DATE Signed: 9/14/16													



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	GHD P68 TX	Report To:	Jessica Wright	Attention:	
Address:	1755 Wilington Place	Copy To:	Christopher Knight	Company Name:	GHD
City:	Dallas, TX 75234	Email:	edds@ghd.com	Address:	
Phone:		Purchase Order #:		Pace Quote:	
Fax:		Project Name:	075039 P68 Fmr Cactus Facilities	Pace Project Manager:	alice.spiller@paceelabs.com
Requested Due Date:		Project #:		Pace Profile #:	9712, line 1
				TX	

Page: 2 of 3

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Sealed	Custody	Cooler	Intact
			START	END														
1	Drinking Water	DW	09/16/11	1109	SL	09/16/11	1109	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
2	Drinking Water	DW	09/16/11	1111	SL	09/16/11	1111	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
3	Drinking Water	DW	09/16/11	1113	SL	09/16/11	1113	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
4	Drinking Water	DW	09/16/11	1148	SL	09/16/11	1148	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
5	Drinking Water	DW	09/16/11	1200	SL	09/16/11	1200	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
6	Drinking Water	DW	09/16/11	1348	SL	09/16/11	1348	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
7	Drinking Water	DW	09/16/11	1359	SL	09/16/11	1359	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
8	Drinking Water	DW	09/16/11	1410	SL	09/16/11	1410	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
9	Drinking Water	DW	09/16/11	1442	SL	09/16/11	1442	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
10	Drinking Water	DW	09/16/11	1455	SL	09/16/11	1455	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
11	Drinking Water	DW	09/16/11	1505	SL	09/16/11	1505	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y
12	Drinking Water	DW	09/16/11	1518	SL	09/16/11	1518	09/16/11	1500	[Signature]	09/16/11	1500	4.6	Y	Y	Y	Y	Y

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		TEMP in C		Received on		Sealed		Custody		Cooler		Intact	
TPN / GHD		[Signature]		09/16/11		1500		[Signature]		09/16/11		1500		4.6		Y		Y		Y		Y		Y	
SAMPLER NAME AND SIGNATURE																									
PRINT Name of SAMPLER:													DATE Signed: 09/16/11												
SIGNATURE of SAMPLER:													[Signature]												



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GHD P66 TX	Report To:	Jessica Wright	Attention:	
Address:	1755 Wilmington Place	Copy To:	Christopher Knight	Company Name:	GHD
City:	500 Dallas, TX 75234	Phone:	972.503.1616	Address:	
State:	TX	Fax:		Project Name:	075039 P66 Fmr Cactus Facilities
Zip:				Purchase Order #:	
Requested Due Date:		Project #:		Pace Project Manager:	alice.spiller@pacelabs.com
				Pace Profile #:	9712, line 1

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION		DATE		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		TEMP in C	Received on	Ice (Y/N)	Sealed (Y/N)	Custody (Y/N)	Samples Intact (Y/N)
			START	END			DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME								
1	Drinking Water	DW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
2	Water	WT	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
3	Waste Water	WW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
4	Product	P	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
5	Solid	SL	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
6	Oil	OL	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
7	Wipe	WP	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
8	Air	AR	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
9	Other	OT	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
10	Tissue	TS	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW	075039-160914-JW
11																								
12																								

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: J. Wright
SIGNATURE of SAMPLER: [Signature]
DATE Signed: 9/14/16



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

October 04, 2016

Jessica Wright
GHD Services
1755 Wittington Place
Suite 500
Dallas, TX 75234

RE: Pace Project 60228107
Project ID: 075039 P66 FORMER CACTUS FACIL

Dear Jessica Wright:

Enclosed are the analytical results for sample(s) received by the laboratory on September 20, 2016. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Spiller".

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665

Laboratory Certifications

Pace Kansas: Texas Certification #: T104704407



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

10/04/2016 14:37:02



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Client: GHD Phillips 66 Texas
Project ID: 075039 P66 FORMER CACTUS FACIL

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-160916-JW-SB242 (0-0.5)	60228107001	Solid	09/16/2016 08:35	09/20/2016 08:50
075039-160916-JW-SB242 (13.5)	60228107002	Solid	09/16/2016 08:45	09/20/2016 08:50
075039-160916-JW-SB242 (20)	60228107003	Solid	09/16/2016 08:53	09/20/2016 08:50
075039-160916-JW-SB241 (0-0.5)	60228107004	Solid	09/16/2016 09:08	09/20/2016 08:50
075039-160916-JW-SB241 (13.5)	60228107005	Solid	09/16/2016 09:18	09/20/2016 08:50
075039-160916-JW-SB241 (20)	60228107006	Solid	09/16/2016 09:22	09/20/2016 08:50
075039-160916-JW-SB239 (10)	60228107007	Solid	09/16/2016 09:45	09/20/2016 08:50
075039-160916-JW-SB203A (7.5)	60228107008	Solid	09/16/2016 11:00	09/20/2016 08:50
075039-160916-JW-SB203A (11.5)	60228107009	Solid	09/16/2016 11:05	09/20/2016 08:50
075039-160916-JW-SB257 (0-0.5)	60228107010	Solid	09/16/2016 11:09	09/20/2016 08:50
075039-160916-JW-SB257 (2.5)	60228107011	Solid	09/16/2016 11:10	09/20/2016 08:50
075039-160916-JW-SB257 (7.5)	60228107012	Solid	09/16/2016 11:15	09/20/2016 08:50
075039-160916-JW-SB258 (0-0.5)	60228107013	Solid	09/16/2016 11:21	09/20/2016 08:50
075039-160916-JW-SB258 (2.5)	60228107014	Solid	09/16/2016 11:22	09/20/2016 08:50
075039-160916-JW-SB258 (7.5)	60228107015	Solid	09/16/2016 11:26	09/20/2016 08:50
075039-160916-JW-SB258 (11.5)	60228107016	Solid	09/16/2016 11:30	09/20/2016 08:50
075039-160916-JW-SB204A (0-0.5)	60228107017	Solid	09/16/2016 11:38	09/20/2016 08:50
075039-160916-JW-SB204A (2)	60228107018	Solid	09/16/2016 11:39	09/20/2016 08:50
075039-160916-JW-SB204A (3.5)	60228107019	Solid	09/16/2016 11:40	09/20/2016 08:50
075039-160916-JW-SB259 (0-0.5)	60228107020	Solid	09/16/2016 11:58	09/20/2016 08:50
075039-160916-JW-SB259 (2.5)	60228107021	Solid	09/16/2016 11:58	09/20/2016 08:50
075039-160916-JW-SB206A (0-0.5)	60228107022	Solid	09/16/2016 12:15	09/20/2016 08:50
075039-160916-JW-SB206A (7.5)	60228107023	Solid	09/16/2016 12:18	09/20/2016 08:50
075039-160916-JW-SB206A (8.5)	60228107024	Solid	09/16/2016 12:20	09/20/2016 08:50
075039-160916-JW-PD13A (0-0.5)	60228107025	Solid	09/16/2016 14:18	09/20/2016 08:50
075039-160916-JW-PD13A (3.5)	60228107026	Solid	09/16/2016 14:19	09/20/2016 08:50
075039-160916-JW-PD13A (7.5)	60228107027	Solid	09/16/2016 14:24	09/20/2016 08:50
075039-160916-JW-SB260 (0-0.5)	60228107028	Solid	09/16/2016 14:53	09/20/2016 08:50
075039-160916-JW-SB260 (2)	60228107029	Solid	09/16/2016 14:54	09/20/2016 08:50
075039-160916-JW-SB260 (3.5)	60228107030	Solid	09/16/2016 14:55	09/20/2016 08:50
075039-160916-JW-SB216A (0-0.5)	60228107031	Solid	09/16/2016 15:05	09/20/2016 08:50
075039-160916-JW-SB216A (2)	60228107032	Solid	09/16/2016 15:06	09/20/2016 08:50
075039-160916-JW-SB216A (3.5)	60228107033	Solid	09/16/2016 15:07	09/20/2016 08:50
075039-160916-JW-SB215 (0-0.5)	60228107034	Solid	09/16/2016 15:14	09/20/2016 08:50
075039-160916-JW-SB215 (2.5)	60228107035	Solid	09/16/2016 15:15	09/20/2016 08:50
075039-160916-JW-SB215 (7.5)	60228107036	Solid	09/16/2016 15:18	09/20/2016 08:50
075039-160916-JW-SB263 (0-0.5)	60228107037	Solid	09/16/2016 12:33	09/20/2016 08:50
075039-160916-JW-SB263 (3.5)	60228107038	Solid	09/16/2016 12:35	09/20/2016 08:50
075039-160916-JW-SB208A (9.5)	60228107039	Solid	09/16/2016 12:58	09/20/2016 08:50
075039-160916-JW-SB208A (11.5)	60228107040	Solid	09/16/2016 12:59	09/20/2016 08:50
075039-160916-JW-SB262 (0-0.5)	60228107041	Solid	09/16/2016 13:12	09/20/2016 08:50



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Client: GHD Phillips 66 Texas
Project ID: 075039 P66 FORMER CACTUS FACIL

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-160916-JW-SB262 (3.5)	60228107042	Solid	09/16/2016 13:13	09/20/2016 08:50
075039-160916-JW-SB262 (7.5)	60228107043	Solid	09/16/2016 13:18	09/20/2016 08:50
075039-160916-JW-SB262 (11.5)	60228107044	Solid	09/16/2016 13:20	09/20/2016 08:50
075039-160916-JW-SB261 (0-0.5)	60228107045	Solid	09/16/2016 13:39	09/20/2016 08:50
075039-160916-JW-SB261 (2)	60228107046	Solid	09/16/2016 13:40	09/20/2016 08:50
075039-160916-JW-SB209A (5)	60228107047	Solid	09/16/2016 14:34	09/20/2016 08:50
075039-160916-JW-SB207A (3.5)	60228107048	Solid	09/16/2016 14:44	09/20/2016 08:50
075039-160916-JW-SB256 (0-0.5)	60228107049	Solid	09/16/2016 15:22	09/20/2016 08:50
075039-160916-JW-SB256 (2.5)	60228107050	Solid	09/16/2016 15:23	09/20/2016 08:50
075039-160916-JW-SB191A (8)	60228107051	Solid	09/16/2016 15:37	09/20/2016 08:50
075039-160916-JW-SB191A (10)	60228107052	Solid	09/16/2016 15:39	09/20/2016 08:50



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogate:

All surrogate recoveries were within QC limits.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60228107 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Spiller

Signature
Alice Spiller

Official Title (Printed)
Project Manager

Date
10/04/2016



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: GHD_Phillips 66 Texas

Client ID: 075039-160916-JW-SB242 (0-0.5)

Project ID: 075039 P66 FORMER CACTUS

Lab ID: 60228107001

Moisture: 11%

Pace Project No.: 60228107

Collected: 09/16/2016 08:35

Received: 09/20/2016 08:50

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.042	U	mg/kg	0.51	0.042	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.12	U	mg/kg	0.51	0.12	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.055	U	mg/kg	0.51	0.055	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.12	U	mg/kg	0.51	0.12	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.034	U	mg/kg	0.51	0.034	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1254 (Aroclor 1254)	1	< 0.048	U	mg/kg	0.51	0.048	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.063	U	mg/kg	0.51	0.063	09/23/2016 20:40	09/21/2016 00:00	447466	60GCS8



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: GHD_Phillips 66 Texas

Client ID: 075039-160916-JW-SB241 (0-0.5)

Project ID: 075039 P66 FORMER CACTUS

Lab ID: 60228107004

Moisture: 9.7%

Pace Project No.: 60228107

Collected: 09/16/2016 09:08

Received: 09/20/2016 08:50

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.042	U	mg/kg	0.50	0.042	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.12	U	mg/kg	0.50	0.12	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.054	U	mg/kg	0.50	0.054	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.12	U	mg/kg	0.50	0.12	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.033	U	mg/kg	0.50	0.033	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1254 (Aroclor 1254)	1	0.15	J	mg/kg	0.50	0.047	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.062	U	mg/kg	0.50	0.062	09/23/2016 20:57	09/21/2016 00:00	447466	60GCS8



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447710
Method: ASTM D2974

Pace Project No.: 60228107
Instrument ID: 60OEXT

Blank: 1831391

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/23/2016 00:00	

Duplicate: 1831392

Original for Sample: Client sample 075039-160914-JW-SB168A(10)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	11.8	11.8	%	0	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 448102
Method: ASTM D2974

Pace Project No.: 60228107
Instrument ID: 60OEXT

Blank: 1833215

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/27/2016 00:00	

Duplicate: 1833216

Original for Sample: Project sample 075039-160916-JW-SB203A (11.5)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	11.6	11.8	%	1	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 448289
Method: ASTM D2974

Pace Project No.: 60228107
Instrument ID: 60OEXT

Blank: 1833930

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/28/2016 00:00	

Duplicate: 1833931

Original for Sample: Project sample 075039-160916-JW-SB260 (0-0.5)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	7.5	8.2	%	8	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 448290
Method: ASTM D2974

Pace Project No.: 60228107
Instrument ID: 60OEXT

Blank: 1833934

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	09/28/2016 00:00	

Duplicate: 1833935

Original for Sample: Project sample 075039-160916-JW-SB207A (3.5)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	3.5	3.9	%	9	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447466
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60228107
Instrument ID: 60GCS8

Blank: 1830454

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.029	mg/kg	0.35	0.029	09/23/2016 19:30	09/21/2016 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.083	mg/kg	0.35	0.083	09/23/2016 19:30	09/21/2016 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.038	mg/kg	0.35	0.038	09/23/2016 19:30	09/21/2016 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.084	mg/kg	0.35	0.084	09/23/2016 19:30	09/21/2016 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.023	mg/kg	0.35	0.023	09/23/2016 19:30	09/21/2016 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.033	mg/kg	0.35	0.033	09/23/2016 19:30	09/21/2016 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.043	mg/kg	0.35	0.043	09/23/2016 19:30	09/21/2016 00:00

Laboratory Control Sample: 1830455

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	2.2	2.0	mg/kg	95	69-125	
PCB-1260 (Aroclor 1260)	2.2	1.8	mg/kg	83	69-126	

Matrix Spike: 1830456

Matrix Spike Duplicate: 1830457

Original for Sample: Project sample 075039-160916-JW-SB242 (0-0.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.035	2.6	2.1	2.3	1.9	mg/kg	92	91	12-190	19	31	
PCB-1260 (Aroclor 1260)	<0.052	2.6	2.1	2.0	1.7	mg/kg	81	81	23-145	18	28	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 447466
Method: EPA 8082

Pace Project No.: 60228107

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1830454	BLANK for HBN 447466		71							
1830455	LCS for HBN 447466		72							
60228107001	075039-160916-JW-		69							
1830456	075039-160916-JW...		70							
1830457	075039-160916-J...		70							
60228107004	075039-160916-JW-		71							
60228107017	075039-160916-JW-		70							
60228107018	075039-160916-JW-		69							
60228107019	075039-160916-JW-		70							

QC Limits: 26-127

Surr 1: Decachlorobiphenyl (S)



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Analyte	Method	Unadjusted MQL	Reporting Units
Copper	EPA 6010	1.0	mg/kg
Lead	EPA 6010	0.50	mg/kg
Mercury	EPA 7471	0.050	mg/kg
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.033	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
1,3-Dimethyl-2-nitrobenzene	EPA 8270	0.033	mg/kg
1,2-Dimethyl-3-nitrobenzene	EPA 8270	0.066	mg/kg
1,2-Dimethyl-4-nitrobenzene	EPA 8270	0.033	mg/kg
1,3-Dimethyl-5-nitrobenzene	EPA 8270	0.033	mg/kg



Pace Project No.: 60228107

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1e	Post digestion spike performed - 85% recovery.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228107001	075039-160916-JW-SB242 (0-	EPA 3546	447466	EPA 8082	447965
60228107004	075039-160916-JW-SB241 (0-	EPA 3546	447466	EPA 8082	447965
60228107017	075039-160916-JW-SB204A (0-	EPA 3546	447466	EPA 8082	447965
60228107018	075039-160916-JW-SB204A (2)	EPA 3546	447466	EPA 8082	447965
60228107019	075039-160916-JW-SB204A (3.5)	EPA 3546	447466	EPA 8082	447965
60228107008	075039-160916-JW-SB203A (7.5)	EPA 3050	447377	EPA 6010	447434
60228107009	075039-160916-JW-SB203A	EPA 3050	447377	EPA 6010	447434
60228107010	075039-160916-JW-SB257 (0-	EPA 3050	447377	EPA 6010	447434
60228107011	075039-160916-JW-SB257 (2.5)	EPA 3050	447377	EPA 6010	447434
60228107012	075039-160916-JW-SB257 (7.5)	EPA 3050	447377	EPA 6010	447434
60228107013	075039-160916-JW-SB258 (0-	EPA 3050	447377	EPA 6010	447434
60228107014	075039-160916-JW-SB258 (2.5)	EPA 3050	447377	EPA 6010	447434
60228107015	075039-160916-JW-SB258 (7.5)	EPA 3050	447377	EPA 6010	447434
60228107016	075039-160916-JW-SB258 (11.5)	EPA 3050	447377	EPA 6010	447434
60228107020	075039-160916-JW-SB259 (0-	EPA 3050	447377	EPA 6010	447434
60228107021	075039-160916-JW-SB259 (2.5)	EPA 3050	447377	EPA 6010	447434
60228107022	075039-160916-JW-SB206A (0-	EPA 3050	447377	EPA 6010	447434
60228107023	075039-160916-JW-SB206A (7.5)	EPA 3050	447377	EPA 6010	447434
60228107024	075039-160916-JW-SB206A (8.5)	EPA 3050	447377	EPA 6010	447434
60228107025	075039-160916-JW-PD13A (0-	EPA 3050	447377	EPA 6010	447434
60228107026	075039-160916-JW-PD13A (3.5)	EPA 3050	447377	EPA 6010	447434
60228107027	075039-160916-JW-PD13A (7.5)	EPA 3050	447377	EPA 6010	447434
60228107028	075039-160916-JW-SB260 (0-	EPA 3050	447377	EPA 6010	447434
60228107029	075039-160916-JW-SB260 (2)	EPA 3050	447377	EPA 6010	447434
60228107030	075039-160916-JW-SB260 (3.5)	EPA 3050	447377	EPA 6010	447434



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228107031	075039-160916-JW-SB216A (0-	EPA 3050	447378	EPA 6010	447435
60228107032	075039-160916-JW-SB216A (2)	EPA 3050	447378	EPA 6010	447435
60228107033	075039-160916-JW-SB216A (3.5)	EPA 3050	447378	EPA 6010	447435
60228107034	075039-160916-JW-SB215 (0-	EPA 3050	447378	EPA 6010	447435
60228107035	075039-160916-JW-SB215 (2.5)	EPA 3050	447378	EPA 6010	447435
60228107036	075039-160916-JW-SB215 (7.5)	EPA 3050	447378	EPA 6010	447435
60228107037	075039-160916-JW-SB263 (0-	EPA 3050	447378	EPA 6010	447435
60228107038	075039-160916-JW-SB263 (3.5)	EPA 3050	447378	EPA 6010	447435
60228107039	075039-160916-JW-SB208A (9.5)	EPA 3050	447378	EPA 6010	447435
60228107040	075039-160916-JW-SB208A	EPA 3050	447378	EPA 6010	447435
60228107041	075039-160916-JW-SB262 (0-	EPA 3050	447378	EPA 6010	447435
60228107042	075039-160916-JW-SB262 (3.5)	EPA 3050	447378	EPA 6010	447435
60228107043	075039-160916-JW-SB262 (7.5)	EPA 3050	447378	EPA 6010	447435
60228107044	075039-160916-JW-SB262 (11.5)	EPA 3050	447378	EPA 6010	447435
60228107045	075039-160916-JW-SB261 (0-	EPA 3050	447378	EPA 6010	447435
60228107046	075039-160916-JW-SB261 (2)	EPA 3050	447378	EPA 6010	447435
60228107047	075039-160916-JW-SB209A (5)	EPA 3050	447378	EPA 6010	447435
60228107048	075039-160916-JW-SB207A (3.5)	EPA 3050	447378	EPA 6010	447435
60228107051	075039-160916-JW-SB191A (8)	EPA 3050	447378	EPA 6010	447435
60228107052	075039-160916-JW-SB191A (10)	EPA 3050	447378	EPA 6010	447435
60228107007	075039-160916-JW-SB239 (10)	EPA 7471	447338	EPA 7471	447390
60228107023	075039-160916-JW-SB206A (7.5)	EPA 7471	447338	EPA 7471	447390
60228107024	075039-160916-JW-SB206A (8.5)	EPA 7471	447338	EPA 7471	447390
60228107025	075039-160916-JW-PD13A (0-	EPA 7471	447338	EPA 7471	447390
60228107026	075039-160916-JW-PD13A (3.5)	EPA 7471	447338	EPA 7471	447390
60228107027	075039-160916-JW-PD13A (7.5)	EPA 7471	447338	EPA 7471	447390
60228107034	075039-160916-JW-SB215 (0-	EPA 7471	447338	EPA 7471	447390
60228107035	075039-160916-JW-SB215 (2.5)	EPA 7471	447338	EPA 7471	447390
60228107036	075039-160916-JW-SB215 (7.5)	EPA 7471	447338	EPA 7471	447390
60228107037	075039-160916-JW-SB263 (0-	EPA 7471	447338	EPA 7471	447390
60228107038	075039-160916-JW-SB263 (3.5)	EPA 7471	447338	EPA 7471	447390
60228107041	075039-160916-JW-SB262 (0-	EPA 7471	447338	EPA 7471	447390
60228107042	075039-160916-JW-SB262 (3.5)	EPA 7471	447338	EPA 7471	447390
60228107043	075039-160916-JW-SB262 (7.5)	EPA 7471	447338	EPA 7471	447390
60228107045	075039-160916-JW-SB261 (0-	EPA 7471	447338	EPA 7471	447390
60228107046	075039-160916-JW-SB261 (2)	EPA 7471	447338	EPA 7471	447390
60228107049	075039-160916-JW-SB256 (0-	EPA 7471	447338	EPA 7471	447390
60228107050	075039-160916-JW-SB256 (2.5)	EPA 7471	447338	EPA 7471	447390
60228107002	075039-160916-JW-SB242 (13.5)	EPA 3546	447465	EPA 8270	447791
60228107003	075039-160916-JW-SB242 (20)	EPA 3546	447465	EPA 8270	447791
60228107005	075039-160916-JW-SB241 (13.5)	EPA 3546	447465	EPA 8270	447791
60228107006	075039-160916-JW-SB241 (20)	EPA 3546	447465	EPA 8270	447791



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228107001	075039-160916-JW-SB242 (0-	ASTM D2974	447710		
60228107002	075039-160916-JW-SB242 (13.5)	ASTM D2974	447710		
60228107003	075039-160916-JW-SB242 (20)	ASTM D2974	447710		
60228107004	075039-160916-JW-SB241 (0-	ASTM D2974	447710		
60228107005	075039-160916-JW-SB241 (13.5)	ASTM D2974	447710		
60228107006	075039-160916-JW-SB241 (20)	ASTM D2974	447710		
60228107007	075039-160916-JW-SB239 (10)	ASTM D2974	447710		
60228107008	075039-160916-JW-SB203A (7.5)	ASTM D2974	447710		
60228107009	075039-160916-JW-SB203A	ASTM D2974	448102		
60228107010	075039-160916-JW-SB257 (0-	ASTM D2974	448102		
60228107011	075039-160916-JW-SB257 (2.5)	ASTM D2974	448102		
60228107012	075039-160916-JW-SB257 (7.5)	ASTM D2974	448102		
60228107013	075039-160916-JW-SB258 (0-	ASTM D2974	448102		
60228107014	075039-160916-JW-SB258 (2.5)	ASTM D2974	448102		
60228107015	075039-160916-JW-SB258 (7.5)	ASTM D2974	448102		
60228107016	075039-160916-JW-SB258 (11.5)	ASTM D2974	448102		
60228107017	075039-160916-JW-SB204A (0-	ASTM D2974	448102		
60228107018	075039-160916-JW-SB204A (2)	ASTM D2974	448102		
60228107019	075039-160916-JW-SB204A (3.5)	ASTM D2974	448102		
60228107020	075039-160916-JW-SB259 (0-	ASTM D2974	448102		
60228107021	075039-160916-JW-SB259 (2.5)	ASTM D2974	448102		
60228107022	075039-160916-JW-SB206A (0-	ASTM D2974	448102		
60228107023	075039-160916-JW-SB206A (7.5)	ASTM D2974	448102		
60228107024	075039-160916-JW-SB206A (8.5)	ASTM D2974	448102		
60228107025	075039-160916-JW-PD13A (0-	ASTM D2974	448102		
60228107026	075039-160916-JW-PD13A (3.5)	ASTM D2974	448102		
60228107027	075039-160916-JW-PD13A (7.5)	ASTM D2974	448102		



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60228107

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60228107028	075039-160916-JW-SB260 (0-	ASTM D2974	448289		
60228107029	075039-160916-JW-SB260 (2)	ASTM D2974	448289		
60228107030	075039-160916-JW-SB260 (3.5)	ASTM D2974	448289		
60228107031	075039-160916-JW-SB216A (0-	ASTM D2974	448289		
60228107032	075039-160916-JW-SB216A (2)	ASTM D2974	448289		
60228107033	075039-160916-JW-SB216A (3.5)	ASTM D2974	448289		
60228107034	075039-160916-JW-SB215 (0-	ASTM D2974	448289		
60228107035	075039-160916-JW-SB215 (2.5)	ASTM D2974	448289		
60228107036	075039-160916-JW-SB215 (7.5)	ASTM D2974	448289		
60228107037	075039-160916-JW-SB263 (0-	ASTM D2974	448289		
60228107038	075039-160916-JW-SB263 (3.5)	ASTM D2974	448289		
60228107039	075039-160916-JW-SB208A (9.5)	ASTM D2974	448289		
60228107040	075039-160916-JW-SB208A	ASTM D2974	448289		
60228107041	075039-160916-JW-SB262 (0-	ASTM D2974	448289		
60228107042	075039-160916-JW-SB262 (3.5)	ASTM D2974	448289		
60228107043	075039-160916-JW-SB262 (7.5)	ASTM D2974	448289		
60228107044	075039-160916-JW-SB262 (11.5)	ASTM D2974	448289		
60228107045	075039-160916-JW-SB261 (0-	ASTM D2974	448289		
60228107046	075039-160916-JW-SB261 (2)	ASTM D2974	448289		
60228107047	075039-160916-JW-SB209A (5)	ASTM D2974	448289		
60228107048	075039-160916-JW-SB207A (3.5)	ASTM D2974	448290		
60228107049	075039-160916-JW-SB256 (0-	ASTM D2974	448290		
60228107050	075039-160916-JW-SB256 (2.5)	ASTM D2974	448290		
60228107051	075039-160916-JW-SB191A (8)	ASTM D2974	448290		
60228107052	075039-160916-JW-SB191A (10)	ASTM D2974	448290		

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		10/04/2016		
Project Name:		075039 P66 FORMER CACTUS FACIL	Laboratory Job Number:		60228107		
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?		X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?		X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			R7.3
		Were MS/MSD RPDs within laboratory QC limits?		X			R7.4
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		10/04/2016		
Project Name:		075039 P66 FORMER CACTUS FACIL	Laboratory Job Number:		60228107		
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	10/04/2016
Project Name:	075039 P66 FORMER CACTUS FACIL	Laboratory Job Number:	60228107
Reviewer Name:	Alice Spiller	Prep Batch Number(s):	447338,447377,447378,447465,447466
Batch #'s Cont:	447710,448102,448289,448290		
ER #¹	Description		
R6.1	LCS sample in batch #447965: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #447965: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #447965: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #447965: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #447965: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #447965: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #447965: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #447965: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #447965: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #447965: PCB-1254 (Aroclor 1254) is not spiked.		
R7.3	MS Sample #1830031: Copper 2160% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MS Sample #1830036: Copper 1160% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1830032: Copper 546% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1830032: Lead 69% spike recovery outside laboratory QC limit of 75-125%.		
R7.3	MSD Sample #1830037: Copper 665% spike recovery outside laboratory QC limit of 75-125%.		
R7.4	MSD Sample #1830032: Copper RPD of 43 exceeds laboratory QC limit of 20.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt
ESI Tech Spec Client

WO#: 60228107



60228107

Client Name: GHD Pld TX

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 7044 6653 3704-3690 Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐

Packing Material: Bubble Wrap ☒ Bubble Bags ☒ Foam ☐ None ☐ Other ☐

Thermometer Used: T-266 T-239 Type of Ice: Wet Blue ☐ None ☐

Cooler Temperature (°C): As-read 4.4, 3.5 Corr. Factor CF +1.1 CF -0.1 Corrected 5.5, 4.4

Date and initials of person
examining contents: JS 9/20/16

Temperature should be above freezing to 6°C

Chain of Custody present:	☒ Yes ☐ No ☐ N/A
Chain of Custody relinquished:	☒ Yes ☐ No ☐ N/A
Samples arrived within holding time:	☒ Yes ☐ No ☐ N/A
Short Hold Time analyses (<72hr):	☐ Yes ☒ No ☐ N/A
Rush Turn Around Time requested:	☐ Yes ☒ No ☐ N/A
Sufficient volume:	☒ Yes ☐ No ☐ N/A
Correct containers used:	☒ Yes ☐ No ☐ N/A
Pace containers used:	☒ Yes ☐ No ☐ N/A
Containers intact:	☒ Yes ☐ No ☐ N/A
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐ Yes ☐ No ☒ N/A
Filtered volume received for dissolved tests?	☐ Yes ☐ No ☒ N/A
Sample labels match COC: Date / time / ID / analyses	☒ Yes ☐ No ☐ N/A
Samples contain multiple phases? Matrix: <u>soil</u>	☐ Yes ☐ No ☒ N/A
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	☐ Yes ☐ No ☒ N/A
Cyanide water sample checks: ☒ N/A	
Lead acetate strip turns dark? (Record only)	☐ Yes ☐ No
Potassium iodide test strip turns blue/purple? (Preserve)	☐ Yes ☐ No
Trip Blank present:	☐ Yes ☐ No ☒ N/A
Headspace in VOA vials (>6mm):	☐ Yes ☐ No ☒ N/A
Samples from USDA Regulated Area: State: <u>TX, (arls)</u>	☐ Yes ☒ No ☐ N/A
Additional labels attached to 5035A / TX1005 vials in the field?	☐ Yes ☐ No ☒ N/A

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: alice Date: 09/20/16

Temp Log: Record start and finish times
when unpacking cooler, if >20 min, recheck
sample temps.

Start: <u>9:50 AM</u>	Start: <u>1000</u>
End: <u>7:55</u>	End: <u>1015</u>
Temp: _____	Temp: _____



The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A	Section B	Section C
Required Client Information:	Required Project Information:	Invoice Information:
Company: GHD P66 TX	Report To: Jessica Wright	Attention:
Address: 1755 Wilmington Place	Copy To: Christopher Knight	Company Name: GHD
City: Dallas, TX 75234	Email: ckd@ghd.com	Address:
Phone:	Purchase Order #:	Pace Quote:
Fax:	Project Name: 075039 P66 Fmr Caclius Facilities	Pace Project Manager: alice spiller@pacelabs.com,
Requested Due Date:	Project #:	Pace Profile #: 9712, line 1
		Regulatory Agency
		State / Location
		TX

Page : 1 Of 5

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION	PRESERVATIVES						Analyses Test	Y/N	Requested Analysis Filtered (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			START	END				DATE	TIME	H2SO4	HNO3	HCl	NaOH				Na2S2O3	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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1	Drinking Water	075039-100910-JW-SB242 (0-0.5)	09/10/16	0835			1	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Section B		Section C	
Required Project Information:		Invoice Information:	
Report To:	Jessica Wright	Attention:	
Copy To:	Christopher Knight	Company Name:	GHD
Address:	edds@ghd.com	Address:	
Purchase Order #:		Pace Quote:	
Project Name:	075039 P66 Fmr Facilities	Pace Project Manager:	alice.spiller@pacelabs.com
Fax		Pace Profile #	9712 line 1
Project #:			

Page : 3 Of 5

Step Due Date:

SAMPLE ID

One Character per box.
(A-Z, 0-9 / , -)
Sample IDs must be unique

MATRIX

Drinking Water
Water
Waste Water
Product
Solid
Oil
Wipe
Air
Other
Tissue

CODE

DW
WT
WW
P
SL
OL
WP
AR
OT
TS

MATRIX CODE (see valid codes to left)

SAMPLE TYPE (G=GRAB C=COMP)

COLLECTED

START

END

DATE

TIME

DATE

TIME

SAMPLE TEMP AT COLLECTION

OF CONTAINERS

Unpreserved

H2SO4

HNO3

HCl

NaOH

Na2S2O3

Methanol

Other

Analyses Test

6010 Cu, Pb

7470 Mercury

6010 Cu

Ammonia

6010 As

B270 Nitrobenzenes

B082 PCBs

Residual Chlorine (Y/N)

SAMPLE ID

One Character per box.
(A-Z, 0-9 / , -)
Sample IDs must be unique

MATRIX

Drinking Water
Water
Waste Water
Product
Solid
Oil
Wipe
Air
Other
Tissue

CODE

DW
WT
WW
P
SL
OL
WP
AR
OT
TS

MATRIX CODE (see valid codes to left)

SAMPLE TYPE (G=GRAB C=COMP)

COLLECTED

START

END

DATE

TIME

DATE

TIME

SAMPLE TEMP AT COLLECTION

OF CONTAINERS

Unpreserved

H2SO4

HNO3

HCl

NaOH

Na2S2O3

Methanol

Other

Analyses Test

6010 Cu, Pb

7470 Mercury

6010 Cu

Ammonia

6010 As

B270 Nitrobenzenes

B082 PCBs

Residual Chlorine (Y/N)

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed:

TEMP in C

Received on

(Y/N)

Custody

Sealed

Cooler

Interact Samples

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

[illegible][illegible]

CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

7A

Section B

Section B
Required Project Information:

Section C
Invoice InfSection C
Invoice Information:

□

1

Page: 5 of 9

Company: GHD P66 TX
Address: 1755 Wilingford
City: Dallas, TX 75234

Report To:	Jessica Wright
Copy To:	Christopher Knight
	edds@ghd.com
Purchase Order #:	

Attention:	Company Name:	Address:	Price Quotation:
------------	---------------	----------	------------------

--	--	--	--	--	--

Regulatory Agency	State / Location
1040	

sted Due Date:

Pace Profile # 9712, line 1

	Filtered (Y/N)
--	----------------

SAMPLE ID		COLLECTED		DATE		TIME		SAMPLE TEMP AT COLLECTION		# OF CONTAINERS		PRESERVATIVES		ANALYSES TEST		Y/N		RESIDUAL CHLORINE (Y/N)		TEMP in C		RECEIVED on		CUSTODY		COOLER		INTEGRITY	
MATRIX		START		END		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME		DATE		TIME	
75039-160916-JW-SB256(0.5)	75039-160916-JW-SB256(2.5)	75039-160916-JW-SB191A(8)	75039-160916-JW-SB191A(10)																										



Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

November 21, 2016

Jessica Wright
GHD Services
1755 Wittington Place
Suite 500
Dallas, TX 75234

RE: Pace Project 60231726
Project ID: 075039 P66 Frmr Cactus, TX

Dear Jessica Wright:

Enclosed are the analytical results for sample(s) received by the laboratory on November 08, 2016. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Alice Spiller".

Alice Spiller
alice.spiller@pacelabs.com
(913)599-5665

Laboratory Certifications

Pace Kansas: Texas Certification #: T104704407



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

11/21/2016 16:14:50



Sample Cross Reference

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60231726

Client: GHD Phillips 66 Texas
Project ID: 075039 P66 Frmr Cactus, TX

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
075039-161104-JW-SB283 (0-0.5)	60231726001	Solid	11/04/2016 09:11	11/08/2016 08:45
075039-161104-JW-SB283 (2.5)	60231726002	Solid	11/04/2016 09:15	11/08/2016 08:45
075039-161104-JW-SB283 (6)	60231726003	Solid	11/04/2016 09:18	11/08/2016 08:45
075039-161104-JW-SB281 (0-0.5)	60231726005	Solid	11/04/2016 09:40	11/08/2016 08:45
075039-161104-JW-SB281 (2.5)	60231726006	Solid	11/04/2016 09:42	11/08/2016 08:45
075039-161104-JW-SB281 (6.5)	60231726007	Solid	11/04/2016 09:45	11/08/2016 08:45
075039-161104-JW-SB282 (0-0.5)	60231726009	Solid	11/04/2016 10:16	11/08/2016 08:45
075039-161104-JW-SB282 (2.5)	60231726010	Solid	11/04/2016 10:18	11/08/2016 08:45
075039-161104-JW-SB282 (6.5)	60231726011	Solid	11/04/2016 10:21	11/08/2016 08:45
075039-161104-JW-SB278 (0-0.5)	60231726013	Solid	11/04/2016 10:36	11/08/2016 08:45
075039-161104-JW-SB278 (2.5)	60231726014	Solid	11/04/2016 10:40	11/08/2016 08:45
075039-161104-JW-SB278 (6)	60231726015	Solid	11/04/2016 10:43	11/08/2016 08:45
075039-161104-JW-SB216 (0-0.5)	60231726017	Solid	11/04/2016 18:22	11/08/2016 08:45
075039-161104-JW-169A (0-0.5)	60231726018	Solid	11/04/2016 18:50	11/08/2016 08:45



Project Narrative

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60231726

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

All MS or MSD recoveries were within QC limits.

Surrogate:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.

Appendix A
LABORATORY DATA PACKAGE COVER PAGE

This data package is for Job No. 60231726 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- | |
|---|
| X |
| X |
| X |
- R1 - Field chain-of-custody documentation;
- | |
|---|
| X |
|---|
- R2 - Sample identification cross-reference;
- | |
|---|
| X |
|---|
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
- a. Items consistent with NELAC Chapter 5,
 - b. Dilution factors,
 - c. Preparation methods,
 - d. Cleanup methods, and
 - e. If required for the project, tentatively identified compounds (TICs).
- | |
|---|
| X |
|---|
- R4 - Surrogate recovery data including:
- a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- | |
|---|
| X |
|---|
- R5 - Test reports/summary forms for blank samples;
- | |
|---|
| X |
|---|
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
- a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- | |
|---|
| X |
|---|
- R7 - Test reports/summary forms for matrix spike/matrix spike duplicates (MS/MSDs) including:
- a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences, and
 - e. The laboratory's MS/MSD QC limits.
- | |
|---|
| X |
|---|
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
- a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and,
 - c. The laboratory's QC limits for analytical duplicated.
- | |
|---|
| X |
|---|
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte and
- | |
|---|
| X |
|---|
- R10 - Other problems or anomalies.

The exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: [] This laboratory meets an exception under 30 TAC §25.6 and was last inspected by [X] KDHE on 07/2010

Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name (Printed)
Alice Spiller

Signature
Alice Spiller

Official Title (Printed)
Project Manager

Date
11/21/2016



Sample Results

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Client: GHD_Phillips 66 Texas

Client ID: 075039-161104-JW-169A (0-0.5)

Project ID: 075039 P66 Frmr Cactus, TX

Lab ID: 60231726018

Moisture: 9.2%

Pace Project No.: 60231726

Collected: 11/04/2016 18:50

Received: 11/08/2016 08:45

Matrix: Solid

Parameters	DF	Results	Qual	Units	MQL	SDL	Analysis Date	Prep Date	Batch	Instr.
8082 GCS PCB SW		Analytical Method: EPA 8082				Preparation Method: EPA 3546				
PCB-1016 (Aroclor 1016)	1	< 0.042	U	mg/kg	0.50	0.042	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1221 (Aroclor 1221)	1	< 0.12	U	mg/kg	0.50	0.12	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1232 (Aroclor 1232)	1	< 0.055	U	mg/kg	0.50	0.055	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1242 (Aroclor 1242)	1	< 0.12	U	mg/kg	0.50	0.12	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1248 (Aroclor 1248)	1	< 0.033	U	mg/kg	0.50	0.033	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1254 (Aroclor 1254)	1	3.5		mg/kg	0.50	0.047	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8
PCB-1260 (Aroclor 1260)	1	< 0.062	U	mg/kg	0.50	0.062	11/18/2016 12:04	11/16/2016 00:00	455292	60GCS8



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 455364
Method: ASTM D2974

Pace Project No.: 60231726
Instrument ID: 60OEXT

Blank: 1864555

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
Percent Moisture	1	U	<0.50	%	0.50	0.50	11/17/2016 00:00	

Duplicate: 1864556

Original for Sample: Client sample 075039-161102-JW-SB266 (3.5)

Parameters	Original Result	Dup Result	Units	RPD	Max RPD	Quals
Percent Moisture	4.8	4.7	%	3	20	



Quality Control

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 455292
Method: EPA 8082
Prep Method: EPA 3546

Pace Project No.: 60231726
Instrument ID: 60GCS8

Blank: 1864342

Parameters	Dilution	Quals	Result	Units	MQL	SDL	Analysis Date	Prep Date
PCB-1016 (Aroclor 1016)	1	U	<0.036	mg/kg	0.43	0.036	11/17/2016 22:54	11/16/2016 00:00
PCB-1221 (Aroclor 1221)	1	U	<0.10	mg/kg	0.43	0.10	11/17/2016 22:54	11/16/2016 00:00
PCB-1232 (Aroclor 1232)	1	U	<0.047	mg/kg	0.43	0.047	11/17/2016 22:54	11/16/2016 00:00
PCB-1242 (Aroclor 1242)	1	U	<0.10	mg/kg	0.43	0.10	11/17/2016 22:54	11/16/2016 00:00
PCB-1248 (Aroclor 1248)	1	U	<0.029	mg/kg	0.43	0.029	11/17/2016 22:54	11/16/2016 00:00
PCB-1254 (Aroclor 1254)	1	U	<0.041	mg/kg	0.43	0.041	11/17/2016 22:54	11/16/2016 00:00
PCB-1260 (Aroclor 1260)	1	U	<0.054	mg/kg	0.43	0.054	11/17/2016 22:54	11/16/2016 00:00

Laboratory Control Sample: 1864343

Parameters	Spk Amt	LCS Result	Units	LCS %Rec	% Rec Limits	LCS Quals
PCB-1016 (Aroclor 1016)	1.7	1.7	mg/kg	100	69-125	
PCB-1260 (Aroclor 1260)	1.7	1.7	mg/kg	100	69-126	

Matrix Spike: 1864344

Matrix Spike Duplicate: 1864345

Original for Sample: Project sample 075039-161104-JW-SB283 (0-0.5)

Parameters	Original Result	MS Spk	MSD Spk	MS Result	MSD Result	Units	MS %Rec	MSD %Rec	% Rec Limits	RPD	Max RPD	Quals
PCB-1016 (Aroclor 1016)	<0.039	2.3	2.3	2.4	2.4	mg/kg	100	103	12-190	2	31	
PCB-1260 (Aroclor 1260)	<0.057	2.3	2.3	2.4	2.4	mg/kg	102	104	23-145	0	28	



Surrogate Recovery

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Batch: 455292
Method: EPA 8082

Pace Project No.: 60231726

Lab ID	Sample ID	Qual	Surr 1 %Rec	Surr 2 %Rec	Surr 3 %Rec	Surr 4 %Rec	Surr 5 %Rec	Surr 6 %Rec	Surr 7 %Rec	Surr 8 %Rec
1864342	BLANK for HBN 455292		90							
1864343	LCS for HBN 455292		93							
60231726001	075039-161104-JW-		92							
1864344	075039-161104-JW...		94							
1864345	075039-161104-J...		95							
60231726002	075039-161104-JW-		90							
60231726003	075039-161104-JW-		83							
60231726005	075039-161104-JW-		91							
60231726006	075039-161104-JW-		91							
60231726007	075039-161104-JW-		84							
60231726009	075039-161104-JW-		95							
60231726010	075039-161104-JW-		96							
60231726011	075039-161104-JW-		80							
60231726013	075039-161104-JW-		91							
60231726014	075039-161104-JW-		91							
60231726015	075039-161104-JW-		77							
60231726017	075039-161104-JW-		92							
60231726018	075039-161104-JW-169A		91							

QC Limits: 26-127

Surr 1: Decachlorobiphenyl (S)



Detectability Check Samples

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60231726

Method: EPA 8082

Prep Method: EPA 3546

Matrix: Solid

Instrument ID: 60GCS8

Lab Sample ID	Parameters	CAS No.	Spike	SDL	Result	MQL	Units	Analysis Date	Prep Date
60231728001	PCB-1016 (Aroclor 1016)	12674-11-2		2.7	28.5	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1221 (Aroclor 1221)	11104-28-2		7.8	0	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1232 (Aroclor 1232)	11141-16-5		3.6	0	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1242 (Aroclor 1242)	53469-21-9		7.9	0	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1248 (Aroclor 1248)	12672-29-6		2.2	0	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1254 (Aroclor 1254)	11097-69-1		3.1	0	32.6		11/17/2016 19:40	11/14/2016 00:00
60231728001	PCB-1260 (Aroclor 1260)	11096-82-5		4.0	29.5	32.6		11/17/2016 19:40	11/14/2016 00:00



Unadjusted MQL Summary

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60231726

Analyte	Method	Unadjusted MQL	Reporting Units
PCB-1016 (Aroclor 1016)	EPA 8082	0.033	mg/kg
PCB-1221 (Aroclor 1221)	EPA 8082	0.033	mg/kg
PCB-1232 (Aroclor 1232)	EPA 8082	0.033	mg/kg
PCB-1242 (Aroclor 1242)	EPA 8082	0.033	mg/kg
PCB-1248 (Aroclor 1248)	EPA 8082	0.033	mg/kg
PCB-1254 (Aroclor 1254)	EPA 8082	0.033	mg/kg
PCB-1260 (Aroclor 1260)	EPA 8082	0.033	mg/kg
TPH (C06-C12)	TNRCC 1005	20.0	mg/kg
TPH Total (C06-C35)	TNRCC 1005	20.0	mg/kg
TPH (>C12-C28)	TNRCC 1005	20.0	mg/kg
TPH (>C28-C35)	TNRCC 1005	20.0	mg/kg



Pace Project No.: 60231726

DEFINITIONS

DF	Dilution Factor
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
U	Indicates the compound was analyzed for, but not detected.
SDL	Sample Detection Limit
MQL	Method Quantitation Limit
LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
RPD	Relative Percent Difference
TNI	The Nelac Institute

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

1e	Surrogate recovery outside laboratory control limits. Verified by re-analysis.
S0	Surrogate recovery outside laboratory control limits.



Quality Control Data Cross Reference Table

Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913) 599-5665

Pace Project No.: 60231726

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60231726003	075039-161104-JW-SB283 (6)	TNRCC 1005	454761	TNRCC 1005	454928
60231726007	075039-161104-JW-SB281 (6.5)	TNRCC 1005	454761	TNRCC 1005	454928
60231726011	075039-161104-JW-SB282 (6.5)	TNRCC 1005	454761	TNRCC 1005	454928
60231726015	075039-161104-JW-SB278 (6)	TNRCC 1005	454761	TNRCC 1005	454928
60231726001	075039-161104-JW-SB283 (0-	EPA 3546	455292	EPA 8082	455595
60231726002	075039-161104-JW-SB283 (2.5)	EPA 3546	455292	EPA 8082	455595
60231726003	075039-161104-JW-SB283 (6)	EPA 3546	455292	EPA 8082	455595
60231726005	075039-161104-JW-SB281 (0-	EPA 3546	455292	EPA 8082	455595
60231726006	075039-161104-JW-SB281 (2.5)	EPA 3546	455292	EPA 8082	455595
60231726007	075039-161104-JW-SB281 (6.5)	EPA 3546	455292	EPA 8082	455595
60231726009	075039-161104-JW-SB282 (0-	EPA 3546	455292	EPA 8082	455595
60231726010	075039-161104-JW-SB282 (2.5)	EPA 3546	455292	EPA 8082	455595
60231726011	075039-161104-JW-SB282 (6.5)	EPA 3546	455292	EPA 8082	455595
60231726013	075039-161104-JW-SB278 (0-	EPA 3546	455292	EPA 8082	455595
60231726014	075039-161104-JW-SB278 (2.5)	EPA 3546	455292	EPA 8082	455595
60231726015	075039-161104-JW-SB278 (6)	EPA 3546	455292	EPA 8082	455595
60231726017	075039-161104-JW-SB216 (0-	EPA 3546	455292	EPA 8082	455595
60231726018	075039-161104-JW-169A (0-0.5)	EPA 3546	455292	EPA 8082	455595
60231726001	075039-161104-JW-SB283 (0-	ASTM D2974	455364		
60231726002	075039-161104-JW-SB283 (2.5)	ASTM D2974	455364		
60231726003	075039-161104-JW-SB283 (6)	ASTM D2974	455364		
60231726005	075039-161104-JW-SB281 (0-	ASTM D2974	455364		
60231726006	075039-161104-JW-SB281 (2.5)	ASTM D2974	455364		
60231726007	075039-161104-JW-SB281 (6.5)	ASTM D2974	455364		
60231726009	075039-161104-JW-SB282 (0-	ASTM D2974	455364		
60231726010	075039-161104-JW-SB282 (2.5)	ASTM D2974	455364		
60231726011	075039-161104-JW-SB282 (6.5)	ASTM D2974	455364		
60231726013	075039-161104-JW-SB278 (0-	ASTM D2974	455364		
60231726014	075039-161104-JW-SB278 (2.5)	ASTM D2974	455364		
60231726015	075039-161104-JW-SB278 (6)	ASTM D2974	455364		
60231726017	075039-161104-JW-SB216 (0-	ASTM D2974	455364		
60231726018	075039-161104-JW-169A (0-0.5)	ASTM D2974	455364		

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		11/21/2016		
Project Name:		075039 P66 Frmr Cactus, TX	Laboratory Job Number:		60231726		
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			R4.2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?		X			R6.1
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?		X			R7.1
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices, and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST							
Laboratory		Pace Analytical Services, Inc.	LRC Date:		11/21/2016		
Project Name:		075039 P66 Frmr Cactus, TX	Laboratory Job Number:		60231726		
Reviewer Name:		Alice Spiller	Prep Batch Number(s):		See exception report.		
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER # ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	X				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	X				

1. Items identified by the letter "R" must be included in the laboratory in the laboratory data package submitted in the TRRP-required reports(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
2. O = Organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

TRRP LABORATORY REVIEW CHECKLIST			
Laboratory	Pace Analytical Services, Inc.	LRC Date:	11/21/2016
Project Name:	075039 P66 Frmr Cactus, TX	Laboratory Job Number:	60231726
Reviewer Name:	Alice Spiller	Prep Batch Number(s):	454761,455292,455364
ER #¹	Description		
R4.2	LCS Sample #1862478: 1-Chlorooctane (S) 135% surrogate recovery outside of laboratory QC limits of 70-130%.		
R4.2	LCSD Sample #1862479: 1-Chlorooctane (S) 164% surrogate recovery outside of laboratory QC limits of 70-130%.		
R4.2	LCSD Sample #1862479: o-Terphenyl (S) 139% surrogate recovery outside of laboratory QC limits of 70-130%.		
R4.2	MSD Sample #1862481: 1-Chlorooctane (S) 146% surrogate recovery outside of laboratory QC limits of 70-130%.		
R6.1	LCS sample in batch #454928: TPH (>C12-C28) is not spiked.		
R6.1	LCS sample in batch #454928: TPH (>C28-C35) is not spiked.		
R6.1	LCS sample in batch #454928: TPH (C06-C12) is not spiked.		
R6.1	LCS sample in batch #455595: PCB-1221 (Aroclor 1221) is not spiked.		
R6.1	LCS sample in batch #455595: PCB-1232 (Aroclor 1232) is not spiked.		
R6.1	LCS sample in batch #455595: PCB-1242 (Aroclor 1242) is not spiked.		
R6.1	LCS sample in batch #455595: PCB-1248 (Aroclor 1248) is not spiked.		
R6.1	LCS sample in batch #455595: PCB-1254 (Aroclor 1254) is not spiked.		
R7.1	MS sample for batch #454928: TPH (>C12-C28) is not spiked.		
R7.1	MS sample for batch #454928: TPH (>C28-C35) is not spiked.		
R7.1	MS sample for batch #454928: TPH (C06-C12) is not spiked.		
R7.1	MS sample for batch #455595: PCB-1221 (Aroclor 1221) is not spiked.		
R7.1	MS sample for batch #455595: PCB-1232 (Aroclor 1232) is not spiked.		
R7.1	MS sample for batch #455595: PCB-1242 (Aroclor 1242) is not spiked.		
R7.1	MS sample for batch #455595: PCB-1248 (Aroclor 1248) is not spiked.		
R7.1	MS sample for batch #455595: PCB-1254 (Aroclor 1254) is not spiked.		
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Sample Condition Upon Receipt
ESI Tech Spec Client

WO#: 60231726



60231726

Client Name:

GHD P66 TX

Courier: FedEx ☒ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #:

606672433800

Pace Shipping Label Used? Yes ☐ No ☒

Custody Seal on Cooler/Box Present: Yes ☒ No ☐

Seals intact: Yes ☒ No ☐

Packing Material:

Bubble Wrap ☐

Bubble Bags ☒

Foam ☐

None ☐

Other ☐

Thermometer Used:

T-266 / T-239

Type of Ice: Wet ☒ Blue ☐ None ☐

Cooler Temperature (°C):

As-read 0.2

Corr. Factor

CF +0.7 CF -0.5

Corrected

0.9

Date and initials of person
examining contents:

pr 11/8/16

Temperature should be above freezing to 6°C

Chain of Custody present:

☐ Yes ☐ No ☐ N/A

Chain of Custody relinquished:

☐ Yes ☐ No ☐ N/A

Samples arrived within holding time:

☒ Yes ☐ No ☐ N/A

Short Hold Time analyses (<72hr):

pr 11/8/16

☒ Yes ☐ No ☐ N/A

Rush Turn Around Time requested:

☐ Yes ☒ No ☐ N/A

Sufficient volume:

☒ Yes ☐ No ☐ N/A

Correct containers used:

☒ Yes ☐ No ☐ N/A

Pace containers used:

☒ Yes ☐ No ☐ N/A

Containers intact:

☒ Yes ☐ No ☐ N/A

Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?

☐ Yes ☒ No ☐ N/A

Filtered volume received for dissolved tests?

☐ Yes ☐ No ☒ N/A

Sample labels match COC: Date / time / ID / analyses

☒ Yes ☐ No ☐ N/A

Samples contain multiple phases?

Matrix: SL

☐ Yes ☒ No ☐ N/A

Containers requiring pH preservation in compliance?

☐ Yes ☐ No ☒ N/A

(HNO₃, H₂SO₄, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)

(Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)

Cyanide water sample checks: ☒ N/A

Lead acetate strip turns dark? (Record only)

☐ Yes ☐ No

Potassium iodide test strip turns blue/purple? (Preserve)

☐ Yes ☐ No

Trip Blank present:

☐ Yes ☐ No ☒ N/A

Headspace in VOA vials (>6mm):

☐ Yes ☐ No ☒ N/A

Samples from USDA Regulated Area:

State: TX

☐ Yes ☒ No ☐ N/A

Additional labels attached to 5035A / TX1005 vials in the field?

☐ Yes ☐ No ☒ N/A

Client Notification/ Resolution:

Copy COC to Client? Y / N

Field Data Required? Y / N

Person Contacted:

Date/Time:

Comments/ Resolution:

Temp Log: Record start and finish times
when unpacking cooler, if >20 min, recheck
sample temps.

Start: 1020

Start:

End: 1030

End:

Temp:

Temp:

Project Manager Review:

alice

Date: 11/08/16

[illegible]



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	GHD, Phillips 66 Texas	Report To:	Jessica Wright	Attention:	
Address:	1755 Wittington Place	Copy To:	Chris Evans, Christopher Knight	Company Name:	GHD
City, State, ZIP:	Dallas, TX 75234	Purchase Order #:		Address:	
Email:	jessica.wright@ghd.com	Project Name:	075039 P66 Fmr Cactus, Texas	Pace Project Manager:	alice.spiller@pace-labs.com
Phone:	817-690-0204	Project #:		Pace Profile #:	9712, line 1
Requested Due Date:		Moore County			

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	START		END		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analyses Test Y/N	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	602376
			DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other												
1			11/14/16	1036			11/14/16	1036				1	X																		
2			11/14/16	1040			11/14/16	1040				1	X																		
3			11/14/16	1043			11/14/16	1043				1	X																		
4			11/14/16	1045			11/14/16	1045				1	X																		
5			11/14/16	1822			11/14/16	1822				1	X																		
6			11/14/16	1850			11/14/16	1850				1	X																		
7																															
8																															
9																															
10																															
11																															
12																															

TEMP in C		Received on		Custody		Sealed		Cooler		Samples	
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed:					

Appendix B

Notification of PCB Activity

USEPAUnited States
Environmental Protection Agency
Washington, DC 20460Form Approved
OMB No. 2070-0112

Notification of PCB Activity

Return To:

Document Control Officer (5305P)
Office of Solid Waste
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460-0001**For Official Use Only**

1. Name of Facility

Former Cactus Plant

Name of Owner Facility

Phillips 66 Company

2. EPA Identification Number (if already assigned under RCRA)

TXD041230426

3. Facility Mailing Address (Street or PO Box, City, State, & Zip Code)

1708-01 Phillips Building
420 S. Keller Ave.
Bartlesville, OK 74006

4. Location of Facility (No. Street, City, State, & Zip Code)

US Hwy 287 & FM 281
Cactus, TX 79029
Moore County

5. Installation Contact (Name and Title)

Mr. Tom Wynn, Program Manager

Telephone Number (Area Code and Number)

(918) 977-4094

6. Type of PCB Activity (Mark 'X' in appropriate box. See Instructions.)



A. Generator w/onsite storage facility



B. Storer (Commercial)



C. Transporter



D. R&D/Treatability



E. Approved Disposer

F. Scrap Metal Recovery Oven/Smelter,
High Efficiency Boilers

7. Certification

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as a company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

Signature



Name and Official Title (Type of Print)

Tom Wynn, Program Manager

Date Signed

5-6-81

Paperwork Reduction Act Notice

The annual public burden for this collection of information is estimated to average 0.57 hours per response. This estimate includes time for reading instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division, U.S. Environmental Protection Agency (mail code 2822), 1200 Pennsylvania Ave., N.W., Washington, D.C. 20460-0001. Include the OMB number identified above in any correspondence. Do not send the completed form to this address. The actual information or form should be submitted in accordance with the instructions accompanying the form, or as specified in the corresponding regulations.

