wood.

SECOND QUARTER 2019 STATUS REPORT
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Prepared on behalf of:

Maricopa County Risk Management
222 North Central Avenue, Suite 1110
Phoenix, Arizona 85004

and

Maricopa County Waste Resources & Recycling
2919 West Durango Street
Phoenix, Arizona 85009

Prepared by:

Wood Environment & Infrastructure Solutions, Inc.
4600 East Washington Street, Suite 600
Phoenix, Arizona 85034

September 13, 2019

Wood Project No. 14-2019-2004

Registered Professional Engineer (Civil)
CERTIFICATE NO. 63610
EMILY H. NODOLCE
DATE SIGNED 9/12/19
ARIZONA U.S.A.
Expires:03/31/20

TABLE OF CONTENTS

		Page
EXECUTIVE SUMMARY		ES-1
1.0	INTRODUCTION	1
2.0	SUMMARY OF MEASURES TAKEN TO IMPLEMENT THE RAP	1
3.0	DATA COLLECTED DURING THE REPORTING PERIOD	3
3.1	Groundwater Elevations	3
3.2	Groundwater Quality Monitoring	3
3.3	Soil Vapor Monitoring	4
3.4	SVE System Performance Monitoring	4
4.0	DISCUSSION OF COLLECTED DATA	5
4.1	Groundwater Elevations	5
4.2	Groundwater Quality	5
4.3	Soil Vapor	6
4.4	SVE System Performance	7
5.0	FUTURE ACTIVITIES	7
6.0	REFERENCES	8

LIST OF TABLES

Table 1	Well Construction Summary
Table 2	Groundwater Elevation, Gradient, and Flow Direction
Table 3	Groundwater Analytical Results – Summary of VOC Data
Table 4	Soil Vapor Analytical Results – Wellhead TO-15 Analysis Data
Table 5	Soil Vapor Analytical Results – Process Sample TO-15 Analysis Data
Table 6	Soil Vapor Extraction Mass Removal

LIST OF FIGURES

Figure 1	Well Map
Figure 2	Estimated Extent of TCE Plume in Groundwater – May 2019
Figure 3	Shallow Zone TCE Soil Vapor Concentrations – June 2019
Figure 4	Middle Zone TCE Soil Vapor Concentrations – June 2019
Figure 5	Deep Zone TCE Soil Vapor Concentrations – June 2019
Figure 6	Above Water Table TCE Soil Vapor Concentrations – June 2019
Figure 7	Deep Zone 1,1-DCE Soil Vapor Concentrations – June 2019
Figure 8	SVE System Process Flow Diagram
Figure 9	Mass Removal of VOCs – through June 2019

LIST OF APPENDICES

Appendix A	Cave Creek Landfill Progress Schedule
Appendix B	Laboratory Reports of Analysis

Registered Professional Engineer (Civil)
CERTIFICATE NO. 63610
EMILY H. LODOLCE
DATE SIGNED 9/12/19
ARIZONA U.S.A.
Expires: 03/31/20

EXECUTIVE SUMMARY

In response to the detection of elevated levels of trichloroethene (TCE) in groundwater underlying Cave Creek Landfill, Maricopa County entered into a Consent Order in 1999 with the Arizona Department of Environmental Quality (ADEQ) to characterize the nature and extent of site groundwater contamination, develop a Remedial Action Plan (RAP) to address contamination impacts, implement the RAP, and provide quarterly status updates on project activities. This status report documents site assessment and remediation efforts conducted pursuant to the RAP during the second calendar quarter of 2019 (April through June 2019).

Groundwater Data Collection and Discussion. Quarterly groundwater levels were monitored on May 21 through May 23, 2019. During the reporting period, the predominant direction of groundwater flow was 176 degrees from north with a gradient of 0.002 feet per foot (ft/ft). Groundwater elevations at the site remained relatively stable between Second Quarter 2018 and Second Quarter 2019, with an average site-wide decrease in groundwater elevation of 0.41 feet.

Maricopa County collected quarterly groundwater samples concurrent with quarterly groundwater level monitoring. Analytical results from Second Quarter 2019 indicate that the highest concentrations of TCE underlie the southern and western portions of the New Landfill near TSSV-03-PZ and MW-10, respectively. The concentration of TCE in the sample collected from TSSV-03-PZ was 140 micrograms per liter (µg/L). This is the sixth consecutive quarter that TCE concentrations at TSSV-03-PZ have declined, suggesting that the higher concentrations previously observed at this well may have migrated to the south. However, the TCE concentration in the sample collected from MW-02, 1,200 feet downgradient of TSSV-03-PZ, has yet to increase and was comparable to previous quarters at 97 µg/L. The TCE concentration in the sample collected from MW-10, on the southwest boundary of the New Landfill, was 310 µg/L which is consistent with TCE concentrations observed at this well for the last few quarters. The concentration observed at MW-10 represents the highest concentration of TCE noted during site groundwater monitoring in Second Quarter 2019.

TCE is present above the Arizona Water Quality Standard for TCE of 5 µg/L in off-site downgradient wells MW-05 (62 µg/L), MW-07 (32 µg/L at 15 ft bwt), and MW-11 (26 µg/L at 15 ft bwt). The TCE concentration in the sample collected from MW-08, south of the Old Landfill, was 59 µg/L. This represents a decrease from the Fourth Quarter 2018 and First Quarter 2019 observed original/duplicate sample concentrations of 140/130 µg/L and 71/76 µg/L, respectively.

In addition to the standard sampling depth of 15 feet below water table (ft bwt) that is routinely evaluated during quarterly groundwater monitoring, supplemental depth-specific samples were collected from off-site downgradient wells MW-04, MW-07, and MW-11 at the following depths: 40 ft bwt and 10 ft above the bottom of the well (at MW-04 and MW-11 where the water column was sufficiently deep). TCE concentrations in the depth-specific samples at each evaluated well were consistent, indicating that mixing in the well column and/or vertical spreading of the plume is occurring as it migrates downgradient.

Soil Vapor Data Collection and Discussion. Wood collected quarterly soil vapor samples between June 4 and June 17, 2019. The analytical results from Second Quarter 2019 indicate that the highest concentrations of TCE in site soil vapor occur in the deep zone around SVE-04 and TSSV-07-D, in the southwest corner of the Old Landfill. In general, compared to First Quarter 2019, TCE concentrations in soil vapor at all depth profiles have decreased. This suggests that the soil vapor extraction (SVE) system operating at the site is successfully extracting contaminated vapors from the subsurface. TCE concentrations in soil vapor samples collected from the shallow and middle zones were less than 10 milligrams per cubic meter (mg/m^3). Original/duplicate samples collected from TSSV-07-D and the sample collected from SVE-04 in the deep

zone had TCE concentrations of 190/160 mg/m^3 and 120 mg/m^3, respectively; these concentrations are essentially unchanged from First Quarter 2019. TCE concentrations in soil vapor from TSSV-07-PZ and newly-installed well MW-13 were the highest observed in the above water table zone, at 22 mg/m^3 and 87 mg/m^3, respectively.

SVE System Performance. Based on the results of SVE system performance sampling, the soil vapor treatment system captured or destroyed over 94% of extracted volatile organic compounds (VOCs), as defined by Maricopa County Air Quality Department Rule 100 Section 200.113, and over 64% of Federal Hazardous Air Pollutants (HAPs) present in extracted vapors during the reporting period. The calculated total mass of VOCs removed from the vadose zone since full-scale SVE system startup on September 15, 2015 is 41,702 pounds (lbs). During Second Quarter 2019, the SVE system removed 1,654 lbs of VOCs, which is equivalent to a daily mass removal rate of approximately 18 pounds (lbs) per day.

1.0 INTRODUCTION

In response to the detection of elevated levels of trichloroethene (TCE) in groundwater underlying Cave Creek Landfill, Maricopa County entered into a Consent Order (CO) in 1999 with the Arizona Department of Environmental Quality (ADEQ) to characterize the nature and extent of site groundwater contamination. Since that time, the CO has been revised based on the results of multiple site investigations, and the current CO (ADEQ Identification Number 30604, Docket No. S-2-10) requires Maricopa County to complete groundwater characterization, develop a revised Remedial Action Plan (RAP), and complete ADEQ-approved remedial activities (ADEQ, 2010). Maricopa County submitted the final version of the RAP in May 2016 which includes soil vapor extraction (SVE) to address TCE-impacted vapor that serves as a source of groundwater contamination and an on-site pump and treat groundwater system to contain and remediate the existing groundwater plume (Amec Foster Wheeler Environment & Infrastructure, Inc. [Amec Foster Wheeler], 2016). ADEQ approved the RAP in their letter dated November 23, 2016 (ADEQ, 2016a).

Section IV of the CO requires quarterly status reports to document Maricopa County's progress implementing the stipulations of the CO and provide evidence of regulatory compliance (ADEQ, 2016b). This status report documents site assessment and remediation efforts conducted pursuant to the RAP during the second calendar quarter of 2019 (April through June 2019).

Wood Environment and Infrastructure Solutions, Inc. (Wood) prepared this quarterly report on behalf of Maricopa County Risk Management and Maricopa County Waste Resources & Recycling under the terms and conditions of Environmental Services Contract 13134-ITN.

2.0 SUMMARY OF MEASURES TAKEN TO IMPLEMENT THE RAP

Activities conducted in support of RAP implementation during the reporting period are as follows:

Monitoring Program

- Maricopa County collected quarterly groundwater levels and samples on May 21 through May 23, 2019.
- SGS North America, Inc. (SGS), an environmental laboratory certified by the Arizona Department of Health Services (ADHS) (AZ0769), analyzed the groundwater samples.
- Maricopa County collected quarterly soil vapor samples between June 4 and June 17, 2019.
- Airtech Environmental Laboratories (AEL), an environmental laboratory certified by the ADHS (AZ0740), analyzed the soil vapor samples for volatile organic compounds (VOCs) in air by United States Environmental Protection Agency (EPA) Method TO-15.
- On behalf of Maricopa County, Wood completed a Well Installation Report to document the installation of groundwater monitoring well MW-11 and dual groundwater/soil vapor monitoring wells MW-12 and MW-13 (Wood, 2019).

SVE System Operation and Compliance

- The SVE system operated in the Second Quarter 2019 from April 1 to June 30, 2019.
- Maricopa County collected monthly SVE system performance samples on April 17, May 15, and June 19, 2019.
- AEL analyzed the monthly SVE system performance samples for VOCs in air by EPA Method TO-15.
- On behalf of Maricopa County, Wood submitted the quarterly SVE system performance report in compliance with the Maricopa County Air Quality permit on June 14, 2019.

Design, Permitting, and Construction of the Groundwater Treatment System (GWTS):

- Maricopa County completed the following activities with regards to Phase 1, On-Site Infrastructure:
  - Construction oversight of the groundwater treatment system at the New Landfill. Work included:
    - Installation of extracted water and treated water conveyance pipelines;
    - Construction of the treatment system pad;
    - Placement of liquid phase carbon vessels, bag filter vessels, and equalization tank on the equipment pad;
    - Construction of extraction well EW-01 wellhead infrastructure and variable frequency drive pads; and
    - Installation of process and sump pumps on the treatment system pad.
  - Conduct of compressive strength testing on concrete cores collected from the treatment system pad construction per American Society of Testing Materials C39.
  - Renewal of the Phase 1 building permit through the Maricopa County Planning and Development Department (MCPDD).
- Maricopa County completed the following activities with regards to Phase 2, Conveyance Pipeline:
  - Submission of exhibits requested by City of Phoenix (COP) for amendment of an existing easement in Arizona State Land Department property to allow access for installation of the conveyance pipeline.
  - Preparation and transmission to construction subcontractors of request for proposal (RFP) documents for construction of the conveyance pipeline.
  - A prebid sitewalk was conducted with construction subcontractors on June 18, 2019.
- Maricopa County completed the following activities with regards to Phase 3, Injection Well Site:
  - Held a well installation kick-off meeting with Layne, the drilling contractor, on May 3, 2019.
  - Submitted a technical memorandum detailing aquifer testing procedures related to the injection well (IW-01) to ADEQ on June 21, 2019.
  - Oversight of MP Environmental, contractor, during clearing and grubbing of the IW-01 drilling site.
  - Oversight of Layne during sound panel installation.

Appendix A summarizes the progress of activities programmed for Cave Creek Landfill RAP implementation. The schedule has been updated with the current status of project tasks. Notable revisions include:

- Phase 1 On-Site Infrastructure Construction has been extended to mid-October 2019 due to delays in completion of the electrical service by Arizona Public Service (APS).
- Phase 2 Conveyance Pipeline Contractor Procurement and Construction has been shortened and will now finish in January 2020.
- IW-01 installation, testing, and reporting has been extended to mid-January 2020 due to the increased depth of the pilot boring that was achieved during drilling and associated decision to install a deeper injection well.

- The groundwater model update has been extended to April 2020 (the update has a schedule dependency of IW-01 testing and reporting).
- GWTS operations are currently projected to begin in September 2020.

3.0 DATA COLLECTED DURING THE REPORTING PERIOD

3.1 Groundwater Elevations

On behalf of Maricopa County, Wood collected quarterly groundwater levels on May 21 through May 23, 2019. Locations and construction details of site wells are presented in **Figure 1** and **Table 1**, respectively. Groundwater elevations and the calculated groundwater flow direction and gradient for the reporting period are presented in **Table 2**. Contoured water table elevations and the calculated flow direction and gradient are shown in **Figure 2**. During the reporting period, the direction of groundwater flow was 176.2 degrees from north with a gradient of 0.002 feet per foot (ft/ft). As discussed in the Fourth Quarter 2018 status report (Wood, 2019), only groundwater elevations derived from the groundwater monitoring wells (i.e., well identifiers starting with MW and PW) were used for contouring the water table surface.

3.2 Groundwater Quality Monitoring

Maricopa County conducts groundwater quality monitoring at Cave Creek Landfill in accordance with the requirements of 40 Code of Federal Regulations (CFR) 258.50, as detailed in the Post-Closure Care Plan for Maricopa County Solid Waste Landfills (Post-Closure Care Plan) (Hydro Geo Chem, 2014). Groundwater samples from applicable Cave Creek Landfill wells are collected and analyzed for VOCs on a quarterly basis (typically February, May, August, and November). In addition to the evaluation of organic constituents, Maricopa County also samples compliance wells (i.e., MW-02, MW-03, MW-04, MW-05, MW-06, MW-07, MW-08, and PW) semi-annually (typically in February and September) for 40 CFR 258 Appendix I inorganic constituents (total metals) and general chemistry parameters.

Wood, on behalf of Maricopa County, collected quarterly groundwater samples on May 21 through May 23, 2019. In addition to the compliance wells noted above, the following site wells were also sampled: EW-01, MW-09, MW-10, MW-11, MW-12, MW-13, TSSV-02-PZ, TSSV-03-PZ, TSSV-04-PZ, TSSV-05-PZ, TSSV-06-PZ, and TSSV-07-PZ. Second Quarter 2019 groundwater samples were collected using passive sampling devices (i.e., passive diffusion bags [PDBs] and HydraSleeve™ samplers) placed approximately 15 feet below the water table (ft bwt) during the previous quarterly sampling event (i.e., February 2019 for the May 2019 sampling event). Additional PDBs were also placed at 40 ft bwt at MW-04, MW-07, and MW-11 and 10 ft above bottom of well in MW-04 and MW-11. The saturated interval at MW-07 was not long enough to allow installation of a third PDB 10 ft above bottom of well at this location.

SGS analyzed the groundwater samples for VOCs in water by EPA Method 8260. Laboratory results of analyses reports for samples collected during the reporting period are included in **Appendix B**. Due to a change in the analytical laboratory used to evaluate groundwater samples between First Quarter 2019 and Second Quarter 2019, Wood conducted a review of consistency with historical results. The results of this review are discussed in **Section 4.2**.

Groundwater analytical results for First Quarter 2019 are presented in **Table 3** (VOCs). The estimated extent of the TCE plume in groundwater and results of sampling at individual wells are shown in **Figure 2**.

3.3 Soil Vapor Monitoring

Maricopa County conducts quarterly soil vapor monitoring at the Cave Creek Landfill to evaluate the concentration and extent of contaminated soil vapors in the vadose zone. Wood, on behalf of Maricopa County, collected quarterly soil vapor samples from 47 site wells on June 4 through June 7, June 10, June 14, and June 17, 2019.

Wood collected the soil vapor samples using laboratory-supplied 1.0-liter passivated vacuum canisters. AEL analyzed the soil vapor samples for VOCs in air by EPA Method TO-15. Soil vapor analytical results for the Second Quarter 2019 are presented in **Table 4**. The estimated extent of the TCE plume in soil vapor in the shallow, middle, deep, and above water table zones is shown in **Figures 3**, **4**, **5**, and **6**, respectively. The estimated extent of 1,1-Dichloroethene (1,1-DCE) in soil vapor in the deep zone is shown in **Figure 7**. Laboratory results of analytical reports for samples collected during the reporting period are included in **Appendix B**.

3.4 SVE System Performance Monitoring

The SVE system is part of the remedy identified in the RAP and provides source control (extraction of contaminated soil vapors) at the site. It was in full operation from April 1 to June 30, 2019 and extracted vapor from SVE-03 and SVE-04 during that time. The Carbon Adsorption System (CAS) treated the extracted vapor under pressurized flow (**Figure 8**).

The SVE system consists of three Granular Activated Carbon (GAC) vessels, identified as C1, C2, and C3, and one Hydrosil (i.e., potassium permanganate impregnated media) vessel, identified as H1. During routine operation, two GAC vessels are operated in lead/lag series configuration and the Hydrosil vessel is operated as the third and final vessel in the series. The remaining GAC vessel is a standby (offline) vessel and is placed into service as a lag vessel when the lead GAC vessel is spent and removed from service. During a change-out event, the lag vessel is moved into the lead position and the standby vessel is moved into the lag position. GAC is replaced in the former lead vessel and it becomes the new standby vessel.

Ten GAC vessel change-outs were conducted during the reporting period. The change-outs occurred on the following dates:

- April 5, 2019
- April 12, 2019
- April 22, 2019
- May 1, 2019
- May 10, 2019
- May 20, 2019
- May 31, 2019
- June 7, 2019
- June 17, 2019
- June 26, 2019

No Hydrosil change-outs were required during the reporting period.

Discharge of treated effluent from the SVE system is permitted by Maricopa County Air Quality Permit 980398 (Maricopa County Air Quality Department, 2016a). Under this permit, Maricopa County is required to collect monthly samples to calculate 12-month rolling total emissions and quarterly performance samples to demonstrate compliance with the performance requirements of the site air quality permit. Wood collected monthly process samples on April 17 and June 19, 2019 and the monthly/quarterly performance

sample on May 15, 2019. Process samples were collected with laboratory-supplied 1.0-liter passivated vacuum canisters at four locations: entering the CAS (at sample port [SP]-01), after the lead carbon vessel (at SP-02), after the lag carbon vessel (at SP-03), and after the Hydrosil vessel (at SP-04). These samples are named using the following convention: the sample port (e.g., SP-02) – the vessel that is monitored (e.g., C1 or H1) – the sample date in MMDDYY format. Sample locations are shown in **Figure 8**.

AEL analyzed process samples for VOCs in air by EPA Method TO-15. Results of process sample analysis are presented in **Table 5**. Laboratory results of analyses for samples collected during the reporting period are included in **Appendix B**.

4.0 DISCUSSION OF COLLECTED DATA

4.1 Groundwater Elevations

Groundwater elevations at the site remained relatively stable between Second Quarter 2018 and Second Quarter 2019 with an average site-wide decrease in groundwater elevations measured at monitoring wells of 0.41 feet. Observed declines in groundwater elevations ranged from 0.2 ft (at MW-03 and MW-07) to 0.6 ft (at MW-08 and MW-09). The groundwater flow direction and gradient observed during Second Quarter were consistent with the groundwater flow direction and gradient observed during the previous four quarters (**Table 2**).

4.2 Groundwater Quality

Analytical results from Second Quarter 2019 indicate that the highest concentrations of TCE underlie the southern and western portions of the New Landfill near TSSV-03-PZ and MW-10, respectively. The concentration of TCE in the sample collected from TSSV-03-PZ was 140 micrograms per liter (µg/L), making this the sixth consecutive quarter that TCE concentrations in TSSV-03-PZ have declined which suggests that the higher concentrations previously observed at this well may have migrated to the south. However, the TCE concentration in the sample collected from MW-02, 1,200 feet downgradient of TSSV-03-PZ, has yet to increase and remained comparable to previous quarters at 97 µg/L. The TCE concentration in the sample collected from MW-10, on the southwest boundary of the New Landfill, was 310 µg/L which is consistent with TCE concentrations observed at this well for the last few quarters. The concentration at MW-10 represents the highest TCE concentration observed during groundwater monitoring in Second Quarter 2019.

TCE was present above the Arizona Water Quality Standard (AWQS) for TCE of 5 µg/L in off-site downgradient wells MW-05 (62 µg/L), MW-07 (32 µg/L), and MW-11 (26 µg/L). The TCE concentration in the sample collected from MW-08, south of the Old Landfill, was 59 µg/L. This is the second consecutive quarter that TCE concentrations in MW-08 have declined (from a high of 140/130 µg/L in the original/duplicate samples collected in Fourth Quarter 2018).

Depth-specific samples were collected in Second Quarter 2019 from three off-site wells: MW-04, MW-07, and MW-11. The objective of sampling was to evaluate the vertical profile of the TCE plume as it intersects the New Landfill property boundary to the south by installing PDBs at various depths in the well screens of existing wells. Site-wide, depth-specific samples were previously collected in Third Quarter 2017 and the results of that effort suggested an apparent vertical stratification of TCE concentrations at select wells, with the highest concentrations at the top of the water table and lower concentrations with depth. When MW-11 was sampled for the first time after installation in Third Quarter 2018, the depth-specific samples collected at this well was different and TCE concentrations in the three sampled depths (i.e., approximately 15 ft bwt, 40 ft bwt, and 10 ft above the total depth of the well) showed little variation. These results indicate

that mixing in the well screen may be occurring and/or the TCE plume may be dispersing vertically as it migrates downgradient from the source of contamination. The depth-specific sample data collected in Second Quarter 2019 are consistent with the data collected from MW-11 during Third Quarter 2018. As shown in **Figure 2**, TCE concentrations at the top, middle, and bottom (where available) sample depths of evaluated wells were comparable. At MW-04, TCE was not detected at any of the three sampled depths. At MW-07, which only had two sample depths because there is only 50 ft of water column in the well, the TCE concentrations in the top and middle/bottom intervals were 32 µg/L and 28 µg/L, respectively. At MW-11, the off-site well farthest downgradient from the landfill, the TCE concentrations in the top, middle, and bottom sampling depths were 26 µg/L (in the original and duplicate samples), 25 µg/L, and 25 µg/L, respectively.

Co-contaminants 1,1-DCE and PCE have been observed in groundwater samples collected from site monitoring wells for some time although concentrations do not routinely exceed applicable AWQSs. Analytical results from Second Quarter 2019 indicate that the highest concentrations of 1,1-DCE and PCE were generally observed in the wells that have the highest concentrations of TCE. The sample from MW-10, for example, has PCE concentrations of 11 µg/L (above the AWQS for PCE of 5 µg/L) and 1,1-DCE concentrations of 9.5 µg/L (above the AWQS for 1,1-DCE of 7 µg/L). The sample collected from TSSV-04-PZ has a PCE concentration of 5.7 µg/L. No other samples collected from site monitoring wells contained concentrations of PCE, 1,1-DCE, or other constituents above the respective AWQS.

Due to contracting constraints with the environmental laboratory from the First Quarter 2019 reporting period, SGS was selected to analyze samples collected in the Second Quarter 2019. Wood conducted a review of Second Quarter 2019 groundwater sample results to evaluate consistency with historical trends, laboratory dilution factors, and laboratory reporting limits. Based on a comparison of Second Quarter 2019 data to historical data, Second Quarter 2019 groundwater data are consistent with previous results and usable for evaluation of long-term trends in contaminant concentrations in groundwater at the site. A review of data consistency with laboratory results corresponding to recent monitoring events will continue throughout 2019.

4.3 Soil Vapor

The analytical results from Second Quarter 2019 indicate that the highest concentrations of TCE in site soil vapor occur in the deep zone around SVE-04 and TSSV-07-D, in the southwest corner of the Old Landfill (**Figure 5**). In general, compared to the First Quarter 2019, TCE concentrations in soil vapor at all depth profiles have decreased. This suggests the SVE system is successfully extracting contaminant mass from the subsurface. TCE concentrations in soil vapor samples collected from the shallow and middle zones were less than 20 milligrams per cubic meter (mg/m^3) (**Figure 3** and **Figure 4**, respectively). Duplicate samples collected from TSSV-07-D and the sample collected from SVE-04 in the deep zone had TCE concentrations of 190/160 mg/m^3 and 120 mg/m^3, respectively. These concentrations are comparable to those observed in First Quarter 2019 but lower than those observed in Fourth Quarter 2018 (470/520 mg/m^3 and 330 mg/m^3, respectively). TCE concentrations in soil vapor from TSSV-07-PZ and newly-installed monitor well MW-13 were the highest observed in the above water table zone, at 22 mg/m^3 and 87 mg/m^3, respectively (**Figure 6**).

1,1-DCE is frequently observed in soil vapor samples collected from wells in and near the Old Landfill (**Figure 7**). During Second Quarter 2019, and consistent with previous quarters, the highest concentrations of 1,1-DCE in the soil vapor occurred in the deep zone around SVE-04, TSSV-07-D, and MW-13-D, all within the Old Landfill.

4.4 SVE System Performance

Based on the results of SVE system performance sampling, the CAS captured or destroyed over 94% of extracted VOCs, as defined by Maricopa County Air Quality Department Rule 100 Section 200.113, and over 64% of Federal Hazardous Air Pollutants (HAPs) in extracted vapors, during the reporting period.

The calculated total mass removed from the vadose zone since SVE system startup is presented in **Table 6**. Mass removal rates are based on actual hours of operation (hour meter readings) and the estimated hourly VOC extraction rate derived from performance testing. During the reporting period, the SVE system removed 1,654 pounds (lbs) of VOCs over a time period of 91 days, which is equivalent to a daily mass extraction rate of approximately 18 lbs per day. Since operations began on September 15, 2015, the calculated total mass of VOCs removed through March 20, 2019 is 41,702 lbs.

The SVE system operated for 94% of the time in the Second Quarter 2019. The system was commonly turned off for the weekend if on Friday, the field readings to estimate VOC removal efficiency of the CAS indicated that the removal efficiency on Saturday or Sunday would fall below the minimum VOC removal efficiency of 90% mandated by the air quality permit. The system was also turned off for several hours approximately every week to change the GAC order. Monthly testing of the CAS indicates that the system is operating as intended and is compliant with the air quality permit issued by Maricopa County.

5.0 FUTURE ACTIVITIES

Maricopa County will continue to conduct quarterly monitoring as described in Section 3.0 of this report. Other upcoming activities targeted for completion during the Third Quarter of 2019 and/or scheduled through the Fourth Quarter of 2019 include:

- Continued operation of the SVE system for source control;
- Continued Phase 1 GWTS construction. This activity is currently on-going and completion is estimated in October 2019;
- Selection of a contractor to construct the conveyance pipeline and initiation of Phase 2 construction;
- Submittal of a Site Groundwater Characterization Work Plan (the former Old Landfill Groundwater Characterization Work Plan) to ADEQ; and
- Aquifer and pump testing at IW-01, which is projected to extend through November 2019.

6.0 REFERENCES

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), 2016. *Draft Final Revised Remedial Action Plan*. Prepared on behalf of the Maricopa County Risk Management and Maricopa County Waste Resources & Recycling Management. May 6, 2016.

Arizona Department of Environmental Quality (ADEQ), 2010. *Consent Order in the matter of Cave Creek Landfill located at 8.3 miles east of I-17 approximately ½ mile south of Carefree Highway Phoenix, Maricopa, Arizona, Azurite Place ID 1169*. Docket No. S-2-10. Filed on January 19, 2010.

ADEQ, 2016a. *Letter to Ms. Rita Neill of Maricopa County from Ms. Laura Malone of ADEQ regarding Approval of the Revised Remedial Action Plan (RAP) dated 5-6-2016*; *Maricopa County, Cave Creek Landfill; Azurite Place ID Number 1169*. PRU16-513. Dated November 23, 2016.

ADEQ, 2016b. *Amendment No. 1 to Consent Order in the matter of Cave Creek Landfill located at 8.3 miles east of I-17 approximately ½ mile south of Carefree Highway Phoenix, Maricopa, Arizona, Azurite Place ID 1169*. Docket No. S-2-10. Signed on September 27, 2016.

Hydro Geo Chem, Inc. (Hydro Geo Chem), 2014. *Post-Closure Care Plan for Maricopa County Solid Waste Landfills*. Prepared for Maricopa County Waste Resources and Recycling. June 19, 2014.

Maricopa County Air Quality Department, 2016a. *Air Quality Permit to Operate and/or Construct Issued to Cave Creek Landfill. Permit Number 980398*. Revision Date: June 16, 2016. Expiration Date: November 30, 2021.

Wood Environment & Infrastructure, Inc. (Wood), 2019. *2018 Well Installation Report*. Maricopa County Cave Creek Landfill, Phoenix, Arizona. Prepared on behalf of Maricopa County Risk Management and Maricopa County Waste Resources & Recycling Management. June 7, 2019.

TABLES

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
EW-01	Groundwater	55-226136	1012934.6	675653.9	1,854.5	1,852.9	830	8/20/2016	12	HSLA	729.1	809.4	1,123.8	-	-	-
MW-01	Groundwater	55-538298	1013459.3	675955.8	1,895.6	1,895.6	820	5/1/1993	6 inch	LCS	660	820	1,235.6	-	-	Originally installed at 695 ft bgs; moved to 740 ft bgs (at bottom of pump) on 3/2/2005.
MW-02	Groundwater	55-538299	1012899.4	675673.9	1,856.0	1,855.0	805	5/1/1993	6 inch	LCS	630	805	1,225.0	-	-	Originally installed at 675 ft bgs; moved to 704 ft bgs (at bottom of pump) on 3/1/2005; moved to 714 ft bgs on 6/26/2009. Pump removed 8/2017
MW-03	Groundwater	55-216293	1013323.0	676495.2	1,866.4	1,867.0	830	12/13/2007	6 inch	LCS	679	799	1,188.0	-	-	Originally installed at 777 ft bgs; moved to 724 ft bgs on 6/25/2009. Pump removed 8/2017
MW-04	Groundwater	55-912575	1012613.0	675427.0	1,849.8	1,848.7	768	10/26/2010	6 inch	LCS	667.5	752.7	1,181.2	-	-	Pump removed 8/2017
MW-05	Groundwater	55-912728	1012467.6	674571.8	1,845.1	1,843.2	767	12/15/2010	6 inch	LCS	660	740.2	1,183.2	-	-	Pump removed 8/2017
MW-06	Groundwater	55-913112	1012139.1	675961.1	1,860.7	1,858.6	776.9	5/16/2011	6 inch	LCS	683	763	1,175.6	-	-	Pump removed 8/2017
MW-07	Groundwater	55-914001	1012607.3	675919.7	1,859.6	1,857.8	765	2/8/2012	8.25 inch	LCS	674.8	754.8	1,183.0	-	-	Pump removed 8/2017
MW-08	Groundwater	55-913859	1015700.0	676938.9	1,889.1	1,887.5	766.5	1/9/2012	8.25 inch	LCS	691.5	761.5	1,196.0	-	-	Pump removed 8/2017
MW-09	Groundwater	55-920632	1015090.4	675043.7	1,864.8	1,864.2	775	7/25/2017	6 inch	Sch 80 PVC	685	775	1,179.2	-	-	-
MW-09-S	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	160	7/25/2017	1 inch	Sch 80 PVC	140	160	1,724.2	-	-	-
MW-09-M	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	360	7/25/2017	1 inch	Sch 80 PVC	340	360	1,524.2	-	-	-
MW-09-D	Soil Vapor	55-920632	1015090.4	675043.7	1,864.8	1,864.2	585	7/25/2017	1 inch	Sch 80 PVC	535	585	1,329.2	-	-	-
MW-10	Groundwater	55-920633	1013594.3	674997.4	1,848.3	1,847.4	765	9/3/2017	6 inch	Sch 80 PVC	670	760	1,177.4	-	-	-
MW-10-S	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	140	9/6/2017	1 inch	Sch 80 PVC	120	140	1,727.4	-	-	-
MW-10-M	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	340	9/6/2017	1 inch	Sch 80 PVC	320	340	1,527.4	-	-	-
MW-10-D	Soil Vapor	55-920633	1013594.3	674997.4	1,848.3	1,847.4	570	9/6/2017	1 inch	Sch 80 PVC	520	570	1,327.4	-	-	-
MW-11	Groundwater	55-229174	1011611.5	675676.7	1,850.8	1,851.1	781	10/8/2018	6 inch	Sch 80 PVC	686	776	1,165.1	-	-	-
MW-12	Groundwater	55-921934	1014678.7	676009.7	1,873.2	1,873.6	785	9/5/2018	6 inch	Sch 80 PVC	690	780	1,183.6	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
MW-12-S	Soil Vapor	55-921934	1014679.0	676009.8	1,873.5	1,873.6	196	9/5/2018	1 inch	Sch 80 PVC	146	196	1,727.6	-	-	-
MW-12-M	Soil Vapor	55-921934	1014678.8	676009.5	1,873.4	1,873.6	396	9/5/2018	1 inch	Sch 80 PVC	346	396	1,527.6	-	-	-
MW-12-D	Soil Vapor	55-921934	1014679.2	676009.7	1,873.3	1,873.6	596	9/5/2018	2 inch	Sch 80 PVC	546	596	1,327.6	-	-	-
MW-13	Groundwater	55-229175	1016320.9	676680.0	1,900.7	1,900.0	802	11/10/2018	6 inch	Sch 80 PVC	707	797	1,193.0	-	-	-
MW-13-S	Soil Vapor	55-229175	1016321.0	676680.3	1,900.5	1,900.0	223	11/10/2018	1 inch	Sch 80 PVC	173	223	1,727.0	-	-	-
MW-13-M	Soil Vapor	55-229175	1016321.1	676680.0	1,900.5	1,900.0	423	11/10/2018	1 inch	Sch 80 PVC	373	423	1,527.0	-	-	-
MW-13-D	Soil Vapor	55-229175	1016320.9	676679.8	1,900.5	1,900.0	623	11/10/2018	2 inch	Sch 80 PVC	573	623	1,327.0	-	-	-
PW	Groundwater	55-503913	1015806.0	675722.2	1,882.0	1,881.4	820	10/1/1982	6 inch	LCS	680	810	1,201.4	-	-	Originally installed at 750 ft bgs; moved to 729 ft bgs on 6/25/2009. Pump removed 8/2017
SVE-01	Soil Vapor Extraction	55-917896	1015834.8	675971.9	-	1,882.1	610	5/18/2015	6 inch	Sch 80 PVC	120	600	1,762.1	-	-	-
SVE-01-S	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	180	200	1,702.1	-	-	-
SVE-01-M	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	360	380	1,522.1	-	-	-
SVE-01-D	Soil Vapor	55-917896	1015834.8	675971.9	1,882.1	1,882.1	610	5/18/2015	1 inch	Sch 80 PVC	480	500	1,402.1	-	-	-
SVE-02	Soil Vapor Extraction	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	6 inch	Sch 80 PVC	400	620	1,500.4	-	-	-
SVE-02-S	Soil Vapor	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	1 inch	Sch 80 PVC	150	170	1,750.4	-	-	-
SVE-02-M	Soil Vapor	55-917897	1015472.6	675617.9	1,900.4	1,900.4	630	5/5/2015	1 inch	Sch 80 PVC	300	350	1,600.4	-	-	-
SVE-03	Soil Vapor Extraction	55-920634	1015112.6	675423.8	1,907.5	1,905.1	655	8/8/2017	6 inch	Sch 80 PVC	530	650	1,375.1	-	-	-
SVE-03-S	Soil Vapor	55-920634	1015112.6	675423.8	1,907.5	1,905.1	200	8/8/2017	1 inch	Sch 80 PVC	180	200	1,725.1	-	-	-
SVE-03-M	Soil Vapor	55-920634	1015112.6	675423.8	1,907.5	1,905.1	400	8/8/2017	1 inch	Sch 80 PVC	380	400	1,525.1	-	-	-
SVE-04	Soil Vapor Extraction	55-920878	1015934.6	676182.8	1,893.0	1,890.8	644	10/4/2017	6 inch	Sch 80 PVC	514	639	1,376.8	-	-	-
SVE-04-S	Soil Vapor	55-920878	1015934.6	676182.8	1,893.0	1,890.8	185	10/4/2017	1 inch	Sch 80 PVC	165	185	1,725.8	-	-	-
SVE-04-M	Soil Vapor	55-920878	1015934.6	676182.8	1,893.0	1,890.8	385	10/4/2017	1 inch	Sch 80 PVC	365	385	1,525.8	-	-	-
TSSV-01-S	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	150	200	1,731.0	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
TSSV-01-M	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	350	400	1,531.0	-	-	-
TSSV-01-D	Soil Vapor	55-911519	1015918.8	675991.0	1,881.0	1,881.0	610	1/22/2010	2 inch	Sch 80 PVC	549	599	1,332.0	-	-	-
TSSV-02-S	Soil Vapor	55-915432	1015688.3	675875.9	1,880.2	1,881.4	210	5/3/2013	2 inch	Sch 80 PVC	150.3	200.3	1,731.1	-	-	-
TSSV-02-M	Soil Vapor	55-915432	1015688.3	675875.9	1,880.2	1,881.4	410	5/3/2013	2 inch	Sch 80 PVC	350.3	400.3	1,531.1	-	-	-
TSSV-02-D	Soil Vapor	55-915279	1015688.8	675860.8	1,880.2	1,881.2	609	4/24/2013	2 inch	Sch 80 PVC	549.3	599.3	1,331.9	-	-	-
TSSV-02-PZ	Groundwater	55-915279	1015688.8	675860.8	1,880.2	1,881.2	779	4/24/2013	2 inch	Sch 80 PVC	699.3	769.3	1,181.9	-	-	-
TSSV-03-S	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	230	4/26/2013	2 inch	Sch 80 PVC	170.5	220.5	1,731.3	-	-	-
TSSV-03-M	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	430	4/26/2013	2 inch	Sch 80 PVC	370.5	420.5	1,531.3	-	-	-
TSSV-03-D	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	629	4/26/2013	2 inch	Sch 80 PVC	569.5	619.5	1,332.3	-	-	-
TSSV-03-PZ	Groundwater	55-915281	1014061.5	675688.5	1,902.7	1,901.8	799	4/26/2013	2 inch	Sch 80 PVC	719.5	789.5	1,182.3	-	-	-
TSSV-03-P	Soil Vapor	55-915281	1014061.5	675688.5	1,902.7	1,901.8	73	4/26/2013	1 inch	Sch 80 PVC	60	70	1,841.8	-	-	-
TSSV-04-S	Soil Vapor	55-915282	1015319.7	675423.9	1,906.0	1,905.4	235	5/31/2013	2 inch	Sch 80 PVC	174.5	224.5	1,730.9	-	-	-
TSSV-04-M	Soil Vapor	55-915282	1015319.7	675423.9	1,906.0	1,905.4	435	5/31/2013	2 inch	Sch 80 PVC	374.5	424.5	1,530.9	-	-	-
TSSV-04-D	Soil Vapor	55-915629	1015319.7	675423.9	1,906.0	1,905.0	635	6/10/2013	2 inch	Sch 80 PVC	575	625	1,330.0	-	-	-
TSSV-04-PZ	Groundwater	55-915282	1015319.7	675423.9	1,906.0	1,905.8	804	5/31/2013	3 inch	Sch 80 PVC	723.5	793.5	1,182.3	-	-	-
TSSV-05-S	Soil Vapor	55-917870	1014659.1	675396.6	1,905.7	1,904.7	430	3/8/2015	2 inch	Sch 80 PVC	170	220	1,734.7	-	-	-
TSSV-05-M	Soil Vapor	55-917870	1014659.1	675396.6	1,905.7	1,904.7	430	3/8/2015	2 inch	Sch 80 PVC	370	420	1,534.7	-	-	-
TSSV-05-D	Soil Vapor	55-917892	1014659.1	675396.6	1,905.7	1,905.1	805	4/21/2015	2 inch	Sch 80 PVC	570	620	1,335.1	-	-	-
TSSV-05-PZ	Groundwater	55-917892	1014659.1	675396.6	1,905.7	1,905.1	805	4/21/2015	4 inch	Sch 80 PVC	720	790	1,185.1	-	-	-
TSSV-06-S	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	150	200	1,726.5	-	-	-
TSSV-06-M	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	350	400	1,526.5	-	-	-
TSSV-06-D	Soil Vapor	55-917894	1015997.6	675654.5	1,876.9	1,876.5	610	3/18/2015	2 inch	Sch 80 PVC	550	600	1,326.5	-	-	-
TSSV-06-PZ	Groundwater	55-917895	1015997.6	675654.5	1,876.9	1,876.1	794	4/8/2015	4 inch	Sch 80 PVC	700	785	1,176.1	-	-	-

Table 1. Well Construction Summary

Cave Creek Landfill, Maricopa County

WellName	Location Type	ADWR ID	Northing (NAD83SP Int'l Ft)	Easting (NAD83SP Int'l Ft)	TOC (ft amsl)	Ground Surface (ft amsl)	Total Well Depth (ft)	Date Installed	Casing Diameter (I.D.)	CasingType	Top Screen Depth (ft bgs)	Bottom Screen Depth (ft bgs)	Top Screen Elevation (ft amsl)	Pump Intake Depth (ft bgs)	Pump Intake Elevation (ft amsl)	Comment
TSSV-07-S	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	160	210	1,729.5	-	-	-
TSSV-07-M	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	360	410	1,529.5	-	-	-
TSSV-07-D	Soil Vapor	55-917947	1015855.0	676202.1	1,889.9	1,889.5	620	3/30/2015	2 inch	Sch 80 PVC	560	610	1,329.5	-	-	-
TSSV-07-PZ	Groundwater	55-917946	1015855.0	676202.1	1,889.9	1,889.0	795	4/13/2015	4 inch	Sch 80 PVC	710	780	1,179.0	-	-	-

Notes: LFG - Landfill Gas
ft - Feet
ft bgs - Feet below ground surface
ft amsl - Feet above mean sea level
I.D. - Inner Diameter
Pumps removed for wells MW-02 - MW-08 and PW 8/2017.

Table 2. Groundwater Elevation, Gradient, and Flow Direction

Cave Creek Landfill, Maricopa County

Groundwater Elevation by Well (ft amsl)

Well ID	Second Quarter 2018	Third Quarter 2018	Fourth Quarter 2018	First Quarter 2019	Second Quarter 2019
EW-01[(1)]	1156.65	1156.66	1156.63	1156.54	1156.22
PW	1162.96	1162.91	1162.73	1162.45	1162.43
MW-02	1156.78	1156.80	1156.79	1156.61	1156.32
MW-03	1157.50	1157.66	1157.71	1157.33	1157.32
MW-04	1156.30	1156.31	1156.39	1156.15	1155.97
MW-05	1155.98	1156.04	1155.94	1155.74	1155.56
MW-06	1155.21	1155.15	1155.21	1154.93	1154.91
MW-07	1156.31	1156.29	1156.40	1156.21	1156.13
MW-08	1162.58	1162.60	1162.47	1162.06	1162.01
MW-09	1161.62	1161.45	1161.30	1161.11	1160.98
MW-10	1158.47	1158.46	1158.40	1158.20	1158.02
MW-11	NM	NM	1154.12	1153.97	1154.03
MW-12	NM	NM	1158.69	1158.46	1158.02
MW-13	NM	NM	1163.27	1162.93	1162.80
TSSV-02-PZ[(1)]	1162.69	1162.66	1162.69	1161.70	1162.24
TSSV-03-PZ[(1)]	1158.04	1158.04	1157.87	1158.72	1158.47
TSSV-04-PZ*	1160.86	1160.65	1160.60	1163.90	1160.04
TSSV-05-PZ[(1)]	1160.54	1160.37	1160.34	1160.06	1159.78
TSSV-06-PZ[(1)]	1162.73	1162.64	1162.52	1162.16	1162.20
TSSV-07-PZ[(1)]	1162.62	1162.35	1162.04	1161.98	1161.84
Gradient (ft/ft)	0.002	0.002	0.002	0.002	0.002
Flow Direction (deg. from N)	176.2	177.5	176.7	174.3	176.2

Notes:

Flow direction measured in a clockwise rotation; North is 0 degrees, East is 90 degrees, South is 180 degrees, and West is 270 degrees.

deg. = degrees

ft amsl = Feet above mean sea level

ID = Identification

MW = Monitoring Well

NM = Not Measured

PW = Production Well

PZ = Piezometer

TSSV = Monitoring Well

* = not included in calculation of gradient or flow direction, all quarters

[(1)] = not included in calculation of gradient or flow direction starting in Fourth Quarter 2018

Table 3. Groundwater Analytical Results - Summary of VOC Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Sample Method	1,1-Dichloroethane	1,1-Dichloroethene	Benzene	Bromoform	Carbon disulfide	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Naphthalene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	Trichloroethene	Vinyl Chloride	Comments
EW-01																			
	5/23/2019	1,142.5	µg/L	PDB	<1	1.0	<1	<1	<5	<1	<1	1.9	<5	<1	<1	<1	23	<1	- -
MW-02																			
	5/23/2019	1,142.0	µg/L	PDB	3.2	2.2	<1	<1	<5	<1	<1	3.5	<5	4.3	<1	<1	97	<1	- -
MW-03																			
	5/22/2019	1,142.4	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	2.3	<1	- -
MW-04																			
	5/22/2019	1,141.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	15 ft bwt
	5/22/2019	1,116.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	40 ft bwt
	5/22/2019	1,106.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	50 ft bwt (10 ft above TD)
MW-05																			
	5/23/2019	1,141.1	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	62	<1	- -
MW-06																			
	5/22/2019	1,140.7	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.8	<1	- -
MW-07																			
	5/22/2019	1,141.6	µg/L	PDB	<1	1.0	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	32	<1	15 ft bwt
	5/22/2019	1,116.6	µg/L	PDB	<1	1.1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	28	<1	40 ft bwt
MW-08																			
	5/22/2019	1,147.1	µg/L	PDB	<1	5.3	<1	<1	<5	<1	<1	<1	<5	1.5	<1	<1	59	<1	- -
MW-09																			
	5/21/2019	1,146.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	22	<1	- -
	5/21/2019	1,146.8	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	21	<1	Duplicate
MW-10																			
	5/21/2019	1,143.3	µg/L	PDB	1.7	9.5	<1	<1	<5	<1	1.5	25	<5	11	<1	<1	310	<1	- -
MW-11																			
	5/22/2019	1,138.8	µg/L	PDB	<1	1.3	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	26	<1	15 ft bwt
	5/22/2019	1,138.8	µg/L	PDB	<1	1.2	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	26	<1	Duplicate
	5/22/2019	1,113.8	µg/L	PDB	<1	1.3	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	25	<1	40 ft bwt
AWQS:					**N/A**	**7**	**5**	**80**	**N/A**	**100**	**80**	**70**	**N/A**	**5**	**1,000**	**100**	**5**	**2**	

Table 3. Groundwater Analytical Results - Summary of VOC Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Sample Method	1,1-Dichloroethane	1,1-Dichloroethene	Benzene	Bromoform	Carbon disulfide	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Naphthalene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	Trichloroethene	Vinyl Chloride	Comments
MW-11																			
	5/22/2019	1,084.8	µg/L	PDB	<1	1.3	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	25	<1	69 ft bwt (10 ft above TD)
MW-12																			
	5/23/2019	1,144.2	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
MW-13																			
	5/21/2019	1,148.7	µg/L	PDB	<1	3.7	<1	<1	<5	<1	<1	1.1	<5	1.7	<1	<1	6.0	<1	Duplicate
	5/21/2019	1,148.7	µg/L	PDB	<1	3.6	<1	<1	<5	<1	<1	1.1	<5	1.7	<1	<1	5.9	<1	- -
PW																			
	5/21/2019	1,148.0	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
TSSV-02-PZ																			
	5/21/2019	1,148.2	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	<1	<1	- -
TSSV-03-PZ																			
	5/23/2019	1,142.7	µg/L	PDB	1.1	3.1	<1	<1	<5	<1	<1	9.4	<5	3.3	<1	<1	140	<1	- -
TSSV-04-PZ																			
	5/23/2019	1,146.0	µg/L	PDB	<1	6.0	<1	<1	<5	<1	<1	7.7	<5	5.7	<1	<1	96	<1	- -
TSSV-05-PZ																			
	5/23/2019	1,145.7	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	3.4	<1	- -
TSSV-06-PZ																			
	5/21/2019	1,147.9	µg/L	PDB	<1	1.0	<1	<1	<5	<1	<1	<1	<5	1.5	<1	<1	9.8	<1	- -
TSSV-07-PZ																			
	5/21/2019	1,147.9	µg/L	PDB	<1	<1	<1	<1	<5	<1	<1	<1	<5	<1	<1	<1	1.2	<1	- -
AWQS:					**N/A**	**7**	**5**	**80**	**N/A**	**100**	**80**	**70**	**N/A**	**5**	**1,000**	**100**	**5**	**2**	

Table 3. Groundwater Analytical Results - Summary of VOC Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Sample Method	1,1-Dichloroethane	1,1-Dichloroethene	Benzene	Bromoform	Carbon disulfide	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	Naphthalene	Tetrachloroethene	Toluene	trans-1,2-dichloroethene	Trichloroethene	Vinyl Chloride	Comments
AWQS:					**N/A**	**7**	**5**	**80**	**N/A**	**100**	**80**	**70**	**N/A**	**5**	**1,000**	**100**	**5**	**2**	

Notes: AWQS - Aquifer Water Quality Standard
Grey text indicates result was less than the reporting limit
Red text indicates a result detected above the AWQS
µg/L - micrograms per liter
ft amsl - feet above mean sea level
bwt - below water table
PDB - Passive Diffusion Bag
TD - Total Depth
VOC - Volatile Organic Compound
Analytical method is VOCs by SW 8260B unless otherwise noted.
- = data not applicable or not available
* = approximate sample location
B1 = Method blank: Target analyte detected in method blank at or above the method reporting limit.
D2 = Dilution: Sample required dilution due to high concentration of target analyte. See case narrative.
E4 = Estimated Concentration: Concentration estimated. Analyte was detected below laboratory minimum reporting level limit (mrl).
E8 = Analyte reported to mdl per project specification. Target analyte was not detected in the sample.
H1 = Hold time: Sample analysis performed past holding time.
M3 = Matrix spike: The spike recovery value is unusable the analyte concentration in the sample is disproportionate to the spike level the associated blank spike recovery was acceptable
N1 = General: see case narrative.
V1 = Calibration verification: CCV recovery was above method acceptance limits. This target analyte was not detected in the sample

Table 4. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
MW-09																					
	6/4/2019	1,179.2	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	<99.0	110	<139	<136	<118	1,360	<25.6	- -
MW-09-S																					
	6/4/2019	1,724.2	µg/m³	<59.5	<73.8	<11.5	<12.2	<10.1	<10.1	<9.93	<9.90	<9.90	27.5	<24.8	<19.2	<34.7	197	<29.5	<13.4	<6.40	- -
MW-09-M																					
	6/4/2019	1,524.2	µg/m³	<119	<148	<23.0	<24.4	113	<20.3	<19.9	24.9	<19.8	232	206	364	223	763	<59.0	306	<12.8	- -
MW-09-D																					
	6/4/2019	1,329.2	µg/m³	<59.5	<73.8	<11.5	<12.2	<10.1	<10.1	<9.93	<9.90	<9.90	52.0	74.3	118	<34.7	135	<29.5	703	<6.40	- -
MW-10																					
	6/4/2019	1,177.4	µg/m³	<238	<295	<46.0	140	4,460	<40.5	1,180	116	<39.6	8,710	18,500	1,990	<139	4,850	118	7,200	50.7	- -
MW-10-S																					
	6/4/2019	1,727.4	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	886	2,690	176	<139	1,040	<118	<53.7	<25.6	- -
MW-10-M																					
	6/4/2019	1,527.4	µg/m³	<1,190	<1,480	<230	<244	2,820	<203	1,310	404	<198	10,800	12,900	2,260	<694	6,140	<590	1,360	<128	- -
MW-10-D																					
	6/4/2019	1,327.4	µg/m³	<2,380	<2,950	<460	<488	10,600	<405	1,230	<396	<396	7,480	22,600	1,210	2,070	7,390	<1,180	3,180	<256	- -
MW-11																					
	6/6/2019	1,165.1	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	17.0	<11.8	13.3	<2.56	- -
	6/6/2019	1,165.1	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	15.3	<11.8	14.7	<2.56	Duplicate
MW-12																					
	6/6/2019	1,183.6	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	<11.8	<5.37	<2.56	- -
MW-12-S																					
	6/6/2019	1,727.6	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	7.08	12.7	101	<13.9	89.5	<11.8	63.5	<2.56	- -
MW-12-M																					
	6/6/2019	1,527.6	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	123	245	1,470	<139	157	<118	59.1	<25.6	- -

Table 4. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
MW-12-D																					
	6/6/2019	1,327.6	µg/m³	258	<73.8	<11.5	<12.2	<10.1	<10.1	<9.93	<9.90	<9.90	<14.1	<24.8	36.8	<34.7	41.4	<29.5	26.6	<6.40	- -
PW																					
	6/17/2019	1,201.4	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	57.0	<39.6	<56.2	<99.0	233	<139	255	<118 R6	2,400	<25.6	- -
SVE-01																					
	6/17/2019	1,762.1	µg/m³	<238	<295	1,660	136	<40.5	<40.5	47.6	355	<39.6	85.4	<99.0	228	<139	590	<118 R6	3,980	<25.6	- -
SVE-01-S																					
	6/14/2019	1,702.1	µg/m³	<238	<295	178	126	<40.5	<40.5	54.8	80.0	<39.6	116	<99.0	211	<139	689	<118 R6	4,330	<25.6	- -
SVE-01-M																					
	6/14/2019	1,522.1	µg/m³	<238	<295	984	149	<40.5	<40.5	64.3	283	<39.6	138	<99.0	294	<139	681	<118 R6	4,400	<25.6	- -
SVE-01-D																					
	6/14/2019	1,402.1	µg/m³	<238	<295	1,130	143	<40.5	<40.5	57.2	271	<39.6	132	<99.0	267	<139	728	<118 R6	4,170	<25.6	- -
SVE-02																					
	6/17/2019	1,500.4	µg/m³	<238	<295	<46.0	181	<40.5	<40.5	46.8	169	<39.6	91.0	186	322	<139	1,200	<118 R6	6,770	44.5	- -
SVE-03																					
	6/17/2019	1,375.1	µg/m³	<2,380	<2,950	<460	<488	<405	<405	2,040	3,800	<396	1,770	4,200	8,270	<1,390	4,680	<1,180 R6	44,900	<256	- -
SVE-03-M																					
	6/17/2019	1,525.1	µg/m³	<59.5	<73.8	44.2	95.2	19.6	<10.1	<9.93	26.3	<9.90	262	239	134	281	1,060	79.2 R6	771	<6.40	- -
SVE-04																					
	6/17/2019	1,376.8	µg/m³	<11,900	<14,800	5,570	<2,440	<2,030	<2,030	86,500	19,500	<1,980	<2,810	<4,950	47,900	128,000	31,800	<5,900	121,000	<1,280	- -
SVE-04-M																					
	6/17/2019	1,525.8	µg/m³	<1,190	<1,480	14,100	<244	<203	<203	<199	2,340	<198	292	<495	<383	<694	3,510	<590	4,170	<128	- -
TSSV-01-S																					
	6/14/2019	1,731.0	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	<99.0	98.0	<139	<136	<118 R6	1,350	<25.6	- -

Table 4. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
TSSV-01-M																					
	6/14/2019	1,531.0	µg/m³	<476	<590	1,060	213	<81.0	<81.0	<79.4	91.9	<79.2	<112	<198	<153	<278	499	264 R6	4,740	<51.2	- -
	6/14/2019	1,531.0	µg/m³	<1,190	<1,480	3,170	659	<203	<203	<199	313	<198	<281	<495	<383	<694	1,460	1,250	13,300	<128	Duplicate
TSSV-01-D																					
	6/14/2019	1,332.0	µg/m³	<1,190	<1,480	547	1,020	<203	<203	286	3,370	<198	<281	<495	766	<694	1,430	<590	19,000	<128	- -
TSSV-02-S																					
	6/10/2019	1,731.2	µg/m³	<23.8	<29.5	<4.60	<4.88	<4.05	<4.05	<3.97	<3.96	<3.96	<5.62	<9.90	<7.66	<13.9	<13.6	35.2	37.9	<2.56	- -
TSSV-02-M																					
	6/10/2019	1,531.2	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	<99.0	<76.6	<139	<136	<118	1,200	<25.6	- -
TSSV-02-D																					
	6/10/2019	1,331.9	µg/m³	<1,190	<1,480	<230	<244	<203	<203	<199	1,090	<198	<281	<495	513	<694	<678	<590	6,870	<128	- -
TSSV-02-PZ																					
	6/10/2019	1,181.9	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	61.9	1,070	<39.6	<56.2	<99.0	<76.6	<139	<136	<118	542	<25.6	- -
TSSV-03-S																					
	6/7/2019	1,731.3	µg/m³	<238	<295	<46.0	<48.8	406	<40.5	<39.7	871	<39.6	299	4,490	123	495	2,950	<118	477	34.3	- -
TSSV-03-M																					
	6/7/2019	1,531.3	µg/m³	<238	<295	<46.0	<48.8	1,500	<40.5	69.9	294	<39.6	3,130	8,960	761	1,290	2,280	<118	620	<25.6	- -
TSSV-03-PZ																					
	6/7/2019	1,182.3	µg/m³	<238	<295	<46.0	<48.8	335	<40.5	163	159	<39.6	3,040	3,820	706	<139	1,580	<118	3,340	<25.6	- -
TSSV-04-S																					
	6/10/2019	1,730.9	µg/m³	<23.8	<29.5	<4.60	86.6	14.0	<4.05	4.05	39.1	<3.96	68.3	193	<7.66	<13.9	319	<11.8	284	<2.56	- -
TSSV-04-D																					
	6/10/2019	1,330.0	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	114	154	<39.6	<56.2	129	2,150	<139	797	<118	5,090	<25.6	- -
TSSV-04-PZ																					
	6/10/2019	1,182.2	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	72.9	377	<39.6	<56.2	<99.0	1,450	<139	367	<118 R6	2,750	28.7	- -

Table 4. Soil Vapor Analytical Results - Wellhead TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Well Name	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chlorobenzene	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comments
TSSV-05-D																					
	6/7/2019	1,335.1	µg/m³	<238	<295	<46.0	146	3,490	<40.5	610	1,320	<39.6	7,530	20,200	2,580	1,010	5,610	<118	2,640	<25.6	- -
TSSV-05-PZ																					
	6/7/2019	1,185.1	µg/m³	<238	<295	<46.0	<48.8	<40.5	<40.5	66.7	81.6	<39.6	681	1,120	291	<139	500	<118	3,670	<25.6	- -
	6/7/2019	1,185.1	µg/m³	<238	<295	<46.0	<48.8	89.9	<40.5	75.4	101	<39.6	962	1,830	331	<139	719	<118	5,140	<25.6	Duplicate
TSSV-06-S																					
	6/5/2019	1,726.5	µg/m³	<238	<295	<46.0	69.3	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	<99.0	446	<139	673	<118	3,820	<25.6	- -
TSSV-06-D																					
	6/5/2019	1,326.5	µg/m³	<238	<295	<46.0	166	<40.5	<40.5	<39.7	413	<39.6	<56.2	<99.0	775	<139	450	<118	3,620	<25.6	- -
TSSV-07-S																					
	6/5/2019	1,729.5	µg/m³	<59.5	<73.8	<11.5	50.3	<10.1	<10.1	<9.93	<9.90	<9.90	483	71.5	34.1	<34.7	150	<29.5	566	<6.40	- -
TSSV-07-D																					
	6/5/2019	1,329.5	µg/m³	<11,900	<14,800	<2,300	<2,440	<2,030	<2,030	55,600	8,120	<1,980	<2,810	<4,950	23,100	<6,940	9,290	<5,900	185,000	<1,280	- -
	6/5/2019	1,329.5	µg/m³	<11,900	<14,800	<2,300	<2,440	<2,030	<2,030	46,800	6,810	<1,980	<2,810	<4,950	18,100	<6,940	9,900	<5,900	156,000	<1,280	Duplicate
TSSV-07-PZ																					
	6/6/2019	1,179.0	µg/m³	<2,380	<2,950	<460	<488	<405	<405	10,200	5,940	<396	<562	<990	5,870	<1,390	7,730	<1,180	22,200	374	- -

Notes: Grey text indicates a non-detected compound
µg/m³ - micrograms per cubic meter
ft amsl - feet above mean sea level
- = data not applicable or not available
L5 = Laboratory fortified blank/blank spike: The associated blank spike recovery was below method acceptance limits.

Table 5. Soil Vapor Analytical Results - Process Sample TO-15 Analysis Data

Cave Creek Landfill, Maricopa County

Sample Location Identifier	Sample Date	Sample Elevation (ft amsl)	Units	Acetone	2-Butanone (MEK)	Chloroform	Chlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Freon 11	Freon 12	Freon 113	Methylene chloride	Tetrachloroethene	Tetrahydrofuran	Trichloroethene	Vinyl Chloride	Comment
SP-01																					
	4/17/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	77,800	19,900	<3,960	<5,620	<9,900	54,400	113,000	49,100	<11,800	215,000	<2,560	- -
	5/15/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	68,300	13,300	<3,960	<5,620	<9,900	37,300	88,500	29,800	<11,800	136,000	<2,560	- -
	6/19/2019	-	µg/m³	<23,800	<29,500	<4,880	<4,600	<4,050	<4,050	36,600	8,000	<3,960	<5,620	<9,900	29,600	59,300	18,400	<11,800	97,700	<2,560	- -
SP-02																					
	4/17/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	5,520	<1,980	<1,980	<2,810	5,690	<3,830	151,000	<6,780	<5,900	<2,690	<1,280	- -
	5/15/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	1,990	<1,980	<1,980	<2,810	5,540	<3,830	99,900	<6,780	<5,900	2,740	<1,280	- -
	6/19/2019	-	µg/m³	<476	<590	<97.6	<92.0	<81.0	<81.0	<79.4	<79.2	<79.2	<112	1,940	<153	86,400	<271	<236	<107	95.2	- -
SP-03																					
	4/17/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990	<1,980	<1,980	<2,810	<4,950	<3,830	82,200	<6,780	<5,900	<2,690	<1,280	- -
	5/15/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990	<1,980	<1,980	<2,810	6,040	<3,830	105,000	<6,780	<5,900	6,340	<1,280	- -
	6/19/2019	-	µg/m³	<238	<295	<48.8	<46.0	<40.5	<40.5	<39.7	<39.6	<39.6	<56.2	2,840	<76.6	<139	<136	<118	<53.7	147	- -
SP-04																					
	4/17/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990	<1,980	<1,980	<2,810	6,440	<3,830	108,000	<6,780	<5,900	<2,690	<1,280	- -
	5/15/2019	-	µg/m³	<11,900	<14,800	<2,440	<2,300	<2,030	<2,030	<1,990	<1,980	<1,980	<2,810	6,830	<3,830	96,500	<6,780	<5,900	8,380	<1,280	- -
	6/19/2019	-	µg/m³	<119	<148	<24.4	<23.0	<20.3	<20.3	<19.9	<19.8	<19.8	<28.1	1,760	<38.3	<69.4	<67.8	<59.0	<26.9	183	- -

Notes: Grey text indicates a non-detected compound
µg/m³ - micrograms per cubic meter
ft amsl - feet above mean sea level
- = data not applicable or not available
L5 = Laboratory fortified blank/blank spike: The associated blank spike recovery was below method acceptance limits.
R6 = Duplicates: lfb/lfbd rpd exceeded the method control acceptance limit. Recovery met acceptance criteria

Table 6. Soil Vapor Extraction Mass Removal

Cave Creek Landfill, Maricopa County

Date of Reading [Mon-DD-YR]	Blower Hour Meter Reading [hrs]	Time Operated Since Last Reading [hrs]	System Uptime [%]	VOC Concentration in Extracted Soil Vapor [mg/m^3]	SVE Flow Rate [scfm]	Hourly Rate of VOC Mass Extracted [lbs/hr]	VOC Mass Removed Since Last Reading [lbs]	Total VOC Mass Extracted Since Startup [lbs]
1/16/2019	22,131	286	43	518	934	1.81	574	37,880
3/4/2019	23,039	908	81	396	927	1.38	1,646	39,526
3/20/2019	23,418	379	99	178	932	0.62	521	40,047
4/17/2019	24,082	664	99	313	907	1.06	413	40,460
5/15/2019	24,747	665	99	218	909	0.74	707	41,167
6/19/2019	25,467	720	86	142	901	0.48	534	41,702

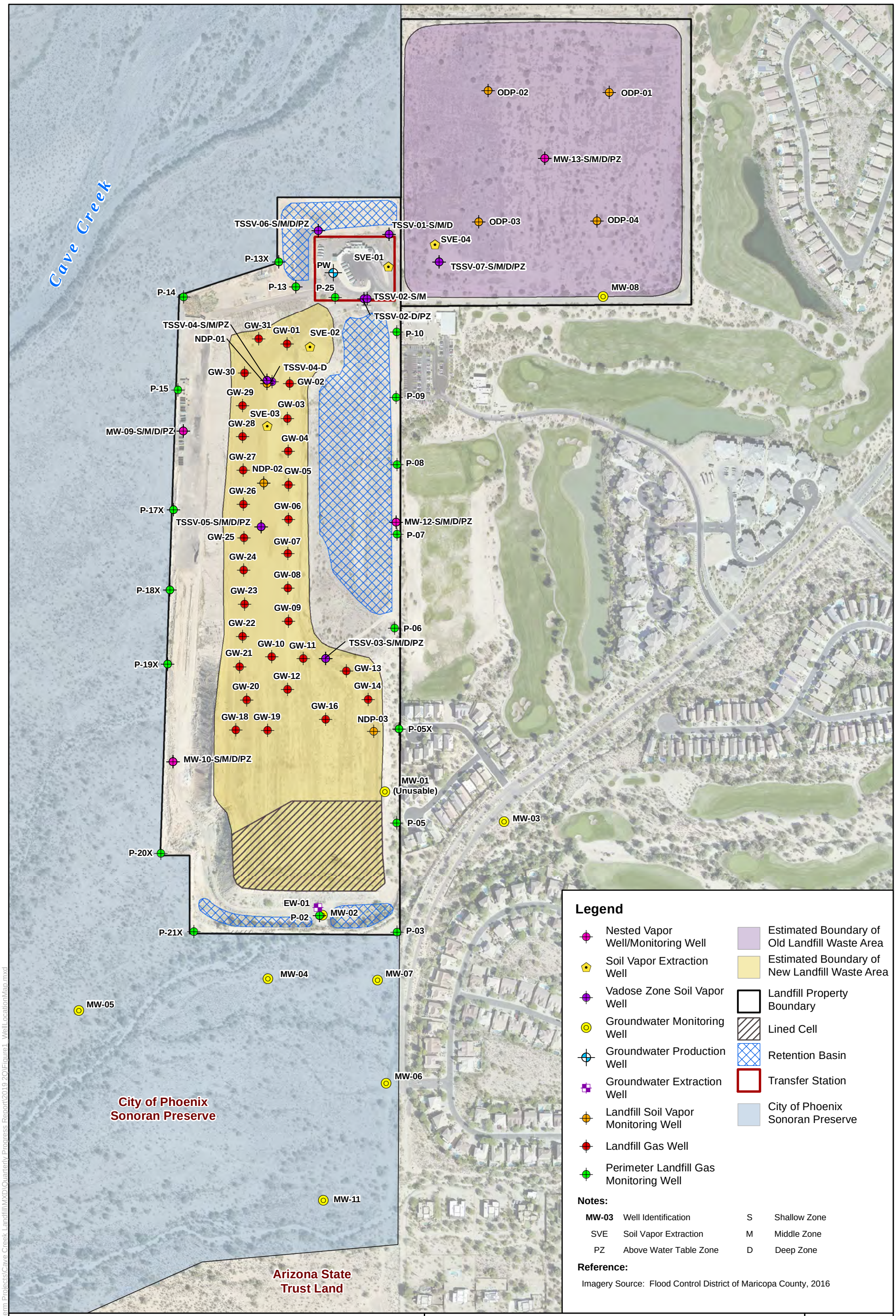
Notes:

Startup of the full-scale SVE system occurred on September 15, 2015. Mass totals presented in this table reflect full-scale SVE operations only.

Acronyms and Abbreviations:

DD - day of the month
hrs - hours
lbs - pounds
lbs/hr - pounds per hour
mg/m^3 - milligrams per cubic meter
Mon - month
scfm - standard cubic feet per minute
YR - year
VOC - Volatile Organic Compound per Maricopa County Air Quality Department Rule 100 Section 200.113

FIGURES



Job No.	1420192004
PM:	DF
Date:	8/13/2019
Scale:	1" = 400'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

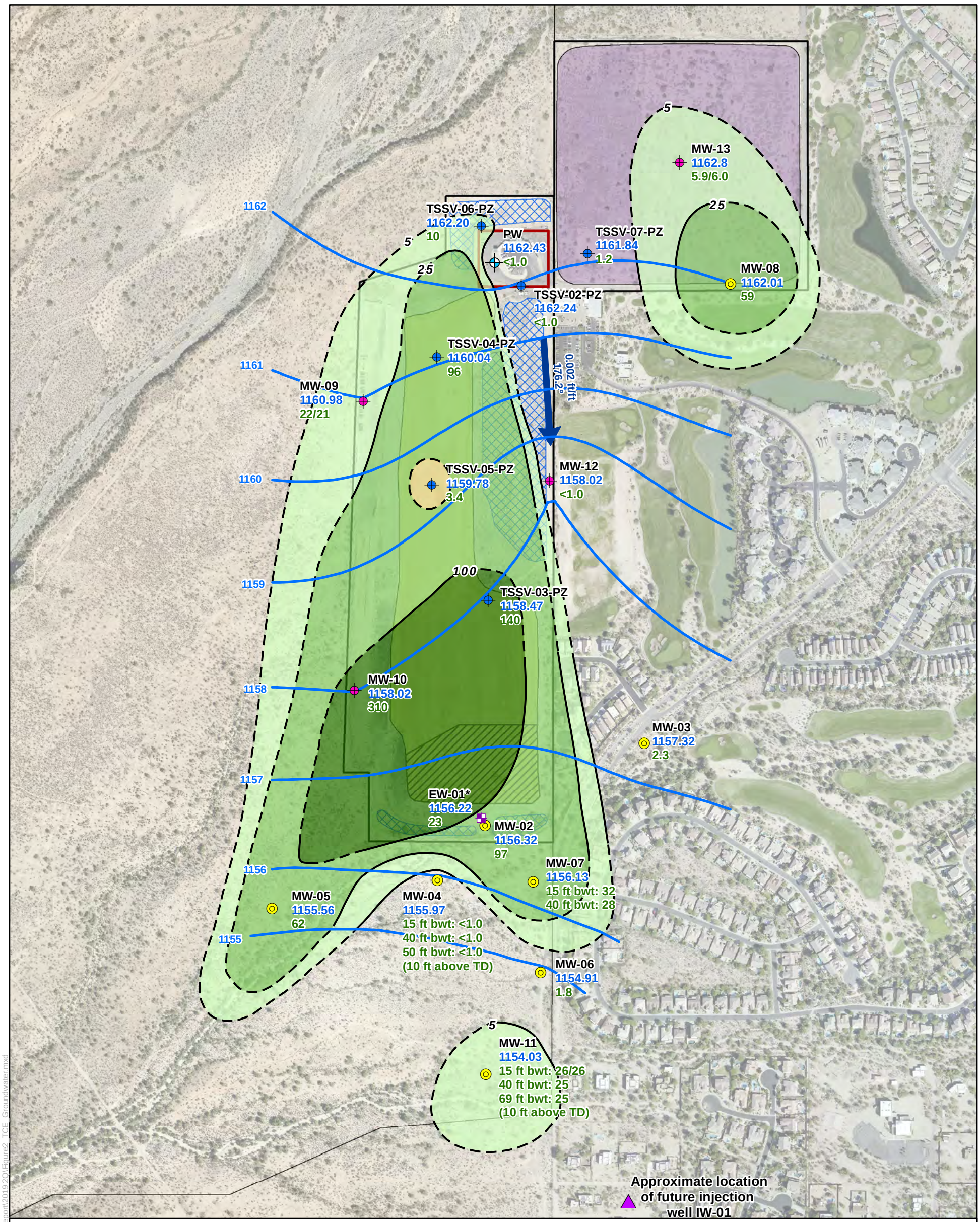
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Well Map

FIGURE
1

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure1_WellLocationMap.mxd



Legend

TCE Concentrations (µg/L) in Groundwater
(Dashed Where Inferred)

- 5-25
- 25-100
- 100-500

- Nested Vapor Well/ Monitoring Well
- Production Well
- Nested Vapor Well/ Piezometer
- Groundwater Monitoring Well
- Groundwater Extraction Well

- Groundwater Elevation Contour (ft amsl) based upon May 2019 Data
- Groundwater Flow Direction (degrees) Groundwater Flow Gradient (ft/ft)
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

MW-06	Well Identification
1154.93	Groundwater Elevation (ft amsl) collected in May 2019
1.3	TCE Concentration (µg/L) collected in May 2019
22/22	Original/Duplicate Results
ND	Not Detected
*	EW-01 has a different screen interval and concentrations in this well are not comparable to the others on this figure.
bwt	Below water table
µg/L	microgram per liter
ft amsl	feet above mean sea level
TCE	Trichloroethene
TD	Total Depth

Reference:
Imagery Source: Flood Control District of Maricopa County, 2016

0 250 500 1,000 Feet

Job No.	1420192004
PM:	DF
Date:	8/20/2019
Scale:	1" = 500'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

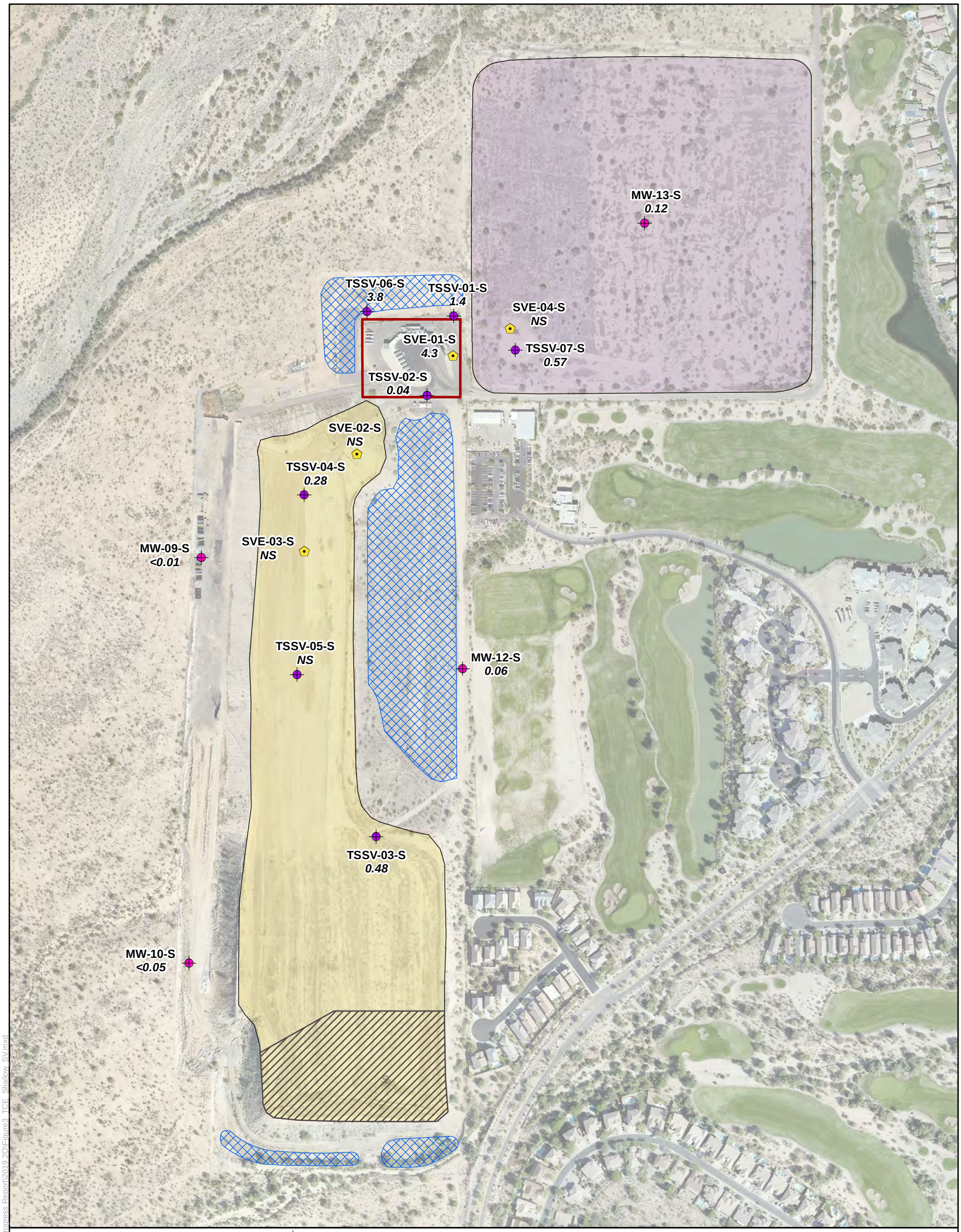
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Estimated Extent of TCE Plume in Groundwater May 2019

FIGURE **2**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure2_TCE_Groundwater.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

No concentrations exceeded 10 mg/m³ this quarter

- Nested Vapor Well/Monitoring Well
- Soil Vapor Extraction Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

TSSV-02-S	Well Identification
3.3	TCE soil gas result (mg/m³) collected June 2019
0.87/0.81	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1702-1750 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	8/12/2019
Scale:	1" = 350'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

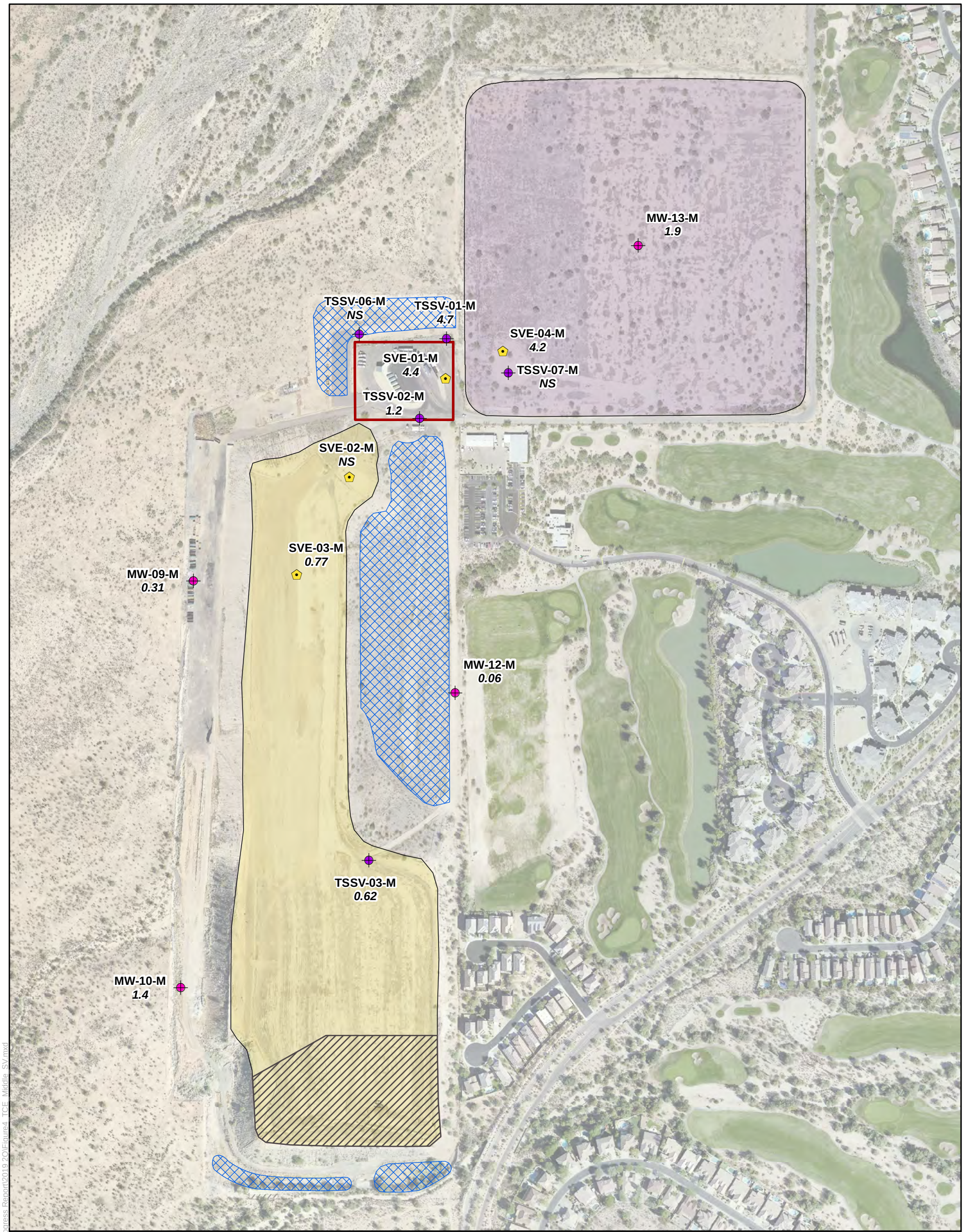
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Shallow Zone TCE Soil Vapor Concentrations June 2019

FIGURE **3**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure3_TCE_Shallow_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

No concentrations exceeded 10 mg/m³ this quarter

- Nested Vapor Well/Monitoring Well
- Soil Vapor Extraction Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

TSSV-07-M	Well Identification
1.6	TCE soil gas result (mg/m³) collected June 2019
28/29	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1522-1600 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	NC
Date:	8/12/2019
Scale:	1" = 350'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

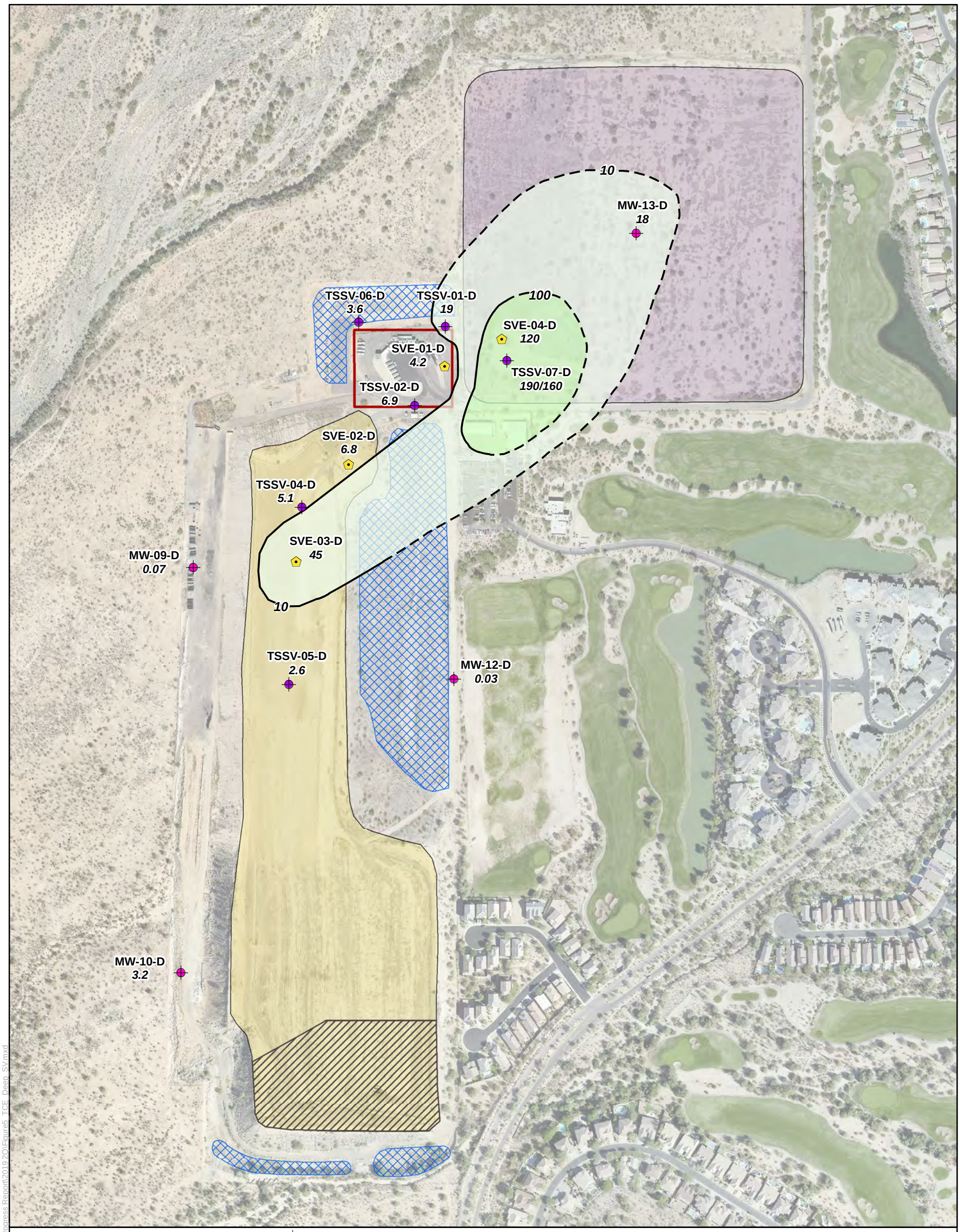
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Middle Zone TCE Soil Vapor Concentrations June 2019

FIGURE **4**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure4_TCE_Middle_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor

(Dashed Where Inferred)

10-100

100-250

- Nested Vapor Well/Monitoring Well
- Soil Vapor Extraction Well
- Vadose Zone Soil Vapor Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

TSSV-01-D	Well Identification
47	TCE soil gas result (mg/m³) collected June 2019
160/130	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1327-1500 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	8/20/2019
Scale:	1" = 350'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

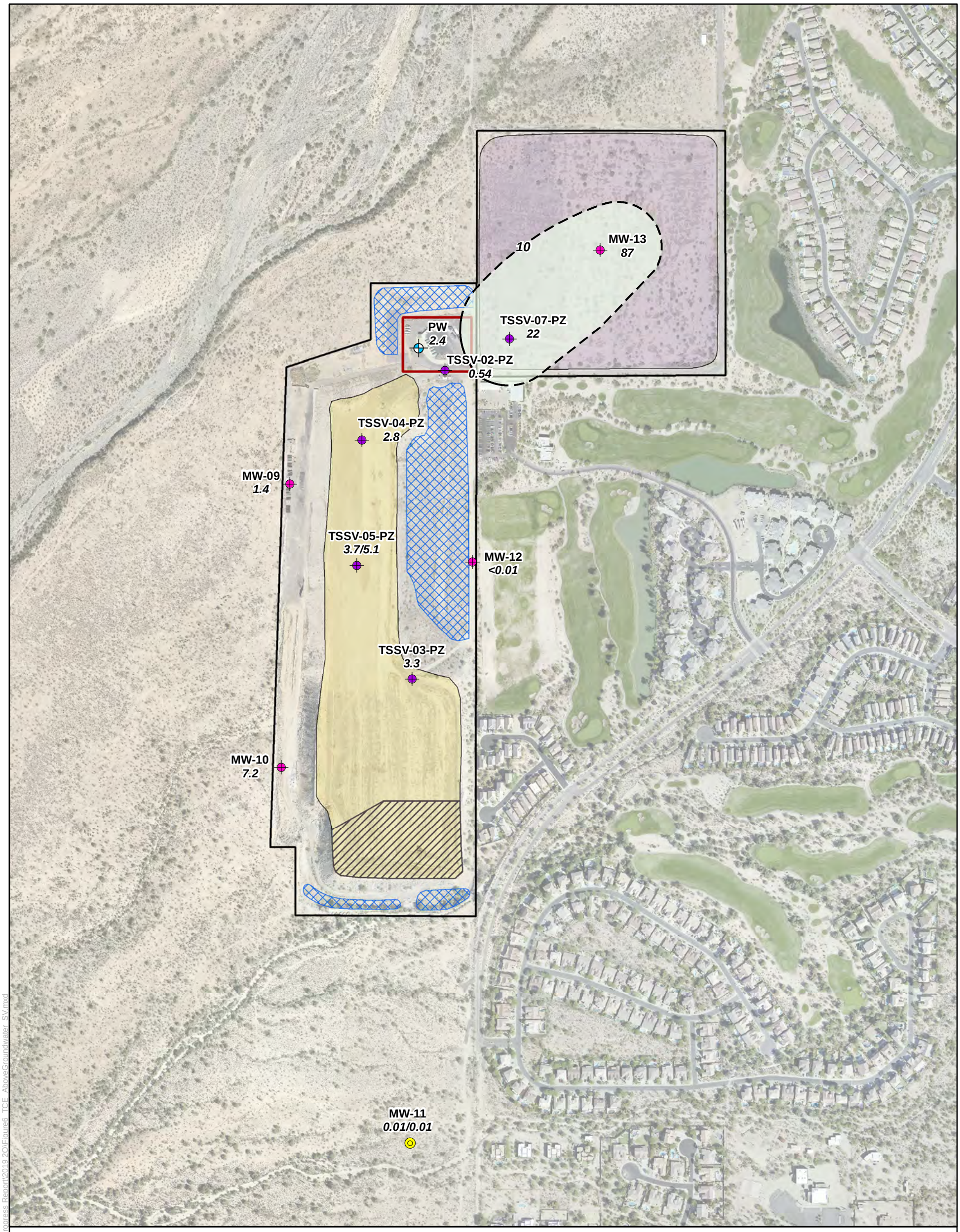
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Deep Zone TCE Soil Vapor Concentrations
June 2019

FIGURE
5

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure5_TCE_Deep_SV.mxd



Legend

TCE Concentrations (mg/m³) in Soil Vapor
(Dashed Where Inferred)

10-100

- Nested Vapor Well/Monitoring Well
- Deep Soil Vapor Well
- Groundwater Monitoring Well
- Production Well
- Estimated Boundary of Old Landfill Waste Area
- Estimated Boundary of New Landfill Waste Area
- Landfill Property Boundaries
- Lined Cell
- Retention Basin
- Transfer Station

Notes:

MW-09	Well Identification
83	TCE soil gas result (mg/m³) collected June 2019
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
TCE	Trichloroethene

Range of Vapor Well Screen Intervals: 1162-1201 ft amsl

Reference:
Imagery Source: Flood Control District of Maricopa County, 2016

0 250 500 750 1,000 Feet

Job No.:	1420192004
PM:	DF
Date:	8/13/2019
Scale:	1" = 500'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

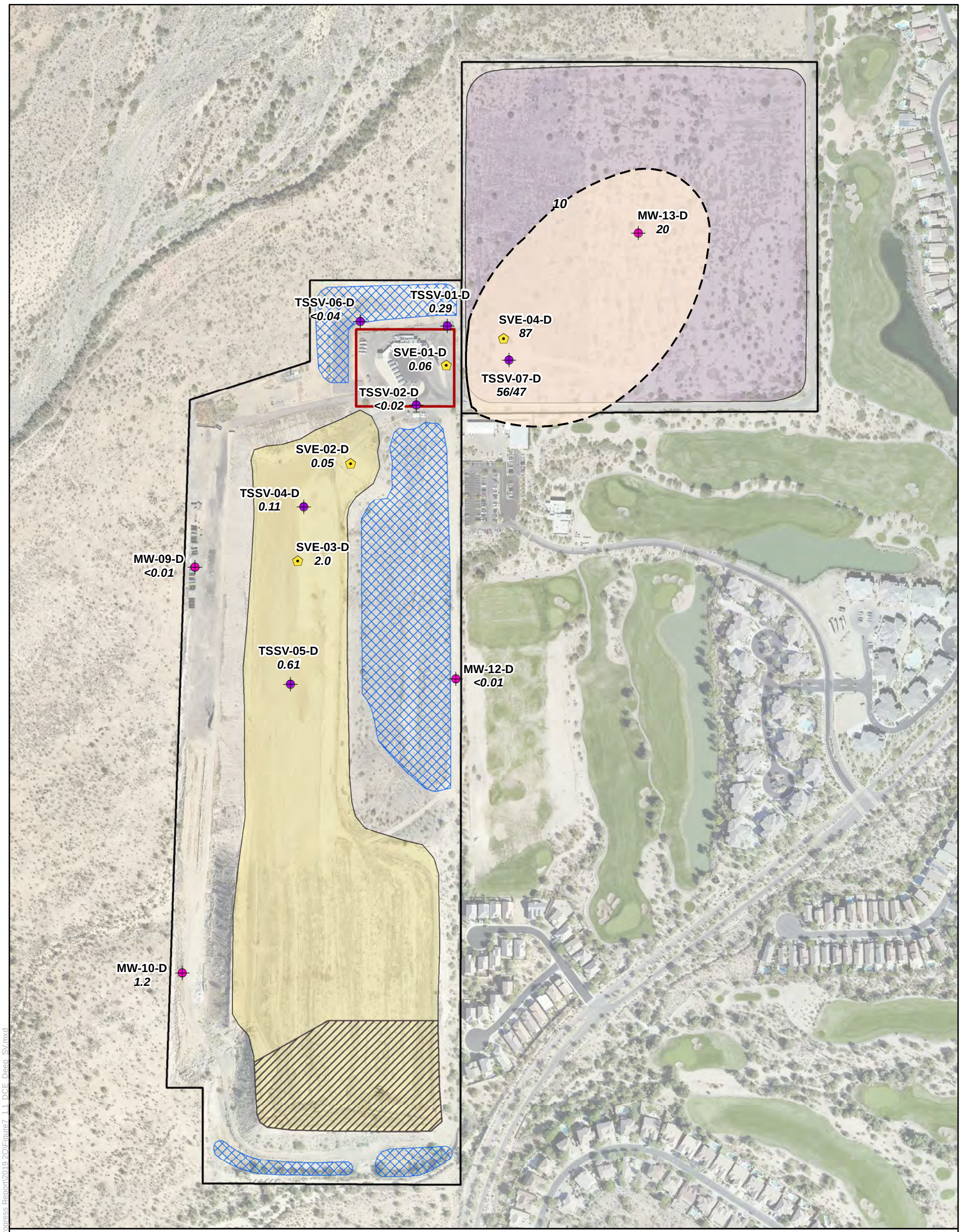
2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

Above Water Table TCE Soil Vapor Concentrations June 2019

FIGURE **6**

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure6_TCE_AboveGroundwater_SV.mxd



Legend

1,1-DCE Concentrations (mg/m³) in Soil Vapor

10-100

Nested Vapor Well/Monitoring Well

Vadose Zone Soil Vapor Well

Soil Vapor Extraction Well

Estimated Boundary of Old Landfill Waste Area

Estimated Boundary of New Landfill Waste Area

Landfill Property Boundaries

Lined Cell

Retention Basin

Transfer Station

Notes:

MW-13-D	Well Identification
3.9	1,1-DCE soil gas result (mg/m³) collected June 2019
52/41	Duplicate Result
ft amsl	Feet above mean sea level
mg/m³	Milligram per cubic meter
NS	Not Sampled
1,1-DCE	1,1-Dichloroethene

Range of Vapor Well Screen Intervals: 1327-1500 ft amsl

Reference:

Imagery Source: Flood Control District of Maricopa County, 2016

0 175 350 525 700 Feet

Job No.:	1420192004
PM:	DF
Date:	8/13/2019
Scale:	1" = 350'

N

The map shown here has been created with all due and reasonable care and is strictly for use with Wood Environment & Infrastructure Solutions, Inc. Project Number 1420192004. This map has not been certified by a licensed land surveyor, and any third party use of this map comes without warranties of any kind. Wood Environment & Infrastructure Solutions, Inc. assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.

2019 2nd Quarter Progress Report
Maricopa County Cave Creek Landfill
Phoenix, Arizona

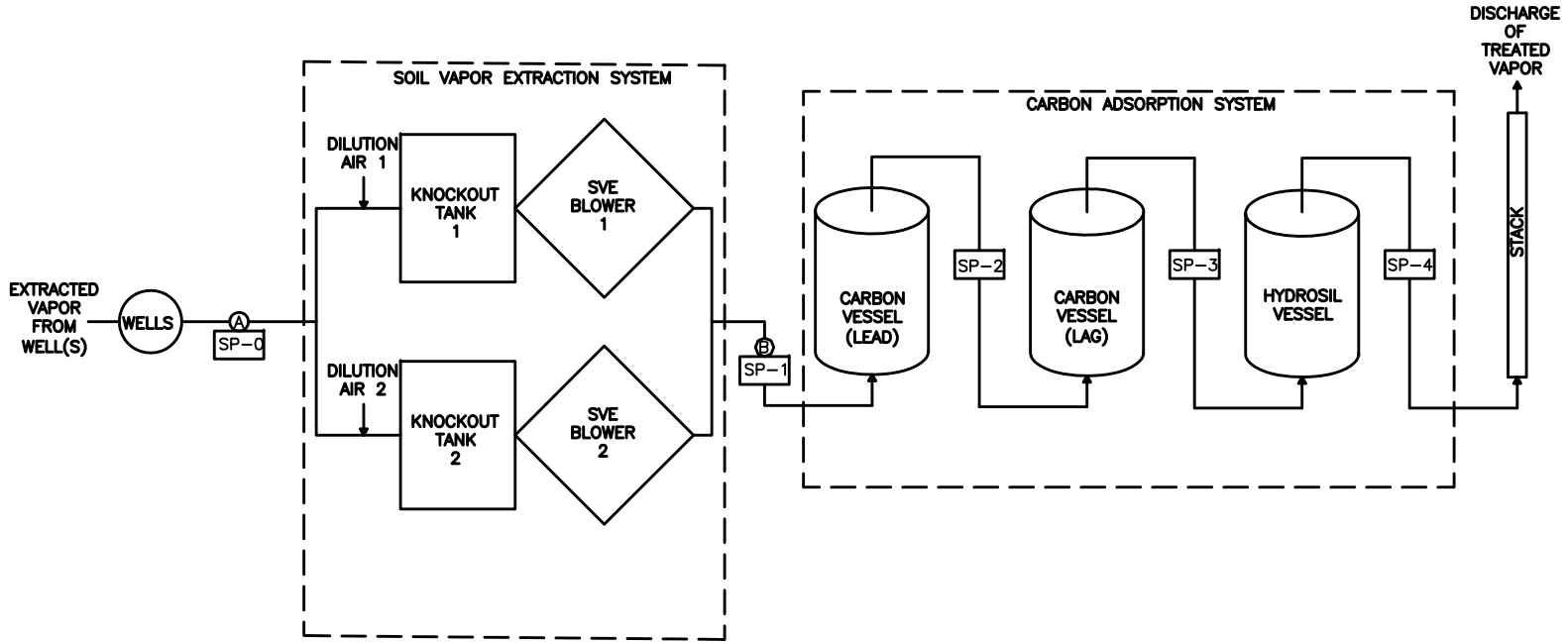
Deep Zone 1,1-DCE Soil Vapor Concentrations
June 2019

FIGURE
7

wood.

Path: X:\Projects\20-Longterm Projects\Cave Creek Landfill\MXD\Quarterly Progress Report\2019 2Q\Figure7_1,1_DCE_Deep_SV.mxd

PRESSURE FLOW THROUGH CARBON ADSORPTION SYSTEM



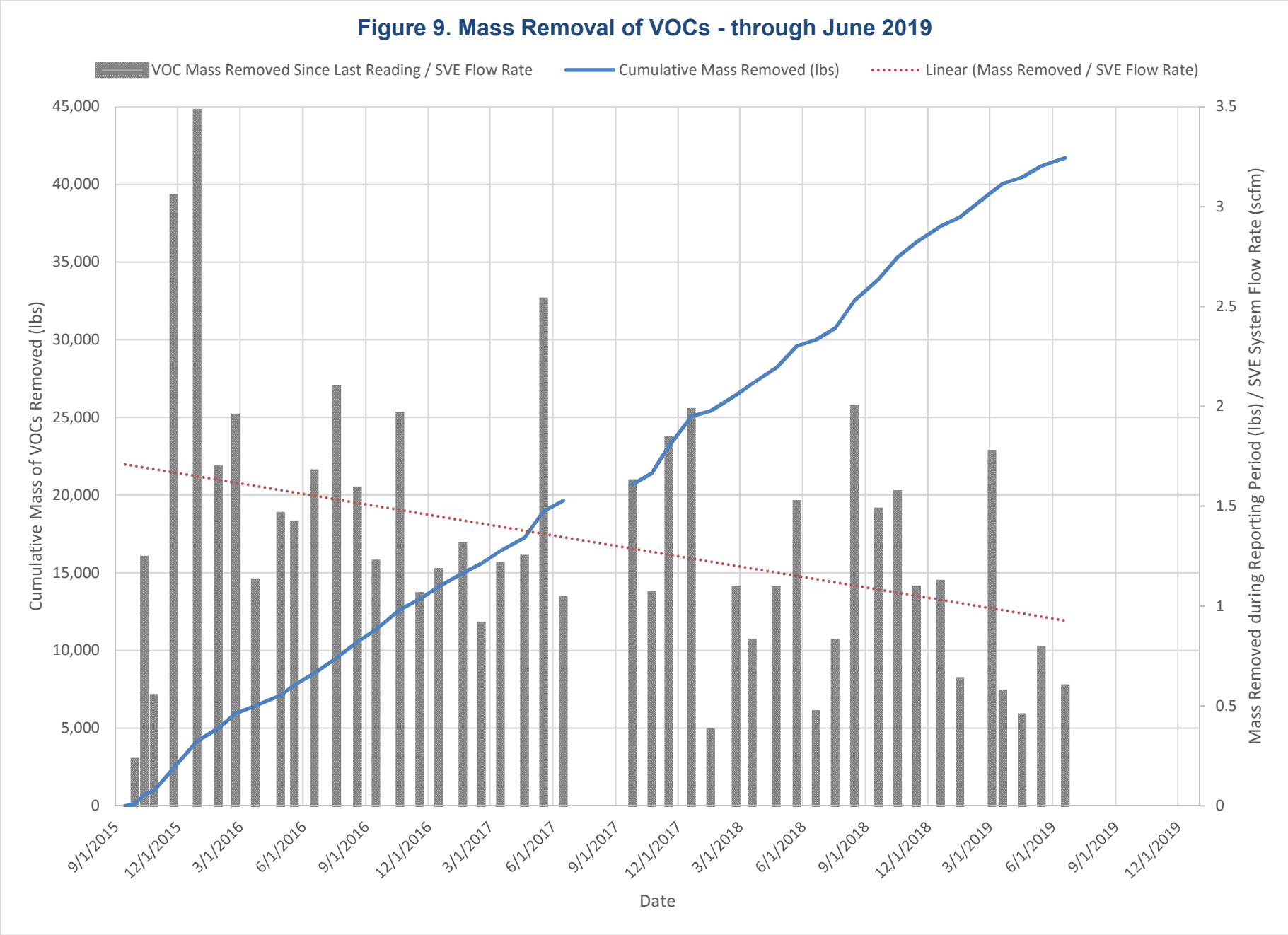
LEGEND

- Ⓐ SYSTEM FLOW MEASUREMENT (PRE-DILUTION LOCATION)
- Ⓑ SYSTEM FLOW MEASUREMENT (POST-DILUTION LOCATION)
- SP-0 SYSTEM INLET SAMPLE LOCATION
- SP-1 CAS INLET SAMPLE LOCATION
- SP-2 CAS LEAD VESSEL OUTLET SAMPLE LOCATION
- SP-3 CAS LAG VESSEL OUTLET SAMPLE LOCATION
- SP-4 CAS OUTLET SAMPLE LOCATION

CLIENT	MARICOPA COUNTY				
PROJECT	CAVE CREEK LANDFILL				
TITLE	SVE SYSTEM PROCESS FLOW DIAGRAM – PRESSURE FLOW				
DESIGNED BY	BJN	CHECKED BY	AY	DATE	ISSUED FOR
DRAWN BY	BJN	APPROVED BY	NC	11/15/16	FINAL
FILENAME	FIGURE 8	FIGURE No.	8.1	REV	1
PROJECT NO.	14-2017-2034				

wood.

G:\Environmental-Development\2017 Projects\14-2017-2034 Cave Creek Landfill FY2018\5.0_Technical\5.1_Reports_Deliverables\5.1.27_SVE Expansion OMM\Support-6/5/2017 11:11 AM

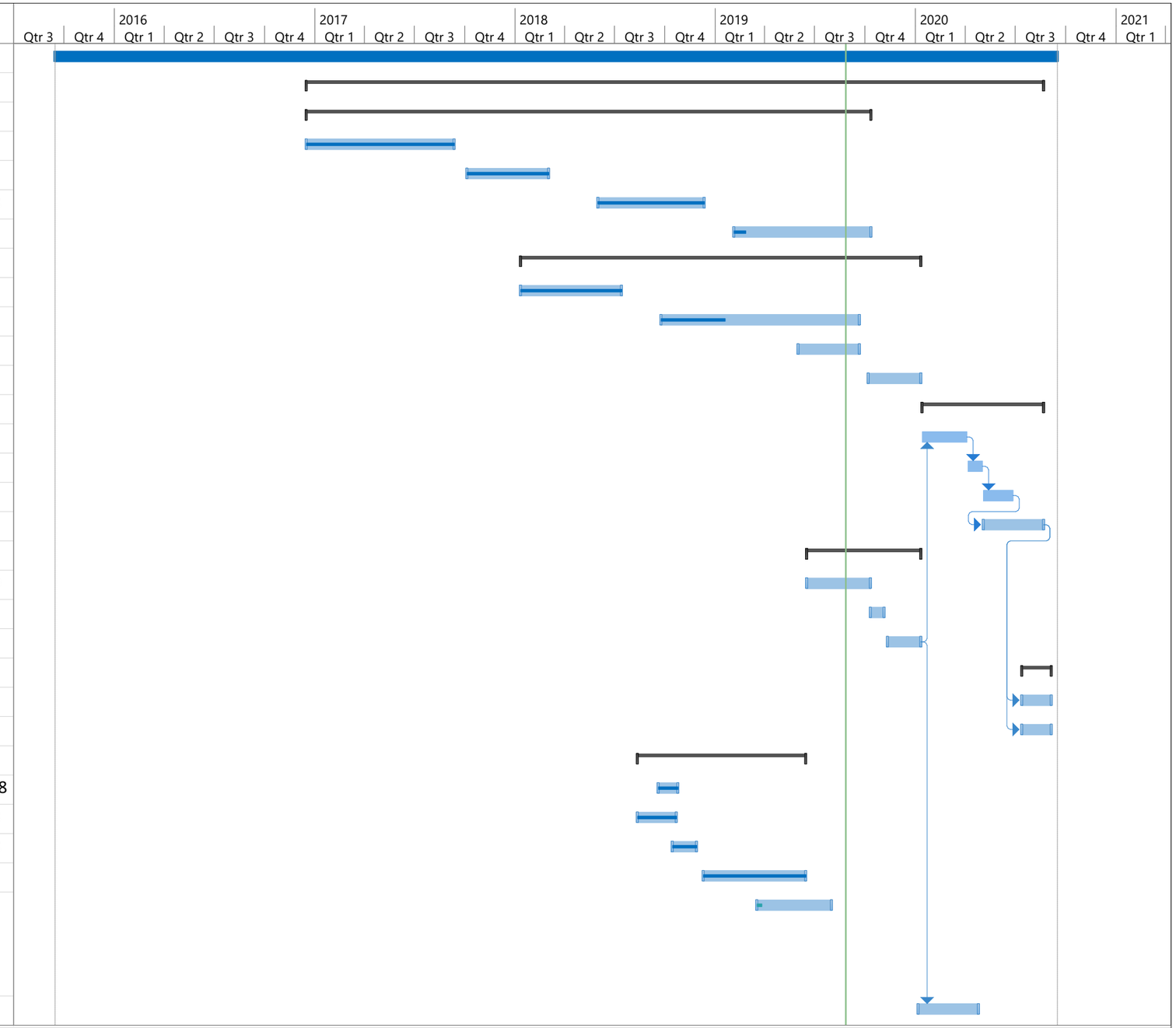


G:\Environmental-Development\2017 Projects\14-2017-2034 Cave Creek Landfill FY2018\5.0_Technical\5.1_Reports_Deliverables\QuarterlyReports\2019 2Q\Table 8-Mass Removal_ThruJun2019.xlsx

APPENDIX A

CAVE CREEK LANDFILL PROGRESS SCHEDULE

ID		Task Name	Duration	Start	Finish
1		**SVE Operations**	1306 days?	Tue 9/15/15	Tue 9/15/20
2		**GWTS Installation**	**961 days**	**Fri 12/16/16**	**Fri 8/21/20**
3		**Phase I (On-Site Infrastructure)**	**736 days**	**Fri 12/16/16**	**Fri 10/11/19**
4	✓	*Design*	192 days	Fri 12/16/16	Mon 9/11/17
5	✓	*Permitting*	107 days	Thu 10/5/17	Fri 3/2/18
6	✓	*Contractor Procurement*	138 days	Fri 6/1/18	Tue 12/11/18
7		*Construction*	180 days	Mon 2/4/19	Fri 10/11/19
8		**Phase 2 (Conveyance Pipeline)**	**522 days**	**Thu 1/11/18**	**Fri 1/10/20**
9	✓	*Design*	132 days	Thu 1/11/18	Fri 7/13/18
10		*Permitting*	260 days	Mon 9/24/18	Fri 9/20/19
11		*Contractor Procurement*	4.05 mons	Sat 6/1/19	Fri 9/20/19
12		*Construction*	3.5 mons	Mon 10/7/19	Fri 1/10/20
13		**Phase 3 (Injection Well Site)**	**160 days**	**Mon 1/13/20**	**Fri 8/21/20**
14		*Design*	3 mons	Mon 1/13/20	Fri 4/3/20
15		*Permitting*	1 mon	Mon 4/6/20	Fri 5/1/20
16		*Contractor Procurement*	2 mons	Mon 5/4/20	Fri 6/26/20
17		*Construction*	4 mons	Mon 5/4/20	Fri 8/21/20
18		**Injection Well (IW-01) Installation**	**150 days**	**Mon 6/17/19**	**Fri 1/10/20**
19		*Drilling/Installation*	84 days	Mon 6/17/19	Thu 10/10/19
20		*Testing*	17 days	Fri 10/11/19	Mon 11/4/19
21		*IW-01 Installation Reporting*	45 days	Mon 11/11/19	Fri 1/10/20
22		**GWTS Operations**	**40 days**	**Mon 7/13/20**	**Fri 9/4/20**
23		GWTS As-Built Plan Development	2 mons	Mon 7/13/20	Fri 9/4/20
24		GWTS Operations Planning	2 mons	Mon 7/13/20	Fri 9/4/20
25	✓	**2018 Well Installation Program**	**220 days**	**Sun 8/12/18**	**Fri 6/14/19**
26	✓	MW-11 Drilling/Installation	26 days	Wed 9/19/18	Wed 10/24/18
27	✓	MW-12 Drilling/Installation	52 days	Sun 8/12/18	Sun 10/21/18
28	✓	MW-13 Drilling/Installation	32 days	Mon 10/15/18	Tue 11/27/18
29	✓	Well Installation Reporting	135 days	Mon 12/10/18	Fri 6/14/19
30		**Site Groundwater Characterization Work Plan (Former Old Landfill Groundwater Characterization Work Plan)**	4.9 mons	Mon 3/18/19	Wed 7/31/19
31		**Groundwater Model Update**	4 mons	Mon 1/6/20	Fri 4/24/20



APPENDIX B
Project: CCL Project Progress Sc
Date: Tue 8/27/19

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			

APPENDIX B

LABORATORY REPORTS OF ANALYSIS

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 7, 2019

Client:	Natalie Chrisman	Work Order #:	19D023
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	4/18/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 7, 2019

Client:	Natalie Chrisman	Work Order #:	19D023
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	4/18/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19D023-01	SP4-H1-041719	TO-15	4/17/2019	935
19D023-02	SP3-C1-041719	TO-15	4/17/2019	940
19D023-03	SP2-C3-041719	TO-15	4/17/2019	945
19D023-04	SP1-SkidOutlet-041719	TO-15	4/17/2019	950

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 7, 2019

Client:	Natalie Chrisman	Work Order #:	19D023
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	04/18/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19D023-01	SP4-H1-041719	1832	1904-01	29.0	14.13	117	1903-09
19D023-02	SP3-C1-041719	E2291	1904-01	29.0	14.48	057	1903-09
19D023-03	SP2-C3-041719	E2296	1904-01	29.0	14.76	075	1903-06
19D023-04	SP1-SkidOutlet-041719	1848	1904-01	29.0	14.71	072	1903-09

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-041719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	4/17/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990		1,000	5/1/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/1/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/1/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/1/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/1/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/1/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/1/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,300**	**1,000**	**6,440**	**4,950**		1,000	5/1/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/1/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/1/2019	179601-23-1
Methylene chloride	**31,000**	**2,000**	**108,000**	**6,940**		1,000	5/1/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/1/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/1/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/1/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/1/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	5/1/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/1/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/1/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/1/2019	75-01-4
Surr: 4-Bromofluorobenzene	76.1	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C1-041719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	4/17/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990		1,000	5/1/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/1/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/1/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/1/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/1/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/1/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/1/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	5/1/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/1/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/1/2019	179601-23-1
Methylene chloride	**23,700**	**2,000**	**82,200**	**6,940**		1,000	5/1/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/1/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/1/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/1/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/1/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	5/1/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/1/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/1/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/1/2019	75-01-4
Surr: 4-Bromofluorobenzene	78.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-041719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	4/17/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	75-34-3
1,1-Dichloroethene	**1,390**	**500**	**5,520**	**1,990**		1,000	5/1/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/1/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/1/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/1/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/1/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/1/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/1/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/1/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,150**	**1,000**	**5,690**	**4,950**		1,000	5/1/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/1/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/1/2019	179601-23-1
Methylene chloride	**43,600**	**2,000**	**151,000**	**6,940**		1,000	5/1/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/1/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/1/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/1/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/1/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/1/2019	156-60-5
Trichloroethene	< 500	500	< 2,690	2,690		1,000	5/1/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/1/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/1/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/1/2019	75-01-4
Surr: 4-Bromofluorobenzene	78.8	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-041719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	4/17/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	5/1/2019	75-34-3
1,1-Dichloroethene	**19,600**	**1,000**	**77,800**	**3,970**		2,000	5/1/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	5/1/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	5/1/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	5/1/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	5/1/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	5/1/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	5/1/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	5/1/2019	67-66-3
cis-1,2-Dichloroethene	**5,020**	**1,000**	**19,900**	**3,960**		2,000	5/1/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	5/1/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	5/1/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	5/1/2019	179601-23-1
Methylene chloride	**32,500**	**4,000**	**113,000**	**13,900**		2,000	5/1/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	5/1/2019	95-47-6
Tetrachloroethene	**7,240**	**2,000**	**49,100**	**13,600**		2,000	5/1/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	5/1/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	5/1/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	5/1/2019	156-60-5
Trichloroethene	**40,000**	**1,000**	**215,000**	**5,370**		2,000	5/1/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	5/1/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**7,100**	**1,000**	**54,400**	**7,660**		2,000	5/1/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	5/1/2019	75-01-4
Surr: 4-Bromofluorobenzene	80.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010501 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	5/1/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	5/1/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	5/1/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	5/1/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	5/1/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	5/1/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	5/1/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	5/1/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	5/1/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	5/1/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	5/1/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	5/1/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	5/1/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	5/1/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	5/1/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	5/1/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	5/1/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	5/1/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	5/1/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	5/1/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	5/1/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	5/1/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	5/1/2019	75-01-4
Surr: 4-Bromofluorobenzene	81.7	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 5/1/2019 Batch: MS010501 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	10.3	103	9.1	90.8	10.0	12.3	ppbv			
Vinyl Chloride	10.9	109	9.9	98.5	10.0	10.1	ppbv			
Trichlorofluoromethane (F-11)	9.7	96.6	8.6	85.7	10.0	12.0	ppbv			
Acetone	9.2	91.5	8.6	85.8	10.0	6.4	ppbv			
1,1-Dichloroethene	10.1	101	8.9	89.3	10.0	11.9	ppbv			
Trichlorotrifluoroethane (F-113)	9.5	95.2	8.6	85.7	10.0	10.5	ppbv			
Methylene Chloride	9.9	98.5	8.7	87.4	10.0	11.9	ppbv			
trans-1,2-Dichloroethene	9.3	93.0	8.4	84.3	10.0	9.8	ppbv			
1,1-Dichloroethane	9.6	96.2	8.5	84.7	10.0	12.7	ppbv			
2-Butanone (MEK)	9.2	91.5	8.3	82.6	10.0	10.2	ppbv			
cis-1,2-Dichloroethene	9.3	93.2	8.3	82.5	10.0	12.2	ppbv			
Chloroform	9.3	92.5	8.2	82.3	10.0	11.7	ppbv			
Tetrahydrofuran	8.9	88.6	8.0	80.1	10.0	10.1	ppbv			
1,2-Dichloroethane	9.0	89.9	8.1	81.4	10.0	9.9	ppbv			
Benzene	9.2	92.3	8.4	83.5	10.0	10.0	ppbv			
Trichloroethene	9.4	94.4	8.1	81.4	10.0	14.8	ppbv			
Toluene	11.0	110	9.4	93.8	10.0	15.4	ppbv			
Tetrachloroethene	10.2	102	8.8	88.1	10.0	15.0	ppbv			
Chlorobenzene	8.6	85.9	7.8	78.3	10.0	9.3	ppbv			
Ethylbenzene	9.3	92.7	8.3	82.6	10.0	11.5	ppbv			
m&p-Xylene	20.2	101	18.3	91.5	20.0	10.1	ppbv			
o-Xylene	10.4	104	9.1	90.9	10.0	13.2	ppbv			
1,2-Dichlorobenzene	9.2	92.0	8.3	82.6	10.0	10.8	ppbv			
Surr: 4-Bromofluorobenzene	10.1	101	10.1	101			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19D023	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/25/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/22/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190422-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	7/22/2019
A-190422-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	6/20/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer : Wood	Page 1 of 1		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19D023
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	1832	117	6 1 bag	1 2 5	SP4-H1-041719	4.17.19	935	SVE	1			X							
02	E2291	057	6 1 bag	1 2 5	SP3-C1-041719	↓	940	↓	↓			X							
03	E2296	075	6 1 bag	1 2 5	SP2-C3-041719	↓	945	↓	↓			X							
04	1848	072	6 1 bag	1 2 5	SP1-SKIDOUTLET-041719	↓	950	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
4.18.19	843	E. Miller	James Jones - Airtech

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 26, 2019

Client:	Natalie Chrisman	Work Order #:	19E013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2017-2034
	Phoenix, AZ 85034	Received Date:	5/15/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 26, 2019

Client:	Natalie Chrisman	Work Order #:	19E013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2017-2034
	Phoenix, AZ 85034	Received Date:	5/15/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19E013-01	SP4-H1-051519	TO-15	5/15/2019	835
19E013-02	SP3-C1-051519	TO-15	5/15/2019	840
19E013-03	SP2-C3-051519	TO-15	5/15/2019	845
19E013-04	SP1-SkidOutlet-051519	TO-15	5/15/2019	850

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: May 26, 2019

Client:	Natalie Chrisman	Work Order #:	19E013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2017-2034
	Phoenix, AZ 85034	Received Date:	05/15/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19E013-01	SP4-H1-051519	E2397	1905-05	29.0	12.53	195	1904-02
19E013-02	SP3-C1-051519	E2090	1905-05	29.0	13.93	085	1904-02
19E013-03	SP2-C3-051519	E2282	1905-05	29.0	14.25	086	1904-02
19E013-04	SP1-SkidOutlet-051519	E2284	1905-05	29.0	10.74	027	1904-02

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-051519
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	5/15/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990		1,000	5/24/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/24/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/24/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/24/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/24/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/24/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/24/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,380**	**1,000**	**6,830**	**4,950**		1,000	5/24/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/24/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/24/2019	179601-23-1
Methylene chloride	**27,800**	**2,000**	**96,500**	**6,940**		1,000	5/24/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/24/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/24/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/24/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/24/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-60-5
Trichloroethene	**1,560**	**500**	**8,380**	**2,685**		1,000	5/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/24/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	106	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C1-051519
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	5/15/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	75-34-3
1,1-Dichloroethene	< 500	500	< 1,990	1,990		1,000	5/24/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/24/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/24/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/24/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/24/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/24/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/24/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,220**	**1,000**	**6,040**	**4,950**		1,000	5/24/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/24/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/24/2019	179601-23-1
Methylene chloride	**30,200**	**2,000**	**105,000**	**6,940**		1,000	5/24/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/24/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/24/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/24/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/24/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-60-5
Trichloroethene	**1,180**	**500**	**6,340**	**2,685**		1,000	5/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/24/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	102	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-051519
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	5/15/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	75-34-3
1,1-Dichloroethene	**830**	**500**	**1,990**	1,985		1,000	5/24/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,010	3,010		1,000	5/24/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	5/24/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	5/24/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	5/24/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	5/24/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	5/24/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	5/24/2019	67-66-3
cis-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,120**	**1,000**	**5,540**	**4,950**		1,000	5/24/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	5/24/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	5/24/2019	179601-23-1
Methylene chloride	**28,800**	**2,000**	**99,900**	**6,940**		1,000	5/24/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	5/24/2019	95-47-6
Tetrachloroethene	< 1,000	1,000	< 6,780	6,780		1,000	5/24/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	5/24/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	5/24/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	5/24/2019	156-60-5
Trichloroethene	**510**	**500**	**2,740**	**2,685**		1,000	5/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	5/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 500	500	< 3,830	3,830		1,000	5/24/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	5/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	104	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-051519
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	5/15/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	5/24/2019	75-34-3
1,1-Dichloroethene	**17,200**	**1,000**	**68,300**	**3,970**		2,000	5/24/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	5/24/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	5/24/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	5/24/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	5/24/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	5/24/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	5/24/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	5/24/2019	67-66-3
cis-1,2-Dichloroethene	**3,360**	**1,000**	**13,300**	**3,960**		2,000	5/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	5/24/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	5/24/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	5/24/2019	179601-23-1
Methylene chloride	**25,500**	**4,000**	**88,500**	**13,880**		2,000	5/24/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	5/24/2019	95-47-6
Tetrachloroethene	**4,400**	**2,000**	**29,800**	**13,560**		2,000	5/24/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	5/24/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	5/24/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	5/24/2019	156-60-5
Trichloroethene	**25,300**	**1,000**	**136,000**	**5,370**		2,000	5/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	5/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**4,860**	**1,000**	**37,300**	**7,660**		2,000	5/24/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	5/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	102	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010524 Analyst: YM

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: YM	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	5/24/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	5/24/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	5/24/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	5/24/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	5/24/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	5/24/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	5/24/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	5/24/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	5/24/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	5/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	5/24/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	5/24/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	5/24/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	5/24/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	5/24/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	5/24/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	5/24/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	5/24/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	5/24/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	5/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	5/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	5/24/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	5/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	105	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 5/24/2019 Batch: MS010524 Analyst: YM

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	11.7	117	12.2	122	10.0	3.8	ppbv			
Vinyl Chloride	9.7	96.5	10.2	102	10.0	5.3	ppbv			
Trichlorofluoromethane (F-11)	11.0	110	11.8	118	10.0	7.3	ppbv			
Acetone	8.4	84.2	9.6	95.5	10.0	12.6	ppbv			
1,1-Dichloroethene	10.4	104	11.5	115	10.0	10.8	ppbv			
Trichlorotrifluoroethane (F-113)	9.4	94.2	9.9	99.3	10.0	5.3	ppbv			
Methylene Chloride	9.5	94.6	10.5	105	10.0	10.5	ppbv			
trans-1,2-Dichloroethene	9.2	91.5	9.9	98.9	10.0	7.8	ppbv			
1,1-Dichloroethane	10.4	104	11.3	113	10.0	8.6	ppbv			
2-Butanone (MEK)	9.8	97.5	10.3	103	10.0	5.5	ppbv			
cis-1,2-Dichloroethene	9.6	95.8	10.0	100	10.0	4.3	ppbv			
Chloroform	11.0	110	11.5	115	10.0	4.6	ppbv			
Tetrahydrofuran	8.7	86.7	9.9	99.4	10.0	13.6	ppbv			
1,2-Dichloroethane	11.8	118	12.6	126	10.0	6.6	ppbv			
Benzene	9.8	98.2	10.7	107	10.0	8.2	ppbv			
Trichloroethene	8.9	89.1	8.8	88.4	10.0	0.8	ppbv			
Toluene	9.8	98.1	9.9	99.3	10.0	1.2	ppbv			
Tetrachloroethene	9.4	94.3	9.1	90.5	10.0	4.1	ppbv			
Chlorobenzene	8.6	86.2	8.9	89.0	10.0	3.2	ppbv			
Ethylbenzene	9.3	93.4	9.8	97.8	10.0	4.6	ppbv			
m&p-Xylene	18.8	93.9	18.8	94.0	20.0	0.1	ppbv			
o-Xylene	9.8	98.3	9.8	97.7	10.0	0.6	ppbv			
1,2-Dichlorobenzene	9.5	95.0	9.5	95.1	10.0	0.1	ppbv			
Surr: 4-Bromofluorobenzene	11.7	117	11.8	118			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2017-2034
Lab Order:	19E013	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	6/25/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	6/22/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	6/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190503-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	6/22/2019
A-190513-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	8/13/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer : Wood.	Page 1 of 1		AEL Lab #
Address: 4600 East Washington Street, Suite #600	Sampler: Eric Miller	Phone: (602) 300-8313	19E013
	Project Name: Cave Creek Landfill	Project Number: 14-2017-2034	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact: Natalie Chrisman	P.O. Number:		
Phone: (602) 733-6000 Fax: (602) 733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@amecfw.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C

Custody Seals: Yes_____ No_____

Custody Seals Intact: Yes_____ No_____

Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours

_____ 72 Hours

_____ 5 working Day

X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction GW: ground water

A: ambient air WW: waste water

I: indoor air

S: soil vapor

W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	E2397	195	6 (1) bag	(1) 2 5	SP4-H1-051519	5.15.19	835	SVE	1			X							
02	E2090	085	6 (1) bag	(1) 2 5	SP3-C1-051519	↓	840	↓	↓			X							
03	E2282	086	6 (1) bag	(1) 2 5	SP2-C3-051519	↓	845	↓	↓			X							
04	E2284	027	6 (1) bag	(1) 2 5	SP1-SKIDOUTLET-051519	↓	850	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
5.15.19	1450	E. Miller	James Jones Airtech

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Soln.

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

1420192004

SGS Job Number: TD39645

Sampling Dates: 05/21/19 - 05/23/19

Report to:

Wood Environment & Infrastructure Soln.
4600 East Washington Street Suite 600
Phoenix, AZ 85034
Samantha.sargent@woodplc.com; emily.lodolce@woodplc.com

ATTN: Samantha Sargent

Total number of pages in report: 67

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

John Watson
Technical Director

Client Service contact: Anita Patel 713-271-4700

Certifications: TX (T104704220-19-32) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2018-129) VA (10171)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

SGS is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.
Review standard terms at: http://www.sgs.com/en/terms-and-conditions

Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **8**
4.1: TD39645-1: PW-734-052119 9
4.2: TD39645-2: MW02-714-052319 12
4.3: TD39645-3: MW03-724-052219 15
4.4: TD39645-4: MW04-708-052219 18
4.5: TD39645-5: MW04-733-052219 21
4.6: TD39645-6: MW04-743-052219 24
4.7: TD39645-7: MW05-704-052319 27
4.8: TD39645-8: MW06-720-052219 30
4.9: TD39645-9: MW07-718-052219 33
4.10: TD39645-10: MW07-743-052219 36
4.11: TD39645-11: MW08-742-052219 39
Section 5: Misc. Forms **42**
5.1: Arizona Qualifiers 43
5.2: Chain of Custody 44
Section 6: MS Volatiles - QC Data Summaries **49**
6.1: Method Blank Summary 50
6.2: Blank Spike Summary 56
6.3: Matrix Spike/Matrix Spike Duplicate Summary 62

SGS North America Inc.

Sample Summary

Wood Environment & Infrastructure Soln.

Job No: TD39645

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Project No: 1420192004

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD39645-1	05/21/19	11:55		05/24/19	AQ	Water	PW-734-052119
TD39645-2	05/23/19	06:50		05/24/19	AQ	Water	MW02-714-052319
TD39645-3	05/22/19	12:45		05/24/19	AQ	Water	MW03-724-052219
TD39645-4	05/22/19	09:20		05/24/19	AQ	Water	MW04-708-052219
TD39645-5	05/22/19	09:20		05/24/19	AQ	Water	MW04-733-052219
TD39645-6	05/22/19	09:20		05/24/19	AQ	Water	MW04-743-052219
TD39645-7	05/23/19	08:45		05/24/19	AQ	Water	MW05-704-052319
TD39645-8	05/22/19	12:00		05/24/19	AQ	Water	MW06-720-052219
TD39645-9	05/22/19	10:05		05/24/19	AQ	Water	MW07-718-052219
TD39645-10	05/22/19	10:05		05/24/19	AQ	Water	MW07-743-052219
TD39645-11	05/22/19	08:30		05/24/19	AQ	Water	MW08-742-052219

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Wood Environment & Infrastructure Soln.	**Job No**	TD39645
Site:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ	**Report Date**	6/3/2019 5:03:43 PM

11 Samples were collected on between 05/21/2019 and 05/23/2019 and received intact at SGS North America Inc (SGS) on 05/24/2019 and properly preserved in 1 cooler at 1.1 Deg C. The samples received an SGS job number of TD39645. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** VR2136

- All samples were analyzed within the recommended method holding time.
- Sample(s) TD39633-3MS, TD39633-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Methyl bromide are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, Bromobenzene, Hexachlorobutadiene, Isopropylbenzene, n-Butylbenzene, o-Chlorotoluene, o-Dichlorobenzene, p-Chlorotoluene, tert-Butylbenzene are outside control limits for sample TD39633-3MSD. Probable cause due to sample non-homogeneity.
- TD39645-6 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-1 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-1 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-7 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-1 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-9 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-2 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-2 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-2 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-2 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-3 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-3 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-3 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-3 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-4 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-4 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-9 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-4 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-5 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-5 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-5 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-5 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-6 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-6 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1

MS Volatiles By Method SW846 8260C

Matrix: AQ	**Batch ID:** VR2136

- TD39645-6 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-4 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-1 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-7 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-9 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-7 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-7 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-8 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-8 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-8 for Hexachlorobutadiene: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-8 for Methyl bromide: Associated CCV outside of control limits high, sample was ND. AZ:V1
- TD39645-9 for Chloroethane: Associated CCV outside of control limits high, sample was ND. AZ:V1

Matrix: AQ	**Batch ID:** VX4036

- All samples were analyzed within the recommended method holding time.
- Sample(s) TD39694-3MS, TD39694-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,1-Dichloroethylene, 1,3-Butadiene, Carbon disulfide, Hexane, Methyl Tert Butyl Ether are outside control limits for sample TD39694-3MSD. Probable cause due to sample non-homogeneity.

SGS certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS and as stated on the COC. SGS certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Quality Manual except as noted above. This report is to be used in its entirety. SGS is not responsible for any assumptions of data quality if partial data packages are used.

Summary of Hits

Job Number: TD39645
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 05/21/19 thru 05/23/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD39645-1	**PW-734-052119**					
No hits reported in this sample.						
TD39645-2	**MW02-714-052319**					
1,1-Dichloroethane		3.2	1.0		ug/l	SW846 8260C
1,1-Dichloroethylene		2.2	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		3.5	1.0		ug/l	SW846 8260C
Tetrachloroethylene		4.3	1.0		ug/l	SW846 8260C
Trichloroethylene		96.9	1.0		ug/l	SW846 8260C
TD39645-3	**MW03-724-052219**					
Trichloroethylene		2.3	1.0		ug/l	SW846 8260C
TD39645-4	**MW04-708-052219**					
No hits reported in this sample.						
TD39645-5	**MW04-733-052219**					
No hits reported in this sample.						
TD39645-6	**MW04-743-052219**					
No hits reported in this sample.						
TD39645-7	**MW05-704-052319**					
Trichloroethylene		62.0	1.0		ug/l	SW846 8260C
TD39645-8	**MW06-720-052219**					
Trichloroethylene		1.8	1.0		ug/l	SW846 8260C
TD39645-9	**MW07-718-052219**					
1,1-Dichloroethylene		1.0	1.0		ug/l	SW846 8260C
Trichloroethylene		32.0	1.0		ug/l	SW846 8260C
TD39645-10	**MW07-743-052219**					
1,1-Dichloroethylene		1.1	1.0		ug/l	SW846 8260C
Trichloroethylene		28.3	1.0		ug/l	SW846 8260C

Summary of Hits

Job Number: TD39645
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 05/21/19 thru 05/23/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD39645-11	**MW08-742-052219**					
1,1-Dichloroethylene		5.3	1.0		ug/l	SW846 8260C
Tetrachloroethylene		1.5	1.0		ug/l	SW846 8260C
Trichloroethylene		59.4	1.0		ug/l	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PW-734-052119		
Lab Sample ID:	TD39645-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483478.D	1	05/28/19 13:45	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW-734-052119		
Lab Sample ID:	TD39645-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW-734-052119		
Lab Sample ID:	TD39645-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-122%
17060-07-0	1,2-Dichloroethane-D4	102%		68-124%
2037-26-5	Toluene-D8	103%		80-119%
460-00-4	4-Bromofluorobenzene	101%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-052319		
Lab Sample ID:	TD39645-2	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483479.D	1	05/28/19 14:11	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	3.2	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	2.2	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	3.5	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-052319		
Lab Sample ID:	TD39645-2	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	4.3	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	96.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW02-714-052319		
Lab Sample ID:	TD39645-2	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-122%
17060-07-0	1,2-Dichloroethane-D4	109%		68-124%
2037-26-5	Toluene-D8	101%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-724-052219		
Lab Sample ID:	TD39645-3	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483480.D	1	05/28/19 14:37	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-724-052219		
Lab Sample ID:	TD39645-3	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	2.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW03-724-052219		
Lab Sample ID:	TD39645-3	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		72-122%
17060-07-0	1,2-Dichloroethane-D4	114%		68-124%
2037-26-5	Toluene-D8	105%		80-119%
460-00-4	4-Bromofluorobenzene	102%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-052219		
Lab Sample ID:	TD39645-4	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483481.D	1	05/28/19 15:03	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-052219		
Lab Sample ID:	TD39645-4	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-708-052219		
Lab Sample ID:	TD39645-4	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		72-122%
17060-07-0	1,2-Dichloroethane-D4	110%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	99%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW04-733-052219		
Lab Sample ID:	TD39645-5	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483482.D	1	05/28/19 15:28	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-733-052219		
Lab Sample ID:	TD39645-5	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-733-052219		
Lab Sample ID:	TD39645-5	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	108%		80-119%
460-00-4	4-Bromofluorobenzene	102%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-743-052219		
Lab Sample ID:	TD39645-6	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483483.D	1	05/28/19 15:54	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-743-052219		
Lab Sample ID:	TD39645-6	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW04-743-052219		
Lab Sample ID:	TD39645-6	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		72-122%
17060-07-0	1,2-Dichloroethane-D4	112%		68-124%
2037-26-5	Toluene-D8	109%		80-119%
460-00-4	4-Bromofluorobenzene	105%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-704-052319		
Lab Sample ID:	TD39645-7	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483484.D	1	05/28/19 16:19	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-704-052319		
Lab Sample ID:	TD39645-7	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	62.0	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW05-704-052319		
Lab Sample ID:	TD39645-7	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	103%		80-119%
460-00-4	4-Bromofluorobenzene	93%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW06-720-052219		
Lab Sample ID:	TD39645-8	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483485.D	1	05/28/19 16:45	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW06-720-052219		
Lab Sample ID:	TD39645-8	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	1.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW06-720-052219		
Lab Sample ID:	TD39645-8	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		72-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	104%		80-119%
460-00-4	4-Bromofluorobenzene	102%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW07-718-052219		
Lab Sample ID:	TD39645-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R03483486.D	1	05/28/19 17:11	FI	n/a	n/a	VR2136
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane [a]	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane [a]	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-718-052219		
Lab Sample ID:	TD39645-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide [a]	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	32.0	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-718-052219		
Lab Sample ID:	TD39645-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		72-122%
17060-07-0	1,2-Dichloroethane-D4	114%		68-124%
2037-26-5	Toluene-D8	108%		80-119%
460-00-4	4-Bromofluorobenzene	95%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Associated CCV outside of control limits high, sample was ND. AZ:V1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-743-052219		
Lab Sample ID:	TD39645-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0129042.D	1	05/30/19 16:13	FT	n/a	n/a	VX4036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.1	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-743-052219		
Lab Sample ID:	TD39645-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	28.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW07-743-052219		
Lab Sample ID:	TD39645-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		72-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	113%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [a]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Propylene, 4-Eythltoluene,1,2,3-Trimethylbenzene not detected in TIC search AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-742-052219		
Lab Sample ID:	TD39645-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0129043.D	1	05/30/19 16:39	FT	n/a	n/a	VX4036
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	5.3	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-742-052219		
Lab Sample ID:	TD39645-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	1.5	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	59.4	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW08-742-052219		
Lab Sample ID:	TD39645-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		72-122%
17060-07-0	1,2-Dichloroethane-D4	115%		68-124%
2037-26-5	Toluene-D8	113%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [a]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Propylene, 4-Eythltoluene,1,2,3-Trimethylbenzene not detected in TIC search AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
N1	See case narrative.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

SGS PHOENIX **CHAIN OF CUSTODY**

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/ehsusa

PAGE 1 OF 1

FED-EX Tracking # 7752 0154 0890
SGS Quote #
Bottle Order Control #
SGS Job # TD39645

Client / Reporting Information

Company Name: Wood
Street Address: 4600 E Washington St Suite 600
City, State, Zip: Phoenix AZ 85034
Project Contact: Emily Ladoke@samantha.sargent@woodplc.com
E-mail:
Phone #: 602-733-6000
Sampler(s) Name(s): Ramirez
Phone #: 602-788-6151

Project Information

Project Name: Cave Creek Landfill
Street: ~~3435~~ E Carefree Highway
City, State: Cave Creek AZ
Project #: 192042004
Client Purchase Order #:
Project Manager: Natalie Chrisman

Billing Information (if different from Report to)

Company Name: Maricopa County WR@R
Street Address: 2901 W Durango St
City, State, Zip: Phoenix AZ 85009
Attention: Kathryn Snyder

Requested Analyses

Item	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZAN/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	82608 VOC	LAB USE ONLY
1	PW-734-052119	5/21/19	11:55	-	W	3	3												X	
2	MW02-714-052319	5/23/19	06:50	-	W	3	3												X	
3	MW03-724-052219	5/22/19	12:45	-	W	3	3												X	
4	MW04-708-052219	5/22/19	09:20	-	W	3	3												X	
5	MW04-733-052219	5/22/19	09:20	-	W	3	3												X	
6	MW04-743-052219	5/22/19	09:20	-	W	3	3												X	
7	MW05-704-052319	5/23/19	08:45	-	W	3	3												X	
8	MW06-720-052219	5/22/19	12:00	-	W	3	3												X	
9	MW07-718-052219	5/22/19	10:05	—	W	~~3~~	3												X	
10	MW07-743-052219	5/22/19	10:05	—	W	3	3												X	
	~~MW07-750~~	—	—	—	—															
11	MW08-742-052219	5/22/19	08:30	-	W	3	3												X	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

Turnaround Time (Business days)

- [x] Standard 10 Business Days
- [ ] 5 Business Days *RUSH*
- [ ] 4 Business Days *RUSH*
- [ ] 3 Business Days *RUSH*
- [ ] 2 Business Days *RUSH*
- [ ] 1 Business Day *EMERGENCY*

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by:	Date / Time	Received By	Date / Time	Relinquished By:	Date / Time	Received By	Date / Time
1 [signature]	5/23/19 1200	1 E Mill	5-23-19 1400	2 E Mill	5-23-19 1400	3 [signature]	5/23/19 1400
3 [signature]	5/23/19 1600	3 Fed EX	5/23/19 1600	4 Fedex	5-24-19 1100	4 J. Ford	5-24-19 1000
Relinquished by: 5	Date / Time:	Received By: 5	Date / Time:	Custody Seal #	Intact / Not Intact / Absent	Preserved where applicable	On Ice / Cooler Temp. °C

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

5.2

5

TD39645: Chain of Custody
Page 1 of 5

SGS

COOLER TEMP FORM

SGS JOB#_____

Delivered by (circle one): FedEx/UPS/DHL SGS Driver Client Other courier

Date: 5/24/2019

Client: Wood

Cooler Number: 1

Thermometer ID: IR 4 CF, °C 0 Corrected Temp, °C 1.1

Custody seals? (Y or N): _____ Custody seals intact? (Y or N) _____

FedEx/UPS/DHL airbill number: 7753 0154 0890

SAMPLES CONTAINED IN COOLER

Form: SM027-08; 05/20/2019

TD39645: Chain of Custody
Page 2 of 5

SGS Sample Receipt Summary

Job Number: TD39645 **Client:** WOODD **Project:** CAVE CREEK LANDFILL

Date / Time Received: 5/24/2019 **Delivery Method:** **Airbill #'s:** 7753 0154 0890

No. Coolers: 1 **Therm ID:** IR-4; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (1.1/1.1);

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	

Quality Control Preservation	Y	or N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐	☑	☐	☐	☐
2. Trip Blank listed on COC:	☐	☑	☐		
3. Samples preserved properly:	☑	☐			
4. VOCs headspace free:	☑	☐	☐		

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

5.2

5

TD39645: Chain of Custody

Page 3 of 5

Sample Receipt Log

Job #: TD39645 **Date / Time Received:** 5/24/2019 10:00:00 AM **Initials:** SJ

Client: WOODD

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD39645-1	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-1	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-1	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-2	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-2	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-2	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-3	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-3	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-3	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-4	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-4	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-4	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-5	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-5	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-5	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-6	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-6	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-6	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-7	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-7	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-7	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-8	40ml	1	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
1	TD39645-8	40ml	2	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1

Sample Receipt Log

Job #: TD39645 **Date / Time Received:** 5/24/2019 10:00:00 AM **Initials:** SJ

Client: WOODD

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD39645-8	40ml	3	VR 244	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR-4	1.1	0	1.1
	TD39645-9	40ml	1	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-9	40ml	2	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-9	40ml	3	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-10	40ml	1	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-10	40ml	2	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-10	40ml	3	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-11	40ml	1	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-11	40ml	2	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39645-11	40ml	3	VR 184	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-MB	R03483467.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-MB	R03483467.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-MB	R03483467.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	105%	72-122%
17060-07-0	1,2-Dichloroethane-D4	107%	68-124%
2037-26-5	Toluene-D8	105%	80-119%
460-00-4	4-Bromofluorobenzene	103%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-MB	X0129029.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-MB	X0129029.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-MB	X0129029.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	72-122%
17060-07-0	1,2-Dichloroethane-D4	114%	68-124%
2037-26-5	Toluene-D8	113%	80-119%
460-00-4	4-Bromofluorobenzene	106%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
115-11-7	1-Propene, 2-methyl-	1.10	22	ug/l	JN
	Total TIC, Volatile		22	ug/l	J

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-BS	R03483465.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	120	96	46-129
71-43-2	Benzene	25	21.6	86	68-119
108-86-1	Bromobenzene	25	23.8	95	71-119
75-27-4	Bromodichloromethane	25	24.7	99	72-118
75-25-2	Bromoform	25	26.0	104	54-123
106-99-0	1,3-Butadiene	25	24.0	96	37-172
104-51-8	n-Butylbenzene	25	26.8	107	66-123
135-98-8	sec-Butylbenzene	25	26.2	105	72-123
98-06-6	tert-Butylbenzene	25	25.4	102	70-124
108-90-7	Chlorobenzene	25	23.4	94	74-120
75-00-3	Chloroethane	25	27.9	112	61-132
67-66-3	Chloroform	25	22.8	91	73-122
95-49-8	o-Chlorotoluene	25	24.6	98	71-122
106-43-4	p-Chlorotoluene	25	25.0	100	73-120
75-15-0	Carbon disulfide	25	27.8	111	55-140
56-23-5	Carbon tetrachloride	25	25.7	103	68-133
110-82-7	Cyclohexane	25	25.0	100	57-160
75-34-3	1,1-Dichloroethane	25	24.6	98	72-121
75-35-4	1,1-Dichloroethylene	25	24.5	98	67-140
563-58-6	1,1-Dichloropropene	25	29.3	117	73-130
96-12-8	1,2-Dibromo-3-chloropropane	25	27.2	109	47-133
106-93-4	1,2-Dibromoethane	25	23.9	96	69-121
107-06-2	1,2-Dichloroethane	25	23.9	96	68-121
78-87-5	1,2-Dichloropropane	25	22.7	91	72-116
142-28-9	1,3-Dichloropropane	25	22.9	92	70-118
108-20-3	Di-Isopropyl ether	25	22.5	90	67-117
594-20-7	2,2-Dichloropropane	25	27.6	110	57-141
124-48-1	Dibromochloromethane	25	27.4	110	68-119
75-71-8	Dichlorodifluoromethane	25	27.6	110	29-182
156-59-2	cis-1,2-Dichloroethylene	25	23.3	93	72-117
10061-01-5	cis-1,3-Dichloropropene	25	22.1	88	71-118
541-73-1	m-Dichlorobenzene	25	25.2	101	73-117
95-50-1	o-Dichlorobenzene	25	23.6	94	71-117
106-46-7	p-Dichlorobenzene	25	24.4	98	71-116
77-73-6	Dicyclopentadiene	25	27.0	108	57-144
156-60-5	trans-1,2-Dichloroethylene	25	24.2	97	68-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-BS	R03483465.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	26.7	107	72-127
100-41-4	Ethylbenzene	25	25.6	102	71-117
76-13-1	Freon 113	25	25.7	103	57-167
110-54-3	Hexane	25	26.9	108	44-179
87-68-3	Hexachlorobutadiene	25	28.8	115	62-143
98-82-8	Isopropylbenzene	25	26.9	108	74-141
99-87-6	p-Isopropyltoluene	25	26.0	104	72-126
108-10-1	4-Methyl-2-pentanone	125	105	84	54-122
74-83-9	Methyl bromide	25	32.9	132	53-138
74-87-3	Methyl chloride	25	22.8	91	50-145
108-87-2	Methylcyclohexane	25	26.3	105	54-162
74-95-3	Methylene bromide	25	23.1	92	71-117
75-09-2	Methylene chloride	25	23.3	93	60-125
78-93-3	Methyl ethyl ketone	125	112	90	51-129
1634-04-4	Methyl Tert Butyl Ether	25	24.4	98	65-119
91-20-3	Naphthalene	25	24.3	97	43-139
103-65-1	n-Propylbenzene	25	26.3	105	72-123
100-42-5	Styrene	25	25.0	100	74-119
630-20-6	1,1,1,2-Tetrachloroethane	25	26.3	105	74-119
71-55-6	1,1,1-Trichloroethane	25	25.1	100	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	23.8	95	62-121
79-00-5	1,1,2-Trichloroethane	25	23.8	95	70-119
87-61-6	1,2,3-Trichlorobenzene	25	23.6	94	44-144
96-18-4	1,2,3-Trichloropropane	25	23.0	92	61-124
120-82-1	1,2,4-Trichlorobenzene	25	25.3	101	57-132
95-63-6	1,2,4-Trimethylbenzene	25	25.1	100	70-121
108-67-8	1,3,5-Trimethylbenzene	25	24.3	97	66-119
127-18-4	Tetrachloroethylene	25	25.8	103	72-132
108-88-3	Toluene	25	24.0	96	73-119
79-01-6	Trichloroethylene	25	23.4	94	73-121
75-69-4	Trichlorofluoromethane	25	24.6	98	46-152
75-01-4	Vinyl chloride	25	23.9	96	54-126
1330-20-7	Xylene (total)	75	74.6	99	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR2136-BS	R03483465.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	72-122%
17060-07-0	1,2-Dichloroethane-D4	104%	68-124%
2037-26-5	Toluene-D8	105%	80-119%
460-00-4	4-Bromofluorobenzene	101%	72-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-BS	X0129027.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	95.8	77	46-129
71-43-2	Benzene	25	22.6	90	68-119
108-86-1	Bromobenzene	25	24.5	98	71-119
75-27-4	Bromodichloromethane	25	22.6	90	72-118
75-25-2	Bromoform	25	21.2	85	54-123
106-99-0	1,3-Butadiene	25	9.6	38	37-172
104-51-8	n-Butylbenzene	25	27.4	110	66-123
135-98-8	sec-Butylbenzene	25	27.9	112	72-123
98-06-6	tert-Butylbenzene	25	27.0	108	70-124
108-90-7	Chlorobenzene	25	23.9	96	74-120
75-00-3	Chloroethane	25	19.9	80	61-132
67-66-3	Chloroform	25	24.2	97	73-122
95-49-8	o-Chlorotoluene	25	26.7	107	71-122
106-43-4	p-Chlorotoluene	25	26.7	107	73-120
75-15-0	Carbon disulfide	25	15.9	64	55-140
56-23-5	Carbon tetrachloride	25	23.3	93	68-133
110-82-7	Cyclohexane	25	26.9	108	57-160
75-34-3	1,1-Dichloroethane	25	22.7	91	72-121
75-35-4	1,1-Dichloroethylene	25	21.0	84	67-140
563-58-6	1,1-Dichloropropene	25	25.0	100	73-130
96-12-8	1,2-Dibromo-3-chloropropane	25	26.1	104	47-133
106-93-4	1,2-Dibromoethane	25	24.5	98	69-121
107-06-2	1,2-Dichloroethane	25	22.4	90	68-121
78-87-5	1,2-Dichloropropane	25	23.2	93	72-116
142-28-9	1,3-Dichloropropane	25	24.3	97	70-118
108-20-3	Di-Isopropyl ether	25	22.3	89	67-117
594-20-7	2,2-Dichloropropane	25	22.8	91	57-141
124-48-1	Dibromochloromethane	25	23.2	93	68-119
75-71-8	Dichlorodifluoromethane	25	23.5	94	29-182
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	72-117
10061-01-5	cis-1,3-Dichloropropene	25	22.6	90	71-118
541-73-1	m-Dichlorobenzene	25	24.7	99	73-117
95-50-1	o-Dichlorobenzene	25	23.9	96	71-117
106-46-7	p-Dichlorobenzene	25	23.8	95	71-116
77-73-6	Dicyclopentadiene	25	30.2	121	57-144
156-60-5	trans-1,2-Dichloroethylene	25	22.3	89	68-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-BS	X0129027.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	26.5	106	72-127
100-41-4	Ethylbenzene	25	25.4	102	71-117
76-13-1	Freon 113	25	24.6	98	57-167
110-54-3	Hexane	25	25.8	103	44-179
87-68-3	Hexachlorobutadiene	25	26.0	104	62-143
98-82-8	Isopropylbenzene	25	28.8	115	74-141
99-87-6	p-Isopropyltoluene	25	26.5	106	72-126
108-10-1	4-Methyl-2-pentanone	125	108	86	54-122
74-83-9	Methyl bromide	25	28.3	113	53-138
74-87-3	Methyl chloride	25	23.4	94	50-145
108-87-2	Methylcyclohexane	25	27.4	110	54-162
74-95-3	Methylene bromide	25	21.9	88	71-117
75-09-2	Methylene chloride	25	21.4	86	60-125
78-93-3	Methyl ethyl ketone	125	119	95	51-129
1634-04-4	Methyl Tert Butyl Ether	25	20.3	81	65-119
91-20-3	Naphthalene	25	25.3	101	43-139
103-65-1	n-Propylbenzene	25	27.8	111	72-123
100-42-5	Styrene	25	24.9	100	74-119
630-20-6	1,1,1,2-Tetrachloroethane	25	24.6	98	74-119
71-55-6	1,1,1-Trichloroethane	25	23.7	95	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	26.2	105	62-121
79-00-5	1,1,2-Trichloroethane	25	25.0	100	70-119
87-61-6	1,2,3-Trichlorobenzene	25	24.1	96	44-144
96-18-4	1,2,3-Trichloropropane	25	24.8	99	61-124
120-82-1	1,2,4-Trichlorobenzene	25	23.1	92	57-132
95-63-6	1,2,4-Trimethylbenzene	25	26.5	106	70-121
108-67-8	1,3,5-Trimethylbenzene	25	26.9	108	66-119
127-18-4	Tetrachloroethylene	25	24.5	98	72-132
108-88-3	Toluene	25	24.1	96	73-119
79-01-6	Trichloroethylene	25	22.6	90	73-121
75-69-4	Trichlorofluoromethane	25	28.7	115	46-152
75-01-4	Vinyl chloride	25	22.4	90	54-126
1330-20-7	Xylene (total)	75	76.7	102	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4036-BS	X0129027.D	1	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	72-122%
17060-07-0	1,2-Dichloroethane-D4	114%	68-124%
2037-26-5	Toluene-D8	112%	80-119%
460-00-4	4-Bromofluorobenzene	106%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39633-3MS	R03483473.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3MSD	R03483474.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3	R03483472.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	TD39633-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	113	90	125	119	95	5	46-129/25
71-43-2	Benzene	ND		25	21.1	84	25	21.3	85	1	68-119/12
108-86-1	Bromobenzene	ND		25	21.3	85	25	18.4	74	15*	71-119/12
75-27-4	Bromodichloromethane	ND		25	22.3	89	25	22.5	90	1	72-118/16
75-25-2	Bromoform	ND		25	21.9	88	25	22.8	91	4	54-123/17
106-99-0	1,3-Butadiene	ND		25	21.8	87	25	23.7	95	8	37-172/26
104-51-8	n-Butylbenzene	ND		25	23.6	94	25	27.9	112	17*	66-123/14
135-98-8	sec-Butylbenzene	ND		25	22.7	91	25	20.5	82	10	72-123/13
98-06-6	tert-Butylbenzene	ND		25	19.2	77	25	25.5	102	28*	70-124/15
108-90-7	Chlorobenzene	ND		25	20.4	82	25	21.8	87	7	74-120/12
75-00-3	Chloroethane	ND		25	27.0	108	25	27.1	108	0	61-132/16
67-66-3	Chloroform	ND		25	21.8	87	25	22.9	92	5	73-122/13
95-49-8	o-Chlorotoluene	ND		25	20.9	84	25	23.8	95	13*	71-122/12
106-43-4	p-Chlorotoluene	ND		25	21.6	86	25	25.2	101	15*	73-120/12
75-15-0	Carbon disulfide	ND		25	22.1	88	25	24.7	99	11	55-140/24
56-23-5	Carbon tetrachloride	ND		25	22.9	92	25	24.0	96	5	68-133/20
110-82-7	Cyclohexane	ND		25	23.2	93	25	24.8	99	7	57-160/20
75-34-3	1,1-Dichloroethane	ND		25	22.4	90	25	23.5	94	5	72-121/14
75-35-4	1,1-Dichloroethylene	ND		25	21.2	85	25	21.6	86	2	67-140/18
563-58-6	1,1-Dichloropropene	ND		25	27.7	111	25	28.2	113	2	73-130/15
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.9	96	25	28.3	113	17	47-133/23
106-93-4	1,2-Dibromoethane	ND		25	21.7	87	25	22.7	91	5	69-121/13
107-06-2	1,2-Dichloroethane	ND		25	23.1	92	25	23.2	93	0	68-121/12
78-87-5	1,2-Dichloropropane	ND		25	21.2	85	25	21.7	87	2	72-116/12
142-28-9	1,3-Dichloropropane	ND		25	20.3	81	25	21.4	86	5	70-118/12
108-20-3	Di-Isopropyl ether	ND		25	22.1	88	25	24.1	96	9	67-117/13
594-20-7	2,2-Dichloropropane	ND		25	25.0	100	25	26.7	107	7	57-141/16
124-48-1	Dibromochloromethane	ND		25	23.0	92	25	24.9	100	8	68-119/15
75-71-8	Dichlorodifluoromethane	ND		25	27.8	111	25	28.8	115	4	29-182/23
156-59-2	cis-1,2-Dichloroethylene	ND		25	21.5	86	25	23.5	94	9	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	20.2	81	25	20.4	82	1	71-118/18
541-73-1	m-Dichlorobenzene	ND		25	20.9	84	25	20.1	80	4	73-117/12
95-50-1	o-Dichlorobenzene	ND		25	21.1	84	25	24.6	98	15*	71-117/11
106-46-7	p-Dichlorobenzene	ND		25	20.8	83	25	22.7	91	9	71-116/11
77-73-6	Dicyclopentadiene	ND		25	22.8	91	25	24.7	99	8	57-144/24
156-60-5	trans-1,2-Dichloroethylene	ND		25	22.4	90	25	23.3	93	4	68-124/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39633-3MS	R03483473.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3MSD	R03483474.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3	R03483472.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Compound	TD39633-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	23.9	96	25	25.6	102	7	72-127/17
100-41-4	Ethylbenzene	ND		25	21.7	87	25	23.2	93	7	71-117/12
76-13-1	Freon 113	ND		25	20.2	81	25	21.7	87	7	57-167/23
110-54-3	Hexane	ND		25	25.6	102	25	27.5	110	7	44-179/22
87-68-3	Hexachlorobutadiene	ND		25	23.9	96	25	29.6	118	21*	62-143/18
98-82-8	Isopropylbenzene	ND		25	23.0	92	25	27.1	108	16*	74-141/13
99-87-6	p-Isopropyltoluene	ND		25	22.1	88	25	23.8	95	7	72-126/13
108-10-1	4-Methyl-2-pentanone	ND		125	102	82	125	99.1	79	3	54-122/20
74-83-9	Methyl bromide	ND		25	30.8	123	25	35.7	143*	15	53-138/16
74-87-3	Methyl chloride	ND		25	27.3	109	25	30.0	120	9	50-145/17
108-87-2	Methylcyclohexane	ND		25	23.0	92	25	25.5	102	10	54-162/20
74-95-3	Methylene bromide	ND		25	21.1	84	25	21.8	87	3	71-117/12
75-09-2	Methylene chloride	ND		25	21.7	87	25	23.4	94	8	60-125/16
78-93-3	Methyl ethyl ketone	ND		125	110	88	125	122	98	10	51-129/22
1634-04-4	Methyl Tert Butyl Ether	ND		25	23.2	93	25	24.8	99	7	65-119/13
91-20-3	Naphthalene	ND		25	21.5	86	25	27.0	108	23	43-139/28
103-65-1	n-Propylbenzene	ND		25	21.9	88	25	23.9	96	9	72-123/13
100-42-5	Styrene	ND		25	21.1	84	25	22.9	92	8	74-119/19
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	22.0	88	25	23.8	95	8	74-119/14
71-55-6	1,1,1-Trichloroethane	ND		25	23.1	92	25	24.5	98	6	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	21.2	85	25	19.4	78	9	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		25	20.7	83	25	21.8	87	5	70-119/13
87-61-6	1,2,3-Trichlorobenzene	ND		25	20.8	83	25	26.4	106	24	44-144/27
96-18-4	1,2,3-Trichloropropane	ND		25	21.2	85	25	21.9	88	3	61-124/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	22.1	88	25	27.2	109	21*	57-132/18
95-63-6	1,2,4-Trimethylbenzene	ND		25	20.1	80	25	25.1	100	22*	70-121/15
108-67-8	1,3,5-Trimethylbenzene	ND		25	22.1	88	25	25.6	102	15	66-119/15
127-18-4	Tetrachloroethylene	ND		25	27.0	108	25	30.4	122	12	72-132/14
108-88-3	Toluene	ND		25	20.6	82	25	22.0	88	7	73-119/13
79-01-6	Trichloroethylene	ND		25	22.3	89	25	22.7	91	2	73-121/13
75-69-4	Trichlorofluoromethane	ND		25	27.3	109	25	27.8	111	2	46-152/25
75-01-4	Vinyl chloride	ND		25	22.1	88	25	24.4	98	10	54-126/17
1330-20-7	Xylene (total)	ND		75	63.0	84	75	68.1	91	8	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39633-3MS	R03483473.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3MSD	R03483474.D	1	05/28/19	FI	n/a	n/a	VR2136
TD39633-3	R03483472.D	1	05/28/19	FI	n/a	n/a	VR2136

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-1, TD39645-2, TD39645-3, TD39645-4, TD39645-5, TD39645-6, TD39645-7, TD39645-8, TD39645-9

CAS No.	Surrogate Recoveries	MS	MSD	TD39633-3	Limits
1868-53-7	Dibromofluoromethane	111%	111%	111%	72-122%
17060-07-0	1,2-Dichloroethane-D4	117%	109%	110%	68-124%
2037-26-5	Toluene-D8	103%	103%	106%	80-119%
460-00-4	4-Bromofluorobenzene	100%	102%	103%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39694-3MS	X0129034.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3MSD	X0129035.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3	X0129033.D	2000	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	TD39694-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250000	174000	70	250000	214000	86	21	46-129/25
71-43-2	Benzene	ND		50000	42800	86	50000	46200	92	8	68-119/12
108-86-1	Bromobenzene	ND		50000	47000	94	50000	45200	90	4	71-119/12
75-27-4	Bromodichloromethane	ND		50000	42900	86	50000	41700	83	3	72-118/16
75-25-2	Bromoform	ND		50000	40200	80	50000	39000	78	3	54-123/17
106-99-0	1,3-Butadiene	ND		50000	20700	41	50000	61800	124	100*	37-172/26
104-51-8	n-Butylbenzene	ND		50000	56100	112	50000	54700	109	3	66-123/14
135-98-8	sec-Butylbenzene	ND		50000	56100	112	50000	54000	108	4	72-123/13
98-06-6	tert-Butylbenzene	ND		50000	53800	108	50000	52000	104	3	70-124/15
108-90-7	Chlorobenzene	ND		50000	46900	94	50000	44800	90	5	74-120/12
75-00-3	Chloroethane	ND		50000	37800	76	50000	37100	74	2	61-132/16
67-66-3	Chloroform	ND		50000	46600	93	50000	47200	94	1	73-122/13
95-49-8	o-Chlorotoluene	ND		50000	51800	104	50000	48600	97	6	71-122/12
106-43-4	p-Chlorotoluene	ND		50000	52000	104	50000	49800	100	4	73-120/12
75-15-0	Carbon disulfide	ND		50000	31100	62	50000	53900	108	54*	55-140/24
56-23-5	Carbon tetrachloride	ND		50000	44000	88	50000	46400	93	5	68-133/20
110-82-7	Cyclohexane	ND		50000	55300	111	50000	60700	121	9	57-160/20
75-34-3	1,1-Dichloroethane	ND		50000	43500	87	50000	48400	97	11	72-121/14
75-35-4	1,1-Dichloroethylene	ND		50000	42200	84	50000	55900	112	28*	67-140/18
563-58-6	1,1-Dichloropropene	ND		50000	49900	100	50000	51800	104	4	73-130/15
96-12-8	1,2-Dibromo-3-chloropropane	ND		50000	47600	95	50000	46500	93	2	47-133/23
106-93-4	1,2-Dibromoethane	ND		50000	47000	94	50000	45500	91	3	69-121/13
107-06-2	1,2-Dichloroethane	ND		50000	42400	85	50000	44100	88	4	68-121/12
78-87-5	1,2-Dichloropropane	ND		50000	43500	87	50000	44300	89	2	72-116/12
142-28-9	1,3-Dichloropropane	ND		50000	46800	94	50000	45000	90	4	70-118/12
108-20-3	Di-Isopropyl ether	ND		50000	42100	84	50000	46700	93	10	67-117/13
594-20-7	2,2-Dichloropropane	ND		50000	44000	88	50000	46800	94	6	57-141/16
124-48-1	Dibromochloromethane	ND		50000	45200	90	50000	43000	86	5	68-119/15
75-71-8	Dichlorodifluoromethane	ND		50000	45400	91	50000	45800	92	1	29-182/23
156-59-2	cis-1,2-Dichloroethylene	31600		50000	75400	88	50000	78900	95	5	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		50000	42600	85	50000	42200	84	1	71-118/18
541-73-1	m-Dichlorobenzene	ND		50000	47500	95	50000	46300	93	3	73-117/12
95-50-1	o-Dichlorobenzene	ND		50000	45600	91	50000	45900	92	1	71-117/11
106-46-7	p-Dichlorobenzene	ND		50000	45600	91	50000	44700	89	2	71-116/11
77-73-6	Dicyclopentadiene	ND		50000	59000	118	50000	56100	112	5	57-144/24
156-60-5	trans-1,2-Dichloroethylene	ND		50000	43400	87	50000	49700	99	14	68-124/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39694-3MS	X0129034.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3MSD	X0129035.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3	X0129033.D	2000	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Compound	TD39694-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		50000	50000	100	50000	48300	97	3	72-127/17
100-41-4	Ethylbenzene	ND		50000	50100	100	50000	47300	95	6	71-117/12
76-13-1	Freon 113	ND		50000	51200	102	50000	61200	122	18	57-167/23
110-54-3	Hexane	ND		50000	52900	106	50000	67600	135	24*	44-179/22
87-68-3	Hexachlorobutadiene	ND		50000	52300	105	50000	52500	105	0	62-143/18
98-82-8	Isopropylbenzene	ND		50000	56500	113	50000	53700	107	5	74-141/13
99-87-6	p-Isopropyltoluene	ND		50000	53700	107	50000	52400	105	2	72-126/13
108-10-1	4-Methyl-2-pentanone	ND		250000	206000	82	250000	199000	80	3	54-122/20
74-83-9	Methyl bromide	ND		50000	52000	104	50000	53500	107	3	53-138/16
74-87-3	Methyl chloride	ND		50000	44500	89	50000	44100	88	1	50-145/17
108-87-2	Methylcyclohexane	ND		50000	53900	108	50000	56300	113	4	54-162/20
74-95-3	Methylene bromide	ND		50000	40700	81	50000	41600	83	2	71-117/12
75-09-2	Methylene chloride	ND		50000	40500	81	50000	47300	95	15	60-125/16
78-93-3	Methyl ethyl ketone	ND		250000	218000	87	250000	232000	93	6	51-129/22
1634-04-4	Methyl Tert Butyl Ether	ND		50000	36800	74	50000	45400	91	21*	65-119/13
91-20-3	Naphthalene	ND		50000	47400	95	50000	48800	98	3	43-139/28
103-65-1	n-Propylbenzene	ND		50000	55200	110	50000	52100	104	6	72-123/13
100-42-5	Styrene	ND		50000	48100	96	50000	45900	92	5	74-119/19
630-20-6	1,1,1,2-Tetrachloroethane	ND		50000	47700	95	50000	45200	90	5	74-119/14
71-55-6	1,1,1-Trichloroethane	ND		50000	45600	91	50000	48500	97	6	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		50000	49000	98	50000	48100	96	2	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		50000	48900	98	50000	46700	93	5	70-119/13
87-61-6	1,2,3-Trichlorobenzene	ND		50000	46300	93	50000	46100	92	0	44-144/27
96-18-4	1,2,3-Trichloropropane	ND		50000	46000	92	50000	45500	91	1	61-124/16
120-82-1	1,2,4-Trichlorobenzene	ND		50000	45500	91	50000	45300	91	0	57-132/18
95-63-6	1,2,4-Trimethylbenzene	ND		50000	52000	104	50000	49900	100	4	70-121/15
108-67-8	1,3,5-Trimethylbenzene	ND		50000	53100	106	50000	50500	101	5	66-119/15
127-18-4	Tetrachloroethylene	ND		50000	47900	96	50000	45700	91	5	72-132/14
108-88-3	Toluene	ND		50000	47000	94	50000	46000	92	2	73-119/13
79-01-6	Trichloroethylene	203000		50000	249000	92	50000	251000	96	1	73-121/13
75-69-4	Trichlorofluoromethane	ND		50000	56400	113	50000	56700	113	1	46-152/25
75-01-4	Vinyl chloride	2060		50000	45100	86	50000	44500	85	1	54-126/17
1330-20-7	Xylene (total)	ND		150000	151000	101	150000	142000	95	6	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39645
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39694-3MS	X0129034.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3MSD	X0129035.D	2000	05/30/19	FT	n/a	n/a	VX4036
TD39694-3	X0129033.D	2000	05/30/19	FT	n/a	n/a	VX4036

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39645-10, TD39645-11

CAS No.	Surrogate Recoveries	MS	MSD	TD39694-3	Limits
1868-53-7	Dibromofluoromethane	106%	108%	105%	72-122%
17060-07-0	1,2-Dichloroethane-D4	111%	112%	113%	68-124%
2037-26-5	Toluene-D8	113%	112%	114%	80-119%
460-00-4	4-Bromofluorobenzene	104%	106%	106%	72-126%

* = Outside of Control Limits.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Wood Environment & Infrastructure Soln.

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

1420192004

SGS Job Number: TD39648

Sampling Dates: 05/21/19 - 05/23/19

Report to:

Wood Environment & Infrastructure Soln.
4600 East Washington Street Suite 600
Phoenix, AZ 85034
Samantha.sargent@woodplc.com; emily.lodolce@woodplc.com

ATTN: Samantha Sargent

Total number of pages in report: 87

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

John Watson
Technical Director

Client Service contact: Anita Patel 713-271-4700

Certifications: TX (T104704220-19-32) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2018-129) VA (10171)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

SGS is the sole authority for authorizing edits or modifications to this document.
Unauthorized modification of this report is strictly prohibited.
Review standard terms at: http://www.sgs.com/en/terms-and-conditions

Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **5**
Section 3: Summary of Hits **7**
Section 4: Sample Results **10**
4.1: TD39648-1: MW10-705-052119 11
4.2: TD39648-2: MW09-718-052119 14
4.3: TD39648-3: TSSV06-729-052119 17
4.4: TD39648-4: TSSV07-742-052119 20
4.5: TD39648-5: MW13-752-052119 23
4.6: TD39648-6: TSSV02-732-052119 26
4.7: TD39648-7: DUP01-052119 29
4.8: TD39648-8: DUP03-052119 32
4.9: TD39648-9: MW11-712-052219 35
4.10: TD39648-10: MW11-737-052219 38
4.11: TD39648-11: MW11-766-052219 41
4.12: TD39648-12: EW01-712-052319 44
4.13: TD39648-13: DUP02-052219 47
4.14: TD39648-14: TSSV03-760-052319 50
4.15: TD39648-15: TSSV05-760-052319 53
4.16: TD39648-16: TSSV04-760-052319 56
4.17: TD39648-17: MW12-729-052319 59
4.18: TD39648-18: TRIP BLANK-052319 62
Section 5: Misc. Forms **65**
5.1: Arizona Qualifiers 66
5.2: Chain of Custody 67
Section 6: MS Volatiles - QC Data Summaries **75**
6.1: Method Blank Summary 76
6.2: Blank Spike Summary 80
6.3: Matrix Spike/Matrix Spike Duplicate Summary 84

SGS North America Inc.

Sample Summary

Wood Environment & Infrastructure Soln.

Job No: TD39648

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Project No: 1420192004

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD39648-1	05/21/19	07:25		05/24/19	AQ	Water	MW10-705-052119
TD39648-2	05/21/19	08:10		05/24/19	AQ	Water	MW09-718-052119
TD39648-3	05/21/19	08:55		05/24/19	AQ	Water	TSSV06-729-052119
TD39648-4	05/21/19	09:45		05/24/19	AQ	Water	TSSV07-742-052119
TD39648-5	05/21/19	10:30		05/24/19	AQ	Water	MW13-752-052119
TD39648-6	05/21/19	11:10		05/24/19	AQ	Water	TSSV02-732-052119
TD39648-7	05/21/19	16:30		05/24/19	AQ	Water	DUP01-052119
TD39648-8	05/21/19	17:00		05/24/19	AQ	Water	DUP03-052119
TD39648-9	05/22/19	11:20		05/24/19	AQ	Water	MW11-712-052219
TD39648-10	05/22/19	11:20		05/24/19	AQ	Water	MW11-737-052219
TD39648-11	05/22/19	11:20		05/24/19	AQ	Water	MW11-766-052219
TD39648-12	05/23/19	07:40		05/24/19	AQ	Water	EW01-712-052319
TD39648-13	05/22/19	16:00		05/24/19	AQ	Water	DUP02-052219

SGS North America Inc.

Sample Summary
(continued)

Wood Environment & Infrastructure Soln.

Job No: TD39648

CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Project No: 1420192004

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TD39648-14	05/23/19	09:40		05/24/19	AQ	Water	TSSV03-760-052319
TD39648-14D	05/23/19	09:40		05/24/19	AQ	Water Dup/MSD	TSSV03-760-052319 MSD
TD39648-14S	05/23/19	09:40		05/24/19	AQ	Water Matrix Spike	TSSV03-760-052319 MS
TD39648-15	05/23/19	10:05		05/24/19	AQ	Water	TSSV05-760-052319
TD39648-16	05/23/19	10:50		05/24/19	AQ	Water	TSSV04-760-052319
TD39648-17	05/23/19	12:00		05/24/19	AQ	Water	MW12-729-052319
TD39648-18	05/23/19	00:00		05/24/19	AQ	Trip Blank Water	TRIP BLANK-052319

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Wood Environment & Infrastructure Soln.	**Job No**	TD39648
Site:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ	**Report Date**	6/4/2019 4:16:26 PM

17 Samples were collected on between 05/21/2019 and 05/23/2019 and received intact at SGS North America Inc (SGS) on 05/24/2019 and properly preserved in 1 cooler at 1.1 Deg C. The samples received an SGS job number of TD39648. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** VX4032

- All samples were analyzed within the recommended method holding time.
- Sample(s) TD39648-14MS, TD39648-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- TD39648-14 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-18 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-1 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-2 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-3 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-6 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-5 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-4 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-7 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-8 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-9 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-10 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-11 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-12 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-13 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-15 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
- TD39648-16 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1

MS Volatiles By Method SW846 8260C

Matrix: AQ	**Batch ID:** VX4032

- TD39648-17 for 4-Methyl-2-pentanone: CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1

Matrix: AQ	**Batch ID:** VX4034

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TD39643-2MS, TD39643-2MSD were used as the QC samples indicated.
- TD39648-1 for Trichloroethylene: AZ:D2

SGS certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS and as stated on the COC. SGS certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Quality Manual except as noted above. This report is to be used in its entirety. SGS is not responsible for any assumptions of data quality if partial data packages are used.

Summary of Hits

Job Number: TD39648
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 05/21/19 thru 05/23/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TD39648-1	**MW10-705-052119**					
Chloroform		1.5	1.0		ug/l	SW846 8260C
1,1-Dichloroethane		1.7	1.0		ug/l	SW846 8260C
1,1-Dichloroethylene		9.5	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		25.2	1.0		ug/l	SW846 8260C
Freon 113		2.4	1.0		ug/l	SW846 8260C
Tetrachloroethylene		11.1	1.0		ug/l	SW846 8260C
Trichloroethylene [a]		307	5.0		ug/l	SW846 8260C
TD39648-2	**MW09-718-052119**					
Trichloroethylene		21.6	1.0		ug/l	SW846 8260C
TD39648-3	**TSSV06-729-052119**					
1,1-Dichloroethylene		1.0	1.0		ug/l	SW846 8260C
Tetrachloroethylene		1.5	1.0		ug/l	SW846 8260C
Trichloroethylene		9.8	1.0		ug/l	SW846 8260C
TD39648-4	**TSSV07-742-052119**					
Trichloroethylene		1.2	1.0		ug/l	SW846 8260C
TD39648-5	**MW13-752-052119**					
1,1-Dichloroethylene		3.6	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		1.1	1.0		ug/l	SW846 8260C
Methylene chloride		5.1	5.0		ug/l	SW846 8260C
Tetrachloroethylene		1.7	1.0		ug/l	SW846 8260C
Trichloroethylene		5.9	1.0		ug/l	SW846 8260C
TD39648-6	**TSSV02-732-052119**					
No hits reported in this sample.						
TD39648-7	**DUP01-052119**					
Trichloroethylene		21.3	1.0		ug/l	SW846 8260C
TD39648-8	**DUP03-052119**					
1,1-Dichloroethylene		3.7	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		1.1	1.0		ug/l	SW846 8260C
Methylene chloride		5.3	5.0		ug/l	SW846 8260C

Summary of Hits

Job Number: TD39648
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 05/21/19 thru 05/23/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Tetrachloroethylene		1.7	1.0		ug/l	SW846 8260C
Trichloroethylene		6.0	1.0		ug/l	SW846 8260C
TD39648-9	**MW11-712-052219**					
1,1-Dichloroethylene		1.3	1.0		ug/l	SW846 8260C
Trichloroethylene		25.7	1.0		ug/l	SW846 8260C
TD39648-10	**MW11-737-052219**					
1,1-Dichloroethylene		1.3	1.0		ug/l	SW846 8260C
Trichloroethylene		24.8	1.0		ug/l	SW846 8260C
TD39648-11	**MW11-766-052219**					
1,1-Dichloroethylene		1.3	1.0		ug/l	SW846 8260C
Trichloroethylene		25.3	1.0		ug/l	SW846 8260C
TD39648-12	**EW01-712-052319**					
1,1-Dichloroethylene		1.0	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		1.9	1.0		ug/l	SW846 8260C
Trichloroethylene		23.4	1.0		ug/l	SW846 8260C
TD39648-13	**DUP02-052219**					
1,1-Dichloroethylene		1.2	1.0		ug/l	SW846 8260C
Trichloroethylene		25.6	1.0		ug/l	SW846 8260C
TD39648-14	**TSSV03-760-052319**					
1,1-Dichloroethane		1.1	1.0		ug/l	SW846 8260C
1,1-Dichloroethylene		3.1	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		9.4	1.0		ug/l	SW846 8260C
Tetrachloroethylene		3.3	1.0		ug/l	SW846 8260C
Trichloroethylene		141	1.0		ug/l	SW846 8260C
TD39648-15	**TSSV05-760-052319**					
Trichloroethylene		3.4	1.0		ug/l	SW846 8260C
TD39648-16	**TSSV04-760-052319**					
1,1-Dichloroethylene		6.0	1.0		ug/l	SW846 8260C
cis-1,2-Dichloroethylene		7.7	1.0		ug/l	SW846 8260C

Summary of Hits

Job Number: TD39648
Account: Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ
Collected: 05/21/19 thru 05/23/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Freon 113		1.4	1.0		ug/l	SW846 8260C
Tetrachloroethylene		5.7	1.0		ug/l	SW846 8260C
Trichloroethylene		95.8	1.0		ug/l	SW846 8260C

TD39648-17 MW12-729-052319

No hits reported in this sample.

TD39648-18 TRIP BLANK-052319

No hits reported in this sample.

(a) AZ:D2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW10-705-052119		
Lab Sample ID:	TD39648-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128947.D	1	05/28/19 12:50	FT	n/a	n/a	VX4032
Run #2	X0128994.D	5	05/29/19 12:01	FT	n/a	n/a	VX4034

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	1.5	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	1.7	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	9.5	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	25.2	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-705-052119		
Lab Sample ID:	TD39648-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	2.4	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	11.1	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene [b]	307 [c]	5.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-705-052119		
Lab Sample ID:	TD39648-1	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%	103%	72-122%
17060-07-0	1,2-Dichloroethane-D4	109%	112%	68-124%
2037-26-5	Toluene-D8	115%	114%	80-119%
460-00-4	4-Bromofluorobenzene	105%	107%	72-126%

CAS No.	Tentatively Identified Compounds [d]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) AZ:D2
(c) Result is from Run# 2
(d) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW09-718-052119		
Lab Sample ID:	TD39648-2	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128948.D	1	05/28/19 13:16	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW09-718-052119		
Lab Sample ID:	TD39648-2	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	21.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW09-718-052119		
Lab Sample ID:	TD39648-2	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TSSV06-729-052119		
Lab Sample ID:	TD39648-3	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128949.D	1	05/28/19 13:41	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV06-729-052119		
Lab Sample ID:	TD39648-3	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	1.5	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	9.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV06-729-052119		
Lab Sample ID:	TD39648-3	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	114%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV07-742-052119		
Lab Sample ID:	TD39648-4	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128950.D	1	05/28/19 14:07	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV07-742-052119		
Lab Sample ID:	TD39648-4	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	1.2	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV07-742-052119		
Lab Sample ID:	TD39648-4	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		72-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	105%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-752-052119		
Lab Sample ID:	TD39648-5	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128951.D	1	05/28/19 14:32	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	3.6	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.1	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-752-052119		
Lab Sample ID:	TD39648-5	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	5.1	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	1.7	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	5.9	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-752-052119		
Lab Sample ID:	TD39648-5	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		72-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	114%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-052119		
Lab Sample ID:	TD39648-6	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128952.D	1	05/28/19 14:58	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-052119		
Lab Sample ID:	TD39648-6	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV02-732-052119		
Lab Sample ID:	TD39648-6	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		72-122%
17060-07-0	1,2-Dichloroethane-D4	114%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-052119		
Lab Sample ID:	TD39648-7	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128953.D	1	05/28/19 15:23	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-052119		
Lab Sample ID:	TD39648-7	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	21.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP01-052119		
Lab Sample ID:	TD39648-7	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		72-122%
17060-07-0	1,2-Dichloroethane-D4	111%		68-124%
2037-26-5	Toluene-D8	116%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-052119		
Lab Sample ID:	TD39648-8	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128954.D	1	05/28/19 15:49	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	3.7	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.1	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-052119		
Lab Sample ID:	TD39648-8	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	5.3	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	1.7	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	6.0	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP03-052119		
Lab Sample ID:	TD39648-8	**Date Sampled:**	05/21/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		72-122%
17060-07-0	1,2-Dichloroethane-D4	109%		68-124%
2037-26-5	Toluene-D8	117%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW11-712-052219		
Lab Sample ID:	TD39648-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128955.D	1	05/28/19 16:14	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.3	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-712-052219		
Lab Sample ID:	TD39648-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	25.7	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-712-052219		
Lab Sample ID:	TD39648-9	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		72-122%
17060-07-0	1,2-Dichloroethane-D4	115%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-737-052219		
Lab Sample ID:	TD39648-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128956.D	1	05/28/19 16:39	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.3	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-737-052219		
Lab Sample ID:	TD39648-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	24.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-737-052219		
Lab Sample ID:	TD39648-10	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	106%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-766-052219		
Lab Sample ID:	TD39648-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128957.D	1	05/28/19 17:05	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.3	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-766-052219		
Lab Sample ID:	TD39648-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	25.3	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW11-766-052219		
Lab Sample ID:	TD39648-11	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	114%		68-124%
2037-26-5	Toluene-D8	116%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW01-712-052319		
Lab Sample ID:	TD39648-12	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128958.D	1	05/28/19 17:30	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.9	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW01-712-052319		
Lab Sample ID:	TD39648-12	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	23.4	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW01-712-052319		
Lab Sample ID:	TD39648-12	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	112%		68-124%
2037-26-5	Toluene-D8	115%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP02-052219		
Lab Sample ID:	TD39648-13	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128959.D	1	05/28/19 17:56	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	1.2	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP02-052219		
Lab Sample ID:	TD39648-13	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	25.6	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DUP02-052219		
Lab Sample ID:	TD39648-13	**Date Sampled:**	05/22/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	115%		68-124%
2037-26-5	Toluene-D8	114%		80-119%
460-00-4	4-Bromofluorobenzene	108%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TSSV03-760-052319		
Lab Sample ID:	TD39648-14	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128942.D	1	05/28/19 10:43	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	1.1	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	3.1	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	9.4	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV03-760-052319		
Lab Sample ID:	TD39648-14	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	3.3	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	141	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV03-760-052319		
Lab Sample ID:	TD39648-14	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		72-122%
17060-07-0	1,2-Dichloroethane-D4	110%		68-124%
2037-26-5	Toluene-D8	114%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV05-760-052319		
Lab Sample ID:	TD39648-15	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128960.D	1	05/28/19 18:21	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV05-760-052319		
Lab Sample ID:	TD39648-15	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	3.4	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV05-760-052319		
Lab Sample ID:	TD39648-15	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	114%		68-124%
2037-26-5	Toluene-D8	116%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV04-760-052319		
Lab Sample ID:	TD39648-16	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128961.D	1	05/28/19 18:47	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	6.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	7.7	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV04-760-052319		
Lab Sample ID:	TD39648-16	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	1.4	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	5.7	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	95.8	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TSSV04-760-052319		
Lab Sample ID:	TD39648-16	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	116%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW12-729-052319		
Lab Sample ID:	TD39648-17	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128962.D	1	05/28/19 19:12	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-729-052319		
Lab Sample ID:	TD39648-17	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW12-729-052319		
Lab Sample ID:	TD39648-17	**Date Sampled:**	05/23/19
Matrix:	AQ - Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	116%		80-119%
460-00-4	4-Bromofluorobenzene	107%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-052319		
Lab Sample ID:	TD39648-18	**Date Sampled:**	05/23/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0128946.D	1	05/28/19 12:25	FT	n/a	n/a	VX4032
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-052319		
Lab Sample ID:	TD39648-18	**Date Sampled:**	05/23/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone [a]	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-052319		
Lab Sample ID:	TD39648-18	**Date Sampled:**	05/23/19
Matrix:	AQ - Trip Blank Water	**Date Received:**	05/24/19
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		72-122%
17060-07-0	1,2-Dichloroethane-D4	113%		68-124%
2037-26-5	Toluene-D8	113%		80-119%
460-00-4	4-Bromofluorobenzene	104%		72-126%

CAS No.	Tentatively Identified Compounds [b]	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) CCV recovery was below method acceptance criteria. Low check standard confirms detectability. AZ:V9,N1
(b) Propylene, 4-Ethyltoluene and 1,2,3-Trimethylbenzene not detected by TIC search. AZ:N1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
N1	See case narrative.
V9	CCV recovery was below method acceptance limits.

SGS PHOENIX **CHAIN OF CUSTODY**

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/ehsusa

PAGE 1 OF 2

FED-EX Tracking # 7753 0154 0890
Bottle Order Control #
SGS Quote #
SGS Job # TD39648

Client / Reporting Information

Company Name: Wood
Street Address: 4600 E Washington St Suite 600
City: Phoenix State: AZ Zip: 85034
Project Contact: emily.lodolce@ Samantha.Sargent@woodplc.com
E-mail:
Phone #: 602-733-6000
Sampler(s) Name(s): J. Ramirez Phone #: 602-733-6151

Project Information

Project Name: Cave Creek Landfill
Street: 3955 E Carefree Highway
City: Cave Creek State: AZ
Project # 1420192004
Client Purchase Order #
Project Manager: Natalie Chrisman

Billing Information (If different from Report to)

Company Name: Wood
Street Address:
City State Zip
Attention:

Requested Analyses

82608 VOCs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB - Field Blank
EB - Equipment Blank
RB - Rinse Blank
TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	Methanol	ENCORE	OTHER	82608 VOCs	LAB USE ONLY
1	MW10-705-052119	5/21/19	07:25	–	W	3	3												X	
2	MW04-718-052119	5/21/19	08:10	–	W	3	3												X	
3	TSSV06-729-052119	5/21/19	08:55	–	W	3	3												X	
4	TSSV07-742-052119	5/21/19	09:45	–	W	3	3												X	
5	MW13-752-052119	5/21/19	10:30	–	W	3	3												X	
6	TSSV02-732-052119	5/21/19	11:10	–	W	3	3												X	
7	DUP01-052119	5/21/19	16:30	–	W	3	3												X	
8	DUP03-052119	5/21/19	17:00	–	W	3	3												X	
9	MW11-712-052219	5/22/19	11:20	–	W	3	3												X	
10	MW11-737-052219	5/22/19	11:20	–	W	3	3												X	
11	MW11-766-052219	5/22/19	11:20	–	W	3	3												X	
12	EUD1-712-052319	5/23/19	07:40	–	W	3	3												X	

Turnaround Time (Business Days)

- [x] Standard 10 Business Days
- [ ] 5 Business Days *RUSH*
- [ ] 4 Business Days *RUSH*
- [ ] 3 Business Days *RUSH*
- [ ] 2 Business Days *RUSH*
- [ ] 1 Business Day *EMERGENCY*

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Approved By (SGS PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished By:	Date / Time:	Received By:	Date / Time:	Relinquished By:	Date / Time:	Received By:	Date / Time:
1	5/23/19 1210	1	5.23.19 1400	2	5.23.19 1400	2	5/23/19 1400
3	5/23/19 1600	3 Fed Ex	5/23/19 1600	4 Fedex	5-24-19 1000	4	5-24-19 1000
5		5					

Custody Seal # ☐ Intact ☐ Not Intact ☐ Absent
Preserved where applicable ☐
On Ice ☐ Cooler Temp. °C

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

TD39648: Chain of Custody
Page 1 of 8

SGS PHOENIX

CHAIN OF CUSTODY

SGS North America Inc. - Houston
10165 Harwin Dr, Ste 150 Houston TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.sgs.com/en/usa

FED-Ex Tracking # 7759 0154 0890
SGS Quote #
Bottle Order Control #
SGS Job # TD39648

Client / Reporting Information

Company Name: Wood
Street Address: 4600 E Washington St Suite 600
City / State / Zip: Phoenix AZ 85034
Project Contact / E-mail: samantha.sargent@woodplc.com
Phone #: 602-733-6000
Sampler(s) Name(s): J. Ramirez
Phone #: 602-733-6051

Project Information

Project Name: Cave Creek Landfill
Street: 3455 E Carefree Highway
City / State: Cave Creek AZ
Project #: 142042004
Client Purchase Order #
Project Manager: Natalie Chrisman

Billing Information (if different from Report to)
Company Name: Wood
Street Address:
City / State / Zip:
Attention:

Requested Analyses: 8260B VOCs

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED - Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solids; WP - Wipes; FB - Field Blank; EB - Equipment Blank; RB - Rinse Blank; TB - Trip Blank

SGS Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MeOH	TSP	NaHSO4	ENCORE	OTHER	8260B VOCs	LAB USE ONLY
12	DUP02-052219	5/22/19	16:00	-	W	3	3												X	
13	TSW03-700-052319	5/23/19	09:40	-	W	3	3												X	
14	TSW03-700-052319-MS	5/23/19	09:40	-	W	3	3												X	
15	TSW03-700-052319-SD	5/23/19	09:40	-	W	3	3												X	
16	TSW05-700-052319	5/23/19	10:05	-	W	3	3												X	
17	TSW04-700-052319	5/23/19	10:50	-	W	3	3												X	
18	HW12-724-052319	5/23/19	12:00	-	W	3	3												X	
	TRIP BLANK-052319	5/23/19	-	-	W	2	2												X	
	TEMP BLANK-052319	5/23/19	-	-	W	1														

Turnaround Time (Business days)
- [x] Standard 10 Business Days
- [ ] 5 Business Days RUSH
- [ ] 4 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY

Approved By (SGS PM): / Date:

Emergency & Rush T/A data available via Lablink. Approval needed for RUSH/Emergency TAT

Data Deliverable Information
- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other ___

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw Data

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by:	Date / Time:	Received By:	Relinquished By:	Date / Time:	Received By:	Date / Time:
1	[signature]	5/23/19 1210	1 [signature]	2 [signature]	5-23-19 1400	3 [signature]	5/23/19 1400
3	[signature]	5/23/19 1600	3 Fed Ex	4	5-23-19 1600	4	
5			5				

Custody Seal # ☐ Intact ☐ Not used ☐ Absent
Preserved where applicable ☐
On Ice ☐ Cooler Temp. °C
Thermometer ID

http://www.sgs.com/en/terms-and-conditions

EHSA-QAC-0024-00-FORM-Houston - Standard COC

5.2 5

TD39648: Chain of Custody
Page 2 of 8

SGS

COOLER TEMP FORM

SGS JOB#_____

7753 0154 0890

Delivered by (circle one): FedEx/UPS/DHL SGS Driver Client Other courier

Date: 5/24/2019

Client: Wood

Cooler Number: 1

Thermometer ID: IR 4 CF, °C 0 Corrected Temp, °C 1.1

Custody seals? (Y or N): _____ Custody seals intact? (Y or N) _____

FedEx/UPS/DHL airbill number: 7753 0154 0890

SAMPLES CONTAINED IN COOLER

Form: SM027-08; 05/20/2019

TD39648: Chain of Custody

Page 3 of 8

SGS Sample Receipt Summary

Job Number: TD39648 **Client:** WOOD **Project:** CAVE CREEK LANDFILL

Date / Time Received: 5/24/2019 **Delivery Method:** **Airbill #'s:** 7753 0154 0890

No. Coolers: 1 **Therm ID:** IR-4; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (1.1/1.1);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		

Quality Control Preservation	Y	or	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☑		☐	☐	☑	☐
2. Trip Blank listed on COC:	☑		☐	☐		
3. Samples preserved properly:	☑		☐			
4. VOCs headspace free:	☑		☐	☐		

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SAMPLE FRACTION "4" LABEL STATES id is "tssv07-743"
COC STATES ID IS "TSSV06-742"
DATE AND TIMES MATCH

SAMPLE FRACTION "11" LABEL STATES ID "MW11-750"
COC STATES ID IS "MW-766"
DATE AND TIMES MATCH

Per client, correct IDs are:

TSSV06-729-052119 : sampled at 8:55 and TSSV07-742-052119: sampled at 9:45 – both on 5/21/19]

MW11 has 3 samples as follows: MW11-766-052219 (11:20), MW11-737-052219 (11:20) , AND MW11-712-052219 (11:20). There should be no 750 so it must be an incorrect label."

TD39648: Chain of Custody
Page 5 of 8

Sample Receipt Log

Job #: TD39648 **Date / Time Received:** 5/24/2019 **Initials:** SJ

Client:

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD39648-1	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-1	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-1	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-2	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-2	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-2	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-3	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-3	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-3	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-4	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-4	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-4	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-5	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-5	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-5	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-6	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-6	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-6	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-7	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-7	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-7	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-8	40ml	1	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
1	TD39648-8	40ml	2	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

Sample Receipt Log

Job #: TD39648 **Date / Time Received:** 5/24/2019 **Initials:** SJ

Client:

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	TD39648-8	40ml	3	VR 253	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-9	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-9	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-9	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-10	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-10	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-10	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-11	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-11	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-11	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-12	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-12	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-12	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-13	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-13	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-13	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	1	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	2	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	3	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	4	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	5	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	6	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	7	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

Sample Receipt Log

Job #: TD39648 **Date / Time Received:** 5/24/2019 **Initials:** SJ

Client:

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
	TD39648-14	40ml	8	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-14	40ml	9	VR 245	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-15	40ml	1	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-15	40ml	2	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-15	40ml	3	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-16	40ml	1	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-16	40ml	2	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-16	40ml	3	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-17	40ml	1	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-17	40ml	2	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-17	40ml	3	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-18	40ml	1	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				
	TD39648-18	40ml	2	VR 183	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-MB	X0128941.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
106-99-0	1,3-Butadiene	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
110-82-7	Cyclohexane	ND	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
77-73-6	Dicyclopentadiene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-MB	X0128941.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
76-13-1	Freon 113	ND	1.0	ug/l	
110-54-3	Hexane	ND	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	1.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

Method Blank Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-MB	X0128941.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	72-122%
17060-07-0	1,2-Dichloroethane-D4	111%	68-124%
2037-26-5	Toluene-D8	114%	80-119%
460-00-4	4-Bromofluorobenzene	103%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
115-11-7	1-Propene, 2-methyl-	1.10	35	ug/l	JN
	Total TIC, Volatile		35	ug/l	J

Method Blank Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4034-MB	X0128988.D	1	05/29/19	FT	n/a	n/a	VX4034

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1

CAS No.	Compound	Result	RL	Units	Q
79-01-6	Trichloroethylene	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	72-122%
17060-07-0	1,2-Dichloroethane-D4	113%	68-124%
2037-26-5	Toluene-D8	114%	80-119%
460-00-4	4-Bromofluorobenzene	108%	72-126%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
115-11-7	1-Propene, 2-methyl-	1.10	22	ug/l	JN
	Total TIC, Volatile		22	ug/l	J

Blank Spike Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-BS	X0128938.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	104	83	46-129
71-43-2	Benzene	25	22.7	91	68-119
108-86-1	Bromobenzene	25	23.3	93	71-119
75-27-4	Bromodichloromethane	25	20.7	83	72-118
75-25-2	Bromoform	25	21.4	86	54-123
106-99-0	1,3-Butadiene	25	29.4	118	37-172
104-51-8	n-Butylbenzene	25	26.4	106	66-123
135-98-8	sec-Butylbenzene	25	26.2	105	72-123
98-06-6	tert-Butylbenzene	25	24.9	100	70-124
108-90-7	Chlorobenzene	25	22.9	92	74-120
75-00-3	Chloroethane	25	19.7	79	61-132
67-66-3	Chloroform	25	22.9	92	73-122
95-49-8	o-Chlorotoluene	25	24.8	99	71-122
106-43-4	p-Chlorotoluene	25	25.0	100	73-120
75-15-0	Carbon disulfide	25	27.3	109	55-140
56-23-5	Carbon tetrachloride	25	23.2	93	68-133
110-82-7	Cyclohexane	25	29.9	120	57-160
75-34-3	1,1-Dichloroethane	25	23.3	93	72-121
75-35-4	1,1-Dichloroethylene	25	26.7	107	67-140
563-58-6	1,1-Dichloropropene	25	24.0	96	73-130
96-12-8	1,2-Dibromo-3-chloropropane	25	24.4	98	47-133
106-93-4	1,2-Dibromoethane	25	23.2	93	69-121
107-06-2	1,2-Dichloroethane	25	21.4	86	68-121
78-87-5	1,2-Dichloropropane	25	21.7	87	72-116
142-28-9	1,3-Dichloropropane	25	22.5	90	70-118
108-20-3	Di-Isopropyl ether	25	23.1	92	67-117
594-20-7	2,2-Dichloropropane	25	23.9	96	57-141
124-48-1	Dibromochloromethane	25	22.4	90	68-119
75-71-8	Dichlorodifluoromethane	25	24.5	98	29-182
156-59-2	cis-1,2-Dichloroethylene	25	22.1	88	72-117
10061-01-5	cis-1,3-Dichloropropene	25	21.4	86	71-118
541-73-1	m-Dichlorobenzene	25	23.9	96	73-117
95-50-1	o-Dichlorobenzene	25	23.5	94	71-117
106-46-7	p-Dichlorobenzene	25	23.3	93	71-116
77-73-6	Dicyclopentadiene	25	28.2	113	57-144
156-60-5	trans-1,2-Dichloroethylene	25	23.7	95	68-124

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-BS	X0128938.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	25.3	101	72-127
100-41-4	Ethylbenzene	25	23.5	94	71-117
76-13-1	Freon 113	25	30.2	121	57-167
110-54-3	Hexane	25	33.6	134	44-179
87-68-3	Hexachlorobutadiene	25	26.6	106	62-143
98-82-8	Isopropylbenzene	25	26.7	107	74-141
99-87-6	p-Isopropyltoluene	25	25.7	103	72-126
108-10-1	4-Methyl-2-pentanone	125	99.4	80	54-122
74-83-9	Methyl bromide	25	26.3	105	53-138
74-87-3	Methyl chloride	25	22.7	91	50-145
108-87-2	Methylcyclohexane	25	28.6	114	54-162
74-95-3	Methylene bromide	25	20.6	82	71-117
75-09-2	Methylene chloride	25	22.5	90	60-125
78-93-3	Methyl ethyl ketone	125	117	94	51-129
1634-04-4	Methyl Tert Butyl Ether	25	23.1	92	65-119
91-20-3	Naphthalene	25	25.8	103	43-139
103-65-1	n-Propylbenzene	25	25.6	102	72-123
100-42-5	Styrene	25	23.3	93	74-119
630-20-6	1,1,1,2-Tetrachloroethane	25	23.2	93	74-119
71-55-6	1,1,1-Trichloroethane	25	23.2	93	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	24.1	96	62-121
79-00-5	1,1,2-Trichloroethane	25	22.6	90	70-119
87-61-6	1,2,3-Trichlorobenzene	25	24.3	97	44-144
96-18-4	1,2,3-Trichloropropane	25	22.8	91	61-124
120-82-1	1,2,4-Trichlorobenzene	25	23.8	95	57-132
95-63-6	1,2,4-Trimethylbenzene	25	25.1	100	70-121
108-67-8	1,3,5-Trimethylbenzene	25	25.2	101	66-119
127-18-4	Tetrachloroethylene	25	24.2	97	72-132
108-88-3	Toluene	25	23.1	92	73-119
79-01-6	Trichloroethylene	25	22.1	88	73-121
75-69-4	Trichlorofluoromethane	25	28.2	113	46-152
75-01-4	Vinyl chloride	25	22.1	88	54-126
1330-20-7	Xylene (total)	75	71.1	95	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4032-BS	X0128938.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	72-122%
17060-07-0	1,2-Dichloroethane-D4	110%	68-124%
2037-26-5	Toluene-D8	112%	80-119%
460-00-4	4-Bromofluorobenzene	103%	72-126%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX4034-BS	X0128986.D	1	05/29/19	FT	n/a	n/a	VX4034

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-01-6	Trichloroethylene	25	21.3	85	73-121

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	72-122%
17060-07-0	1,2-Dichloroethane-D4	111%	68-124%
2037-26-5	Toluene-D8	114%	80-119%
460-00-4	4-Bromofluorobenzene	106%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39648-14MS	X0128943.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14MSD	X0128944.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14	X0128942.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	TD39648-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10.3		125	111	81	125	116	85	4	46-129/25
71-43-2	Benzene	ND		25	22.6	90	25	22.3	89	1	68-119/12
108-86-1	Bromobenzene	ND		25	23.0	92	25	23.1	92	0	71-119/12
75-27-4	Bromodichloromethane	ND		25	20.0	80	25	19.6	78	2	72-118/16
75-25-2	Bromoform	ND		25	19.8	79	25	19.9	80	1	54-123/17
106-99-0	1,3-Butadiene	ND		25	31.2	125	25	29.7	119	5	37-172/26
104-51-8	n-Butylbenzene	ND		25	25.0	100	25	26.1	104	4	66-123/14
135-98-8	sec-Butylbenzene	ND		25	25.4	102	25	25.9	104	2	72-123/13
98-06-6	tert-Butylbenzene	ND		25	24.6	98	25	24.6	98	0	70-124/15
108-90-7	Chlorobenzene	ND		25	22.4	90	25	22.5	90	0	74-120/12
75-00-3	Chloroethane	ND		25	22.3	89	25	20.6	82	8	61-132/16
67-66-3	Chloroform	ND		25	23.6	94	25	23.3	93	1	73-122/13
95-49-8	o-Chlorotoluene	ND		25	24.6	98	25	24.4	98	1	71-122/12
106-43-4	p-Chlorotoluene	ND		25	24.3	97	25	24.3	97	0	73-120/12
75-15-0	Carbon disulfide	ND		25	27.2	109	25	27.4	110	1	55-140/24
56-23-5	Carbon tetrachloride	ND		25	22.5	90	25	22.3	89	1	68-133/20
110-82-7	Cyclohexane	ND		25	31.2	125	25	30.3	121	3	57-160/20
75-34-3	1,1-Dichloroethane	1.1		25	24.9	95	25	24.8	95	0	72-121/14
75-35-4	1,1-Dichloroethylene	3.1		25	31.0	112	25	30.8	111	1	67-140/18
563-58-6	1,1-Dichloropropene	ND		25	25.4	102	25	25.1	100	1	73-130/15
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	23.0	92	25	23.9	96	4	47-133/23
106-93-4	1,2-Dibromoethane	ND		25	22.5	90	25	22.6	90	0	69-121/13
107-06-2	1,2-Dichloroethane	ND		25	20.7	83	25	20.7	83	0	68-121/12
78-87-5	1,2-Dichloropropane	ND		25	21.0	84	25	20.9	84	0	72-116/12
142-28-9	1,3-Dichloropropane	ND		25	22.2	89	25	22.1	88	0	70-118/12
108-20-3	Di-Isopropyl ether	ND		25	23.0	92	25	23.2	93	1	67-117/13
594-20-7	2,2-Dichloropropane	ND		25	24.3	97	25	24.0	96	1	57-141/16
124-48-1	Dibromochloromethane	ND		25	21.4	86	25	21.7	87	1	68-119/15
75-71-8	Dichlorodifluoromethane	ND		25	25.8	103	25	25.2	101	2	29-182/23
156-59-2	cis-1,2-Dichloroethylene	9.4		25	32.4	92	25	32.6	93	1	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	20.4	82	25	20.0	80	2	71-118/18
541-73-1	m-Dichlorobenzene	ND		25	22.9	92	25	22.9	92	0	73-117/12
95-50-1	o-Dichlorobenzene	ND		25	22.5	90	25	22.6	90	0	71-117/11
106-46-7	p-Dichlorobenzene	ND		25	22.4	90	25	22.6	90	1	71-116/11
77-73-6	Dicyclopentadiene	ND		25	28.1	112	25	28.2	113	0	57-144/24
156-60-5	trans-1,2-Dichloroethylene	ND		25	24.5	98	25	23.9	96	2	68-124/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39648-14MS	X0128943.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14MSD	X0128944.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14	X0128942.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Compound	TD39648-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND		25	23.7	95	25	23.9	96	1	72-127/17
100-41-4	Ethylbenzene	ND		25	23.3	93	25	23.3	93	0	71-117/12
76-13-1	Freon 113	0.75		25	31.9	125	25	31.9	125	0	57-167/23
110-54-3	Hexane	ND		25	33.7	135	25	33.7	135	0	44-179/22
87-68-3	Hexachlorobutadiene	ND		25	23.7	95	25	25.9	104	9	62-143/18
98-82-8	Isopropylbenzene	ND		25	26.4	106	25	26.7	107	1	74-141/13
99-87-6	p-Isopropyltoluene	ND		25	24.8	99	25	25.2	101	2	72-126/13
108-10-1	4-Methyl-2-pentanone	ND		125	97.1	78	125	97.2	78	0	54-122/20
74-83-9	Methyl bromide	ND		25	28.2	113	25	27.7	111	2	53-138/16
74-87-3	Methyl chloride	ND		25	24.8	99	25	23.4	94	6	50-145/17
108-87-2	Methylcyclohexane	ND		25	27.8	111	25	27.6	110	1	54-162/20
74-95-3	Methylene bromide	ND		25	19.9	80	25	19.5	78	2	71-117/12
75-09-2	Methylene chloride	ND		25	22.6	90	25	22.5	90	0	60-125/16
78-93-3	Methyl ethyl ketone	ND		125	114	91	125	119	95	4	51-129/22
1634-04-4	Methyl Tert Butyl Ether	ND		25	22.5	90	25	22.6	90	0	65-119/13
91-20-3	Naphthalene	ND		25	23.4	94	25	24.4	98	4	43-139/28
103-65-1	n-Propylbenzene	ND		25	25.3	101	25	25.5	102	1	72-123/13
100-42-5	Styrene	ND		25	22.7	91	25	22.7	91	0	74-119/19
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	22.1	88	25	22.4	90	1	74-119/14
71-55-6	1,1,1-Trichloroethane	ND		25	23.6	94	25	23.6	94	0	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.0	96	25	24.2	97	1	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		25	22.7	91	25	22.8	91	0	70-119/13
87-61-6	1,2,3-Trichlorobenzene	ND		25	22.2	89	25	23.1	92	4	44-144/27
96-18-4	1,2,3-Trichloropropane	ND		25	22.3	89	25	22.5	90	1	61-124/16
120-82-1	1,2,4-Trichlorobenzene	ND		25	22.3	89	25	22.6	90	1	57-132/18
95-63-6	1,2,4-Trimethylbenzene	ND		25	24.4	98	25	24.2	97	1	70-121/15
108-67-8	1,3,5-Trimethylbenzene	ND		25	24.6	98	25	24.7	99	0	66-119/15
127-18-4	Tetrachloroethylene	3.3		25	26.9	94	25	27.0	95	0	72-132/14
108-88-3	Toluene	ND		25	22.9	92	25	22.9	92	0	73-119/13
79-01-6	Trichloroethylene	141		25	163	88	25	169	112	4	73-121/13
75-69-4	Trichlorofluoromethane	ND		25	30.4	122	25	29.4	118	3	46-152/25
75-01-4	Vinyl chloride	ND		25	24.3	97	25	23.1	92	5	54-126/17
1330-20-7	Xylene (total)	ND		75	69.8	93	75	69.5	93	0	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39648-14MS	X0128943.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14MSD	X0128944.D	1	05/28/19	FT	n/a	n/a	VX4032
TD39648-14	X0128942.D	1	05/28/19	FT	n/a	n/a	VX4032

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1, TD39648-2, TD39648-3, TD39648-4, TD39648-5, TD39648-6, TD39648-7, TD39648-8, TD39648-9, TD39648-10, TD39648-11, TD39648-12, TD39648-13, TD39648-14, TD39648-15, TD39648-16, TD39648-17, TD39648-18

CAS No.	Surrogate Recoveries	MS	MSD	TD39648-14	Limits
1868-53-7	Dibromofluoromethane	109%	108%	106%	72-122%
17060-07-0	1,2-Dichloroethane-D4	108%	108%	110%	68-124%
2037-26-5	Toluene-D8	115%	115%	114%	80-119%
460-00-4	4-Bromofluorobenzene	104%	103%	107%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TD39648
Account: AMECAZP Wood Environment & Infrastructure Soln.
Project: CAVE CREEK LANDFILL - Carefree Highway, Cave Creek, AZ

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TD39643-2MS	X0128992.D	40	05/29/19	FT	n/a	n/a	VX4034
TD39643-2MSD	X0128993.D	40	05/29/19	FT	n/a	n/a	VX4034
TD39643-2	X0128991.D	400	05/29/19	FT	n/a	n/a	VX4034

The QC reported here applies to the following samples: **Method:** SW846 8260C

TD39648-1

CAS No.	Compound	TD39643-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-01-6	Trichloroethylene	ND		1000	884	88	1000	872	87	1	73-121/13

CAS No.	Surrogate Recoveries	MS	MSD	TD39643-2	Limits
1868-53-7	Dibromofluoromethane	106%	108%	105%	72-122%
17060-07-0	1,2-Dichloroethane-D4	110%	111%	111%	68-124%
2037-26-5	Toluene-D8	112%	111%	113%	80-119%
460-00-4	4-Bromofluorobenzene	106%	105%	107%	72-126%

* = Outside of Control Limits.

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 25, 2019

Client:	Natalie Chrisman	Work Order #:	19F003
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/5/2019

Dear Client:

Airtech Environmental Laboratories received seventeen (17) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 25, 2019

Client:	Natalie Chrisman	Work Order #:	19F003
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/5/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19F003-01	MW-10-SG-060419	TO-15	6/4/2019	801
19F003-02	MW-10S-SG-060419	TO-15	6/4/2019	815
19F003-03	MW-10M-SG-060419	TO-15	6/4/2019	836
19F003-04	MW-10D-SG-060419	TO-15	6/4/2019	851
19F003-05	MW-9-SG-060419	TO-15	6/4/2019	1041
19F003-06	MW-9S-SG-060419	TO-15	6/4/2019	1055
19F003-07	MW-9M-SG-060419	TO-15	6/4/2019	1116
19F003-08	MW-9D-SG-060419	TO-15	6/4/2019	1133
19F003-09	TSSV-6S-SG-060519	TO-15	6/5/2019	801
19F003-10	TSSV-6D-SG-060519	TO-15	6/5/2019	843
19F003-11	MW-13S-SG-060519	TO-15	6/5/2019	930
19F003-12	MW-13M-SG-060519	TO-15	6/5/2019	951
19F003-13	MW-13D-SG-060519	TO-15	6/5/2019	1014
19F003-14	MW-13-SG-060519	TO-15	6/5/2019	1156
19F003-15	TSSV-7S-SG-060519	TO-15	6/5/2019	1228
19F003-16	TSSV-7D-SG-060519	TO-15	6/5/2019	1311
19F003-17	DUP01-060519	TO-15	6/5/2019	1400

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 25, 2019

Client:	Natalie Chrisman	Work Order #:	19F003
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	06/05/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19F003-01	MW-10-SG-060419	E2397	1905-20	29.0	13.54	170	1903-09
19F003-02	MW-10S-SG-060419	E2347	1905-21	29.0	13.66	202	1903-09
19F003-03	MW-10M-SG-060419	1848	1905-21	29.0	13.55	023	1903-09
19F003-04	MW-10D-SG-060419	1859	1905-21	29.0	13.45	179	1903-09
19F003-05	MW-9-SG-060419	E2350	1905-21	29.0	13.31	068	1903-09
19F003-06	MW-9S-SG-060419	1888	1905-20	29.0	13.42	062	1903-09
19F003-07	MW-9M-SG-060419	1818	1905-20	29.0	13.28	144	1903-09
19F003-08	MW-9D-SG-060419	1799	1905-20	29.0	13.23	193	1903-09
19F003-09	TSSV-6S-SG-060519	1867	1905-20	29.0	13.58	165	1903-09
19F003-10	TSSV-6D-SG-060519	1852	1905-20	29.0	13.46	136	1903-09
19F003-11	MW-13S-SG-060519	1862	1905-20	29.0	13.39	041	1903-09
19F003-12	MW-13M-SG-060519	E2102	1905-20	29.0	13.28	091	1903-09
19F003-13	MW-13D-SG-060519	E2296	1905-21	29.0	13.23	026	1903-09
19F003-14	MW-13-SG-060519	E2294	1905-21	29.0	13.25	206	1903-09
19F003-15	TSSV-7S-SG-060519	E2291	1905-21	29.0	13.19	048	1905-08
19F003-16	TSSV-7D-SG-060519	1832	1905-20	29.0	13.09	197	1903-09
19F003-17	DUP01-060519	E2087	1905-20	29.0	13.16	198	1903-09

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**1,100**	**500**	**4,455**	**2,025**		1,000	6/22/2019	75-34-3
1,1-Dichloroethene	**296**	**10**	**1,177**	**39.7**		20	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	**202**	**10**	**644**	**31.9**		20	6/21/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/21/2019	108-90-7
Chloroform	**29**	**10**	**140**	**48.8**		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	**29**	**10**	**116**	**39.6**		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**3,740**	**1,000**	**18,513**	**4,950**		1,000	6/22/2019	75-71-8
Ethylbenzene	**229**	**10**	**995**	**43.4**		20	6/21/2019	100-41-4
m&p-Xylene	**167**	**20**	**726**	**86.8**		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	**19**	**10**	**81.6**	**43.4**		20	6/21/2019	95-47-6
Tetrachloroethene	**716**	**20**	**4,852**	**136**		20	6/21/2019	127-18-4
Tetrahydrofuran	**40**	**40**	**118**	**118**		20	6/21/2019	109-99-9
Toluene	**408**	**10**	**1,539**	**37.7**		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	**1,340**	**500**	**7,196**	**2,685**		1,000	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	**1,550**	**500**	**8,711**	**2,810**		1,000	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**260**	**10**	**1,993**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	**20**	**10**	**50.7**	**25.6**		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	97.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10S-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/21/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/21/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**543**	**20**	**2,689**	**99.0**		20	6/21/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/21/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/21/2019	95-47-6
Tetrachloroethene	**153**	**20**	**1,037**	**136**		20	6/21/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/21/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	< 10	10	< 53.7	53.7		20	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**158**	**10**	**886**	**56.2**		20	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**23**	**10**	**176.2**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	< 10.0	10.0	< 25.6	25.6		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10M-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**697**	**50**	**2,823**	**203**		100	6/21/2019	75-34-3
1,1-Dichloroethene	**331**	**50**	**1,314**	**199**		100	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	6/21/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	6/21/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	6/21/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	6/21/2019	67-64-1
Benzene	**109**	**50**	**348**	**160**		100	6/21/2019	71-43-2
Chlorobenzene	< 50	50	< 230	230		100	6/21/2019	108-90-7
Chloroform	< 50	50	< 244	244		100	6/21/2019	67-66-3
cis-1,2-Dichloroethene	**102**	**50**	**404**	**198**		100	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**2,600**	**200**	**12,870**	**990**		200	6/21/2019	75-71-8
Ethylbenzene	**65**	**50**	**282**	**217**		100	6/21/2019	100-41-4
m&p-Xylene	**390**	**100**	**1,693**	**434**		100	6/21/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	6/21/2019	75-09-2
o-Xylene	**139**	**50**	**603**	**217**		100	6/21/2019	95-47-6
Tetrachloroethene	**905**	**100**	**6,136**	**678**		100	6/21/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	6/21/2019	109-99-9
Toluene	**146**	**50**	**550**	**189**		100	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	6/21/2019	156-60-5
Trichloroethene	**254**	**50**	**1,364**	**269**		100	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**1,930**	**50**	**10,847**	**281**		100	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**295**	**50**	**2,260**	**383**		100	6/21/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-10D-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**2,620**	**100**	**10,600**	**405**		200	6/21/2019	75-34-3
1,1-Dichloroethene	**310**	**100**	**1,230**	**397**		200	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	6/21/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	6/21/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	6/21/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	6/21/2019	67-64-1
Benzene	**280**	**100**	**893**	**319**		200	6/21/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	6/21/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 100	100	< 396	396		200	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**4,570**	**200**	**22,600**	**990**		200	6/21/2019	75-71-8
Ethylbenzene	**114**	**100**	**495**	**434**		200	6/21/2019	100-41-4
m&p-Xylene	**312**	**200**	**1,350**	**868**		200	6/21/2019	179601-23-1
Methylene chloride	**596**	**400**	**2,070**	**1,390**		200	6/21/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	6/21/2019	95-47-6
Tetrachloroethene	**1,090**	**200**	**7,390**	**1,360**		200	6/21/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	6/21/2019	109-99-9
Toluene	**1,040**	**100**	**3,920**	**377**		200	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	6/21/2019	156-60-5
Trichloroethene	**592**	**100**	**3,180**	**537**		200	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**1,330**	**100**	**7,480**	**562**		200	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**158**	**100**	**1,210**	**766**		200	6/21/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	83.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	05	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/21/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/21/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/21/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/21/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/21/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	6/21/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/21/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	**254**	**10**	**1,360**	**53.7**		20	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**14**	**10**	**110**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9S-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	06	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	6/21/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/21/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	6/21/2019	67-64-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	6/21/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	6/21/2019	108-90-7
Chloroform	< 2.5	2.5	< 12.2	12.2		5	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	6/21/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/21/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	6/21/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	95-47-6
Tetrachloroethene	**29**	**5.0**	**197**	**33.9**		5	6/21/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	6/21/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-60-5
Trichloroethene	< 2.5	2.5	< 13.4	13.4		5	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**4.9**	**2.5**	**27.5**	**14.1**		5	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 2.5	2.5	< 19.2	19.2		5	6/21/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9M-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	07	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**28**	**5.0**	**113**	**20.3**		10	6/21/2019	75-34-3
1,1-Dichloroethene	< 5.0	5.0	< 19.9	19.9		10	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 5.0	5.0	< 30.1	30.1		10	6/21/2019	95-50-1
1,2-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	6/21/2019	107-06-2
2-Butanone (MEK)	< 50	50	< 148	148		10	6/21/2019	78-93-3
Acetone	< 50	50	< 119	119		10	6/21/2019	67-64-1
Benzene	< 5.0	5.0	< 16.0	16.0		10	6/21/2019	71-43-2
Chlorobenzene	< 5.0	5.0	< 23.0	23.0		10	6/21/2019	108-90-7
Chloroform	< 5.0	5.0	< 24.4	24.4		10	6/21/2019	67-66-3
cis-1,2-Dichloroethene	**6.3**	**5.0**	**24.9**	**19.8**		10	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**42**	**10**	**206**	**49.5**		10	6/21/2019	75-71-8
Ethylbenzene	< 5.0	5.0	< 21.7	21.7		10	6/21/2019	100-41-4
m&p-Xylene	< 10	10	< 43.4	43.4		10	6/21/2019	179601-23-1
Methylene chloride	**64**	**20**	**223**	**69.4**		10	6/21/2019	75-09-2
o-Xylene	< 5.0	5.0	< 21.7	21.7		10	6/21/2019	95-47-6
Tetrachloroethene	**113**	**10**	**763**	**67.8**		10	6/21/2019	127-18-4
Tetrahydrofuran	< 20	20	< 59.0	59.0		10	6/21/2019	109-99-9
Toluene	< 5.0	5.0	< 18.9	18.9		10	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	6/21/2019	156-60-5
Trichloroethene	**57**	**5.0**	**306**	**26.9**		10	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**41**	**5.0**	**232**	**28.1**		10	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**48**	**5.0**	**364**	**38.3**		10	6/21/2019	76-13-1
Vinyl chloride	< 5.0	5.0	< 12.8	12.8		10	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 100	100	ppbv		T4	10	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-9D-SG-060419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/4/2019
Lab ID:	08	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	6/21/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/21/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	6/21/2019	67-64-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	6/21/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	6/21/2019	108-90-7
Chloroform	< 2.5	2.5	< 12.2	12.2		5	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**15**	**5.0**	**74.3**	**24.8**		5	6/21/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/21/2019	179601-23-1
Methylene chloride	< 10.0	10.0	< 34.7	34.7		5	6/21/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	95-47-6
Tetrachloroethene	**20**	**5.0**	**135**	**33.9**		5	6/21/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	6/21/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-60-5
Trichloroethene	**131**	**2.5**	**703**	**13.4**		5	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**9.3**	**2.5**	**52.0**	**14.1**		5	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**15**	**2.5**	**118**	**19.2**		5	6/21/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-6S-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	09	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/21/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/21/2019	108-90-7
Chloroform	**14**	**10**	**69.3**	**48.8**		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/21/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/21/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/21/2019	95-47-6
Tetrachloroethene	**99**	**20**	**673**	**136**		20	6/21/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/21/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	**711**	**10**	**3,820**	**53.7**		20	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**58**	**10**	**446**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-6D-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	10	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/21/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/21/2019	108-90-7
Chloroform	**34**	**10**	**166**	**48.8**		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	**104**	**10**	**413**	**39.6**		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/21/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/21/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/21/2019	95-47-6
Tetrachloroethene	**66**	**20**	**450**	**136**		20	6/21/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/21/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	**674**	**10**	**3,620**	**53.7**		20	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**101**	**10**	**775**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13S-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	11	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	75-34-3
1,1-Dichloroethene	**60**	**2.5**	**239**	**9.93**		5	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	6/21/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/21/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/21/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	6/21/2019	67-64-1
Benzene	**3.6**	**2.5**	**11.5**	**7.98**		5	6/21/2019	71-43-2
Chlorobenzene	**4.8**	**2.5**	**22.1**	**11.5**		5	6/21/2019	108-90-7
Chloroform	**3.2**	**2.5**	**15.6**	**12.2**		5	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**313**	**20.0**	**1,550**	**99.0**		20	6/22/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/21/2019	179601-23-1
Methylene chloride	< 10.0	10.0	< 34.7	34.7		5	6/21/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/21/2019	95-47-6
Tetrachloroethene	**106**	**5.0**	**719**	**33.9**		5	6/21/2019	127-18-4
Tetrahydrofuran	< 10.0	10.0	< 29.5	29.5		5	6/21/2019	109-99-9
Toluene	**8.6**	**2.5**	**32.4**	**9.43**		5	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/21/2019	156-60-5
Trichloroethene	**22**	**2.5**	**120**	**13.4**		5	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**10**	**2.5**	**58.7**	**14.1**		5	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**7.6**	**2.5**	**57.8**	**19.2**		5	6/21/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	99.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13M-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	12	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**41**	**10**	**165**	**40.5**		20	6/21/2019	75-34-3
1,1-Dichloroethene	**2,720**	**100**	**10,800**	**397**		200	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/21/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/21/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/21/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/21/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/21/2019	71-43-2
Chlorobenzene	**217**	**10**	**996**	**46.0**		20	6/21/2019	108-90-7
Chloroform	**14**	**10**	**69.3**	**48.8**		20	6/21/2019	67-66-3
cis-1,2-Dichloroethene	**19**	**10**	**76.8**	**39.6**		20	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	**115**	**20**	**571**	**99.0**		20	6/21/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/21/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/21/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/21/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/21/2019	95-47-6
Tetrachloroethene	**652**	**20**	**4,420**	**136**		20	6/21/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/21/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/21/2019	156-60-5
Trichloroethene	**347**	**10**	**1,860**	**53.7**		20	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	**28**	**10**	**156**	**56.2**		20	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**215**	**10**	**1,650**	**76.6**		20	6/21/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13D-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	13	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**426**	**100**	**1,730**	**405**		200	6/22/2019	75-34-3
1,1-Dichloroethene	**4,900**	**100**	**19,500**	**397**		200	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	6/22/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	6/22/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	6/22/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	6/22/2019	67-64-1
Benzene	< 100	100	< 319	319		200	6/22/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	6/22/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	6/22/2019	67-66-3
cis-1,2-Dichloroethene	**4,490**	**100**	**17,800**	**396**		200	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	**560**	**200**	**2,770**	**990**		200	6/22/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	6/22/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	6/22/2019	179601-23-1
Methylene chloride	**44,000**	**4,000**	**153,000**	**13,880**		2,000	6/23/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	6/22/2019	95-47-6
Tetrachloroethene	**2,310**	**200**	**15,700**	**1,356**		200	6/22/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	6/22/2019	109-99-9
Toluene	< 100	100	< 377	377		200	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	6/22/2019	156-60-5
Trichloroethene	**3,260**	**100**	**17,500**	**537**		200	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	< 100	100	< 562	562		200	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**398**	**100**	**3,050**	**766**		200	6/22/2019	76-13-1
Vinyl chloride	**114**	**100**	**292**	**256**		200	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-13-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	14	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,025	2,025		1,000	6/22/2019	75-34-3
1,1-Dichloroethene	**30,200**	**500**	**120,000**	**1,990**		1,000	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,000	3,000		1,000	6/22/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	6/22/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	6/22/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	6/22/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	6/22/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	6/22/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	6/22/2019	67-66-3
cis-1,2-Dichloroethene	**1,800**	**500**	**7,130**	**1,980**		1,000	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	**2,610**	**1,000**	**12,900**	**4,950**		1,000	6/22/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	6/22/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	6/22/2019	179601-23-1
Methylene chloride	**8,450**	**2,000**	**29,300**	**6,940**		1,000	6/22/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	6/22/2019	95-47-6
Tetrachloroethene	**6,390**	**1,000**	**43,300**	**6,780**		1,000	6/22/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	6/22/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	6/22/2019	156-60-5
Trichloroethene	**16,100**	**500**	**86,500**	**2,790**		1,000	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**9,710**	**500**	**74,400**	**3,830**		1,000	6/22/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv		T4	1,000	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7S-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	15	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/22/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	6/22/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/22/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/22/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	6/22/2019	67-64-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	6/22/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	6/22/2019	108-90-7
Chloroform	**10**	**2.5**	**50.3**	**12.2**		5	6/22/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	**14**	**5.0**	**71.5**	**24.8**		5	6/22/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/22/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/22/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	6/22/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/22/2019	95-47-6
Tetrachloroethene	**22**	**5.0**	**150**	**33.9**		5	6/22/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	6/22/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/22/2019	156-60-5
Trichloroethene	**105**	**2.5**	**566**	**13.4**		5	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	**86**	**2.5**	**483**	**14.1**		5	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**4.5**	**2.5**	**34.1**	**19.2**		5	6/22/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7D-SG-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	16	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,025	2,025		1,000	6/22/2019	75-34-3
1,1-Dichloroethene	**14,000**	**500**	**55,600**	**1,985**		1,000	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,000	3,000		1,000	6/22/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	6/22/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	6/22/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	6/22/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	6/22/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	6/22/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	6/22/2019	67-66-3
cis-1,2-Dichloroethene	**2,050**	**500**	**8,120**	**1,980**		1,000	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	6/22/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	6/22/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	6/22/2019	179601-23-1
Methylene chloride	< 2,000	2,000	< 6,940	6,940		1,000	6/22/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	6/22/2019	95-47-6
Tetrachloroethene	**1,370**	**1,000**	**9,290**	**6,780**		1,000	6/22/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	6/22/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	6/22/2019	156-60-5
Trichloroethene	**34,500**	**500**	**185,000**	**2,685**		1,000	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**3,020**	**500**	**23,100**	**3,830**		1,000	6/22/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv		T4	1,000	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP01-060519
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	6/5/2019
Lab ID:	17	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 500	500	< 2,025	2,025		1,000	6/22/2019	75-34-3
1,1-Dichloroethene	**11,800**	**500**	**46,800**	**1,985**		1,000	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,005	3,005		1,000	6/22/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,025	2,025		1,000	6/22/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,750	14,750		1,000	6/22/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	6/22/2019	67-64-1
Benzene	< 500	500	< 1,595	1,595		1,000	6/22/2019	71-43-2
Chlorobenzene	< 500	500	< 2,300	2,300		1,000	6/22/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	6/22/2019	67-66-3
cis-1,2-Dichloroethene	**1,720**	**500**	**6,810**	**1,980**		1,000	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	6/22/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	6/22/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	6/22/2019	179601-23-1
Methylene chloride	< 2,000	2,000	< 6,940	6,940		1,000	6/22/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	6/22/2019	95-47-6
Tetrachloroethene	**1,460**	**1,000**	**9,900**	**6,780**		1,000	6/22/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	6/22/2019	109-99-9
Toluene	< 500	500	< 1,885	1,885		1,000	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	6/22/2019	156-60-5
Trichloroethene	**29,100**	**500**	**156,000**	**2,685**		1,000	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**2,360**	**500**	**18,100**	**3,830**		1,000	6/22/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	85.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv		T4	1,000	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010621 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/21/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/21/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/21/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/21/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/21/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/21/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/21/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/21/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/21/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/21/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/21/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/21/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/21/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/21/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/21/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/21/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/21/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/21/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/21/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/21/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/21/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/21/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/21/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/21/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/21/2019 Batch: MS010621 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.3	92.9	10.7	107	10.0	13.7	ppbv			
Vinyl Chloride	9.8	97.6	10.8	108	10.0	9.7	ppbv			
Trichlorofluoromethane (F-11)	9.0	90.2	10.2	102	10.0	11.8	ppbv			
Acetone	9.9	98.8	10.5	105	10.0	5.6	ppbv			
1,1-Dichloroethene	9.4	94.0	10.4	104	10.0	9.7	ppbv			
Trichlorotrifluoroethane (F-113)	9.1	91.2	10.4	104	10.0	13.4	ppbv			
Methylene Chloride	8.7	87.4	9.9	99.2	10.0	12.6	ppbv			
trans-1,2-Dichloroethene	9.6	96.4	10.8	108	10.0	11.5	ppbv			
1,1-Dichloroethane	9.5	94.9	10.7	107	10.0	11.8	ppbv			
2-Butanone (MEK)	9.5	95.1	11.7	117	10.0	20.6	ppbv			
cis-1,2-Dichloroethene	9.5	95.4	11.0	110	10.0	13.9	ppbv			
Chloroform	9.2	92.0	10.4	104	10.0	12.0	ppbv			
Tetrahydrofuran	10.0	99.6	11.9	119	10.0	17.7	ppbv			
1,2-Dichloroethane	9.6	95.7	10.7	107	10.0	10.9	ppbv			
Benzene	10.0	100	11.3	113	10.0	12.4	ppbv			
Trichloroethene	9.7	96.8	10.6	106	10.0	9.0	ppbv			
Toluene	11.3	113	12.1	121	10.0	7.3	ppbv			
Tetrachloroethene	10.1	101	11.0	110	10.0	8.7	ppbv			
Chlorobenzene	10.3	103	11.1	111	10.0	6.9	ppbv			
Ethylbenzene	11.3	113	12.3	123	10.0	8.5	ppbv			
m&p-Xylene	22.2	111	24.3	121	20.0	9.2	ppbv			
o-Xylene	10.9	109	11.5	115	10.0	5.1	ppbv			
1,2-Dichlorobenzene	10.6	106	12.4	124	10.0	15.4	ppbv			
Surr: 4-Bromofluorobenzene	10.0	99.7	10.5	105			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010622 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/22/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/22/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/22/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/22/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/22/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/22/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/22/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/22/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/22/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/22/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/22/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/22/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/22/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/22/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/22/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/22/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/22/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/22/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/22/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/22/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/22/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/22/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/22/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/22/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/22/2019 Batch: MS010622 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	9.0	90.3	9.3	92.8	10.0	2.7	ppbv			
Vinyl Chloride	9.7	97.3	9.8	98.2	10.0	0.9	ppbv			
Trichlorofluoromethane (F-11)	8.3	82.8	8.8	88.3	10.0	6.4	ppbv			
Acetone	9.1	90.7	10.5	105	10.0	14.2	ppbv			
1,1-Dichloroethene	9.1	91.3	9.7	96.5	10.0	5.5	ppbv			
Trichlorotrifluoroethane (F-113)	8.4	84.1	8.9	89.3	10.0	6.0	ppbv			
Methylene Chloride	8.4	83.5	8.9	88.5	10.0	5.8	ppbv			
trans-1,2-Dichloroethene	9.0	89.5	9.5	94.6	10.0	5.5	ppbv			
1,1-Dichloroethane	8.7	87.0	9.3	93.2	10.0	6.9	ppbv			
2-Butanone (MEK)	9.2	91.6	9.3	93.4	10.0	1.9	ppbv			
cis-1,2-Dichloroethene	9.1	90.7	9.4	93.6	10.0	3.1	ppbv			
Chloroform	8.8	87.6	9.1	90.8	10.0	3.6	ppbv			
Tetrahydrofuran	8.8	87.5	9.8	98.3	10.0	11.6	ppbv			
1,2-Dichloroethane	8.8	87.9	9.7	96.5	10.0	9.3	ppbv			
Benzene	8.9	88.6	9.8	97.5	10.0	9.6	ppbv			
Trichloroethene	7.9	79.1	8.2	81.9	10.0	3.5	ppbv			
Toluene	8.7	86.8	9.4	94.2	10.0	8.2	ppbv			
Tetrachloroethene	8.1	80.9	8.4	84.2	10.0	4.0	ppbv			
Chlorobenzene	8.3	82.6	8.6	86.4	10.0	4.5	ppbv			
Ethylbenzene	9.1	90.9	9.7	96.8	10.0	6.3	ppbv			
m&p-Xylene	17.8	89.2	18.8	94.1	20.0	5.4	ppbv			
o-Xylene	8.7	87.0	9.1	90.6	10.0	4.1	ppbv			
1,2-Dichlorobenzene	8.7	87.1	8.7	86.5	10.0	0.7	ppbv			
Surr: 4-Bromofluorobenzene	9.8	97.6	10.3	103			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F003	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	7/22/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	7/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190617-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	7/20/2019
A-190611-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	9/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood

Address: 4600 East Washington St, Suite 600

City, State, Zip: Phoenix, AZ 85034

Contact:

Phone: 602.733-6000 Fax: 602.733-6100

E-Mail Address: Natalie.Chrisman@woodplc.com

Page 1 of 2

Sampler: Eric Miller Phone: 602.300.8313

Project Name: Cave Creek Landfill Project Number: 14-2019-2004

Project location: Cave Creek, AZ

P.O. Number:

Fax Results: Y N

E-Mail Results: Y N

AEL Lab#: 19F003

Sample Receipt

Temperature_____ °C

Custody Seals: Yes_____ No_____

Custody Seals Intact: Yes_____ No_____

Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours

_____ 72 Hours

_____ 5 working Day

X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction GW: ground water

A: ambient air WW: waste water

I: indoor air

S: soil vapor

W: water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	E2397	170	6 bag	2 5	MW-10-SG-060419	6.4.19	801	S	1	X									X
02	E2347	202	6 bag	2 5	MW-10S-SG-060419	↓	815	↓	↓	X									X
03	1848	023	6 bag	2 5	MW-10M-SG-060419		836			X									X
04	1859	179	6 bag	2 5	MW-10D-SG-060419		851			X									X
05	E2350	068	6 bag	2 5	MW-9-SG-060419		1041			X									X
06	1888	062	6 bag	2 5	MW-9S-SG-060419		1055			X									X
07	1818	144	6 bag	2 5	MW-9M-SG-060419		1116			X									X
08	1799	193	6 bag	2 5	MW-9D-SG-060419	↓	1133			X									X
09	1867	165	6 bag	2 5	TSSV-6S-SG-060519	6.5.19	801			X									X
10	1852	136	6 bag	2 5	TSSV-6D-SG-060519	↓	843	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.5.19	1418	[illegible]	James Jones - Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 2 of 2		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F003
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes_____ No_____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes_____ No_____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	~~TO-15 full list~~ Short List	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
11	1867	041	6 1 bag	1 2 5	MW-13S-SG-060519	6.5.19	930	S	1	X									X
12	E2102	091	6 1 bag	1 2 5	MW-13M-SG-060519	↓	951	↓	↓	X									X
13	E2296	026	6 1 bag	1 2 5	MW-13D-SG-060519	↓	1014	↓	↓	X									X
14	E2294	206	6 1 bag	1 2 5	MW-13-SG-060519	↓	1156	↓	↓	X									X
15	E2291	048	6 1 bag	1 2 5	TSSV-7S-SG-060519	↓	1228	↓	↓	X									X
16	1832	197	6 1 bag	1 2 5	TSSV-7D-SG-060519	↓	1311	↓	↓	X									X
17	E2087	198	6 1 bag	1 2 5	DuPol-060519	↓	1400	↓	↓	X									X
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.5.19	1418	E Miller	James Jones Airtech

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 3, 2019

Client:	Natalie Chrisman	Work Order #:	19F013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/10/2019

Dear Client:

Airtech Environmental Laboratories received twenty (20) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 3, 2019

Client:	Natalie Chrisman	Work Order #:	19F013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/10/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19F013-01	TSSV-7PZ-SG-060619	TO-15	6/6/2019	726
19F013-02	MW-12S-SG-060619	TO-15	6/6/2019	753
19F013-03	MW-12M-SG-060619	TO-15	6/6/2019	816
19F013-04	MW-12D-SG-060619	TO-15	6/6/2019	832
19F013-05	MW-12-SG-060619	TO-15	6/6/2019	1016
19F013-06	MW-11-SG-060619	TO-15	6/6/2019	1221
19F013-07	DUP02-060619	TO-15	6/6/2019	1305
19F013-08	TSSV-3S-SG-060719	TO-15	6/7/2019	828
19F013-09	TSSV-3M-SG-060719	TO-15	6/7/2019	851
19F013-10	TSSV-3PZ-SG-060719	TO-15	6/7/2019	951
19F013-11	TSSV-5D-SG-060719	TO-15	6/7/2019	1136
19F013-12	TSSV-5PZ-SG-060719	TO-15	6/7/2019	1236
19F013-13	DUP03-060719	TO-15	6/7/2019	1255
19F013-14	TSSV-2S-SG-061019	TO-15	6/10/2019	831
19F013-15	TSSV-2M-SG-061019	TO-15	6/10/2019	854
19F013-16	TSSV-2D-SG-061019	TO-15	6/10/2019	921
19F013-17	TSSV-2PZ-SG-061019	TO-15	6/10/2019	943
19F013-18	TSSV-4S-SG-061019	TO-15	6/10/2019	1016
19F013-19	TSSV-4PZ-SG-061019	TO-15	6/10/2019	1111
19F013-20	TSSV-4D-SG-061019	TO-15	6/10/2019	1139

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 3, 2019

Client:	Natalie Chrisman	Work Order #:	19F013
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	06/10/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19F013-01	TSSV-7PZ-SG-060619	1838	1906-03	29.0	13.51	037	1905-02
19F013-02	MW-12S-SG-060619	1842	1906-03	29.0	13.44	035	1905-02
19F013-03	MW-12M-SG-060619	E2103	1905-21	29.0	13.43	158	1903-09
19F013-04	MW-12D-SG-060619	1830	1905-21	29.0	13.40	205	1903-09
19F013-05	MW-12-SG-060619	1809	1905-21	29.0	13.18	163	1903-09
19F013-06	MW-11-SG-060619	1887	1906-01	29.0	13.43	194	1905-02
19F013-07	DUP02-060619	E2090	1906-01	29.0	13.40	007	1905-02
19F013-08	TSSV-3S-SG-060719	E2282	1906-01	29.0	13.38	020	1905-02
19F013-09	TSSV-3M-SG-060719	E2357	1906-01	29.0	13.25	063	1905-02
19F013-10	TSSV-3PZ-SG-060719	E2354	1906-01	29.0	13.16	009	1905-02
19F013-11	TSSV-5D-SG-060719	1887	1906-01	29.0	13.18	180	1905-02
19F013-12	TSSV-5PZ-SG-060719	1808	1906-01	29.0	12.95	046	1905-02
19F013-13	DUP03-060719	1847	1906-01	29.0	13.12	221	1905-02
19F013-14	TSSV-2S-SG-061019	E2284	1906-01	29.0	13.39	053	1905-02
19F013-15	TSSV-2M-SG-061019	E2372	1906-03	29.0	13.33	010	1905-02
19F013-16	TSSV-2D-SG-061019	E2295	1906-03	29.0	13.28	049	1905-02
19F013-17	TSSV-2PZ-SG-061019	E2360	1906-03	29.0	13.38	191	1905-02
19F013-18	TSSV-4S-SG-061019	1801	1906-03	29.0	13.33	030	1905-02
19F013-19	TSSV-4PZ-SG-061019	1870	1906-01	29.0	13.13	104	1905-02
19F013-20	TSSV-4D-SG-061019	1792	1906-01	29.0	13.16	001	1905-02

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-7PZ-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 100	100	< 405	405		200	6/25/2019	75-34-3
1,1-Dichloroethene	**2,580**	**100**	**10,200**	**397**		200	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	6/25/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	6/25/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	6/25/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	6/25/2019	67-64-1
Benzene	< 100	100	< 319	319		200	6/25/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	6/25/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**1,500**	**100**	**5,940**	**396**		200	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 200	200	< 990	990		200	6/25/2019	75-71-8
Ethylbenzene	**146**	**100**	**634**	**434**		200	6/25/2019	100-41-4
m&p-Xylene	**328**	**200**	**1,420**	**868**		200	6/25/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	6/25/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	6/25/2019	95-47-6
Tetrachloroethene	**1,140**	**200**	**7,730**	**1,360**		200	6/25/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180		200	6/25/2019	109-99-9
Toluene	**192**	**100**	**724**	**377**		200	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	6/25/2019	156-60-5
Trichloroethene	**4,140**	**100**	**22,200**	**537**		200	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 100	100	< 562	562		200	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**766**	**100**	**5,870**	**766**		200	6/25/2019	76-13-1
Vinyl chloride	**146**	**100**	**374**	**256**		200	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12S-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	6/24/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/24/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/24/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	6/24/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/24/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**2.6**	**2.0**	**12.7**	**9.90**		2	6/24/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	6/24/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/24/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	95-47-6
Tetrachloroethene	**13**	**2.0**	**89.5**	**13.6**		2	6/24/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	6/24/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-60-5
Trichloroethene	**12**	**1.0**	**63.5**	**5.37**		2	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**1.3**	**1.0**	**7.08**	**5.62**		2	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**13**	**1.0**	**101**	**7.66**		2	6/24/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12M-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/24/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/24/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**49**	**20**	**245**	**99.0**		20	6/24/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/24/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/24/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/24/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/24/2019	95-47-6
Tetrachloroethene	**23**	**20**	**157**	**136**		20	6/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/24/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-60-5
Trichloroethene	**11**	**10**	**59.1**	**53.7**		20	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**22**	**10**	**123**	**56.2**		20	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**192**	**10**	**1,470**	**76.6**		20	6/24/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12D-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/24/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 2.5	2.5	< 15.0	15.0		5	6/24/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/24/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/24/2019	78-93-3
Acetone	**109**	**25**	**258**	**59.5**		5	6/24/2019	67-64-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	6/24/2019	71-43-2
Chlorobenzene	< 2.5	2.5	< 11.5	11.5		5	6/24/2019	108-90-7
Chloroform	< 2.5	2.5	< 12.2	12.2		5	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 5.0	5.0	< 24.8	24.8		5	6/24/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/24/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/24/2019	179601-23-1
Methylene chloride	< 10	10	< 34.7	34.7		5	6/24/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/24/2019	95-47-6
Tetrachloroethene	**6.1**	**5.0**	**41.4**	**33.9**		5	6/24/2019	127-18-4
Tetrahydrofuran	< 10	10	< 29.5	29.5		5	6/24/2019	109-99-9
Toluene	**106**	**2.5**	**398**	**9.43**		5	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/24/2019	156-60-5
Trichloroethene	**5.0**	**2.5**	**26.6**	**13.4**		5	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 2.5	2.5	< 14.1	14.1		5	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**5**	**2.5**	**36.8**	**19.2**		5	6/24/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv	T4	5	6/24/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-12-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	05	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	6/24/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/24/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/24/2019	67-64-1
Benzene	**1.1**	**1.0**	**3.64**	**3.19**		2	6/24/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/24/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	6/24/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	6/24/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/24/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	6/24/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	6/24/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-60-5
Trichloroethene	< 1.0	1.0	< 5.37	5.37		2	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	6/24/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	85.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	MW-11-SG-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	06	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	6/24/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/24/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/24/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	6/24/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/24/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	6/24/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	6/24/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/24/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	95-47-6
Tetrachloroethene	**2.5**	**2.0**	**17.0**	**13.6**		2	6/24/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	6/24/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-60-5
Trichloroethene	**2.5**	**1.0**	**13.3**	**5.37**		2	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	6/24/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP02-060619
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/6/2019
Lab ID:	07	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	6/24/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/24/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/24/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/24/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	6/24/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/24/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	6/24/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	6/24/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/24/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	6/24/2019	95-47-6
Tetrachloroethene	**2.3**	**2.0**	**15.3**	**13.6**		2	6/24/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	6/24/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/24/2019	156-60-5
Trichloroethene	**2.7**	**1.0**	**14.7**	**5.37**		2	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	6/24/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3S-SG-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	08	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**100**	**10**	**406**	**40.5**		20	6/24/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/24/2019	67-64-1
Benzene	**22**	**10**	**70.2**	**31.9**		20	6/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/24/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/24/2019	67-66-3
cis-1,2-Dichloroethene	**220**	**10**	**871**	**39.6**		20	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**907**	**20**	**4,490**	**99.0**		20	6/24/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/24/2019	100-41-4
m&p-Xylene	**36**	**20**	**156**	**86.8**		20	6/24/2019	179601-23-1
Methylene chloride	**143**	**40**	**495**	**139**		20	6/24/2019	75-09-2
o-Xylene	**27**	**10**	**117**	**43.4**		20	6/24/2019	95-47-6
Tetrachloroethene	**435**	**20**	**2,950**	**136**		20	6/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/24/2019	109-99-9
Toluene	**18**	**10**	**66.4**	**37.7**		20	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-60-5
Trichloroethene	**89**	**10**	**477**	**53.7**		20	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**53**	**10**	**299**	**56.2**		20	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**16**	**10**	**123**	**76.6**		20	6/24/2019	76-13-1
Vinyl chloride	**13**	**10**	**34.3**	**25.6**		20	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	90.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/24/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3M-SG-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	09	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**371**	**10**	**1,500**	**40.5**		20	6/24/2019	75-34-3
1,1-Dichloroethene	**18**	**10**	**69.9**	**39.7**		20	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/24/2019	67-64-1
Benzene	**52**	**10**	**165**	**31.9**		20	6/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/24/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/24/2019	67-66-3
cis-1,2-Dichloroethene	**74**	**10**	**294**	**39.6**		20	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**1,810**	**50**	**8,960**	**248**		50	6/25/2019	75-71-8
Ethylbenzene	**25**	**10**	**110**	**43.4**		20	6/24/2019	100-41-4
m&p-Xylene	**84**	**20**	**366**	**86.8**		20	6/24/2019	179601-23-1
Methylene chloride	**371**	**40**	**1,290**	**139**		20	6/24/2019	75-09-2
o-Xylene	**34**	**10**	**148**	**43.4**		20	6/24/2019	95-47-6
Tetrachloroethene	**336**	**20**	**2,280**	**136**		20	6/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/24/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-60-5
Trichloroethene	**115**	**10**	**620**	**53.7**		20	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**557**	**10**	**3,130**	**56.2**		20	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**99**	**10**	**761**	**76.6**		20	6/24/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-3PZ-SG-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	10	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**83**	**10**	**335**	**40.5**		20	6/24/2019	75-34-3
1,1-Dichloroethene	**41**	**10**	**163**	**39.7**		20	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/24/2019	67-64-1
Benzene	**14**	**10**	**43.4**	**31.9**		20	6/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/24/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/24/2019	67-66-3
cis-1,2-Dichloroethene	**40**	**10**	**159**	**39.6**		20	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**773**	**50**	**3,820**	**248**		50	6/25/2019	75-71-8
Ethylbenzene	**78**	**10**	**340**	**43.4**		20	6/24/2019	100-41-4
m&p-Xylene	**391**	**20**	**1,700**	**86.8**		20	6/24/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/24/2019	75-09-2
o-Xylene	**142**	**10**	**615**	**43.4**		20	6/24/2019	95-47-6
Tetrachloroethene	**232**	**20**	**1,580**	**136**		20	6/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/24/2019	109-99-9
Toluene	**50**	**10**	**188**	**37.7**		20	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-60-5
Trichloroethene	**622**	**10**	**3,340**	**53.7**		20	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**542**	**10**	**3,040**	**56.2**		20	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**92**	**10**	**706**	**76.6**		20	6/24/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	102	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5D-SG-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	11	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	**861**	**10**	**3,490**	**40.5**		20	6/24/2019	75-34-3
1,1-Dichloroethene	**154**	**10**	**610**	**39.7**		20	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/24/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/24/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/24/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/24/2019	67-64-1
Benzene	**132**	**10**	**422**	**31.9**		20	6/24/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/24/2019	108-90-7
Chloroform	**30**	**10**	**146**	**48.8**		20	6/24/2019	67-66-3
cis-1,2-Dichloroethene	**332**	**10**	**1,320**	**39.6**		20	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	**4,080**	**500**	**20,200**	**2,480**		500	6/25/2019	75-71-8
Ethylbenzene	**67**	**10**	**289**	**43.4**		20	6/24/2019	100-41-4
m&p-Xylene	**147**	**20**	**639**	**86.8**		20	6/24/2019	179601-23-1
Methylene chloride	**290**	**40**	**1,010**	**139**		20	6/24/2019	75-09-2
o-Xylene	**26**	**10**	**112**	**43.4**		20	6/24/2019	95-47-6
Tetrachloroethene	**828**	**20**	**5,610**	**136**		20	6/24/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/24/2019	109-99-9
Toluene	**719**	**10**	**2,710**	**37.7**		20	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/24/2019	156-60-5
Trichloroethene	**491**	**10**	**2,640**	**53.7**		20	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	**1,340**	**250**	**7,530**	**1,410**		500	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**337**	**10**	**2,580**	**76.6**		20	6/24/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	98.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv	T4	20	6/24/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-5PZ-SG-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	12	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**17**	**10**	**66.7**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**21**	**10**	**81.6**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**226**	**20**	**1,120**	**99.0**		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**74**	**20**	**500**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**683**	**10**	**3,670**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**121**	**10**	**681**	**56.2**		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**38**	**10**	**291**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	94.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	DUP03-060719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/7/2019
Lab ID:	13	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**22**	**10**	**89.9**	**40.5**		20	6/25/2019	75-34-3
1,1-Dichloroethene	**19**	**10**	**75.4**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**26**	**10**	**101**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**370**	**20**	**1,830**	**99.0**		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**106**	**20**	**719**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**957**	**50**	**5,140**	**269**		100	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**171**	**10**	**962**	**56.2**		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**43**	**10**	**331**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2S-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	14	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/25/2019	75-34-3
1,1-Dichloroethene	< 1.0	1.0	< 3.97	3.97		2	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 1.0	1.0	< 6.01	6.01		2	6/25/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/25/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/25/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/25/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	6/25/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/25/2019	108-90-7
Chloroform	< 1.0	1.0	< 4.88	4.88		2	6/25/2019	67-66-3
cis-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2.0	2.0	< 9.90	9.90		2	6/25/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/25/2019	100-41-4
m&p-Xylene	< 2.0	2.0	< 8.68	8.68		2	6/25/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/25/2019	75-09-2
o-Xylene	< 1.0	1.0	< 4.34	4.34		2	6/25/2019	95-47-6
Tetrachloroethene	< 2.0	2.0	< 13.6	13.6		2	6/25/2019	127-18-4
Tetrahydrofuran	**12**	**4.0**	**35.2**	**11.8**		2	6/25/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/25/2019	156-60-5
Trichloroethene	**7.1**	**1.0**	**37.9**	**5.37**		2	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1.0	1.0	< 5.62	5.62		2	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	6/25/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv	T4	2	6/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2M-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	15	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**224**	**10**	**1,200**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2D-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	16	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 50	50	< 203	203		100	6/25/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	6/25/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	6/25/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,480	1,480		100	6/25/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	6/25/2019	67-64-1
Benzene	< 50	50	< 160	160		100	6/25/2019	71-43-2
Chlorobenzene	< 50	50	< 230	230		100	6/25/2019	108-90-7
Chloroform	< 50	50	< 244	244		100	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**275**	**50**	**1,090**	**198**		100	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	6/25/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	6/25/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	6/25/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	6/25/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	6/25/2019	95-47-6
Tetrachloroethene	< 100	100	< 678	678		100	6/25/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	6/25/2019	109-99-9
Toluene	< 50	50	< 189	189		100	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	6/25/2019	156-60-5
Trichloroethene	**1,280**	**50**	**6,870**	**269**		100	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**67**	**50**	**513**	**383**		100	6/25/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	85.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-2PZ-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	17	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**16**	**10**	**61.9**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**271**	**10**	**1,070**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**101**	**10**	**542**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv	T4	20	6/25/2019	

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4S-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	18	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: JJ	
1,1-Dichloroethane	**3.5**	**1.0**	**14.0**	**4.05**		2	6/25/2019	75-34-3
1,1-Dichloroethene	**1.0**	**1.0**	**4.05**	**3.97**		2	6/25/2019	75-35-4
1,2-Dichlorobenzene	**3.6**	**1.0**	**21.6**	**6.01**		2	6/25/2019	95-50-1
1,2-Dichloroethane	< 1.0	1.0	< 4.05	4.05		2	6/25/2019	107-06-2
2-Butanone (MEK)	< 10	10	< 29.5	29.5		2	6/25/2019	78-93-3
Acetone	< 10	10	< 23.8	23.8		2	6/25/2019	67-64-1
Benzene	< 1.0	1.0	< 3.19	3.19		2	6/25/2019	71-43-2
Chlorobenzene	< 1.0	1.0	< 4.60	4.60		2	6/25/2019	108-90-7
Chloroform	**18**	**1.0**	**86.6**	**4.88**		2	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**9.9**	**1.0**	**39.1**	**3.96**		2	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**39**	**2.0**	**193**	**9.90**		2	6/25/2019	75-71-8
Ethylbenzene	< 1.0	1.0	< 4.34	4.34		2	6/25/2019	100-41-4
m&p-Xylene	**2.9**	**2.0**	**12.7**	**8.68**		2	6/25/2019	179601-23-1
Methylene chloride	< 4.0	4.0	< 13.9	13.9		2	6/25/2019	75-09-2
o-Xylene	**1.8**	**1.0**	**7.64**	**4.34**		2	6/25/2019	95-47-6
Tetrachloroethene	**47**	**20**	**319**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 4.0	4.0	< 11.8	11.8		2	6/25/2019	109-99-9
Toluene	< 1.0	1.0	< 3.77	3.77		2	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 1.0	1.0	< 3.96	3.96		2	6/25/2019	156-60-5
Trichloroethene	**53**	**1.0**	**284**	**5.37**		2	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**12**	**1.0**	**68.3**	**5.62**		2	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 1.0	1.0	< 7.66	7.66		2	6/25/2019	76-13-1
Vinyl chloride	< 1.0	1.0	< 2.56	2.56		2	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	102	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 20	20	ppbv		T4	2	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4PZ-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	19	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**18**	**10**	**72.9**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**95**	**10**	**377**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**54**	**20**	**367**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**512**	**10**	**2,750**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**189**	**10**	**1,450**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	**11**	**10**	**28.7**	**25.6**		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	83.6	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-4D-SG-061019
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	6/10/2019
Lab ID:	20	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**29**	**10**	**114**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**39**	**10**	**154**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**26**	**20**	**129**	**99.0**		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**118**	**20**	**797**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**947**	**10**	**5,090**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**281**	**10**	**2,150**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010624 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/24/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/24/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/24/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/24/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/24/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/24/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/24/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/24/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/24/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/24/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/24/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/24/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/24/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/24/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/24/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/24/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/24/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/24/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/24/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/24/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/24/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/24/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/24/2019	75-01-4
Surr: 4-Bromofluorobenzene	88.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/24/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/24/2019 Batch: MS010624 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	8.9	88.6	8.9	89.2	10.0	0.7	ppbv			
Vinyl Chloride	8.5	85.4	8.5	85.4	10.0	0.0	ppbv			
Trichlorofluoromethane (F-11)	8.0	79.5	8.0	80.3	10.0	1.0	ppbv			
Acetone	7.5	75.4	9.2	92.2	10.0	20.0	ppbv			
1,1-Dichloroethene	8.2	82.1	8.3	83.4	10.0	1.6	ppbv			
Trichlorotrifluoroethane (F-113)	8.0	79.7	8.1	80.8	10.0	1.4	ppbv			
Methylene Chloride	7.9	78.9	8.0	80.4	10.0	1.9	ppbv			
trans-1,2-Dichloroethene	8.1	81.1	8.6	85.8	10.0	5.6	ppbv			
1,1-Dichloroethane	8.3	83.3	8.5	84.6	10.0	1.5	ppbv			
2-Butanone (MEK)	7.8	78.2	8.1	81.1	10.0	3.6	ppbv			
cis-1,2-Dichloroethene	8.4	83.9	8.5	85.1	10.0	1.4	ppbv			
Chloroform	8.1	81.0	8.2	82.0	10.0	1.2	ppbv			
Tetrahydrofuran	8.3	82.5	8.5	85.3	10.0	3.3	ppbv			
1,2-Dichloroethane	8.2	81.9	8.5	84.5	10.0	3.1	ppbv			
Benzene	8.5	84.6	8.7	86.6	10.0	2.3	ppbv			
Trichloroethene	7.8	78.3	8.0	79.7	10.0	1.8	ppbv			
Toluene	8.5	85.0	8.7	86.5	10.0	1.7	ppbv			
Tetrachloroethene	8.1	81.3	8.3	82.5	10.0	1.5	ppbv			
Chlorobenzene	7.9	78.9	8.1	80.9	10.0	2.5	ppbv			
Ethylbenzene	8.7	86.9	8.8	88.0	10.0	1.3	ppbv			
m&p-Xylene	16.9	84.5	17.2	86.0	20.0	1.8	ppbv			
o-Xylene	8.4	83.6	8.6	85.6	10.0	2.4	ppbv			
1,2-Dichlorobenzene	8.6	85.8	8.5	84.8	10.0	1.2	ppbv			
Surr: 4-Bromofluorobenzene	10.2	102	10.3	103		1.1	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010625 Analyst: JJ

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: JJ	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/25/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/25/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/25/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/25/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/25/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/25/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/25/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/25/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/25/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/25/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/25/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/25/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/25/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/25/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/25/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/25/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/25/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/25/2019 Batch: MS010625 Analyst: JJ

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	8.4	83.5	9.3	93.2	10.0	11.0	ppbv			
Vinyl Chloride	8.2	82.3	9.6	95.8	10.0	15.2	ppbv			
Trichlorofluoromethane (F-11)	7.8	77.6	8.6	86.1	10.0	10.4	ppbv			
Acetone	7.3	72.6	8.8	88.0	10.0	19.2	ppbv			
1,1-Dichloroethene	7.7	77.2	8.6	85.9	10.0	10.7	ppbv			
Trichlorotrifluoroethane (F-113)	7.7	76.6	8.7	86.9	10.0	12.6	ppbv			
Methylene Chloride	7.3	73.1	7.9	79.0	10.0	7.8	ppbv			
trans-1,2-Dichloroethene	8.0	80.1	8.9	89.1	10.0	10.6	ppbv			
1,1-Dichloroethane	7.3	72.5	8.5	84.8	10.0	15.6	ppbv			
2-Butanone (MEK)	7.8	78.0	8.8	88.0	10.0	12.0	ppbv			
cis-1,2-Dichloroethene	8.1	80.9	9.1	90.7	10.0	11.4	ppbv			
Chloroform	7.8	78.2	8.9	89.1	10.0	13.0	ppbv			
Tetrahydrofuran	7.0	70.1	9.3	92.9	10.0	28.0	ppbv			R6
1,2-Dichloroethane	7.6	75.5	9.1	90.6	10.0	18.2	ppbv			
Benzene	7.7	76.7	9.1	90.9	10.0	16.9	ppbv			
Trichloroethene	8.5	85.4	8.5	84.9	10.0	0.6	ppbv			
Toluene	9.0	90.3	9.5	95.4	10.0	5.5	ppbv			
Tetrachloroethene	9.0	90.0	9.2	92.0	10.0	2.2	ppbv			
Chlorobenzene	8.6	86.2	9.0	89.9	10.0	4.2	ppbv			
Ethylbenzene	9.4	94.3	9.9	99.4	10.0	5.3	ppbv			
m&p-Xylene	18.4	92.0	19.7	98.3	20.0	6.6	ppbv			
o-Xylene	9.1	91.3	9.4	94.4	10.0	3.3	ppbv			
1,2-Dichlorobenzene	9.3	93.1	9.8	97.8	10.0	4.9	ppbv			
Surr: 4-Bromofluorobenzene	9.9	98.9	9.8	97.8			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F013	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	7/20/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	7/20/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	7/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190617-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	7/20/2019
A-190617-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	9/17/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer : Wood	Page 1 of ____		AEL Lab#
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F013
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes_____ No_____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes_____ No_____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			DFA tracer cmpd. as TIC
01	1838	037	6 (1) bag	(1) 2 5	TSSV-7PZ-SG-060619	6.6.19	726	S	1	X									X
02	1842	035	6 (1) bag	(1) 2 5	MW-12S-SG-060619	↓	753	↓	↓	X									X
03	E2103	158	6 (1) bag	(1) 2 5	MW-12M-SG-060619	↓	816	↓	↓	X									X
04	1830	205	6 (1) bag	(1) 2 5	MW-12D-SG-060619	↓	832	↓	↓	X									X
05	1809	163	6 (1) bag	(1) 2 5	MW-12-SG-060619	↓	1016	↓	↓	X									X
06	1887	194	6 (1) bag	(1) 2 5	MW-11-SG-060619	↓	1221	↓	↓	X									X
07	E2090	007	6 (1) bag	(1) 2 5	DUP02-060619	↓	1305	↓	↓	X									X
08	E2282	020	6 (1) bag	(1) 2 5	TSSV-3S-SG-060719	6.7.19	828	↓	↓	X									X
09	E2357	063	6 (1) bag	(1) 2 5	TSSV-3M-SG-060719	↓	851	↓	↓	X									X
10	E2354	009	6 (1) bag	(1) 2 5	TSSV-3PZ-SG-060719	↓	951	↓	↓	X									X

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6-10-19	1405	E. Miller	James Jam - Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 2 of ____		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F013
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

____ 24 Hours ____ 48 Hours
____ 72 Hours
____ 5 working Day
✓ Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 ~~full list~~ SHORT LIST	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
11	1887	180	6 (1) bag	(1) 2 5	TSSV-5D-S6-060719	6.7.19	1136	S	1	X									
12	1809 ~~1847~~ EM	046 ~~221~~	6 (1) bag	(1) 2 5	TSSV-5PZ-S6-060719	↓	1236	↓	↓	X									
13	1847	221	6 (1) bag	(1) 2 5	DUP03-060719	↓	1255	↓	↓	X									
14	E2284	053	6 (1) bag	(1) 2 5	TSSV-2S-S6-061019	6.10.19	831	↓	↓	X									
15	E2372	010	6 (1) bag	(1) 2 5	TSSV-2M-S6-061019	↓	854	↓	↓	X									
16	E2295	049	6 (1) bag	(1) 2 5	TSSV-2D-S6-061019	↓	921	↓	↓	X									
17	E2360	191	6 (1) bag	(1) 2 5	TSSV-2PZ-S6-061019	↓	943	↓	↓	X									
18	1801	030	6 (1) bag	(1) 2 5	TSSV-4S-S6-061019	↓	1016	↓	↓	X									
19	1870	104	6 (1) bag	(1) 2 5	TSSV-4PZ-S6-061019	↓	1111	↓	↓	X									
20	1792	001	6 (1) bag	(1) 2 5	TSSV-4D-S6-061019	↓	1139	↓	↓	X									

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.10.19	1405	E. Miller	Sam Jom Airtech

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 1, 2019

Client:	Natalie Chrisman	Work Order #:	19F022
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/18/2019

Dear Client:

Airtech Environmental Laboratories received fourteen (14) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 1, 2019

Client:	Natalie Chrisman	Work Order #:	19F022
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/18/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19F022-01	TSSV-1S-SG-061419	TO-15	6/14/2019	901
19F022-02	TSSV-1M-SG-061419	TO-15	6/14/2019	924
19F022-03	Dup04-061419	TO-15	6/14/2019	932
19F022-04	TSSV-1D-SG-061419	TO-15	6/14/2019	951
19F022-05	SVE-1S-SG-061419	TO-15	6/14/2019	1018
19F022-06	SVE-1M-SG-061419	TO-15	6/14/2019	1041
19F022-07	SVE-1D-SG-061419	TO-15	6/14/2019	1056
19F022-08	SVE-4M-SG-061719	TO-15	6/17/2019	1010
19F022-09	SVE-4-SG-061719	TO-15	6/17/2019	1020
19F022-10	SVE-3M-SG-061719	TO-15	6/17/2019	1133
19F022-11	SVE-3-SG-061719	TO-15	6/17/2019	1145
19F022-12	SVE-2-SG-061719	TO-15	6/17/2019	1235
19F022-13	TSSV-PW-SG-061719	TO-15	6/17/2019	1252
19F022-14	SVE-1-SG-061719	TO-15	6/17/2019	1315

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: July 1, 2019

Client:	Natalie Chrisman	Work Order #:	19F022
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	06/18/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

R6: BS/BSD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.

T4: Tentatively identified compound. Concentration is estimated and based on the closest internal standard.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19F022-01	TSSV-1S-SG-061419	E2362	1906-07	29.0	13.42	092	1905-02
19F022-02	TSSV-1M-SG-061419	E2093	1906-07	29.0	13.25	189	1905-02
19F022-03	Dup04-061419	1676	1906-07	29.0	13.33	196	1905-02
19F022-04	TSSV-1D-SG-061419	1833	1906-06	29.0	13.18	143	1905-02
19F022-05	SVE-1S-SG-061419	E2407	1906-03	29.0	13.43	135	1905-02
19F022-06	SVE-1M-SG-061419	1299	1906-01	29.0	13.30	164	1905-02
19F022-07	SVE-1D-SG-061419	1815	1906-03	29.0	13.33	074	1905-02
19F022-08	SVE-4M-SG-061719	1846	1906-07	29.0	13.29	190	1905-02
19F022-09	SVE-4-SG-061719	E2286	1906-06	29.0	12.62	022	1905-02
19F022-10	SVE-3M-SG-061719	1800	1906-06	29.0	13.23	207	1905-02
19F022-11	SVE-3-SG-061719	1861	1906-06	29.0	13.46	171	1905-02
19F022-12	SVE-2-SG-061719	E2088	1906-06	29.0	12.26	107	1905-02
19F022-13	TSSV-PW-SG-061719	1869	1906-07	29.0	11.48	199	1905-02
19F022-14	SVE-1-SG-061719	E2297	1906-07	29.0	12.40	072	1905-02

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1S-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/26/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/26/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/26/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/26/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/26/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/26/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/26/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/26/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/26/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	6/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/26/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/26/2019	156-60-5
Trichloroethene	**251**	**10**	**1,350**	**53.7**		20	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**13**	**10**	**98.0**	**76.6**		20	6/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	83.2	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1M-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 20	20	< 81.0	81.0		40	6/26/2019	75-34-3
1,1-Dichloroethene	< 20	20	< 79.4	79.4		40	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 20	20	< 120	120		40	6/26/2019	95-50-1
1,2-Dichloroethane	< 20	20	< 81.0	81.0		40	6/26/2019	107-06-2
2-Butanone (MEK)	< 200	200	< 590	590		40	6/26/2019	78-93-3
Acetone	< 200	200	< 476	476		40	6/26/2019	67-64-1
Benzene	< 20	20	< 63.8	63.8		40	6/26/2019	71-43-2
Chlorobenzene	**230**	**20**	**1,060**	**92.0**		40	6/26/2019	108-90-7
Chloroform	**44**	**20**	**213**	**97.6**		40	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**23**	**20**	**91.9**	**79.2**		40	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 40	40	< 198	198		40	6/26/2019	75-71-8
Ethylbenzene	< 20	20	< 86.8	86.8		40	6/26/2019	100-41-4
m&p-Xylene	< 40	40	< 174	174		40	6/26/2019	179601-23-1
Methylene chloride	< 80	80	< 278	278		40	6/26/2019	75-09-2
o-Xylene	< 20	20	< 86.8	86.8		40	6/26/2019	95-47-6
Tetrachloroethene	**74**	**40**	**499**	**271**		40	6/26/2019	127-18-4
Tetrahydrofuran	**90**	**80**	**264**	**236**	R6	40	6/26/2019	109-99-9
Toluene	< 20	20	< 75.4	75.4		40	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 20	20	< 79.2	79.2		40	6/26/2019	156-60-5
Trichloroethene	**884**	**20**	**4,745**	**107**		40	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 20	20	< 112	112		40	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 20	20	< 153	153		40	6/26/2019	76-13-1
Vinyl chloride	< 20	20	< 51.2	51.2		40	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 400	400	ppbv		T4	40	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	Dup04-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	6/26/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	6/26/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	6/26/2019	67-64-1
Benzene	< 50	50	< 160	160		100	6/26/2019	71-43-2
Chlorobenzene	**690**	**50**	**3,174**	**230**		100	6/26/2019	108-90-7
Chloroform	**135**	**50**	**659**	**244**		100	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**79**	**50**	**313**	**198**		100	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	6/26/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	6/26/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	6/26/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	6/26/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	6/26/2019	95-47-6
Tetrachloroethene	**216**	**100**	**1,464**	**678**		100	6/26/2019	127-18-4
Tetrahydrofuran	**424**	**200**	**1,251**	**590**		100	6/26/2019	109-99-9
Toluene	< 50	50	< 189	189		100	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	6/26/2019	156-60-5
Trichloroethene	**2,480**	**50**	**13,318**	**269**		100	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 50	50	< 383	383		100	6/26/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	89.8	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-1D-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	75-34-3
1,1-Dichloroethene	**72**	**50**	**286**	**199**		100	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 50	50	< 301	301		100	6/26/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	6/26/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	6/26/2019	67-64-1
Benzene	< 50	50	< 160	160		100	6/26/2019	71-43-2
Chlorobenzene	**119**	**50**	**547**	**230**		100	6/26/2019	108-90-7
Chloroform	**208**	**50**	**1,015**	**244**		100	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**852**	**50**	**3,374**	**198**		100	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	6/26/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	6/26/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	6/26/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	6/26/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	6/26/2019	95-47-6
Tetrachloroethene	**211**	**100**	**1,431**	**678**		100	6/26/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	6/26/2019	109-99-9
Toluene	< 50	50	< 189	189		100	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	6/26/2019	156-60-5
Trichloroethene	**3,540**	**50**	**19,010**	**269**		100	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 50	50	< 281	281		100	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**100**	**50**	**766**	**383**		100	6/26/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1S-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	05	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**14**	**10**	**54.8**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	**39**	**10**	**178**	**46.0**		20	6/25/2019	108-90-7
Chloroform	**26**	**10**	**126**	**48.8**		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**20**	**10**	**80.0**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**102**	**20**	**689**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**806**	**10**	**4,330**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	**21**	**10**	**116**	**56.2**		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**28**	**10**	**211**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.5	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1M-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	06	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	75-34-3
1,1-Dichloroethene	**16**	**10**	**64.3**	**39.7**		20	6/26/2019	75-35-4
1,2-Dichlorobenzene	**14**	**10**	**82.9**	**60.1**		20	6/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/26/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/26/2019	71-43-2
Chlorobenzene	**214**	**10**	**984**	**46.0**		20	6/26/2019	108-90-7
Chloroform	**31**	**10**	**149**	**48.8**		20	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**71**	**10**	**283**	**39.6**		20	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/26/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/26/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/26/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/26/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/26/2019	95-47-6
Tetrachloroethene	**100**	**20**	**681**	**136**		20	6/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/26/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/26/2019	156-60-5
Trichloroethene	**818**	**10**	**4,400**	**53.7**		20	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**25**	**10**	**138**	**56.2**		20	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**38**	**10**	**294**	**76.6**		20	6/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1D-SG-061419
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/14/2019
Lab ID:	07	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	75-34-3
1,1-Dichloroethene	**14**	**10**	**57.2**	**39.7**		20	6/26/2019	75-35-4
1,2-Dichlorobenzene	**26**	**10**	**159**	**60.1**		20	6/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/26/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/26/2019	71-43-2
Chlorobenzene	**245**	**10**	**1,130**	**46.0**		20	6/26/2019	108-90-7
Chloroform	**29**	**10**	**143**	**48.8**		20	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**68**	**10**	**271**	**39.6**		20	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/26/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/26/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/26/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/26/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/26/2019	95-47-6
Tetrachloroethene	**107**	**20**	**728**	**136**		20	6/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/26/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/26/2019	156-60-5
Trichloroethene	**776**	**10**	**4,170**	**53.7**		20	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**23**	**10**	**132**	**56.2**		20	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**35**	**10**	**267**	**76.6**		20	6/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-4M-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	08	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	75-34-3
1,1-Dichloroethene	< 50	50	< 199	199		100	6/26/2019	75-35-4
1,2-Dichlorobenzene	**479**	**50**	**2,879**	**301**		100	6/26/2019	95-50-1
1,2-Dichloroethane	< 50	50	< 203	203		100	6/26/2019	107-06-2
2-Butanone (MEK)	< 500	500	< 1,475	1,475		100	6/26/2019	78-93-3
Acetone	< 500	500	< 1,190	1,190		100	6/26/2019	67-64-1
Benzene	< 50	50	< 160	160		100	6/26/2019	71-43-2
Chlorobenzene	**3,060**	**50**	**14,076**	**230**		100	6/26/2019	108-90-7
Chloroform	< 50	50	< 244	244		100	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**590**	**50**	**2,336**	**198**		100	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 100	100	< 495	495		100	6/26/2019	75-71-8
Ethylbenzene	< 50	50	< 217	217		100	6/26/2019	100-41-4
m&p-Xylene	< 100	100	< 434	434		100	6/26/2019	179601-23-1
Methylene chloride	< 200	200	< 694	694		100	6/26/2019	75-09-2
o-Xylene	< 50	50	< 217	217		100	6/26/2019	95-47-6
Tetrachloroethene	**517**	**100**	**3,505**	**678**		100	6/26/2019	127-18-4
Tetrahydrofuran	< 200	200	< 590	590		100	6/26/2019	109-99-9
Toluene	< 50	50	< 189	189		100	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 50	50	< 198	198		100	6/26/2019	156-60-5
Trichloroethene	**777**	**50**	**4,172**	**269**		100	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**52**	**50**	**292**	**281**		100	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 50	50	< 383	383		100	6/26/2019	76-13-1
Vinyl chloride	< 50	50	< 128	128		100	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	91.3	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 1,000	1,000	ppbv		T4	100	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-4-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	09	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 500	500	< 2,025	2,025		1,000	6/26/2019	75-34-3
1,1-Dichloroethene	**21,800**	**500**	**86,500**	**1,985**		1,000	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 500	500	< 3,000	3,000		1,000	6/26/2019	95-50-1
1,2-Dichloroethane	< 500	500	< 2,030	2,030		1,000	6/26/2019	107-06-2
2-Butanone (MEK)	< 5,000	5,000	< 14,800	14,800		1,000	6/26/2019	78-93-3
Acetone	< 5,000	5,000	< 11,900	11,900		1,000	6/26/2019	67-64-1
Benzene	< 500	500	< 1,600	1,600		1,000	6/26/2019	71-43-2
Chlorobenzene	**1,210**	**500**	**5,570**	**2,300**		1,000	6/26/2019	108-90-7
Chloroform	< 500	500	< 2,440	2,440		1,000	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**4,930**	**500**	**19,500**	**1,980**		1,000	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1,000	1,000	< 4,950	4,950		1,000	6/26/2019	75-71-8
Ethylbenzene	< 500	500	< 2,170	2,170		1,000	6/26/2019	100-41-4
m&p-Xylene	< 1,000	1,000	< 4,340	4,340		1,000	6/26/2019	179601-23-1
Methylene chloride	**36,900**	**2,000**	**128,000**	**6,940**		1,000	6/26/2019	75-09-2
o-Xylene	< 500	500	< 2,170	2,170		1,000	6/26/2019	95-47-6
Tetrachloroethene	**4,690**	**1,000**	**31,800**	**6,780**		1,000	6/26/2019	127-18-4
Tetrahydrofuran	< 2,000	2,000	< 5,900	5,900		1,000	6/26/2019	109-99-9
Toluene	< 500	500	< 1,890	1,890		1,000	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 500	500	< 1,980	1,980		1,000	6/26/2019	156-60-5
Trichloroethene	**22,600**	**500**	**121,000**	**2,685**		1,000	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 500	500	< 2,810	2,810		1,000	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**6,250**	**500**	**47,900**	**3,830**		1,000	6/26/2019	76-13-1
Vinyl chloride	< 500	500	< 1,280	1,280		1,000	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10,000	10,000	ppbv		T4	1,000	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-3M-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	10	**Matrix:**	Soil vapor

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	**4.9**	**2.5**	**19.6**	**10.1**		5	6/26/2019	75-34-3
1,1-Dichloroethene	< 2.5	2.5	< 9.93	9.93		5	6/26/2019	75-35-4
1,2-Dichlorobenzene	**9.0**	**2.5**	**53.8**	**15.0**		5	6/26/2019	95-50-1
1,2-Dichloroethane	< 2.5	2.5	< 10.1	10.1		5	6/26/2019	107-06-2
2-Butanone (MEK)	< 25	25	< 73.8	73.8		5	6/26/2019	78-93-3
Acetone	< 25	25	< 59.5	59.5		5	6/26/2019	67-64-1
Benzene	< 2.5	2.5	< 7.98	7.98		5	6/26/2019	71-43-2
Chlorobenzene	**9.6**	**2.5**	**44.2**	**11.5**		5	6/26/2019	108-90-7
Chloroform	**20**	**2.5**	**95.2**	**12.2**		5	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**6.7**	**2.5**	**26.3**	**9.90**		5	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**48**	**5.0**	**239**	**24.8**		5	6/26/2019	75-71-8
Ethylbenzene	< 2.5	2.5	< 10.9	10.9		5	6/26/2019	100-41-4
m&p-Xylene	< 5.0	5.0	< 21.7	21.7		5	6/26/2019	179601-23-1
Methylene chloride	**81**	**10**	**281**	**34.7**		5	6/26/2019	75-09-2
o-Xylene	< 2.5	2.5	< 10.9	10.9		5	6/26/2019	95-47-6
Tetrachloroethene	**156**	**5.0**	**1,056**	**33.9**		5	6/26/2019	127-18-4
Tetrahydrofuran	**27**	**10**	**79.2**	**29.5**	R6	5	6/26/2019	109-99-9
Toluene	< 2.5	2.5	< 9.43	9.43		5	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 2.5	2.5	< 9.90	9.90		5	6/26/2019	156-60-5
Trichloroethene	**144**	**2.5**	**771**	**13.4**		5	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**47**	**2.5**	**262**	**14.1**		5	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**18**	**2.5**	**134**	**19.2**		5	6/26/2019	76-13-1
Vinyl chloride	< 2.5	2.5	< 6.40	6.40		5	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	101	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 50	50	ppbv		T4	5	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-3-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	11	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 100	100	< 405	405		200	6/26/2019	75-34-3
1,1-Dichloroethene	**514**	**100**	**2,040**	**397**		200	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 100	100	< 601	601		200	6/26/2019	95-50-1
1,2-Dichloroethane	< 100	100	< 405	405		200	6/26/2019	107-06-2
2-Butanone (MEK)	< 1,000	1,000	< 2,950	2,950		200	6/26/2019	78-93-3
Acetone	< 1,000	1,000	< 2,380	2,380		200	6/26/2019	67-64-1
Benzene	< 100	100	< 319	319		200	6/26/2019	71-43-2
Chlorobenzene	< 100	100	< 460	460		200	6/26/2019	108-90-7
Chloroform	< 100	100	< 488	488		200	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**958**	**100**	**3,800**	**396**		200	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	**848**	**200**	**4,200**	**990**		200	6/26/2019	75-71-8
Ethylbenzene	< 100	100	< 434	434		200	6/26/2019	100-41-4
m&p-Xylene	< 200	200	< 868	868		200	6/26/2019	179601-23-1
Methylene chloride	< 400	400	< 1,390	1,390		200	6/26/2019	75-09-2
o-Xylene	< 100	100	< 434	434		200	6/26/2019	95-47-6
Tetrachloroethene	**690**	**200**	**4,680**	**1,356**		200	6/26/2019	127-18-4
Tetrahydrofuran	< 400	400	< 1,180	1,180	R6	200	6/26/2019	109-99-9
Toluene	< 100	100	< 377	377		200	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 100	100	< 396	396		200	6/26/2019	156-60-5
Trichloroethene	**8,370**	**100**	**44,900**	**537**		200	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**314**	**100**	**1,770**	**562**		200	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**1,080**	**100**	**8,270**	**766**		200	6/26/2019	76-13-1
Vinyl chloride	< 100	100	< 256	256		200	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.9	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 2,000	2,000	ppbv		T4	200	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-2-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	12	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	**12**	**10**	**46.8**	**39.7**		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	**37**	**10**	**181**	**48.8**		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**43**	**10**	**169**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	**38**	**20**	**186**	**99.0**		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/25/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**177**	**20**	**1,199**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**1,260**	**20**	**6,770**	**107**		40	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**16**	**10**	**91.0**	**56.2**		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**42**	**10**	**322**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	**17**	**10**	**44.5**	**25.6**		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	92.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	TSSV-PW-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	13	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/25/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/25/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/25/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/25/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/25/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/25/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/25/2019	67-66-3
cis-1,2-Dichloroethene	**14**	**10**	**57.0**	**39.6**		20	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/25/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/25/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/25/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/23/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/25/2019	95-47-6
Tetrachloroethene	**38**	**20**	**255**	**136**		20	6/25/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/25/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/25/2019	156-60-5
Trichloroethene	**447**	**10**	**2,400**	**53.7**		20	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**30**	**10**	**233**	**76.6**		20	6/25/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	85.1	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SVE-1-SG-061719
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	6/17/2019
Lab ID:	14	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	75-34-3
1,1-Dichloroethene	**12**	**10**	**47.6**	**39.7**		20	6/26/2019	75-35-4
1,2-Dichlorobenzene	**50**	**10**	**298**	**60.1**		20	6/26/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/26/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/26/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/26/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/26/2019	71-43-2
Chlorobenzene	**360**	**10**	**1,660**	**46.0**		20	6/26/2019	108-90-7
Chloroform	**28**	**10**	**136**	**48.8**		20	6/26/2019	67-66-3
cis-1,2-Dichloroethene	**90**	**10**	**355**	**39.6**		20	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 20	20	< 99.0	99.0		20	6/26/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/26/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/26/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/26/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/26/2019	95-47-6
Tetrachloroethene	**87**	**20**	**590**	**136**		20	6/26/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118	R6	20	6/26/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/26/2019	156-60-5
Trichloroethene	**741**	**10**	**3,980**	**53.7**		20	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	**15**	**10**	**85.4**	**56.2**		20	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**30**	**10**	**228**	**76.6**		20	6/26/2019	76-13-1
Vinyl chloride	< 10	10	< 25.6	25.6		20	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.4	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 200	200	ppbv		T4	20	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010625 Analyst: PS

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/25/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/25/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/25/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/25/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/25/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/25/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/25/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/25/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/25/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/25/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/25/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/25/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/25/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/25/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/25/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/25/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/25/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/25/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/25/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/25/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/25/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/25/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/25/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.7	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/25/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/25/2019 Batch: MS010625 Analyst: PS

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	8.4	83.5	9.3	93.2	10.0	11.0	ppbv			
Vinyl Chloride	8.2	82.3	9.6	95.8	10.0	15.2	ppbv			
Trichlorofluoromethane (F-11)	7.8	77.6	8.6	86.1	10.0	10.4	ppbv			
Acetone	8.3	82.6	8.8	88.0	10.0	6.3	ppbv			
1,1-Dichloroethene	7.7	77.2	8.6	85.9	10.0	10.7	ppbv			
Trichlorotrifluoroethane (F-113)	7.7	76.6	8.7	86.9	10.0	12.6	ppbv			
Methylene Chloride	7.3	73.1	7.9	79.0	10.0	7.8	ppbv			
trans-1,2-Dichloroethene	8.0	80.1	8.9	89.1	10.0	10.6	ppbv			
1,1-Dichloroethane	7.3	72.5	8.5	84.8	10.0	15.6	ppbv			
2-Butanone (MEK)	7.8	78.0	8.8	88.0	10.0	12.0	ppbv			
cis-1,2-Dichloroethene	8.1	80.9	9.1	90.7	10.0	11.4	ppbv			
Chloroform	7.8	78.2	8.9	89.1	10.0	13.0	ppbv			
Tetrahydrofuran	7.0	70.1	9.3	92.9	10.0	28.0	ppbv			R6
1,2-Dichloroethane	7.6	75.5	9.1	90.6	10.0	18.2	ppbv			
Benzene	7.7	76.7	9.1	90.9	10.0	16.9	ppbv			
Trichloroethene	8.5	85.4	8.5	84.9	10.0	0.6	ppbv			
Toluene	9.0	90.3	9.5	95.4	10.0	5.5	ppbv			
Tetrachloroethene	9.0	90.0	9.2	92.0	10.0	2.2	ppbv			
Chlorobenzene	8.6	86.2	9.0	89.9	10.0	4.2	ppbv			
Ethylbenzene	9.4	94.3	9.9	99.4	10.0	5.3	ppbv			
m&p-Xylene	18.4	92.0	19.7	98.3	20.0	6.6	ppbv			
o-Xylene	9.1	91.3	9.4	94.4	10.0	3.3	ppbv			
1,2-Dichlorobenzene	9.3	93.1	9.8	97.8	10.0	4.9	ppbv			
Surr: 4-Bromofluorobenzene	9.9	98.9	9.8	97.8			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010626 Analyst: PS

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/26/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/26/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/26/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/26/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/26/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/26/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/26/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/26/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/26/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/26/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/26/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/26/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/26/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/26/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/26/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/26/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/26/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.0	70-130	%REC					

Tentatively Identified Compounds (TIC's)

Difluoroethane	< 10	10	ppbv		T4	1	6/26/2019

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/26/2019 Batch: MS010626 Analyst: PS

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	8.6	85.6	8.8	88.0	10.0	2.8	ppbv			
Vinyl Chloride	7.3	72.6	7.8	78.2	10.0	7.4	ppbv			
Trichlorofluoromethane (F-11)	8.3	82.5	7.9	79.4	10.0	3.8	ppbv			
Acetone	11.5	115	11.3	113	10.0	1.9	ppbv			
1,1-Dichloroethene	8.4	83.6	8.2	82.2	10.0	1.7	ppbv			
Trichlorotrifluoroethane (F-113)	8.2	82.3	7.9	78.8	10.0	4.3	ppbv			
Methylene Chloride	7.7	77.4	7.6	76.1	10.0	1.7	ppbv			
trans-1,2-Dichloroethene	8.3	83.0	8.2	81.9	10.0	1.3	ppbv			
1,1-Dichloroethane	8.2	82.2	7.6	75.9	10.0	8.0	ppbv			
2-Butanone (MEK)	7.7	76.6	7.0	70.4	10.0	8.4	ppbv			
cis-1,2-Dichloroethene	8.5	85.3	8.3	82.6	10.0	3.2	ppbv			
Chloroform	8.7	86.6	8.4	83.9	10.0	3.2	ppbv			
Tetrahydrofuran	8.2	81.7	7.3	73.0	10.0	11.2	ppbv			
1,2-Dichloroethane	9.2	91.7	8.6	85.8	10.0	6.6	ppbv			
Benzene	8.5	85.2	7.6	75.6	10.0	11.9	ppbv			
Trichloroethene	8.1	80.5	7.7	76.7	10.0	4.8	ppbv			
Toluene	8.7	86.8	7.8	78.4	10.0	10.2	ppbv			
Tetrachloroethene	8.4	84.1	8.1	81.1	10.0	3.6	ppbv			
Chlorobenzene	8.4	84.1	7.4	74.0	10.0	12.8	ppbv			
Ethylbenzene	9.2	91.6	8.3	82.9	10.0	10.0	ppbv			
m&p-Xylene	18.1	90.4	15.8	79.2	20.0	13.2	ppbv			
o-Xylene	8.9	88.6	7.8	78.2	10.0	12.5	ppbv			
1,2-Dichlorobenzene	8.9	89.3	7.7	76.8	10.0	15.1	ppbv			
Surr: 4-Bromofluorobenzene	10.0	100	10.0	99.7		0.6	%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F022	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	7/22/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	7/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190617-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	7/22/2019
A-190617-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 1 of 2		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F022
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature_____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers:_____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (Short List)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
01	E2362	092	6 (1) bag	(1) 2 5	TSSV-1S-S6-061419	6.14.19	901	S	1	X									
02	E2093	189	6 (1) bag	(1) 2 5	TSSV-1M-S6-061419	↓	924	↓	↓	X									
03	1676	196	6 (1) bag	(1) 2 5	DUP04-061419	↓	932	↓	↓	X									
04	1833	143	6 (1) bag	(1) 2 5	TSSV-1D-S6-061419	↓	951	↓	↓	X									
05	E2407	135	6 (1) bag	(1) 2 5	SVE-1S-S6-061419	↓	1018	↓	↓	X									
06	1299	164	6 (1) bag	(1) 2 5	SVE-1M-S6-061419	↓	1041	↓	↓	X									
07	1815	074	6 (1) bag	(1) 2 5	SVE-1D-S6-061419	↓	1056	↓	↓	X									
08	1846	190	6 (1) bag	(1) 2 5	SVE-4M-S6-061719	6.17.19	1010	↓	↓	X									
09	E2286	022	6 (1) bag	(1) 2 5	SVE-4-S6-061719	↓	1020	↓	↓	X									
10	1800	207	6 (1) bag	(1) 2 5	SVE-3M-S6-061719	↓	1133	↓	↓	X									

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.18.19	832	E. Miller	Jamm Tom Airtech

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 2 of 2		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F022
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: Y N		

Sample Receipt	Turn Around Request	Sample Type
Temperature____ °C	____ 24 Hours ____ 48 Hours	SVE: soil vapor extraction GW: ground water
Custody Seals: Yes____ No____	____ 72 Hours	A: ambient air WW: waste water
Custody Seals Intact: Yes____ No____	____ 5 working Day	I: indoor air
Total # of Containers:____	X Standard 10 Working Days	S: soil vapor
		W: water

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list (SHORT LIST)	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
11	1861	171	6 1 bag	1 2 5	SVE-3-SG-061719	6.17.19	1145	S	1	X									
12	E2088	107	6 1 bag	1 2 5	SVE-2-SG-061719	↓	1235	↓	↓	X									
13	1869	199	6 1 bag	1 2 5	TSSV-PW-SG-061719	↓	1252	↓	↓	X									
14	E2297	072	6 1 bag	1 2 5	SVE-1-SG-061719	↓	1315	↓	↓	X									
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.18.19	832	E. Miller	Jam Jam Airtech

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 30, 2019

Client:	Natalie Chrisman	Work Order #:	19F025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/19/2019

Dear Client:

Airtech Environmental Laboratories received four (4) samples for analysis.

All analyses met laboratory QA/QC with any exceptions addressed in the Case Narrative.

If you have any questions or concerns regarding your samples analysis, please contact the laboratory at 480-968-5888

Sincerely,

Yu Min Shi
Technical Director
Airtech Environmental Labs

Arizona ADHS License No. AZ0740

Airtech Environmental Laboratories (AEL)

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 30, 2019

Client:	Natalie Chrisman	Work Order #:	19F025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	6/19/2019

SAMPLE SUMMARY

LAB ID	CLIENT ID	METHOD	SAMPLE DATE	SAMPLE TIME
19F025-01	SP4-H1-061919	TO-15	6/19/2019	830
19F025-02	SP3-C1-061919	TO-15	6/19/2019	835
19F025-03	SP2-C3-061919	TO-15	6/19/2019	840
19F025-04	SP1-SkidOutlet-061919	TO-15	6/19/2019	845

Airtech Environmental Laboratories (AEL)
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Date: June 30, 2019

Client:	Natalie Chrisman	Work Order #:	19F025
Company:	Wood	Project Name:	Cave Creek Landfill
Address:	4600 E Washington St, #600	Project Number:	14-2019-2004
	Phoenix, AZ 85034	Received Date:	06/19/19

Case Narrative

All samples and QC associated with your samples met the quality control objectives.
Data qualifiers in this report are in accordance with ADEQ Data Qualifiers.

Airtech Environmental Laboratories (AEL) - AZ 0740
4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	N/A
Lab ID:	Kits QC	**Matrix:**	Air

		Canister				Grab Sampler	
		Type		Vacuum	Pressure	Type	
	Client	1.0 liter		before sampled	after sampled	1 minute-fill 1.0L canister	
AEL#	ID	SN#	Clean Batch#	Hg inch	psia	SN#	Clean Batch#
19F025-01	SP4-H1-061919	E2355	1906-07	29.0	13.63	075	1904-04
19F025-02	SP3-C1-061919	E2356	1906-07	29.0	13.91	047	1905-02
19F025-03	SP2-C3-061919	0223	1906-07	29.0	14.36	201	1904-04
19F025-04	SP1-SkidOutlet-061919	1845	1906-07	29.0	14.31	065	1904-04

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP4-H1-061919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	6/19/2019
Lab ID:	01	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	6/27/2019	75-34-3
1,1-Dichloroethene	< 5.0	5.0	< 19.9	19.9		10	6/27/2019	75-35-4
1,2-Dichlorobenzene	< 5.0	5.0	< 30.1	30.1		10	6/27/2019	95-50-1
1,2-Dichloroethane	< 5.0	5.0	< 20.3	20.3		10	6/27/2019	107-06-2
2-Butanone (MEK)	< 50	50	< 148	148		10	6/27/2019	78-93-3
Acetone	< 50	50	< 119	119		10	6/27/2019	67-64-1
Benzene	< 5.0	5.0	< 16.0	16.0		10	6/27/2019	71-43-2
Chlorobenzene	< 5.0	5.0	< 23.0	23.0		10	6/27/2019	108-90-7
Chloroform	< 5.0	5.0	< 24.4	24.4		10	6/27/2019	67-66-3
cis-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	6/27/2019	156-59-2
Dichlorodifluoromethane(F-12)	**356**	**40**	**1,760**	**198**		40	6/27/2019	75-71-8
Ethylbenzene	< 5.0	5.0	< 21.7	21.7		10	6/27/2019	100-41-4
m&p-Xylene	< 10	10	< 43.4	43.4		10	6/27/2019	179601-23-1
Methylene chloride	< 20	20	< 69.4	69.4		10	6/27/2019	75-09-2
o-Xylene	< 5.0	5.0	< 21.7	21.7		10	6/27/2019	95-47-6
Tetrachloroethene	< 10	10	< 67.8	67.8		10	6/27/2019	127-18-4
Tetrahydrofuran	< 20	20	< 59.0	59.0		10	6/27/2019	109-99-9
Toluene	< 5.0	5.0	< 18.9	18.9		10	6/27/2019	108-88-3
trans-1,2-Dichloroethene	< 5.0	5.0	< 19.8	19.8		10	6/27/2019	156-60-5
Trichloroethene	< 5.0	5.0	< 26.9	26.9		10	6/27/2019	79-01-6
Trichlorofluoromethane(F-11)	< 5.0	5.0	< 28.1	28.1		10	6/27/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 5.0	5.0	< 38.3	38.3		10	6/27/2019	76-13-1
Vinyl chloride	**72**	**5.0**	**183**	**12.8**		10	6/27/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.2	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP3-C1-061919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	6/19/2019
Lab ID:	02	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 10	10	< 40.5	40.5		20	6/27/2019	75-34-3
1,1-Dichloroethene	< 10	10	< 39.7	39.7		20	6/27/2019	75-35-4
1,2-Dichlorobenzene	< 10	10	< 60.1	60.1		20	6/27/2019	95-50-1
1,2-Dichloroethane	< 10	10	< 40.5	40.5		20	6/27/2019	107-06-2
2-Butanone (MEK)	< 100	100	< 295	295		20	6/27/2019	78-93-3
Acetone	< 100	100	< 238	238		20	6/27/2019	67-64-1
Benzene	< 10	10	< 31.9	31.9		20	6/27/2019	71-43-2
Chlorobenzene	< 10	10	< 46.0	46.0		20	6/27/2019	108-90-7
Chloroform	< 10	10	< 48.8	48.8		20	6/27/2019	67-66-3
cis-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/27/2019	156-59-2
Dichlorodifluoromethane(F-12)	**573**	**20**	**2,840**	**99.0**		20	6/27/2019	75-71-8
Ethylbenzene	< 10	10	< 43.4	43.4		20	6/27/2019	100-41-4
m&p-Xylene	< 20	20	< 86.8	86.8		20	6/27/2019	179601-23-1
Methylene chloride	< 40	40	< 139	139		20	6/27/2019	75-09-2
o-Xylene	< 10	10	< 43.4	43.4		20	6/27/2019	95-47-6
Tetrachloroethene	< 20	20	< 136	136		20	6/27/2019	127-18-4
Tetrahydrofuran	< 40	40	< 118	118		20	6/27/2019	109-99-9
Toluene	< 10	10	< 37.7	37.7		20	6/27/2019	108-88-3
trans-1,2-Dichloroethene	< 10	10	< 39.6	39.6		20	6/27/2019	156-60-5
Trichloroethene	< 10	10	< 53.7	53.7		20	6/27/2019	79-01-6
Trichlorofluoromethane(F-11)	< 10	10	< 56.2	56.2		20	6/27/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 10	10	< 76.6	76.6		20	6/27/2019	76-13-1
Vinyl chloride	**57**	**10**	**147**	**25.6**		20	6/27/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.5	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP2-C3-061919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	6/19/2019
Lab ID:	03	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 20	20	< 81.0	81.0		40	6/27/2019	75-34-3
1,1-Dichloroethene	< 20	20	< 79.4	79.4		40	6/27/2019	75-35-4
1,2-Dichlorobenzene	< 20	20	< 120	120		40	6/27/2019	95-50-1
1,2-Dichloroethane	< 20	20	< 81.0	81.0		40	6/27/2019	107-06-2
2-Butanone (MEK)	< 200	200	< 590	590		40	6/27/2019	78-93-3
Acetone	< 200	200	< 476	476		40	6/27/2019	67-64-1
Benzene	< 20	20	< 63.8	63.8		40	6/27/2019	71-43-2
Chlorobenzene	< 20	20	< 92.0	92.0		40	6/27/2019	108-90-7
Chloroform	< 20	20	< 97.6	97.6		40	6/27/2019	67-66-3
cis-1,2-Dichloroethene	< 20	20	< 79.2	79.2		40	6/27/2019	156-59-2
Dichlorodifluoromethane(F-12)	**392**	**40**	**1,940**	**198**		40	6/27/2019	75-71-8
Ethylbenzene	< 20	20	< 86.8	86.8		40	6/27/2019	100-41-4
m&p-Xylene	< 40	40	< 174	174		40	6/27/2019	179601-23-1
Methylene chloride	**24,900**	**2,000**	**86,400**	**6,940**		1,000	6/27/2019	75-09-2
o-Xylene	< 20	20	< 86.8	86.8		40	6/27/2019	95-47-6
Tetrachloroethene	< 40	40	< 271	271		40	6/27/2019	127-18-4
Tetrahydrofuran	< 80	80	< 236	236		40	6/27/2019	109-99-9
Toluene	< 20	20	< 75.4	75.4		40	6/27/2019	108-88-3
trans-1,2-Dichloroethene	< 20	20	< 79.2	79.2		40	6/27/2019	156-60-5
Trichloroethene	< 20	20	< 107	107		40	6/27/2019	79-01-6
Trichlorofluoromethane(F-11)	< 20	20	< 112	112		40	6/27/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 20	20	< 153	153		40	6/27/2019	76-13-1
Vinyl chloride	**37**	**20**	**95.2**	**51.2**		40	6/27/2019	75-01-4
Surr: 4-Bromofluorobenzene	86.8	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	SP1-SkidOutlet-061919
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	6/19/2019
Lab ID:	04	**Matrix:**	Soil vapor

	ppbv		ug/M^3				Date	
Analyses	**Result**	**Limit**	**Result**	**Limit**	**Qual**	**DF**	**Analyzed**	**CAS#**
VOLATILE ORGANICS IN AIR	**TO-15**						Analyst: PS	
1,1-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	6/27/2019	75-34-3
1,1-Dichloroethene	**9,220**	**1,000**	**36,600**	**3,970**		2,000	6/27/2019	75-35-4
1,2-Dichlorobenzene	< 1,000	1,000	< 6,010	6,010		2,000	6/27/2019	95-50-1
1,2-Dichloroethane	< 1,000	1,000	< 4,050	4,050		2,000	6/27/2019	107-06-2
2-Butanone (MEK)	< 10,000	10,000	< 29,500	29,500		2,000	6/27/2019	78-93-3
Acetone	< 10,000	10,000	< 23,800	23,800		2,000	6/27/2019	67-64-1
Benzene	< 1,000	1,000	< 3,190	3,190		2,000	6/27/2019	71-43-2
Chlorobenzene	< 1,000	1,000	< 4,600	4,600		2,000	6/27/2019	108-90-7
Chloroform	< 1,000	1,000	< 4,880	4,880		2,000	6/27/2019	67-66-3
cis-1,2-Dichloroethene	**2,020**	**1,000**	**8,000**	**3,960**		2,000	6/27/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 2,000	2,000	< 9,900	9,900		2,000	6/27/2019	75-71-8
Ethylbenzene	< 1,000	1,000	< 4,340	4,340		2,000	6/27/2019	100-41-4
m&p-Xylene	< 2,000	2,000	< 8,680	8,680		2,000	6/27/2019	179601-23-1
Methylene chloride	**17,100**	**4,000**	**59,300**	**13,900**		2,000	6/27/2019	75-09-2
o-Xylene	< 1,000	1,000	< 4,340	4,340		2,000	6/27/2019	95-47-6
Tetrachloroethene	**2,720**	**2,000**	**18,400**	**13,600**		2,000	6/27/2019	127-18-4
Tetrahydrofuran	< 4,000	4,000	< 11,800	11,800		2,000	6/27/2019	109-99-9
Toluene	< 1,000	1,000	< 3,770	3,770		2,000	6/27/2019	108-88-3
trans-1,2-Dichloroethene	< 1,000	1,000	< 3,960	3,960		2,000	6/27/2019	156-60-5
Trichloroethene	**18,200**	**1,000**	**97,700**	**5,370**		2,000	6/27/2019	79-01-6
Trichlorofluoromethane(F-11)	< 1,000	1,000	< 5,620	5,620		2,000	6/27/2019	75-69-4
Trichlorotrifluoroethane(F-113)	**3,860**	**1,000**	**29,600**	**7,660**		2,000	6/27/2019	76-13-1
Vinyl chloride	< 1,000	1,000	< 2,560	2,560		2,000	6/27/2019	75-01-4
Surr: 4-Bromofluorobenzene	84.3	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	N/A
Lab ID:	Blank	**Matrix:**	Nitrogen

Method QC Data

Batch: MS010626 Analyst: PS

Analyses	ppbv Result	ppbv Limit	ug/M^3 Result	ug/M^3 Limit	Qual	DF	Date Analyzed	CAS#
VOLATILE ORGANICS IN AIR		**TO-15**					Analyst: PS	
1,1-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/26/2019	75-34-3
1,1-Dichloroethene	< 0.5	0.5	< 1.99	1.99		1	6/26/2019	75-35-4
1,2-Dichlorobenzene	< 0.5	0.5	< 3.01	3.01		1	6/26/2019	95-50-1
1,2-Dichloroethane	< 0.5	0.5	< 2.03	2.03		1	6/26/2019	107-06-2
2-Butanone (MEK)	< 5.0	5.0	< 14.8	14.8		1	6/26/2019	78-93-3
Acetone	< 5.0	5.0	< 11.9	11.9		1	6/26/2019	67-64-1
Benzene	< 0.5	0.5	< 1.60	1.60		1	6/26/2019	71-43-2
Chlorobenzene	< 0.5	0.5	< 2.30	2.30		1	6/26/2019	108-90-7
Chloroform	< 0.5	0.5	< 2.44	2.44		1	6/26/2019	67-66-3
cis-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/26/2019	156-59-2
Dichlorodifluoromethane(F-12)	< 1.0	1.0	< 4.95	4.95		1	6/26/2019	75-71-8
Ethylbenzene	< 0.5	0.5	< 2.17	2.17		1	6/26/2019	100-41-4
m&p-Xylene	< 1.0	1.0	< 4.34	4.34		1	6/26/2019	179601-23-1
Methylene chloride	< 2.0	2.0	< 6.94	6.94		1	6/26/2019	75-09-2
o-Xylene	< 0.5	0.5	< 2.17	2.17		1	6/26/2019	95-47-6
Tetrachloroethene	< 1.0	1.0	< 6.78	6.78		1	6/26/2019	127-18-4
Tetrahydrofuran	< 2.0	2.0	< 5.90	5.90		1	6/26/2019	109-99-9
Toluene	< 0.5	0.5	< 1.89	1.89		1	6/26/2019	108-88-3
trans-1,2-Dichloroethene	< 0.5	0.5	< 1.98	1.98		1	6/26/2019	156-60-5
Trichloroethene	< 0.5	0.5	< 2.69	2.69		1	6/26/2019	79-01-6
Trichlorofluoromethane(F-11)	< 0.5	0.5	< 2.81	2.81		1	6/26/2019	75-69-4
Trichlorotrifluoroethane(F-113)	< 0.5	0.5	< 3.83	3.83		1	6/26/2019	76-13-1
Vinyl chloride	< 0.5	0.5	< 1.28	1.28		1	6/26/2019	75-01-4
Surr: 4-Bromofluorobenzene	87.0	70-130	%REC					

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	N/A
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	N/A
Lab ID:	LCS/LCSD	**Matrix:**	Nitrogen

Method QC Data

Date Analyzed: 6/26/2019 Batch: MS010626 Analyst: PS

Analyses	LCS Result	LCS %REC	LCSD Result	LCSD %REC	T.V.	%RPD	Unit	Qualifier LCS	Qualifier LCSD	Qualifier RPD
VOLATILE ORGANICS IN AIR	**TO-15**							70-130%		<25%
Dichlorodifluoromethane(F-12)	8.6	85.6	8.8	88.0	10.0	2.8	ppbv			
Vinyl Chloride	7.3	72.6	7.8	78.2	10.0	7.4	ppbv			
Trichlorofluoromethane (F-11)	8.3	82.5	7.9	79.4	10.0	3.8	ppbv			
Acetone	11.5	115	11.3	113	10.0	1.9	ppbv			
1,1-Dichloroethene	8.4	83.6	8.2	82.2	10.0	1.7	ppbv			
Trichlorotrifluoroethane (F-113)	8.2	82.3	7.9	78.8	10.0	4.3	ppbv			
Methylene Chloride	7.7	77.4	7.6	76.1	10.0	1.7	ppbv			
trans-1,2-Dichloroethene	8.3	83.0	8.2	81.9	10.0	1.3	ppbv			
1,1-Dichloroethane	8.2	82.2	7.6	75.9	10.0	8.0	ppbv			
2-Butanone (MEK)	7.7	76.6	7.0	70.4	10.0	8.4	ppbv			
cis-1,2-Dichloroethene	8.5	85.3	8.3	82.6	10.0	3.2	ppbv			
Chloroform	8.7	86.6	8.4	83.9	10.0	3.2	ppbv			
Tetrahydrofuran	8.2	81.7	7.3	73.0	10.0	11.2	ppbv			
1,2-Dichloroethane	9.2	91.7	8.6	85.8	10.0	6.6	ppbv			
Benzene	8.5	85.2	7.6	75.6	10.0	11.9	ppbv			
Trichloroethene	8.1	80.5	7.7	76.7	10.0	4.8	ppbv			
Toluene	8.7	86.8	7.8	78.4	10.0	10.2	ppbv			
Tetrachloroethene	8.4	84.1	8.1	81.1	10.0	3.6	ppbv			
Chlorobenzene	8.4	84.1	7.4	74.0	10.0	12.8	ppbv			
Ethylbenzene	9.2	91.6	8.3	82.9	10.0	10.0	ppbv			
m&p-Xylene	18.1	90.4	15.8	79.2	20.0	13.2	ppbv			
o-Xylene	8.9	88.6	7.8	78.2	10.0	12.5	ppbv			
1,2-Dichlorobenzene	8.9	89.3	7.7	76.8	10.0	15.1	ppbv			
Surr: 4-Bromofluorobenzene	10.0	100	10.0	99.7			%REC			
		70-130%		70-130%						

Airtech Environmental Laboratories (AEL) - AZ 0740

4620 E.Elwood St., Suite 13, Phoenix, AZ 85040 480-968-5888 Fax 480-966-1888

Client:	Wood	**Client Sample ID:**	NA
Project:	Cave Creek Landfill	**Project Number:**	14-2019-2004
Lab Order:	19F025	**Collection:**	NA
Lab ID:	Standards	**Matrix:**	Nitrogen

AEL ID#	STD Name	Vendor	SGI Order#	Description	CONC.	Accuracy	Exp.Date
S-180620-03	Stock	Spectra Gases	116447993	TO-14 39 Analytes	1.0 ppmv	± 5%	7/25/2019
S-180620-02	Stock	Spectra Gases	116447993	TO-15 25 Analytes	1.0 ppmv	± 5%	7/22/2019
S-180620-01	Stock	Spectra Gases	116447993	15 Additional Compounds	1.0 ppmv	± 5%	7/20/2019
S-181011-01	Stock	Spectra Gases	116849616	TO-15 IS 4 Compounds	1.0 ppmv	± 5%	10/11/2019
A-190617-02	Working Std	AEL Dilution		TO-15 74 Analytes	10 ppbv	± 5%	7/22/2019
A-190617-01	Working IS	AEL Dilution		TO-15 IS 4 Compounds	50 ppbv	± 5%	10/11/2019

Airtech Environmental Laboratories (AEL)

Chain of Custody

4620 E.Elwood Street, Suite 13, Phoenix, AZ 85040 480-968-5888 (phone) 480-966-1888 (fax)

Customer: Wood	Page 1 of 1		AEL Lab #
Address: 4600 East Washington St, Suite 600	Sampler: Eric Miller	Phone: 602.300.8313	19F025
	Project Name: Cave Creek Landfill	Project Number: 14-2019-2004	
City, State, Zip: Phoenix, AZ 85034	Project location: Cave Creek, AZ		
Contact:	P.O. Number:		
Phone: 602.733-6000 / Fax: 602.733-6100	Fax Results: Y N		
E-Mail Address: Natalie.Chrisman@woodplc.com	E-Mail Results: (Y) N		

Sample Receipt

Temperature_____ °C
Custody Seals: Yes_____ No_____
Custody Seals Intact: Yes_____ No_____
Total # of Containers:_____

Turn Around Request

_____ 24 Hours _____ 48 Hours
_____ 72 Hours
_____ 5 working Day
X Standard 10 Working Days

Sample Type

SVE: soil vapor extraction
A: ambient air
I: indoor air
S: soil vapor
W: water
GW: ground water
WW: waste water

Analyses Requested

Sample Information

AEL Lab #	Serial # Canister	Serial # Grab	Canister (L) or bag	Grab (Min)	Client's Sample Identification	Sampled Date	Sampled Time	Sample Type	Number of Containers	TO-15 full list	TO-15 TPH(GRO)	TO-15 Selet List	8260B AZ Vapor full list	8260B Vapor select list	8015 GRO	8260B Water			
01	E2355	075	6 (1) bag	(1) 2 5	SP4-HI-061919	6.19.19	830	SVE	1			X							
02	E2356	047	6 (1) bag	(1) 2 5	SP3-CI-061919	↓	835	↓	↓			X							
03	0223	201	6 (1) bag	(1) 2 5	SP2-CS-061919	↓	840	↓	↓			X							
04	1845	065	6 (1) bag	(1) 2 5	SP1-SKIDOUTLET-061919	↓	845	↓	↓			X							
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															
			6 1 bag	1 2 5															

Instructions / Special Requirements:

Date:	Time:	Samples Relinquished By:	Received By:
6.19.19	1237	E. Miller	Jam Jam Airtech

Chain of Custody