

**2018 ANNUAL ENVIRONMENTAL REPORT
IRVINGTON LANDFILL, TUCSON, ARIZONA
AQUIFER PROTECTION PERMIT NO. 50044800.00**

Prepared for:

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Acronyms

Alert Level	AL
Aquifer Protection Permit	APP
Aquifer Quality Limit	AQL
Aquifer Water Quality Standards	AWQS
Arizona Department of Environmental Quality	ADEQ
Below Ground Surface	bgs
Carbon Dioxide	CO ₂
City of Tucson-Environmental & General Services Department	COT-EGSD
Feet	ft
Feet Above Mean Sea Level	ft amsl
Groundwater Protection Level	GPL
Methane	CH ₄
Milligrams per Liter	mg/l
Nephelometric Turbidity Unit	NTU
Non Detect	ND
Oxygen	O ₂
Quality Assurance/Quality Control	QA/QC
Reportable Detection Level	RDL
Total Suspended Solids	TSS
Volatile Organic Compounds	VOC
Water Table Elevation	WTE

1.0 INTRODUCTION

The City of Tucson-Environmental & General Services Department (COT-EGSD) has prepared this report to document groundwater, methane gas and soil vapor monitoring, and site inspections completed at the closed Irvington Landfill during 2018. Environmental sampling and analysis and site inspections are required by Aquifer Protection Permit (APP) 50044800.00, approved by the Arizona Department of Environmental Quality (ADEQ) on May 28, 2009.

The Irvington Landfill is located on the east side of the City of Tucson at 10000 East Irvington Road, near the intersection of East Irvington Road and South Houghton Road. The location of the Irvington Landfill is shown on **Figure 1**. The Irvington Landfill was operated as a municipal solid waste landfill by the City of Tucson from 1978 to 1988.

2.0 GROUNDWATER MONITORING

The March 2018 groundwater monitoring event was completed in accordance with Section 2.5 of the APP. A site map depicting the locations of the four groundwater monitoring wells located at the Irvington Landfill is provided on **Figure 2** and groundwater monitoring well construction data is presented in **Table 1**.

2.1 *Water Level Monitoring*

The depth to groundwater was measured by COT-EGSD prior to well purging and groundwater sample collection on March 1, 2018. **Table 2** contains a summary of the groundwater level data obtained during this sampling event. A groundwater contour and flow direction map is provided in **Figure 2**.

The 2018 water table elevations at the landfill ranged from 2,537.29 feet above mean sea level (ft amsl) to 2508.71 ft amsl in the four groundwater monitor wells. The groundwater flow direction is northwest at the Irvington Landfill, as depicted on **Figure 2**. The northwest flow direction is consistent with previous groundwater level measurements at the landfill site. From 1987 to 2018, the average water table elevation at the site has decreased by approximately 1.6 feet per year, as shown on the hydrographs on **Figure 3**.

2.2 *Groundwater Quality Results*

COT-EGSD collected groundwater samples from the four groundwater monitoring wells at the Irvington Landfill on March 1, 2018. The groundwater samples were submitted to the Tucson Water Quality Laboratory (TWQL) for analysis for parameters specified in Section 4.0 of the APP. The field sampling sheets and groundwater monitoring laboratory reports for this sampling event are provided in **Appendix A**.

The groundwater analytical results indicate there were no volatile organic compounds (VOCs) detected above the laboratory reportable detection levels (RDLs) in any of the four monitoring

wells. Since no VOCs were detected, a table summarizing the analytical results has not been prepared.

The APP alert level (AL) for total lead of 0.04 mg/l and the aquifer quality limit (AQL) level for total lead of 0.05 mg/l were exceeded in downgradient point of compliance (POC) monitoring well WR-124A at a concentration of 0.0556 mg/l. A summary of the analytical results for all of the inorganic parameters is provided on **Table 3**. COT-EGSD believes the concentration of lead observed at monitoring well WR-124A is from particulates produced by the condition of the well casing. All of the monitoring wells at the Irvington Landfill were constructed using mild steel. Colored purge water and/or turbidity measurements greater than 10 nephelometric turbidity units (NTUs) have been observed during sampling events at three of the four monitoring wells at the site.

The AL and AQL exceedances were reported by COT-EGSD to ADEQ on November 29, 2018¹. COT-EGSD planned to rehabilitate well WR-124A by mechanical brushing, bailing, and the placement of liquid carbon dioxide into the water in the well screen and casing. The well was video logged before and after rehabilitation. COT-EGSD requested ADEQ's concurrence to extend the time frame for the thirty day report until the rehabilitation notes and resampling analytical results were available, or to combine this information into the annual report due January 31, 2019. ADEQ provided written approval of this plan on December 5, 2018².

On November 29, 2018, COT-EGSD collected a groundwater sample from WR-124A prior to rehabilitation of the well. The total lead concentration was 0.00391 mg/l and the dissolved lead concentration was non-detect with a reported concentration of less than 0.001 mg/l.

The Verdad Group, LLC (Verdad) conducted the rehabilitation of well WR-124A. On December 20, 2018, the submersible pump was removed from well WR-124A. A pre-rehabilitation video log of the well was obtained on January 4, 2019. The video log identified heavy scale and six feet of fill at the bottom of the well. From January 7 through January 10, 2019, well WR-124A was mechanically rehabilitated by brushing, bailing, and the placement of liquid carbon dioxide into the water in the well. Liquid carbon dioxide was placed into the water in the well using an injection pipe in 5-foot lift intervals from 344 feet to 287 feet below ground surface, which is the portion of the well screen having water. On January 14, 2019, the post-rehabilitation video log at WR-124A showed rehabilitation efforts were successful. The scaling was removed and the well casing slots were open. However, approximately 1.5 feet of fill was noted at the bottom of the well. On that same day, Verdad returned to remove the remaining fill from the bottom of the well. The video logs and daily logs are provided in **Appendix B**, and the pre- and post-rehabilitation video logs have been submitted on a flash drive with this report.

¹ COT-EGSD, *Irvington Landfill, Tucson, Arizona, Five Day Notification of Alert Limit and Aquifer Quality Limit Exceedance; APP 50044800.00; Place ID Number 1256*, November 29, 2018

² ADEQ, *Five Day Notification of Alert Level and Aquifer Quality Limit Exceedance; Irvington Landfill, Tucson, AZ; Place ID Number 1256, PRU18-552*, December 5, 2018

On January 15, 2019, COT-EGSD resampled well WR-124A for analysis of total lead. The verification sampling result identified lead at a concentration of 0.004 mg/l, a concentration less than the AL and therefore no further action was necessary.

All other inorganic compounds met the AQL and AL limits specified in the APP. A summary of the inorganic laboratory results is provided on **Table 3**.

As specified in Section 2.5.3(1.) of the APP and as approved by ADEQ³, the frequency of post-closure groundwater monitoring has been reduced from one annual sampling event to one sampling event every two years (biennial basis). The next groundwater sampling event at the Irvington Landfill is scheduled for 2020.

2.2.1 Quality Assurance/Quality Control Results

Quality assurance/quality control (QA/QC) analyses for the March 2018 sampling event included one duplicate groundwater sample and one trip blank sample. Analytical results for the QA/QC samples are presented in the laboratory reports in **Appendix A** and duplicate comparisons are summarized on **Table 4**.

Duplicate Groundwater Sample Results

The laboratory percent recoveries were within laboratory quality assurance objectives for accuracy, except for the data qualifiers listed in the laboratory case narratives. All laboratory percent recoveries were within acceptable quality.

If the relative percent difference (RPD) between the original and duplicate groundwater samples is greater than 30%, laboratory precision and sampling protocols or sample crew field methodology may be evaluated. Total suspended solids (TSS) and total Kjeldahl nitrogen concentrations were above the 30% RPD (**Table 4**) for the WR-125A original and duplicate samples. A TSS concentration of 2.2 mg/l was observed in the original sample and a TSS concentration of 5.4 mg/l was identified in the duplicate sample. The total Kjeldahl nitrogen concentrations were non-detect in both samples, however the detection limit was less than 0.2 mg/l in the original sample and less than 0.4 mg/l in the duplicate sample. COT-EGSD does not consider the discrepancy between the original and duplicate TSS to represent a quality control issue associated with laboratory precision or field sampling protocol, but is due to particulates present in the well.

Trip Blank Sample Results

There were no analytes detected in the trip blank sample.

³ ADEQ, RE: Irvington Landfill, Aquifer Protection Permit (APP) No. 50044800.00, 2013 Annual Report for Groundwater and Methane Monitoring, Landfill Inspections, March 27, 2014

3.0 METHANE GAS MONITORING PROBE RESULTS

There are 14 methane gas monitoring probes, designated as probes IRV-1 through IRV-14, located around the perimeter of the Irvington Landfill. Each probe is constructed to allow for a soil vapor (methane gas) sample to be collected at depths of 10 feet and 25 feet below ground surface. The gas monitoring probe locations are shown on **Figure 2**.

COT-EGSD monitored methane gas probes IRV-1 through IRV-14 on a quarterly basis in January, April, July, and December 2018 for the presence of methane gas in the vapor of the shallow subsurface soils. Methane gas concentrations in the perimeter landfill gas probes were below the equipment detection limit at each probe location during each of the four sampling events in 2018. The measurement range for each methane measurement is 0% to 100% and the accuracy for each measurement is $\pm 0.3\%$. **Appendix C** contains the quarterly soil vapor (methane gas) field monitoring summary sheets for 2018.

4.0 DEEP SOIL VAPOR MONITORING

COT-EGSD has been monitoring VOCs on a voluntarily basis at deep nested soil vapor probe R-101A to assess deep vadose zone conditions at the Irvington Landfill site. The purpose of this analysis was to assess possible impacts to groundwater from vapor phase VOCs migrating from the waste to the groundwater at the Irvington Landfill site. There are no regulatory standards for this monitoring data, and analysis of the soil vapor for VOCs is not a requirement of the APP. HARGIS + Associates, Inc. developed Groundwater Protection Limits (GPLs) for VOCs for the Irvington Landfill site in 2008⁴. The GPLs establish the minimum soil vapor concentrations that will not cause an exceedance of the aquifer water quality standards (AWQS) in the groundwater at the site.

Analytical data from probe R-101A since 2002 was evaluated to assess possible impacts to groundwater quality from vapor phase VOCs potentially migrating from the waste at the Irvington Landfill site. Evaluation of the data identified VOCs in concentrations significantly less than the GPLs, suggesting the potential for soil vapors to impact groundwater quality was unlikely. Therefore, COT-EGSD decided to discontinue the deep soil vapor monitoring at probe R-101A. The results of the historical soil vapor evaluation were provided by COT-EGSD in the 2016 Annual Environmental Report. COT-EGSD⁵ also notified ADEQ of its intention to permanently discontinue the voluntary deep probe vapor monitoring.

⁴ EEC and Hargis + Associates, Inc., *Soil Vapor Assessment at Los Reales, Prudence, Vincent Mullins, Irvington, Cottonwood, and Ryan Landfills*, April 10, 2008

⁵ COT-EGSD, *Irvington Landfill, Tucson, Arizona, 2016 Annual Environmental Report, Aquifer Protection Permit 50044800.00*, January 24, 2017

5.0 ANNUAL SITE INSPECTIONS

Inspections at the Irvington Landfill are required on a quarterly basis in accordance with a condition specified in the APP. Site inspections were conducted by Geotek Contracting and Remediation, LLC (formerly Allwyn Consultants) on behalf of COT-EGSD, in March, June, September, and December of 2018. A copy of each inspection report is provided in **Appendix D**.

The following relevant findings were observed during the 2018 site inspections:

- Perimeter security fence support poles along the eastern perimeter fence line have exposed footers. Separation in breakaway fencing was observed at the southern fence near the Rodeo Wash.
- Two fissures developed at the bottom of the retention basin inspection road.
- The south and west inspection roads have several erosion rills. Smaller fissures have begun to develop at the northern end of the retention basin inspection road.
- Partially exposed portions of rusted cans, metal, and plastic objects were observed along the southwestern slope of the cap. This slope will continue to be monitored for increasing amounts of exposed objects.
- The main drainage channel on the final cover has large amounts of sediment buildup.
- There is excessive silt accumulation at the entrance to the retention basin.
- Cracking was observed along the northern section of the retention basin inspection road. Repair of this fissure is not warranted at this time as it was located approximately 20 feet from the landfill waste footprint.
- A piece of carpet and several household items were observed outside of the western gate (illegal dumping).

During 2018, the following site corrections were made:

- A 25-foot section of riprap in the lower drainage area was excavated and sediment imbedded in the riprap was removed. Several large desert brooms growing in the sediment that had accumulated in the channel were removed and the excavated riprap was replaced in the channel. An additional 15 feet of sediment was removed from the east and west ends of the repaired area.
- Repairs were made to the concrete pad that was undermined beneath groundwater monitor well WR-125A. Fill and concrete were placed around base of well WR-125A.

- A new section of chain link fencing was attached to the existing post to secure the opening in the fence.

During 2019, COT-EGSD will evaluate the relevant findings identified in the 2018 landfill inspection reports for potential repairs and maintenance.

6.0 WEATHER EVENT SITE INSPECTIONS

Nine weather event site inspections were documented in the 2018 landfill inspection reports, as required in the APP. Information concerning the weather event site inspections is provided below:

Date of Weather Inspection	Description and Findings of Weather Event
February 15, 2018	1.22 inches of precipitation was recorded.
January 24, 2018	Between 10:00 AM to 12:45 PM, wind speeds recorded at sustained speeds of 25 to 28 mph.
January 29, 2018	Between 10:50 AM to 12:45 PM, wind speeds recorded at sustained speeds of 25 to 30 mph.
February 19, 2018	Between 4:45 PM to 5:45 PM, wind speeds were recorded at sustained speeds of 25 to 28 mph.
February 27, 2018	Between 3:00 PM to 4:45 PM, wind speeds were recorded at a sustained speeds of 25 to 28 mph.
June 16, 2018	1.38 inches of precipitation was recorded.
July 27, 2018	0.75 inches of precipitation was recorded.
September 19, 2018	0.55 inches of precipitation was recorded.
October 13, 2018	0.51 inches of precipitation was recorded.

The weather inspection logs list similar conditions as those already observed during the routine quarterly inspections. Copies of the weather inspection logs are included in the site inspection reports in **Appendix D**.

7.0 SUMMARY OF ACTIVITIES

Activities conducted at the Irvington Landfill site in 2018 included:

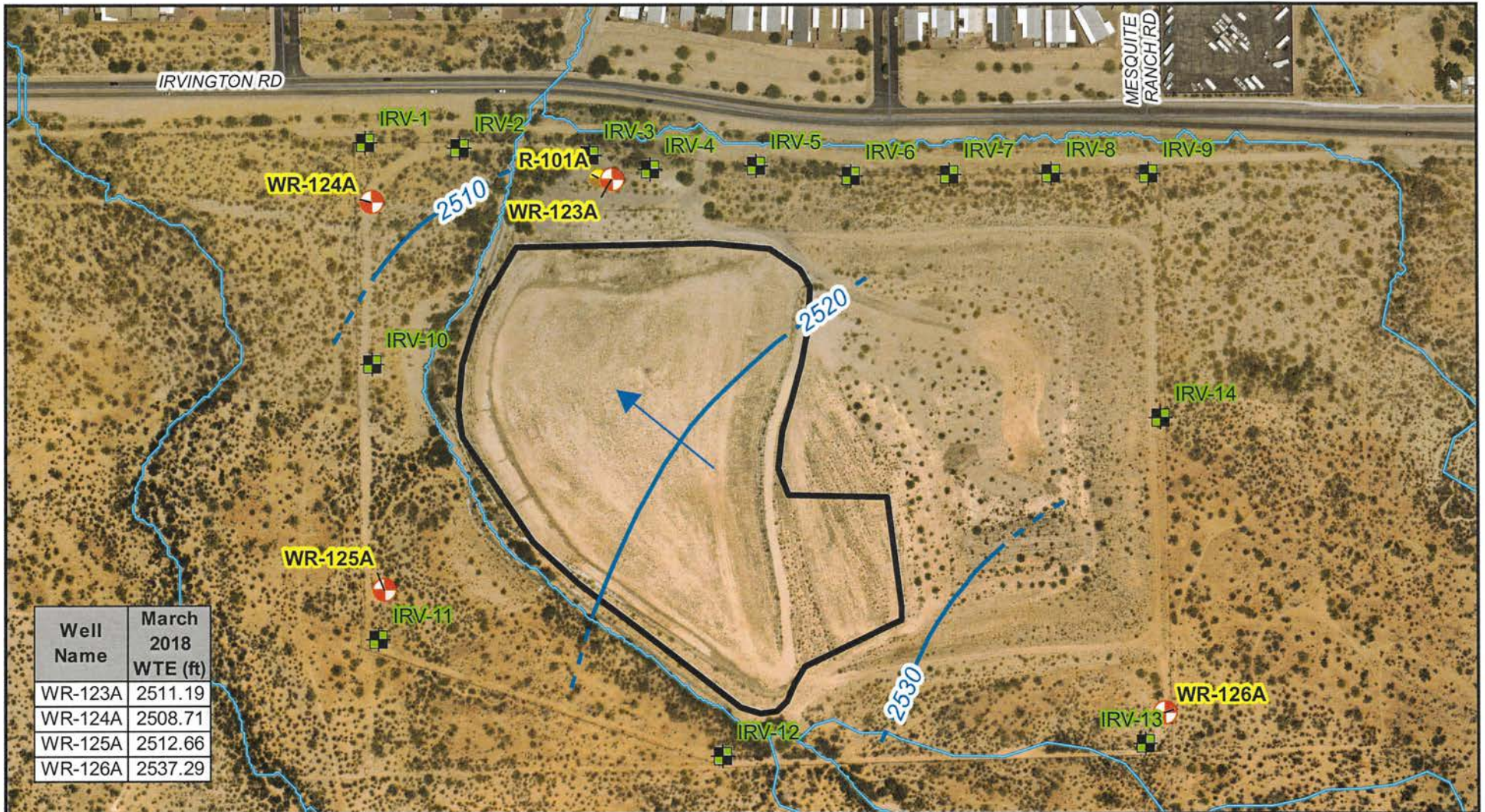
- Analytical test results indicate no VOCs were detected in the groundwater in concentrations greater than the laboratory RDLs.

- The AL and AQL specified in the APP for total lead were exceeded at the POC monitoring well WR-124A.
- Confirmatory groundwater samples collected at well WR-124A identified total lead concentrations less than the AL.
- All other inorganic compounds were observed in concentrations less than the AL and AQL in the February 2018 monitoring event.
- Methane gas was not detected in any of the perimeter landfill gas probes during quarterly monitoring conducted in 2018. Methane gas monitoring at the gas probes will continue on a quarterly basis in 2019.
- As required by the APP, site inspections were performed quarterly to evaluate the integrity of the final cover layer, access road conditions, drainage systems, vegetation, and security conditions. No critical environmental issues were identified at the Irvington Landfill during the site inspections. COT-EGSD will evaluate the findings from the site inspections and complete repairs and maintenance, as necessary, in 2019.
- The landfill complied with all of the requirements and conditions of the APP.

FIGURES



Figure 1
Location Map
Irvington Landfill



Well Name	March 2018 WTE (ft)
WR-123A	2511.19
WR-124A	2508.71
WR-125A	2512.66
WR-126A	2537.29

Legend

- Perimeter Landfill Gas Probe
- Soil Vapor Monitor Well
- Groundwater Monitor Well
- Approx. Water Table Elevation (ft amsl)
- Water Table Elevation (ft amsl)
- Direction of Groundwater Flow
- Natural Drainage Areas (Washes)
- Landfill Boundary

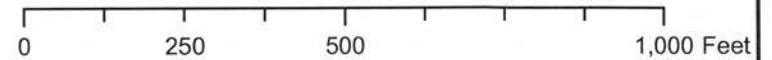
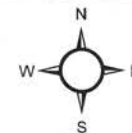


Figure 2
 Site Map and 2018 Water Table Elevation Map
 Irvington Landfill, Tucson, Az

Drawn By:	LE
Checked:	RB
Approved:	TR
Date:	11/27/2018
File:	See Below

GIS\Irvington\2018\WTE_2018.mxd

Figure 3
Hydrographs for Groundwater Monitor Wells
Irvington Landfill

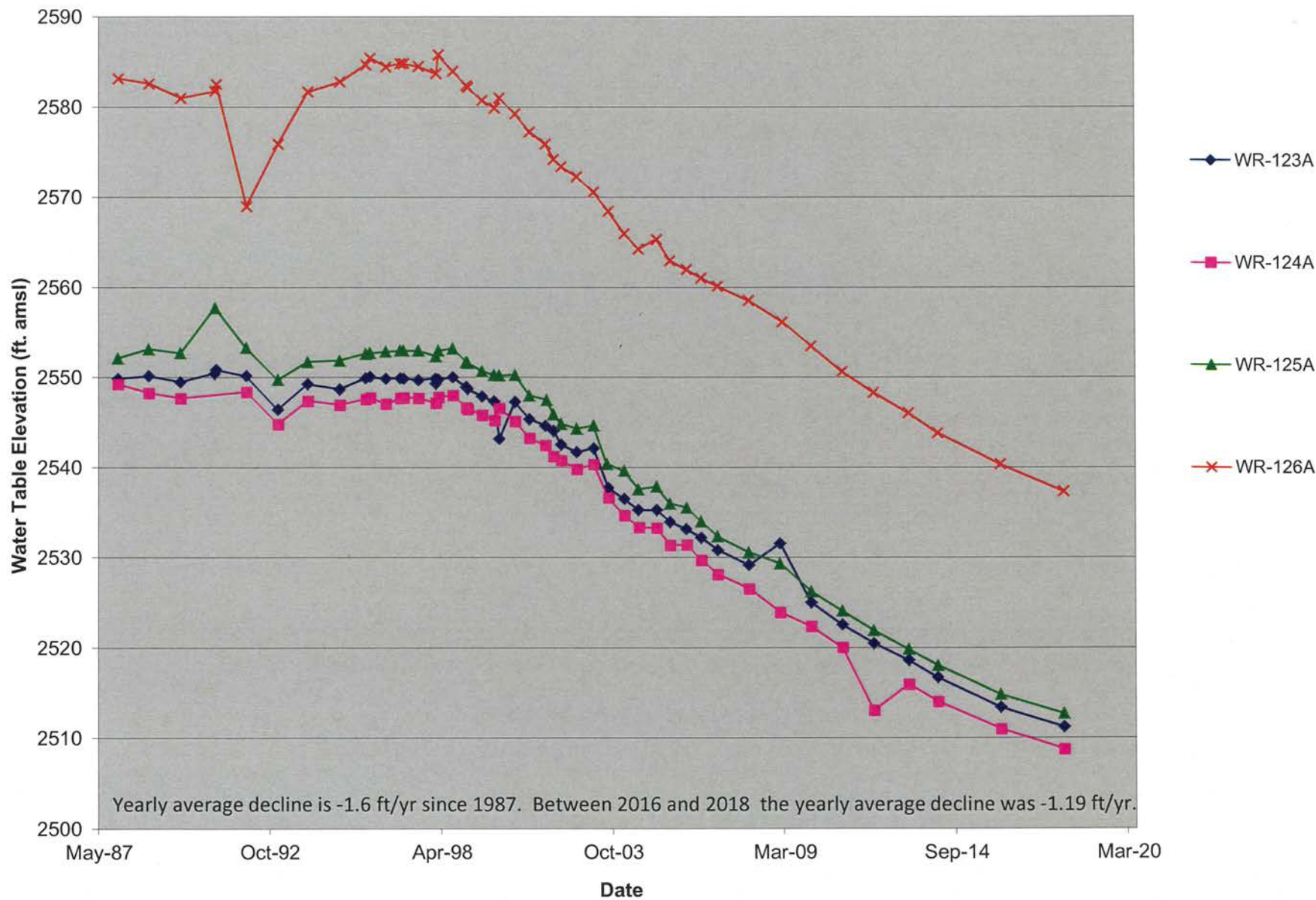
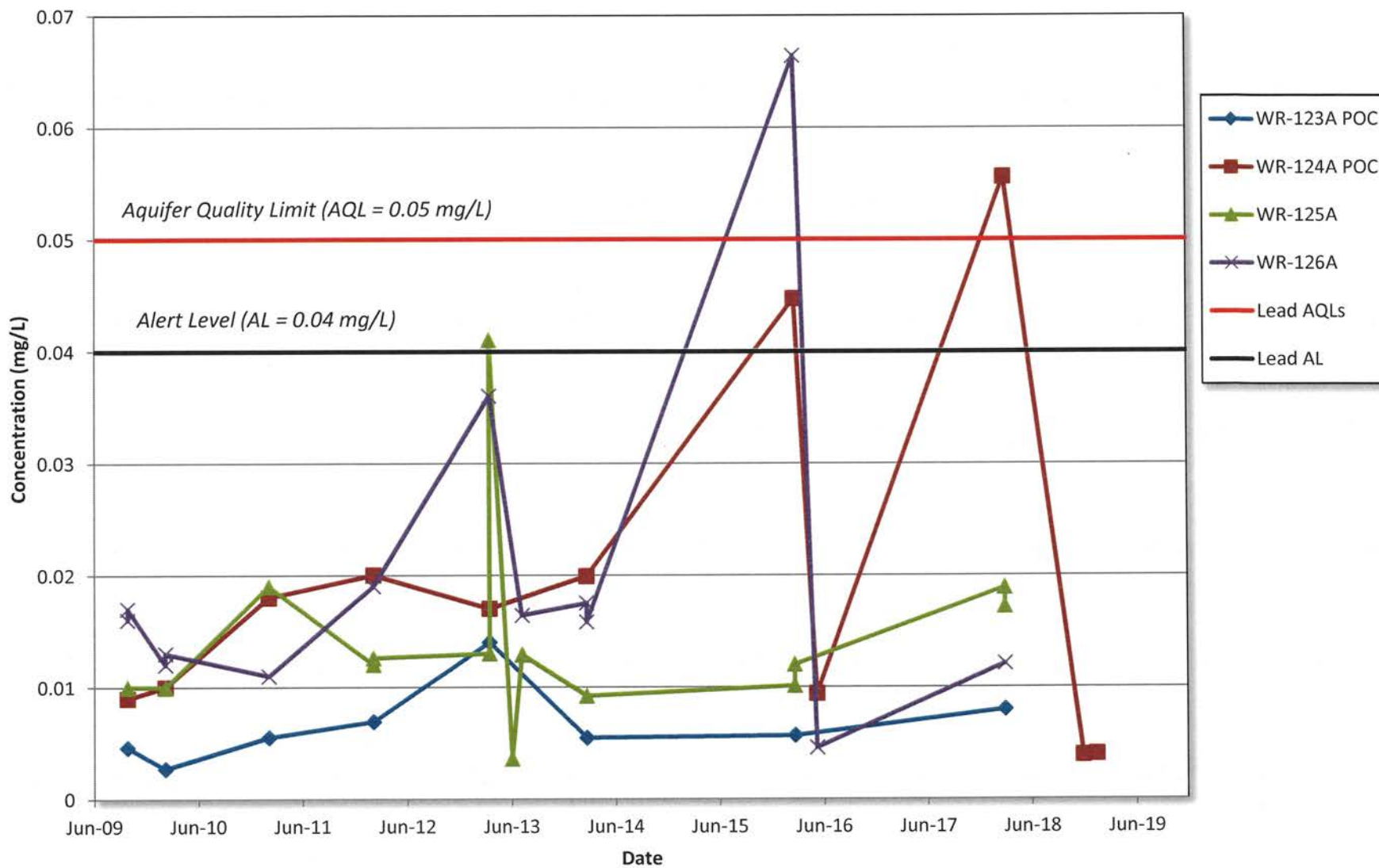


Figure 4
Lead Concentrations in Groundwater Monitor Wells
Irvington Landfill



TABLES

**Table 1
Monitoring Well Information
Irvington Landfill**

Well Name	Date Installed	Casing Diameter (inches)	Casing Material	Screened Interval (ft bls)	Total Depth (ft bls)	Benchmark Elevation (ft amsl)	Northing	Easting
WR-123A	6/24/1987	6	ASTM A53B Steel	270-370	375	2791.20	424631.70	1051554.48
WR-124A	7/1/1987	6	ASTM A53B Steel	245-345	350	2794.38	424585.88	1051062.26
WR-125A	7/10/1987	6	ASTM A53B Steel	250-350	355	2797.95	423796.06	1051088.85
WR-126A	7/16/1987	6	ASTM A53B Steel	255-355	360	2822.95	423543.34	1052677.84

ft bls = feet below land surface

ft amsl = feet above mean sea level

Geographic Coordinate System in State Plane, Central Arizona, NAD 83, NAVD88

Benchmark elevation is top of concrete well pad.

Table 2
Groundwater Table Elevation Summary
Irvington Landfill

Well Name	Date	Time	DTW (ft)	Correction Factor (ft)	Corrected DTW (ft)	Benchmark Elevation (ft - amsl)	WTE (ft)
WR-123A	3/1/2018	1123	280.58	-0.57	280.01	2791.20	2511.19
WR-124A	3/1/2018	1019	286.22	-0.55	285.67	2794.38	2508.71
WR-125A	3/1/2018	905	285.93	-0.64	285.29	2797.95	2512.66
WR-126A	3/1/2018	1220	286.25	-0.59	285.66	2822.95	2537.29

DTW = Depth to water.

ft = feet

ft-amsl = feet above mean sea level.

WTE = water table elevation.

Table 3
Selected Inorganic Groundwater Monitoring Results (mg/L)
Irvington Landfill

	Date	Ammonia As N	Arsenic, Total	Barium, Total	Bromide	Cadmium, Total	Calcium, Total	Chloride	Chromium, Total	Copper, Total	Fluoride	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Mercury, Total	Nitrate as N	Nitrite as N	Ortho Phosphate as P	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Sulfate	Total Kjeldahl Nitrogen as N	Total Suspended Solids	Zinc, Total
AQL →		--	0.05	2	--	0.005	--	--	0.1	--	4	--	0.05	--	--	0.002	10	1	--	--	0.05	--	--	--	--	--	--
AL →		--	0.04	1.6	--	0.004	--	--	0.08	--	3.2	--	0.04	--	--	0.0016	8	0.8	--	--	0.04	--	--	--	--	--	--
Well ID ↓																											
WR-123A	9/30/09	<.05	<.002	0.053	<.1	<.004	40	4.3	<.02	<.02	0.21	0.35	0.0046	3.7	<.02	<.0005	1.8	<.1	<.2	1.2	<.005	<.02	17	11	<.2	1.2	0.17
	2/10/10	<.05	<.002	0.05	<.1	<.0025	39	4.7	<.02	<.02	0.2	0.34	0.0027	3.5	<.02	<.0005	2.1	<.1	<.2	1.2	<.005	<.02	16	12	<.2	NA	0.15
	3/24/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	NA
	2/9/11	<.05	<.002	0.052	<.1	<.0025	41	4.3	<.02	<.02	0.14	0.38	0.0055	3.6	<.02	<.0005	1.7	<.1	<.2	1.2	<.005	<.02	17	11	<.2	1.0	0.16
	2/8/12	<.05	<.001	0.053	<.1	<.0025	40	4.4	<.02	<.02	0.2	0.56	0.0069	3.6	<.02	<.0005	1.8	<.1	<.2	1.2	<.001	<.02	17	11	<.2	1.0	0.19
	3/19/13	<.05	<.001	0.053	<.1	<.001	40	4.3	<.02	<.02	0.2	1.2	0.014	3.6	0.024	<.0005	1.8	<.1	<.2	1.2	<.001	<.02	17	11	<.2	5.3	0.31
	2/24/14	<.05	<.001	0.051	<.1	<.001	40.1	4.5	<.02	<.02	0.205	0.292	0.0055	3.6	<.02	<.0005	1.8	<.1	<.2	1.19	<.001	<.02	16.7	11.9	<.2	<1	0.14
	2/23/16	<.05	<.001	0.052	<.1	<.001	39.2	4.6	<.02	<.02	0.158	0.24	0.0057	3.45	<.02	<.0005	1.77	<.1	<.2	1.19	<.001	<.02	16.3	11.5	<.2	1.7	0.125
	3/1/18	<.05	<.001	0.051	<.1	<.001	40.1	4.5	<.02	<.02	0.192	0.485	0.008	3.53	<.02	<.0005	1.83	<.1	<.2	1.14	<.001	<.02	16.7	11.5	<.2	<1	0.178
WR-124A	9/30/09	<.05	<.002	0.085	<.1	<.004	45	5.0	<.02	<.02	0.22	2.3	0.009	5.9	0.13	<.0005	1.8	<.1	<.2	1.6	<.005	<.02	17	12	<.2	65.0	0.23
	2/10/10	<.05	<.002	0.071	<.1	<.0025	41	5.4	<.02	<.02	0.22	1.5	0.01	5.0	0.081	<.0005	2.1	<.1	<.2	1.3	<.005	<.02	16	14	<.2	13.8	0.34
	2/9/11	<.05	<.002	0.073	<.1	<.0025	43	4.7	<.02	<.02	0.15	1.7	0.018	5.2	0.088	<.0005	1.7	<.1	<.2	1.3	<.005	<.02	17	12	<.2	28.3	0.42
	2/8/12	<.05	0.0011	0.086	<.1	<.0025	42	4.7	<.02	<.02	0.2	4.5	0.02	5.5	0.27	<.0005	1.8	<.1	<.2	1.6	<.001	<.02	16	12	<.2	64.5	0.59
	3/19/13	<.05	<.001	0.074	0.1	<.001	42	4.5	<.02	<.02	0.21	2	0.017	5.0	0.12	<.0005	1.7	<.1	<.2	1.3	<.001	<.02	16	12	<.2	17.2	0.45
	2/24/14	<.05	<.001	0.072	<.1	<.001	42.6	4.6	<.02	<.02	0.227	1.7	0.0199	5.0	0.078	<.0005	1.8	<.1	<.2	1.23	<.001	<.02	16.1	12.3	<.4	6.6	0.44
	2/22/16	<.05	0.00121	0.0823	0.148	<.001	42	4.93	<.02	<.02	0.188	4.47	0.0447	4.86	0.25	<.0005	1.82	<.1	<.2	1.28	0.00118	<.02	16.1	13.4	<.2	20.8	1.14
	5/9/16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0094	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.3	NA
	3/1/18	<.05	0.001	0.086	<.1	<.001	46.1	4.95	<.02	<.02	0.21	4.31	0.0556	5.61	0.196	<.0005	1.73	<.1	<.2	1.36	<.001	<.02	16.5	12.1	<.2	41.8	0.735
	11/29/18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0039	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/15/19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-125A	9/30/09	<.05	<.002	0.073	<.1	<.004	42	4.3	<.02	<.02	0.22	2.7	0.01	5.7	0.088	<.0005	1.8	<.1	<.2	1.4	<.005	<.02	16	11	<.2	25.2	0.36
	2/10/10	<.05	<.002	0.063	<.1	<.0025	40	4.8	<.02	<.02	0.24	1.2	0.01	5.3	0.026	<.0005	2.1	<.1	<.2	1.2	<.005	<.02	15	13	<.2	8.5	0.48
	2/9/11	<.05	<.002	0.074	<.1	<.0025	42	4.4	<.02	<.02	0.15	3.8	0.019	5.8	0.2	<.0005	1.7	<.1	<.2	1.5	<.005	<.02	16	11	<.2	53.1	0.48
	2/8/12	<.05	<.001	0.073	<.1	<.0025	40	4.5	<.02	<.02	0.15	2.1	0.012	5.7	0.11	<.0005	1.7	<.1	<.2	1.4	<.001	<.02	16	12	<.2	76.0	0.35
	2/8/12	<.05	<.01	0.067	<.2	<.005	38.2	4.1	<.01	<.02	0.21	2.17	0.0126	5.4	0.114	<.0001	1.1	<.01	<.05	1.53	<.03	<.02	15.2	11.6	<.3	52.0	0.33
	3/19/13	<.05	<.001	0.064	<.1	<.001	40	4.3	<.02	<.02	0.22	2.1	0.013	5.4	0.067	<.0005	1.7	<.1	<.2	1.3	<.001	<.02	15	11	<.2	22.6	0.33
	3/19/13	<.05	<.001	0.087	<.1	<.001	42	4.3	<.02	<.02	0.21	5.7	0.041	5.2	0.38	<.0005	1.7	<.1	<.2	1.4	<.001	<.02	16	11	<.2	22.7	1.20
	6/6/13	NA	<.001	0.060	NA	<.001	40	NA	<.02	<.02	NA	0.24	0.0036	5.2	<.02	<.0005	NA	NA	NA	1.2	<.001	<.02	15	NA	NA	NA	0.19
	6/6/13	NA	<.001	0.059	NA	<.001	40	NA	<.02	<.02	NA	0.37	0.0036	5.2	<.02	<.0005	NA	NA	NA	1.2	<.001	<.02	15	NA	NA	NA	0.19
	7/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0129	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/24/14	<.05	<.001	0.056	<.1	<.001	39.2	4.4	<.02	<.02	0.22	3.97	0.0092	5.21	0.111	<.0005	1.56	<.1	<.2	1.29	<.001	<.02	15.1	11.2	<.2	24.7	0.41
	2/22/16	<.05	<.001	0.052	<.1	<.001	38.5	4.7	<.02	<.02	0.195	1.42	0.0101	5.16	0.0488	<.0005	1.64	<.1	<.2	1.28	<.001	<.02	16	12	<.2	8.3	0.231
	2/22/16	<.05	<.001	0.052	<.1	<.001	38.5	4.58	<.02	<.02	0.191	1.68	0.012	5.13	0.0612	<.0005	1.62	<.1	<.2	1.23	<.001	<.02	15.6	11.7	<.2	5.4	0.372
	3/1/18	<.05	<.001	0.054	<.1	<.001	40.3	4.4	<.02	<.02	0.199	0.909	0.0189	5.34	0.0368	<.0005	1.63	<.1	<.2	1.25	<.001	<.02	16.3	11.6	<.2	2.2	0.248
	3/1/18	<.05	<.001	0.052	<.1	<.001	38.7	4.35	<.02	<.02	0.192	0.813	0.0172	5.14	0.0345	<.0005	1.63	<.1	<.2	1.15	<.001	<.02	15.4	11.4	<.4	5.4	0.216
WR-126A	9/30/09	<.05	<.002	0.079	<.1	<.004	45	4.5	<.02	<.02	0.18	3.3	0.016	6.6	0.1	<.0005	2.0	<.1	<.2	1.6	<.005	<.02	16	14	<.2	54.4	0.42
	9/30/09	<.05	<.002	0.079	<.1	<.004	45	4.4	<.02	<.02	0.18	3.4	0.017	6.5	0.11	<.0005	2.0	<.1	<.2	1.6	<.005	<.02	16	14	<.2	54.2	0.42
	2/10/10	<.05	<.002	0.073	<.1	<.0025	42	5.0	<.02	<.02	0.16	2.1	0.012	6.0	0.052	<.0005	2.4	<.1	<.2	1.4	<.005	<.02	15	16	<.2	28.7	0.35
	2/10/10	<.05	<.002	0.074	<.1	<.0025	44	5.1	<.02	<.02	0.22	2.2	0.013	6.3	0.054	<.0005	2.4	<.1	<.2	1.5	<.005	<.02	15	16	0.47	28.7	0.38

Table 3
Selected Inorganic Groundwater Monitoring Results (mg/L)
Irvington Landfill

	Date	Ammonia As N	Arsenic, Total	Barium, Total	Bromide	Cadmium, Total	Calcium, Total	Chloride	Chromium, Total	Copper, Total	Fluoride	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Mercury, Total	Nitrate as N	Nitrite as N	Ortho Phosphate as P	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Sulfate	Total Kjeldahl Nitrogen as N	Total Suspended Solids	Zinc, Total
AQL →		--	0.05	2	--	0.005	--	--	0.1	--	4	--	0.05	--	--	0.002	10	1	--	--	0.05	--	--	--	--	--	--
AL →		--	0.04	1.6	--	0.004	--	--	0.08	--	3.2	--	0.04	--	--	0.0016	8	0.8	--	--	0.04	--	--	--	--	--	--
	2/9/11	<.05	<.002	0.072	<.1	<.0025	45	4.5	<.02	<.02	0.11	1.3	0.011	6.4	0.029	<.0005	2.1	<.1	<.2	1.5	<.005	<.02	16	14	<.2	14.3	0.29
	2/9/11	<.05	<.002	0.072	<.1	<.0025	45	4.6	<.02	<.02	0.11	1.3	0.011	6.4	0.028	<.0005	2.1	<.1	<.2	1.5	<.005	<.02	16	14	<.2	12.1	0.29
	2/8/12	<.05	<.001	0.076	<.1	<.0025	45	4.7	<.02	<.02	0.15	2.8	0.019	6.3	0.054	<.0005	2.1	<.1	<.2	1.4	<.001	<.02	16	14	<.2	17.1	0.43
	3/19/13	<.05	0.0012	0.083	<.1	<.001	44	4.6	<.02	<.02	0.17	5.4	0.036	6.4	0.19	<.0005	2.1	<.1	<.2	1.5	<.001	<.02	15	14	<.2	64.0	0.76
	7/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0164	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/24/14	0.05	0.0011	0.101	<.1	<.001	47.7	4.76	<.02	<.02	0.175	10.4	0.0175	7.76	0.255	<.0005	2.07	<.1	<.2	2.59	<.001	<.02	15.8	14.6	<.2	134	1.19
	2/24/14	0.05	<.001	0.091	<.1	<.001	48.3	4.73	<.02	<.02	0.167	6.71	0.0158	7.27	0.219	<.0005	2.06	<.1	<.2	2.05	<.001	<.02	15.7	14.6	<.2	140	1.13
	2/22/16	0.17	0.0038	0.296	<.1	<.001	61.1	5.17	0.0208	0.0366	0.136	68.8	0.0664	17.7	1.1	<.0005	2.19	<.1	<.2	9.16	<.001	<.02	19	15.7	0.24	1150	4.01
	5/9/16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.5	NA
	3/1/18	<.05	<.001	0.073	<.1	<.001	46.3	4.98	<.02	<.02	0.163	1.73	0.0121	6.56	0.074	<.0005	2.28	<.1	<.2	1.42	<.001	<.02	15	15.5	<.2	15	0.346

AQL = Aquifer Quality Limit as specified in site APP permit.
AL = Alert Level as specified in site APP permit.
NA = not analyzed.

RPD = Relative Percent Difference used for sample duplicate quality control comparisons.
Highlighted yellow and bold numbers exceed AL and/or AQL.

Table 4: Duplicate Comparison - Relative Percent Difference 2018
 Irvington Landfill Aquifer Protection Permit No. 50044800.00

Lab ID	Well ID	Date	Compound	Prefix	Result	Lab ID	Well ID	Date	Compound	Prefix	Result	RPD %
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1,1,2-TETRACHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1,1,2-TETRACHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1,1-TRICHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1,1-TRICHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1,2,2-TETRACHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1,2,2-TETRACHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1,2-TRICHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1,2-TRICHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1-DICHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1-DICHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1-DICHLOROETHENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1-DICHLOROETHENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,1-DICHLOROPROPENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,1-DICHLOROPROPENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2,3-TRICHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2,3-TRICHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2,3-TRICHLOROPROPANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2,3-TRICHLOROPROPANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2,4-TRICHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2,4-TRICHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2,4-TRIMETHYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2,4-TRIMETHYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2-DIBROMO-3-CHLOROPROPANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2-DIBROMO-3-CHLOROPROPANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2-DICHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2-DICHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2-DICHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2-DICHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,2-DICHLOROPROPANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,2-DICHLOROPROPANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,3,5-TRIMETHYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,3,5-TRIMETHYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,3-DICHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,3-DICHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,3-DICHLOROPROPANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,3-DICHLOROPROPANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	1,4-DICHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	1,4-DICHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	2,2-DICHLOROPROPANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	2,2-DICHLOROPROPANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	2-CHLOROTOLUENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	2-CHLOROTOLUENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	4-CHLOROTOLUENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	4-CHLOROTOLUENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	4-ISOPROPYLTOLUENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	4-ISOPROPYLTOLUENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	AMMONIA A5 N	<	0.05	L180258-02	WR-125A	03/01/2018 09:52 AM	AMMONIA A5 N	<	0.05	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	ARSENIC	<	0.001	L180258-02	WR-125A	03/01/2018 09:52 AM	ARSENIC	<	0.001	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BARIUM	<	0.0542	L180258-02	WR-125A	03/01/2018 09:52 AM	BARIUM	<	0.0521	4%
L180258-01	WR-125A	03/01/2018 09:48 AM	BENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMIDE	<	0.1	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMIDE	<	0.1	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMOBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMOBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMOCHLOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMOCHLOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMODICHLOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMODICHLOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMOFORM	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMOFORM	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	BROMOMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	BROMOMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CADMIUM	<	0.001	L180258-02	WR-125A	03/01/2018 09:52 AM	CADMIUM	<	0.001	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CALCIUM	<	40.3	L180258-02	WR-125A	03/01/2018 09:52 AM	CALCIUM	<	38.7	4%
L180258-01	WR-125A	03/01/2018 09:48 AM	CARBON TETRACHLORIDE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CARBON TETRACHLORIDE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHLORIDE	<	4.4	L180258-02	WR-125A	03/01/2018 09:52 AM	CHLORIDE	<	4.35	1%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHLOROBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CHLOROBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHLOROETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CHLOROETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHLOROFORM	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CHLOROFORM	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHLOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CHLOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CHROMIUM	<	0.02	L180258-02	WR-125A	03/01/2018 09:52 AM	CHROMIUM	<	0.02	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CIS-1,2-DICHLOROETHENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CIS-1,2-DICHLOROETHENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	CIS-1,3-DICHLOROPROPENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	CIS-1,3-DICHLOROPROPENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	COPPER	<	0.02	L180258-02	WR-125A	03/01/2018 09:52 AM	COPPER	<	0.02	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	DIBROMOCHLOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	DIBROMOCHLOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	DIBROMOMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	DIBROMOMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	DICHLORODIFLUOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	DICHLORODIFLUOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	DICHLOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	DICHLOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	ETHYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	ETHYLBENZENE	<	0.0005	0%

Table 4: Duplicate Comparison - Relative Percent Difference 2018
Irrington Landfill Aquifer Protection Permit No. 50044800.00

Lab ID	Well ID	Date	Compound	Prefix	Result	Lab ID	Well ID	Date	Compound	Prefix	Result	RPD %
L180258-01	WR-125A	03/01/2018 09:48 AM	ETHYLENE DIBROMIDE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	ETHYLENE DIBROMIDE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	FLUORIDE		0.199	L180258-02	WR-125A	03/01/2018 09:52 AM	FLUORIDE		0.192	4%
L180258-01	WR-125A	03/01/2018 09:48 AM	HEXACHLOROBUTADIENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	HEXACHLOROBUTADIENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	IRON		0.909	L180258-02	WR-125A	03/01/2018 09:52 AM	IRON		0.813	11%
L180258-01	WR-125A	03/01/2018 09:48 AM	ISOPROPYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	ISOPROPYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	LEAD		0.0189	L180258-02	WR-125A	03/01/2018 09:52 AM	LEAD		0.0172	9%
L180258-01	WR-125A	03/01/2018 09:48 AM	M/P-XYLENES	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	M/P-XYLENES	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	MAGNESIUM		5.34	L180258-02	WR-125A	03/01/2018 09:52 AM	MAGNESIUM		5.14	4%
L180258-01	WR-125A	03/01/2018 09:48 AM	MANGANESE		0.0368	L180258-02	WR-125A	03/01/2018 09:52 AM	MANGANESE		0.0345	6%
L180258-01	WR-125A	03/01/2018 09:48 AM	MERCURY	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	MERCURY	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	METHYL-TERT-BUTYL ETHER	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	METHYL-TERT-BUTYL ETHER	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	NAPHTHALENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	NAPHTHALENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	N-BUTYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	N-BUTYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	NITRATE AS N		1.63	L180258-02	WR-125A	03/01/2018 09:52 AM	NITRATE AS N		1.63	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	NITRITE AS N	<	0.1	L180258-02	WR-125A	03/01/2018 09:52 AM	NITRITE AS N	<	0.1	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	N-PROPYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	N-PROPYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	ORTHO PHOSPHATE AS P	<	0.2	L180258-02	WR-125A	03/01/2018 09:52 AM	ORTHO PHOSPHATE AS P	<	0.2	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	ORTHO-XYLENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	ORTHO-XYLENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	POTASSIUM		1.25	L180258-02	WR-125A	03/01/2018 09:52 AM	POTASSIUM		1.15	8%
L180258-01	WR-125A	03/01/2018 09:48 AM	SEC-BUTYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	SEC-BUTYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	SELENIUM	<	0.001	L180258-02	WR-125A	03/01/2018 09:52 AM	SELENIUM	<	0.001	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	SILVER	<	0.02	L180258-02	WR-125A	03/01/2018 09:52 AM	SILVER	<	0.02	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	SODIUM		16.3	L180258-02	WR-125A	03/01/2018 09:52 AM	SODIUM		15.4	6%
L180258-01	WR-125A	03/01/2018 09:48 AM	STYRENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	STYRENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	SULFATE		11.6	L180258-02	WR-125A	03/01/2018 09:52 AM	SULFATE		11.4	2%
L180258-01	WR-125A	03/01/2018 09:48 AM	TERT-BUTYLBENZENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TERT-BUTYLBENZENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TETRACHLOROETHENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TETRACHLOROETHENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TOLUENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TOLUENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TOTAL KJELDAHL NITROGEN AS N	<	0.2	L180258-02	WR-125A	03/01/2018 09:52 AM	TOTAL KJELDAHL NITROGEN AS N	<	0.4	67%
L180258-01	WR-125A	03/01/2018 09:48 AM	TOTAL SUSPENDED SOLIDS		2.2	L180258-02	WR-125A	03/01/2018 09:52 AM	TOTAL SUSPENDED SOLIDS		5.4	84%
L180258-01	WR-125A	03/01/2018 09:48 AM	TOTAL TRIHALOMETHANES	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TOTAL TRIHALOMETHANES	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TRANS-1,2-DICHLOROETHENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TRANS-1,2-DICHLOROETHENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TRANS-1,3-DICHLOROPROPENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TRANS-1,3-DICHLOROPROPENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TRICHLOROETHENE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TRICHLOROETHENE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	TRICHLOROFLUOROMETHANE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	TRICHLOROFLUOROMETHANE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	VINYL CHLORIDE	<	0.0005	L180258-02	WR-125A	03/01/2018 09:52 AM	VINYL CHLORIDE	<	0.0005	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	XYLENES (TOTAL)	<	0.0015	L180258-02	WR-125A	03/01/2018 09:52 AM	XYLENES (TOTAL)	<	0.0015	0%
L180258-01	WR-125A	03/01/2018 09:48 AM	ZINC		0.248	L180258-02	WR-125A	03/01/2018 09:52 AM	ZINC		0.216	14%