EXCAVATION CLOSURE REPORT
AND
GROUNDWATER INVESTIGATION PLAN

Langlie Mattix Penrose Sand Unit
Trash Pit
Lea County, New Mexico

LAI Project No. 14-0107-01

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1.0 EXECUTIVE SUMMARY

This report is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Legacy Reserves, L.P. (Legacy) by Larson & Associates, Inc. (LAI) to present the investigation, remediation and a plan to investigate impacts to groundwater at the Langlie Mattix Penrose Sand Unit (LMPSU) Trash Pit (Site). The Site is located at Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East, in Lea County, New Mexico. The geodetic position is north 32° 21' 28.40" and west 103° 8' 50.07". The Site is the location of a series of oilfield trash pits used by a previous operator for disposal of solid waste (i.e., drums, pipe, trash, etc.). On May 16, 2011, Legacy and other former operators received a letter from the OCD informing them of the trash pit. Legacy contracted Etech Environmental & Safety Solutions, Inc. (Etech) to investigate the Site. Etech excavated 5 trenches (pits). Oilfield trash and debris was segregated from the soil and disposed at a permitted facility. The soil was retained on location. In 2013 a monitoring well (MW-1) was installed near the southwest corner of the Site.

In March 2014 Legacy retained LAI to resume the investigation and closure of the excavations. On April 9, 2014, LAI personnel collected seven (7) composite samples from the bottom of the excavations at depths ranging about 4 to 20 feet below ground surface (bgs). LAI collected five (5) discrete samples were collected, at OCD's request. Discrete samples were collected from the sides of the excavation to delineate the horizontal extent of the contamination. The side samples were collected at depths from about 2 to 10 feet bgs. Composite samples were collected from four (4) soil piles located west (WP), north (NP), south (SP), and near the center (CP) of the Site. The samples were analyzed to determine the concentration of total petroleum hydrocarbons (TPH) and chloride. The laboratory reported TPH concentrations above the OCD recommended remediation action level (RRAL) of 100 parts per million (ppm) in 9 bottom and 13 side samples. The vertical and lateral extent of TPH impact was determined from 15 soil borings that were drilled at the Site. Chloride was greater than 250 mg/Kg in excavation bottom and 6 side samples. Chloride was above 250 mg/kg in the deepest samples at 9 boring locations. Approximately 1,630 cubic yards of soil from the center pile was disposed at Sundance Services, located east of Eunice, New Mexico.

On April 11, 2014, LAI personnel collected a groundwater sample from well MW-1 located near the southwest corner of the Site. The sample was analyzed for BTEX, cations (calcium, magnesium, sodium and potassium), anions (alkalinity, sulfate and chloride), nitrate and total dissolved solids (TDS). The BTEX concentrations were below the method detection limits (MDL) and New Mexico Water Quality Control Commission (WQCC) human health standards. Chloride and TDS were reported at 1,480 milligrams per liter (mg/L) and 3,510 mg/L, respectively. On June 12, 2014, under LAI supervision, a monitoring well, MW-2, was installed about 275 feet north (up gradient) of the Site. On June 13, 2014, LAI personnel collected groundwater samples from wells MW-1 and MW-2. The chloride and TDS in the up gradient well (MW-2) were 58.8 mg/L and 564 mg/L, respectively, and below the WQCC domestic water quality stands of 250 mg/L and 1,000 mg/L, respectively. Chloride and TDS were 2,720 mg/L and 6,700 mg/L, respectively, in the down gradient well (MW-1). The laboratory results confirm that a release to groundwater has occurred.

Composite samples were collected from the soil piles and analyzed by Synthetic Precipitation Leaching Procedure (SPLP) according to EPA method SW-846-1312, for BTEX, TPH and chloride. BTEX and TPH were below the method detection limits of 0.005 mg/L and 3.0 mg/L, respectively. The SPLP chloride results were 7.96 mg/L and 36 mg/L.

On August 1, 2014, OCD District 1 in Hobbs, New Mexico, approved closing the excavations by installing a 20 mil thickness polyethylene liner in the bottom of the excavations, at least 4 feet bgs, and filling with

soil from the on-site piles. A layer of clean sand was placed over the liner prior to filling with soil from the piles to protect the liner. Excavation closure was completed on August 30, 2014.

Legacy proposes to investigate the groundwater impact by conducting an EM-34 terrain conductivity survey, installing monitoring wells, collecting groundwater samples, performing geochemical profiling and horizontal hydraulic (slug) tests.

2.0 INTRODUCTON

This report is submitted to the New Mexico Oil Conservation Division (NMOCD) on behalf of Legacy Reserves, L.P. (Legacy) by Larson & Associates, Inc. (LAI) to present the investigation and closure of unauthorized trash pits (Site) located at the Langlie Mattix Penrose Sand Unit (LMPSU). The report also presents a plan to investigate groundwater contamination from two (2) historic disposal pits once located at the Site. The trash pits were excavated by a previous operator for unauthorized disposal of oilfield trash including but not limited to used drums, concrete, equipment, pipe and miscellaneous trash. The disposal pits were visible in a historic aerial photograph dated February 4, 1968 and appeared covered in later photographs. On July 1, 2014, Legacy purchased the tract of land (approximately 40 acres) that includes the trash and disposal pits. The Site is located in Unit O (SW4/SE4), Section 27, Township 22 South, Range 37 East, in Lea County, New Mexico. The geodetic position is north 32° 21' 28.40" and west 103° 8' 50.07". Figure 1 presents a topographic. Figure 2a presents an aerial map. Figure 2b presents a detailed aerial map.

2.1 Regulatory Background

On May 16, 2011, OCD issued a letter to current and past operators of the Site that referenced a complaint from a nearby landowner that burial of miscellaneous trash and debris occurred at the Site. Appendix A presents the OCD correspondence.

Legacy, as current operator, retained Etech Environmental & Safety Solutions, Inc. (Etech) to investigate the Site. Etech used a metal detector to identify locations where metallic waste may have been buried and excavated five (5) locations (Pits 1 through 5) to a maximum depth of about 20 feet below ground surface (bgs). Waste and debris was excavated and segregated from soil. The waste was disposed at a permitted facility and about 7,500 to 9,000 cubic yards of soil was retained on the Site.

In 2013, Etech installed a monitoring well (MW-1) about 50 feet south of the west excavation (Pit 4 and Pit 5) near the west side of the Site. The monitoring well was drilled to about 64 feet bgs. Groundwater was gauged at about 42 feet bgs. No construction documentation is available for the well.

2.2 Setting

The Site is located about 5.5 miles southeast of Eunice, in rural Lea County, New Mexico. The surface elevation is approximately 3,315 feet above mean sea level (MSL) and slopes gently to the southeast. The nearest surface water is the ephemeral Monument Draw, which is located about 1.5 miles east of the Site. There are no apparent surface connection for runoff between the Site and Monument Draw.

The surface geology is comprised of recent-age eolian to Pleistocene-age alluvium derived mostly from reworking the underlying Tertiary-aged Blackwater Draw and Ogallala formations, in descending order. The Blackwater Draw formation is comprised mainly of fine grained wind-blown sand derived from the underlying Ogallala formation. The Ogallala formation consists of fluvial sand, silt, clay and localized gravel, with indistinct to massive cross beds. The Ogallala sand is generally fine- to medium-grained quartz. The lithology consists of unconsolidated eolian sand over a unit of carbonate-indurated sand

commonly referred to as “caliche”. Caliche was encountered in many of the borings drilled at the Site and ranged between about 5 and 25 feet thick, depending on location. Beneath the caliche unit is a thickness of fine-grained pink quartz sand. Locally this sand is lithified into sandstone with clayey sand or red-bed clay. The Ogallala formation is underlain by the Triassic-age Chinle formation of the Dockum group which is comprised of interbedded sand, clay and mudstone.

Groundwater occurs in the Ogallala formation at approximately 42 feet bgs. The Dockum Group is the lower confining unit for the Ogallala aquifer and occurs at about 60 feet bags. The saturated thickness of the Ogallala formation (aquifer) is approximately 20 feet.

A well identified on the New Mexico State Engineer (OSE) database and is located in Unit O, Section 27, Township 22 south and Range 37 east. The well location was not confirmed but is likely used for livestock watering. The reported depth to groundwater was approximately 46.32 feet bgs.

2.3 Historical Aerial Photographs

Historical aerial photographs were ordered through GeoSearch located in Austin, Texas. A review of the photographs is presented below in chronological order from most recent to oldest. Appendix B presents the aerial photographs.

2.3.1 2011 US Geological Survey Color Photograph

This 2011 color photograph has a scale of 1” to 700’. The photograph depicts the Site condition following closure of the trash pits by a previous operator. The photograph shows evidence of surface scarring from prior operations at the Site.

2.3.2 1997 US Geological Survey Black and White Photograph

This black and white photograph was taken in 1997, and has a scale of 1” to 700’. This photograph shows evidence of scarring from previous operations at the Site. Adjoining properties to the north, south, west and east are in similar configuration observed during the current investigation and remediation.

2.3.3 1983 US Geological Survey Color Photograph

This color photograph was taken on June 3, 1983, and has a scale of 1” to 700’. The photograph shows evidence of scarring from previous operations or releases and shows the Site similar to the condition observed in the previous photograph (1997). The adjoining properties to the north, south, east, and west are in similar configuration observed during the current investigation and remediation. The disposal pits observed in an earlier photograph are not visible in this photograph and appear covered.

2.3.4 1968 USGS Black and White Photograph

This black and white photograph was taken on February 4, 1968, and has a scale of 1” to 700’. The photograph shows two (2) darkened objects at the Site. The darkened objects are disposal pits that received produced water and hydrocarbons from the lease tank battery located about 500 feet southwest of the Site.

2.3.5 1954 USGS Black and White Photograph

This black and white photograph was taken on April 28, 1954, and has a scale of 1” to 700’. This photograph shows a rectangular object that resembles a pit in close proximity to the Site.

3.0 CURRENT INVESTIGATIONS

In March 2014, Legacy requested LAI to conduct a Site visit, review available laboratory data and prepare a plan to investigate and close the excavations. A Site visit was performed on March 7, 2014, at which time LAI personnel observed two (2) large excavations (east and west) and four (4) soil piles (west, center, north and south). The excavations and soil piles are shown on a Site drawing in Figure 3a.

On March 24, 2014, LAI personnel met with OCD District 1 environmental representatives, Mr. Geoffrey Leking and Dr. Tomáš Oberding, to present a plan to investigate the Site. The plan included collecting composite soil samples from the bottom of the excavations and soil piles and discrete samples from the excavation sidewalls. Mr. Leking requested discrete samples from the bottom of the excavations at five (5) locations, in addition to the proposed samples. Fifteen (15) borings (BH-1 through BH-15) and a monitoring well (MW-2) were also installed. About 1,630 cubic yards of soil from the center pile, which reported elevated concentrations of total petroleum hydrocarbons (TPH) and chloride, was disposed at the Sundance Services located east of Eunice, New Mexico.

3.1 Soil Samples

On April 8 – 10, 2014, LAI personnel collected composite samples from the bottom of the excavations and soil piles. Each composite sample consisted of 5 randomly selected discrete samples. The bottom samples from collected to about 0.5 feet below the bottom of the excavations. The pile samples were collected about 1 foot into the piles. Discrete samples were collected at OCD's request from 5 locations in the bottom of the excavations (DS-1 through DS-5) and 13 locations from the sidewalls of the excavations. The discrete samples were collected about 0.5 feet beneath the bottom and into the sidewalls of the excavations. The excavations ranged in depth from about 4 to 20 feet bgs. Duplicate samples were collected for headspace analysis according to the ambient temperature headspace (ATH) method and analyzed for organic vapors using a calibrated photoionization detector (PID). PID readings were less than 100 parts per million (ppm) therefore no samples were analyzed by the laboratory for BTEX. Permian Basin Environmental Lab (PBEL), located in Midland, Texas, analyzed the samples for TPH, including DRO, GRO and ORO by method SW-846-8015, and chloride by method SW-846-300.1. Table 1 presents the excavation soil sample analytical data summary. Table 2 presents the soil pile sample analytical data summary. Figure 3b presents the excavation soil sample locations. Figure 3c presents the soil pile sample locations. Appendix C presents the laboratory reports.

Remediation action levels were calculated for benzene, BTEX and TPH using criteria established by the OCD (*Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993*) using the following ranking criteria:

Ranking Criteria	Result	Ranking Score
Depth-to-Groundwater	<50 feet	20
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
	Total Score:	**20**

The remediation action levels (RRAL) for benzene, BTEX and TPH are 10, 50 and 100 milligrams per kilogram (mg/Kg), respectively.

The following bottom samples exceeded the RRAL for TPH:

Sample	Excavation	Depth	TPH (mg/Kg)
WEA	West	10	130.2
WEC	West	8	858
WED	West	4	672.45
DS-2 (OCD)	West	12	775
DS-3 (OCD)	West	20	654.7
EEA	East	10	163.6

The following sidewall samples exceeded the RRAL for TPH:

Sample	Excavation	Depth	TPH (mg/Kg)
WS-2	West	6	123.7
WS-3	West	10	176.7
WS-4	West	5	2,998
WS-5	West	6	342
WS-6	West	4	476.2
WS-7	West	3	425
WS-8	West	6	2,741
WS-9	West	8	236.2
WS-11	West	6	467.8
WS-12	West	2	1,150
ES-1	East	4	382.7
ES-9	East	12	1,177
ES-10	East	5	126.8

Figure 4a presents the TPH concentrations in the bottom samples. Figure 4b presents the TPH concentrations in the sidewall sample.

Chloride was above 250 (mg/Kg) in the following bottom and sidewall samples and required further delineation:

Sample	Excavation	Location	Depth	Chloride (mg/Kg)
WED	West	Bottom	4	328
WS-6	West	Sidewall (south)	4	426
WS-8	West	Sidewall (east)	6	478
ES-1	East	Sidewall (west)	4	652
ES-5	East	Sidewall (south)	5	1,120
ES-10	East	Sidewall (east)	5	329

Figure 4c presents the chloride concentrations in the bottom samples. Figure 4d presents the chloride concentrations in the sidewall samples.

Referring to Table 2, the highest TPH concentrations from the stockpile samples was reported from the center pile and ranged from 782 mg/Kg to 1,801 mg/Kg. Soil from the center pile, approximately 1,640 cubic yards, was disposed at Sundance Services, located east of Eunice, New Mexico. The TPH concentrations in the remaining soil piles ranged from 248.6 mg/Kg (North Pile, Sample B) to 715.7 mg/Kg (South Pile Sample A). Chloride ranged from 52.8 mg/Kg (South Pile Sample B) to 583 mg/Kg

(West Pile Sample E). Figure 4e presents TPH concentrations in the stockpile samples. Figure 4f presents chloride concentrations in the stockpile samples.

3.2 SPLP Analysis

On July 1, 2014, LAI personnel collected a composite soil sample from the west soil pile (Comp 1) and a composite sample from the north and south soil piles (Comp 2). The samples were analyzed for BTEX, TPH and chloride by EPA methods SW-846-8021B, SW-846-8015M 300.1, respectively. The samples were also tested using the synthetic precipitation leaching procedure (SPLP) to determine if BTEX, TPH and chloride leached from the soil at concentrations above the RRAL. Table 3 presents the laboratory analysis. Appendix C presents the laboratory report.

Referring to Table 3, concentrations of BTEX and TPH by SPLP method were below the method detection limits. Chloride by SPLP method was 36 milligrams per liter (mg/L) in sample Comp-1 and 7.96 mg/L in samples Comp-2.

3.3 Soil Borings

On June 12 and 13, 2014, Scarborough Drilling, Inc. (SDI), located in Lamesa, Texas, drilled fifteen (15) borings (SB-1 through SB-15) between approximately 30 and 40 feet bgs. The borings were drilled with an air rotary rig and soil samples were collected about every 5 feet for laboratory and headspace analysis using a jam tube sampler. Organic vapors readings exceeded 100 ppm in samples from boring SB-3 at 20 feet (276 ppm) and 25 feet (128 ppm) therefore these samples were analyzed for BTEX by method SW-846-8021B. Samples were also analyzed for TPH by method SW-846-8015, including GRO, DRO and ORO, and chloride by method SW-846-300.1. Table 4 presents the soil boring analytical data summary. Figure 5a presents the boring locations. Appendix C presents the laboratory report. Appendix D presents the boring logs.

Referring to Table 3, benzene and BTEX were below the RRAL of 10mg/Kg and 50 mg/Kg, respectively, in samples from boring SB-3, at 15 and 20 feet bgs. TPH exceeded the RRAL (100 mg/Kg) in the following samples:

Boring	Depth	TPH (mg/Kg)
SB-3	15	11,114
SB-3	20	1,762.3
SB-4	5	238.3
SB-9	5	757

The vertical and lateral extent of TPH was determined from the soil boring investigation.

Chloride was above 250 mg/Kg in the deepest samples from the following borings:

Boring	Depth	Chloride (mg/Kg)
SB-1	35	1,190
SB-3	35	3,530
SB-4	40	1,950
SB-5	30	965
SB-6	30	459

SB-7	40	722
SB-9	40	500
SB-10	30	422
SB-15	40	1,890

3.4 Monitoring Wells

Two (2) monitoring wells (MW-1 and MW-2) were installed at the Site. Etech installed monitoring well MW-1 about 50 feet south (down gradient) of the west excavation. Completion details for MW-1 are not available. SDI installed monitoring well MW-2 about 275 feet north (up gradient) of the Site. The monitoring wells are constructed with 2-inch schedule 40 threaded PVC casing and screen. The well screen in MW-2, approximately 20 feet, is positioned above and below groundwater between approximately 38.17 and 57.77 feet bgs. On June 13, 2014, groundwater was recorded in wells MW-1 and MW-2 at approximately 40.52 and 43.11 feet bgs, respectively. Table 5 presents the monitoring well drilling, completion and gauging summary. Figure 5b presents the monitoring well locations. Appendix D presets the geologic log and well construction diagram.

3.5 Groundwater Samples

LAI personnel collected groundwater samples from well MW-1 on April 10, 2014, and from wells MW-1 and MW-2 on June 13, 2014. The samples were collected after removing approximately 3 casing volumes of groundwater by pumping with an electric stainless steel environmental pump equipped with dedicated disposable polyethylene tubing. The purge water was placed in a 55 gallon drum and retained on location until disposal is arranged. The groundwater samples were submitted to DHL Laboratories, a National Laboratory Accreditation Program (NELAP) certified laboratory, located in Round Rock, Texas. The laboratory analyzed the samples for BTEX (April 10, 2014), cations (calcium, magnesium, sodium and potassium), anions (alkalinity, sulfate and chloride), nitrate and total dissolved solids (TDS). Table 6 presents the groundwater analytical data summary. Appendix C presents the analytical laboratory report.

Referring to Table 6, BTEX concentrations in well MW-1 (down gradient) were below the method detection limits (MDL) and New Mexico Water Quality Control Commission (WQCC) human health standards. Concentrations of chloride and TDS in well MW-1 (down gradient) were 2,720 milligrams per liter (mg/L) and 6,700 mg/l, respectively, and above the WQCC domestic water quality standards of 500 mg/L and 1,000 mg/L, respectively. Concentrations of chloride and TDS in well MW-1 (up gradient) were 58.8 milligrams per liter (mg/L) and 564 mg/L, respectively, and confirm that a release to groundwater has occurred at the Site. Figure 6 presents a drawing showing chloride and TDS concentrations in groundwater from monitoring wells MW-1 and MW-2 on June 13, 2014.

A historical aerial photograph, dated February 4, 1968, shows 2 disposal pits located at the approximate location of the west excavation. An earlier aerial photograph (April 28, 1954) shows a smaller pit near the same location. The pits are not visible in a later photograph (June 3, 1983) that suggests the pits were covered. The pits were likely used for disposal of produced water and hydrocarbons from the lease tank battery located about 500 feet southwest and appear to be the source of elevated chloride and TDS in down gradient well MW-1. The regional groundwater flow direction is generally from north-northwest to south-southeast. Figure 7a presents the Site location on the aerial photograph dated February 4, 1968. Figure 7b presents a recent aerial image overlain onto the historic aerial photograph.

4.0 EXCAVATION CLOSURE

On July 30, 2014, LAI personnel met with OCD District 1 environmental representative Dr. Tomáš Oberding, and presented the investigation results and a plan for closing the excavations. The following was presented to Dr. Oberding in an email:

1. The LMPSU trash pit is the location of two historic disposal pits and where a former operator disposed of miscellaneous oilfield material including empty drums, pipe, etc.
2. Groundwater occurs at approximately 42 feet bgs;
3. Legacy excavated between about 7,500 and 12,000 cubic yards of soil during removal of buried debris and disposal pits;
4. Soil was retained on location in 4 piles (west, north, south and center);
5. The center pile was hauled to Sundance due to elevated TPH;
6. LAI personnel collected composite and discrete samples from the excavation and soil piles and from 15 borings drilled in and around the excavations (west and east);
7. The analytical results of borehole samples showed the highest TPH and chloride in boring SB-3, located near south end of west pit;
8. TPH in boring SB-3 decreased below 100 mg/Kg at approximately 25 feet bgs;
9. Chloride in boring SB-3 suggests migration to groundwater as the concentration reported at 3,530 mg/Kg at 35 feet bgs;
10. Groundwater samples from monitoring well (MW-1) located about 50 feet south (down gradient) of the west excavation reported chloride at 2,720 mg/L;
11. The background chloride concentration (MW-2) is 58.8 mg/L;
12. Analysis by SPLP leaching procedure reported no benzene (<-0.001 mg/L), BTEX (<0.005 mg/L) or TPH (<3.0 mg/L) in composite samples from the soil piles (west, north and south);
13. SPLP chloride results from the soil piles were 7.96 mg/L 9north and south piles) and 36 mg/L (west pile (refer to attached analytical summary);
14. Legacy is the owner of the approximate 40-acre tract encompassing the Site.

Excavation Closure Plan

1. Remove remaining debris from Site for disposal at Sundance Services, located east of Eunice, New Mexico;
2. Grade bottom of west and east excavations to a level depth of at least 4 feet bgs;
3. Install 20ml liner in bottom of both excavations (refer to attached drawing showing proposed locations for liners);
4. Fill excavations with soil from west, north and south piles and top off with clean topsoil and seed;
5. Submit report to OCD District I and Santa Fe following closure of the excavation;

Groundwater Delineation Plan

6. Submit plan to OCD in Hobbs and Santa Fe for delineation of elevated chloride in groundwater;
7. Delineation to include electromagnetic terrain (EM) conductivity survey and monitoring wells.

On August 1, 2014, OCD District 1 approved the excavation closure plan. Appendix A presents the approval from OCD.

On August 4, 2014, excavation closure commenced with Watson Construction, under supervision from LAI, preparing the bottom of the excavations for installing a polyethylene liner. A dozer was used to

grade the excavation bottoms at least 4 feet bgs crowing the center of the excavations and sloping to the sides. On August 7, 2014, Akome, Inc., located in Hobbs, New Mexico, installed approximately 52,272 square feet or about 1.2 acres of 20 mil thickness polyethylene liner in the bottoms and area between the excavations. Figure 8 presents location of the polyethylene liner based on global positioning system (GPS) measurements.

The liner was covered with about 1 foot of clean soil prior placing soil from the west, north and south piles in the excavations. The volume of soil from the piles was calculated between approximately 7,000 and 9,000 cubic yards. The surface of the Site was finished with a layer of top soil acquired from an adjoining landowner. The Site was graded and crowned for drainage. The surface will be seeded in the first favorable growing season. Appendix E presents photographs. Appendix F presents the C-141.

5.0 CONCLUSIONS

- On May 16, 2011, OCD notified past operators, including Legacy, that burial of trash had occurred at the Site;
- Legacy, as current operator of record, contracted Etech to excavate soil, oilfield debris and trash;
- Oilfield debris and trash were disposed at a, OCD permitted disposal facility;
- Soil was retained on location in 4 piles (north, south, west and central);
- Etech installed a monitoring well (MW-1) near the southwest side of the Site;
- On April 8 and 9, 2014, LAI personnel collected composite and discrete soil samples from the bottoms and sidewalls of the excavations and soil piles;
- Organic vapor headspace readings were less that 100 ppm therefore no samples were analyzed for benzene and BTEX;
- TPH in bottom samples exceeded the OCD cleanup level (100 ppm) at 6 locations and ranged from 130.2 mg/Kg to 858 mg/Kg;
- TPH in sidewall samples exceeded the OCD cleanup level (100 ppm) at 13 locations and ranged from 123.72 mg/Kg to 2,998 mg/Kg;
- The vertical and lateral extent of TPH was determined from the soil boring samples;
- Chloride was above 250 mg/Kg in 6 samples and ranged from 328 mg/Kg to 1,120 mg/Kg and required further delineation;
- Chloride exceeded the deepest samples in 9 borings and ranged from 422 mg/Kg (SB-10, 30 feet) to 3,530 mg/Kg (SB-3, 35 feet);
- TPH was highest in the center pile and ranged from 782 to 1,801 mg/Kg and was disposed at Sundance Services, located east of Eunice, New Mexico;
- TPH is the remaining soil piles (north, south and west) ranged from 248.6 mg/Kg (North Pile) to 715.7 mg/Kg (South Pile);
- Chloride in the soil piles ranged from 52.8 mg/Kg (South Pile) to 583 mg/Kg (West Pile);
- Benzene and TPH were below the MDL in SPLP analysis of soil pile samples;
- The highest BTEX concentration was 0.0021 mg/L in SPLP analysis of soil piles samples and below the recommended remediation action level (50 mg/Kg);
- Chloride was 7.96 mg/L and 36 mg/L in SPLP samples from the soil piles and below the WQCC domestic water quality standard of 250 mg/L;
- BTEX and nitrate were below MDL in groundwater samples from MW-1 and MW-2;
- Sulfate was 896 mg/L and above WQCC domestic water quality standard of 600 mg/L in well MW-1 (down gradient) and 121 mg/L in well MW-2 (up gradient);

- Chloride (2,720 mg/L) and TDS (6,700 mg/L) exceeded the WQCC domestic water quality standards of 250 mg/L and 1,000 mg/L, respectively, in well MW-1 (down gradient). Chloride and TDS were 58.5 mg/L and 564 mg/L, respectively, in well MW-2 (up gradient);
- On August 1, 2014, the OCD District 1 approved closing the excavations by placing a 20 mil thickness liner in the bottom at least 4 feet bgs and backfilling with soil from the stockpiles. Excavation closure was completed on 30, 2014; and
- Legacy proposes to conduct an EM-34 survey to qualitatively assess the chloride and TDS in groundwater and install monitoring wells to confirm the extent of impact.

6.0 GROUNDWATER INVESTIGATION PLAN

Legacy proposes to conduct the following investigations to assess the extent of the groundwater contamination:

- Conduct an electromagnetic ("EM") terrain conductivity survey to qualitatively assess the extent of the groundwater impact;
- Install monitoring wells, collect and analyze groundwater samples for anions, cations and TDS;
- Survey monitoring wells for ground and top of casing elevation;
- Measure depth to groundwater and calculate groundwater flow direction and gradient;
- Perform slug tests in monitoring wells to calculate an average horizontal hydraulic conductivity for the aquifer;
- Perform field reconnaissance to locate water wells within 1,000 feet of the Site; and
- Prepare a report and proposed groundwater remediation plan.

An electromagnetic ("EM") terrain conductivity survey will be performed to qualitatively assess the limits of impacted groundwater and to select locations for monitoring wells. The EM method measures the electrical conductivity of soil, rock and groundwater by imparting an alternating electric current into the subsurface from a surface transmitter. An EM-34 terrain conductivity meter, manufactured by Geonics, Ltd., in Toronto, Ontario, Canada, will be used for the EM survey. The EM-34 has exploration capabilities ranging from approximately 0 to 196.9 feet bgs, depending on transmitter coil and receiver coil separation (i.e., 10, 20 or 40 meters) and orientation of the transmitter coil and receiver coil (i.e., horizontal dipole ("HD") mode or vertical dipole ("VD") mode). The EM-34 has a depth of exploration using the 20 meter coil spacing and HD mode from 0 to about 49.2 feet BGS and 0 to about 98.4 feet bgs in the VD mode. The conductivity response is greater near ground surface in the HD mode. The conductivity response is null near the surface and increases rapidly to a depth equal to about 0.4 times the coil spacing in the VD mode. The greatest conductivity response in the VD mode occurs at approximately 65.6 feet bgs (20 meter). The EM measurements will be collected using sample grids measuring about 100 x 100 feet. The EM survey will be performed over an area measuring approximately 800 x 800 feet or about 15 acres. The final dimension of the EM survey will be determined by the field measurements. The EM-34 data will be compared to background to identify areas of elevated conductivity that correspond with elevated concentrations of chloride and TDS in groundwater. The background location must be free of groundwater impacts and cultural or metallic interferences (i.e., pipelines, overhead power lines, etc.). Monitoring well MW-2 appears to meet the criteria for background. The EM survey results will be compiled on contour drawings that will show

areas of elevated conductivity relative to background and proposed locations for monitoring wells. The EM maps will be submitted to the OCD for concurrence and approval to install the monitoring wells. Figure 9 presents the proposed EM survey grid location.

The monitoring wells will be installed using methods and procedures described earlier. The wells will be drilled with an air rotary rig by a New Mexico licensed well driller. Well permits will be acquired from the New Mexico State Engineer (OSE). The wells will be drilled to about 60 feet bgs, depending on depth to the Dockum formation, and completed with 2-inch schedule 40 PVC casing and screen. Approximately twenty (20) feet of screw-threaded screen will be placed in each well, with about 15 feet of screen in ground water and about 5 feet of screen above groundwater, depending on subsurface conditions. Each well will be secured with a locking steel above-grade cover anchored in concrete. A New Mexico licensed professional land surveyor (NMPLS) will survey the wells for top of casing and ground elevation referenced to a USGS datum. Drill cuttings will be described according to the Unified Soil Classification System (USCS) and placed on plastic until the soil is characterized for disposal. The wells will be developed to remove sediment and water from drilling by pumping with an electric submersible environmental pump equipped with dedicated tubing or bailed with dedicated disposable polyethylene bailers.

Depth to groundwater will be measured in all wells and recorded at the top of PVC casing using an electronic water level meter. The measurements will be used to prepare a groundwater potentiometric surface map and determine groundwater flow direction and gradient. Groundwater samples will be collected after removing approximately 3 casing-volumes of groundwater using dedicated disposable polyethylene bailers or pumping using an electronic submersible pump and dedicated tubing. The groundwater samples will be analyzed by a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for anions, cations and TDS. Geochemical profiling will be performed in each well using an In-Situ Model 9500 multi-parameter probe to evaluate the groundwater chemical stratification.

Horizontal hydraulic conductivity (slug) tests will be performed in each well to calculate an average hydraulic conductivity for the aquifer and assess ground water flow velocity. Falling and rising head tests will be performed at each well by lowering (falling head) and raising (rising head) a weighted PVC tube (slug) in the well. A pressure transducer will be installed near the bottom of the well to measure changes in head, which will be recorded using an electronic data logger. Horizontal hydraulic conductivity will be calculated using the Bouwer and Rice or equivalent method.

OCD will be notified at least 48 hours in advance of fieldwork and a report will be prepared and submitted following completion of fieldwork, receipt and review of analytical reports. The report will describe the geology, hydrogeology and aquifer characteristics, including ground water elevation, flow direction, gradient, horizontal hydraulic conductivity, inorganic contaminant distribution, chemical stratification. Recommendations for additional investigation or remedial actions will be proposed. Exhibits will include location and base maps, geological cross sections, aquifer thickness map, groundwater flow map and isopleths maps for chloride and TDS. The laboratory analyses will be summarized in tables and EM field sheets, geologic logs, well completion diagrams, slug test results and laboratory analysis will be included as attachments.

Tables

Table 1
Excavation Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Sample ID	Date	Depth Feet BGS	Status	PID (ppm)	TPH (C6 - C35)	Chloride (mg/Kg)
OCD RRAL:						**100**	
West Excavation							
Bottom (Composite)	**WEA**	04/10/2014	10	In-Situ	0.8	**130.2**	81.9
	WEB	04/10/2014	5	In-Situ	0.8	24.8	86.1
	WEC	04/10/2014	8	In-Situ	0.8	**858**	229
	WED	04/10/2014	4	In-Situ	0.8	**672.45**	328
Sidewall - West (Discrete)	**WS-1**	04/09/2014	4	In-Situ	0.8	<15.62	<61.6
	WS-2	04/09/2014	6	In-Situ	0.8	**123.70**	151
	WS-3	04/10/2014	10	In-Situ	0.8	**176.70**	<58.2
	WS-4	04/10/2014	5	In-Situ	1.4	**2,998**	92.2
Sidewall - South (Discrete)	**WS-5**	04/10/2014	6	In-Situ	0.8	**342**	230
	WS-6	04/10/2014	4	In-Situ	1.2	**476.20**	426
Sidewall - East (Discrete)	**WS-7**	04/10/2014	3	In-Situ	0.8	**425**	248
	WS-8	04/10/2014	6	In-Situ	0.8	**2,741**	478
	WS-9	04/10/2014	8	In-Situ	0.8	**236.20**	92.6
	WS-10	04/09/2014	6	In-Situ	0.8	<16.60	<62.2
Sidewall - North (Discrete)	**WS-11**	04/09/2014	6	In-Situ	0.8	**467.80**	147
	WS-12	04/09/2014	2	In-Situ	0.8	**1,150**	187
	WS-13	04/09/2014	5	In-Situ	0.8	81.90	<58.5
OCD (Discrete)	**DS-1**	04/10/2014	12	In-Situ	0.8	62.38	64.6
	DS-2	04/10/2014	12	In-Situ	2.4	**775**	571
	DS-3	04/10/2014	20	In-Situ	3.6	**654.70**	<68.6

Table 1
Excavation Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Sample ID	Date	Depth Feet BGS	Status	PID (ppm)	TPH (C6 - C35)	Chloride (mg/Kg)
OCD RRAL:						**100**	
East Excavation							
Bottom (Composite)	**EEA**	04/09/2014	10	In-Situ	0.8	**163.60**	97.0
	EEB	04/09/2014	5	In-Situ	0.8	<14.25	<53.1
	EEC	04/09/2014	8	In-Situ	0.8	39.60	<56.3
Sidewall - West (Discrete)	**ES-1**	04/09/2014	4	In-Situ	0.8	**382.70**	652
	ES-2	04/09/2014	4	In-Situ	0.8	<17.28	123
	ES-3	04/09/2014	6	In-Situ	0.8	<13.98	63.1
	ES-4	04/09/2014	5	In-Situ	0.8	<14.79	<51.3
Sidewall - South (Discrete)	**ES-5**	04/09/2014	5	In-Situ	0.8	<13.85	1,120
	ES-6	04/09/2014	4	In-Situ	0.0	<13.73	<45.6
Sidewall - East (Discrete)	**ES-7**	04/09/2014	5	In-Situ	11.5	24.47	<44.6
	ES-8	04/09/2014	10	In-Situ	0.8	11.2	<55.7
	ES-9	04/09/2014	12	In-Situ	0.0	**1,177**	<44.1
	ES-10	04/09/2014	5	In-Situ	0.8	**126.80**	329
OCD (Discrete)	**DS-4**	04/09/2014	9	In-Situ	0.8	<13.01	<49.8
	DS-5	04/09/2014	12	In-Situ	0.8	<14.51	<49.8

Notes: Samples analyzed by DHL Analytical, Inc., Round Rock, Texas, using EPA method SW-846-8015M (TPH) and E-300 (chloride)
BGS: Below ground surface
mg/Kg: Milligrams per kilogram - equivalent to parts per million (ppm).
Denotes concentration exceeds OCD recommended remediation action level

Table 2
Soil Pile Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/e), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Sample	Date	Status	PID (ppm)	TPH (C6 - C35)	TPH SPLP	Chloride (mg/Kg)	Chloride SPLP
OCD RRAL:						**100**		
North	NP-A	04/08/2014	Excavated	4.2	**391.80**	--	<54.0	--
	NP-B	04/08/2014	Excavated	1.2	**371.60**	--	84.3	--
					248.60	--	73.0	--
West	WP-A	04/08/2014	Excavated	0.4	**701.30**	--	403	--
	WP-B	04/08/2014	Excavated	0.2	**713.30**	--	195	--
	WP-C	04/08/2014	Excavated	0.8	**499.60**	--	345	--
	WP-D	04/08/2014	Excavated	0.1	**535.90**	--	217	--
	WP-E	04/08/2014	Excavated	0.2	**692.80**	--	583	--
Center	CP-A	04/10/2014	Excavated	7.9	**782**	--	239	--
	CP-B	04/10/2014	Excavated	9.7	**1,778**	--	443	--
	CP-C	04/10/2014	Excavated	2.6	**1,247**	--	354	--
	CP-D	04/10/2014	Excavated	1.4	**1,801**	--	194	--
South	SP-A	04/08/2014	Excavated	0.0	**715.70**	--	398	--
	SP-B	04/08/2014	Excavated	0.2	**949**	--	52.8	--
SPLP Samples								
Comp-1		7/1/2014	Excavated	0.2	**1,488**	<3.00	720	36.0
Comp-2		7/1/2014	Excavated	0.2	**719**	<3.00	290	7.96

Notes: Samples analyzed by DHL Analytical, Inc., Round Rock, Texas and Permian Basin Environmental Lab (SPLP), Midland, Texas
Samples analyzed by EPA method SW-846-015M (TPH) and E-300 (chloride).
BGS: Below ground surface
mg/Kg: Milligrams per kilogram - equivalent to parts per million (ppm) except SPLP which is milligrams per liter equivalent to ppm.
Denotes concentration exceeds OCD recommended remediation action level

Table 3
Borehole Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Depth (Feet BGS)	Date	PID (ppm)	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**100**		**10**	**50**	**100**	
SB-1	5	6/13/2014	0.0	In-situ	--	--	<27.5	1,470
	10	6/13/2014	0.0	In-situ	--	--	<26.3	978
	15	6/13/2014	0.0	In-situ	--	--	<27.5	1,800
	20	6/13/2014	0.0	In-situ	--	--	--	1,800
	25	6/13/2014	0.0	In-situ	--	--	--	1,020
	30	6/13/2014	0.0	In-situ	--	--	--	817
	35	6/13/2014	0.0	In-situ	--	--	--	1,190
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-2	5	6/13/2014	0.0	In-situ	--	--	<27.5	483
	10	6/13/2014	0.0	In-situ	--	--	<27.2	957
	15	6/13/2014	0.0	In-situ	--	--	<26.6	858
	20	6/13/2014	2.6	In-situ	--	--	--	242
	25	6/13/2014	2.6	In-situ	--	--	--	137
	30	6/13/2014	2.6	In-situ	--	--	--	<5.43
	35	6/13/2014	2.6	In-situ	--	--	--	65.1
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-3	5	6/13/2014	NS	Excavated	NS	NS	NS	NS
	10	6/13/2014	NS	Excavated	NS	NS	NS	NS
	15	6/13/2014	--	In-situ	0.0221	0.9424	**11,114**	4,370
	20	6/13/2014	276	In-situ	0.00435	0.26627	**1,762.3**	4,070
	25	6/13/2014	128	In-situ	--	--	90.7	3,050
	30	6/13/2014	11.5	In-situ	--	--	<27.8	3,840
	35	6/13/2014	2.6	In-situ	--	--	--	3,530
SB-4	5	6/13/2014	0.0	In-situ	--	--	**238.3**	651
	10	6/13/2014	0.0	In-situ	--	--	75.5	1,090
	15	6/13/2014	0.0	In-situ	--	--	<26.9	1,070

Table 3
Borehole Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Depth (Feet BGS)	Date	PID (ppm)	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**100**		**10**	**50**	**100**	
	20	6/13/2014	0.0	In-situ	--	--	--	1,370
	25	6/13/2014	0.0	In-situ	--	--	--	2,310
	30	6/13/2014	0.0	In-situ	--	--	--	1,310
	35	6/13/2014	0.0	In-situ	--	--	--	1,950
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-5	5	6/13/2014	--	Excavated	NS	NS	NS	NS
	10	6/13/2014	2.6	In-situ	--	--	<26.6	270
	15	6/13/2014	0.0	In-situ	--	--	<28.7	588
	20	6/13/2014	0.0	In-situ	--	--	<28.4	889
	25	6/13/2014	2.6	In-situ	--	--	--	453
	30	6/13/2014	2.6	In-situ	--	--	--	965
SB-6	5	6/13/2014	NS	Excavated	NS	NS	NS	NS
	10	6/13/2014	NS	In-situ	--	--	<26.9	455
	15	6/13/2014	0.8	In-situ	--	--	<27.8	840
	20	6/13/2014	0.8	In-situ	--	--	54.0	652
	25	6/13/2014	0.0	In-situ	--	--		935
	30	6/13/2014	0.0	In-situ	--	--	--	459
SB-7	5	6/13/2014	0.0	In-situ	--	--	54	652
	10	6/13/2014	0.0	In-situ	--	--	<26.6	436
	15	6/13/2014	0.0	In-situ	--	--	<28.7	406
	20	6/13/2014	0.0	In-situ	--	--	--	184
	25	6/13/2014	0.0	In-situ	--	--	--	376
	30	6/13/2014	0.0	In-situ	--	--	--	441
	35	6/13/2014	0.0	In-situ	--	--	--	722
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-8	5	6/13/2014	NS	Excavated	NS	NS	NS	NS

Table 3
Borehole Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Depth (Feet BGS)	Date	PID (ppm)	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**100**		**10**	**50**	**100**	
	10	6/13/2013	NS	Excavated	NS	NS	NS	NS
	15	6/13/2014	NS	Excavated	NS	NS	NS	NS
	20	6/13/2014	0.0	In-situ	--	--	<28.4	81.9
	25	6/13/2014	0.0	In-situ	--	--	<28.1	89.5
	30	6/13/2014	0.0	In-situ	--	--	--	--
	35	6/13/2014	0.0	In-situ	--	--	--	--
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-9	5	6/12/2014	0.8	In-situ	--	--	**757**	378
	10	6/12/2013	2.6	In-situ	--	--	<26.0	316
	15	6/12/2013	0.8	In-situ	--	--	<28.4	1,320
	20	6/12/2013	0.8	In-situ	--	--	--	344
	25	6/12/2013	2.6	In-situ	--	--	--	178
	30	6/12/2013	2.6	In-situ	--	--	--	297
	35	6/12/2013	2.6	In-situ	--	--	--	500
	40	6/12/2013	2.6	In-situ	--	--	--	--
SB-10	5	6/12/2014	0.8	In-situ	--	--	<27.2	227
	10	6/13/2013	6.1	In-situ	--	--	<28.7	1,010
	15	6/12/2014	0.8	In-situ	--	--	<27.8	328
	20	6/12/2014	0.8	In-situ	--	--	--	572
	25	6/12/2014	0.8	In-situ	--	--	--	621
	30	6/12/2014	0.8	In-situ	--	--	--	422
	35	6/12/2014	0.8	In-situ	--	--	--	--
	40	6/12/2014	0.8	In-situ	--	--	--	--
SB-11	5	6/12/2014	0.8	In-situ	--	--	<27.8	79.2
	10	6/13/2013	0.8	In-situ	--	--	<26.9	428
	15	6/12/2014	0.8	In-situ	--	--	<27.2	187
	20	6/12/2014	0.8	In-situ	--	--	--	--

Table 3
Borehole Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Depth (Feet BGS)	Date	PID (ppm)	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**100**		**10**	**50**	**100**	
	25	6/12/2014	0.8	In-situ	--	--	--	--
	30	6/12/2014	0.8	In-situ	--	--	--	--
	35	6/12/2014	0.8	In-situ	--	--	--	--
	40	6/12/2014	0.8	In-situ	--	--	--	--
SB-12	5	6/12/2014	0.0	In-situ	--	--	<26.3	286
	10	6/13/2013	0.0	In-situ	--	--	<27.5	700
	15	6/12/2014	0.0	In-situ	--	--	<27.5	581
	20	6/12/2014	0.0	In-situ	--	--	--	136
	25	6/12/2014	0.8	In-situ	--	--	--	1,220
	30	6/12/2014	0.8	In-situ	--	--	--	102
	35	6/12/2014	0.8	In-situ	--	--	--	67.7
	40	6/12/2014	0.8	In-situ	--	--	--	--
SB-13	5	6/13/2014	0.0	In-situ	--	--	47.0	37.1
	10	6/13/2013	0.0	In-situ	--	--	<26.3	28.4
	15	6/13/2014	0.0	In-situ	--	--	<27.5	245
	20	6/13/2014	0.0	In-situ	--	--	--	--
	25	6/13/2014	0.0	In-situ	--	--	--	--
	30	6/13/2014	0.0	In-situ	--	--	--	--
	35	6/13/2014	0.0	In-situ	--	--	--	--
	40	6/13/2014	0.0	In-situ	--	--	--	--
SB-14	5	6/12/2014	0.8	In-situ	--	--	<26.3	10.9
	10	6/13/2013	0.8	In-situ	--	--	<27.2	89.1
	15	6/12/2014	0.8	In-situ	--	--	98.0	160
	20	6/12/2014	0.8	In-situ	--	--	--	--
	25	6/12/2014	0.8	In-situ	--	--	--	--
	30	6/12/2014	0.0	In-situ	--	--	--	--
	35	6/12/2014	0.8	In-situ	--	--	--	--

Table 3
Borehole Soil Sample Analytical Data Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Location	Depth (Feet BGS)	Date	PID (ppm)	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
RRAL:			**100**		**10**	**50**	**100**	
	40	6/12/2014	0.8	In-situ	--	--	--	--
SB-15	5	6/13/2014	0.0	In-situ	--	--	<26.9	515
	10	6/13/2013	0.0	In-situ	--	--	<25.8	142
	15	6/13/2014	0.0	In-situ	--	--	<27.8	584
	20	6/13/2014	0.0	In-situ	--	--	--	139
	25	6/13/2014	0.0	In-situ	--	--	--	364
	30	6/13/2014	0.0	In-situ	--	--	--	504
	35	6/13/2014	0.0	In-situ	--	--	--	1,890
	40	6/13/2014	0.0	In-situ	--	--	--	--
MW-2	5	6/12/2014	0.0	In-situ	--	--	--	131
	10	6/13/2013	0.0	In-situ	--	--	--	692
	15	6/12/2014	0.0	In-situ	--	--	--	381
	20	6/12/2014	0.0	In-situ	--	--	--	315
	25	6/12/2014	0.0	In-situ	--	--	--	562
	30	6/12/2014	0.0	In-situ	--	--	--	81.2
	35	6/12/2014	0.0	In-situ	--	--	--	--
	40	6/12/2014	0.0	In-situ	--	--	--	--
	45	6/12/2014	0.0	In-situ	--	--	--	--
	50	6/12/2014	0.0	In-situ	--	--	--	--
	55	6/12/2014	0.0	In-situ	--	--	--	--
	60	6/12/2014	0.0	In-situ	--	--	--	--

Notes: All samples analyzed by Permian Basin Environmental Lab, LP, Midland, Texas, using EPA method SW-8021B (BTEX), SW-8015M (TPH) and E300 (chloride)

Depth measurements are in feet below ground surface (bgs).

All concentrations are in milligrams per kilogram (mg/Kg) equivalent to parts per million (ppm).

NS: Denotes soil excavated - no sample collected

Bold and highlighted denotes analyte detected at concentration above OCD recommended remediation action level (RRAL)

Table 4
Monitoring Well Drilling and Completion Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit) (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Well Information										Groundwater Data		
Well	Location	Date Installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (TOC)	Depth to Water (BGS)
MW-1	Down gradient	--	--	63.69	2	--	--	2.86	--	04/02/2014 06/13/2014	44.35 43.38	41.49 40.52
MW-2	Up gradient	06/12/2014	58.00	60.50	2	--	38.17 - 57.77	2.16	--	06/12/2014 06/13/2014	45.30 45.27	43.14 43.11

Note: Drilling and completion details for MW-1 are unknown. Well MW-2 drilled and installed by Scarborough Drilling, Inc., Lamesa, Texas.
BGS: Feet below top of ground surface
TOC: Feet below top of PVC well casing

Table 5
Groundwater Analytical Data Summary
Leagacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

		BTEX				Cations				Anions				
Sample	**Date**	**Benzene (mg/L)**	**Toluene (mg/L)**	**Ethylbenzene (mg/L)**	**Xylenes (mg/L)**	**Sodium (mg/L)**	**Magnesium (mg/L)**	**Potassium (mg/L)**	**Calcium (mg/L)**	**Sulfate (mg/L)**	**Chloride (mg/L)**	**Alkalinity (mg/L)**	**Nitrate (mg/L)**	**TDS (mg/L)**
WQCC Standard:		**0.01**	**0.75**	**0.75**	**0.62**					**600**	**250**		**10**	**1,000**
MW-1	04/10/2014	<0.0008	<0.002	<0.002	<0.003	840	195	20.9	168	509	**1,480**	673	<0.1	**3,510**
	06/13/2014	--	--	--	--	1,420	384	29.5	447	896	**2,720**	394	<0.1	**6,700**
MW-2	06/13/2014	--	--	--	--	114	30.6	7.86	48.2	121	58.8	227	1.54	564

Notes: Analysis performed by DHL Analytical, Inc., Round, Rock, Texas.
Samples analyzed by EPA method SW-8021B (BTEX), SW-8015M (TPH) and E-300 (chloride)
mg/L: milligrams per liter - equivalent to parts per million (ppm).
Bold denotes analyte detected
Bold and highlighteds denotes concentration exceed New Mexico Water Quality Control Commission (WQCC) domestiic water quality standard

Figures

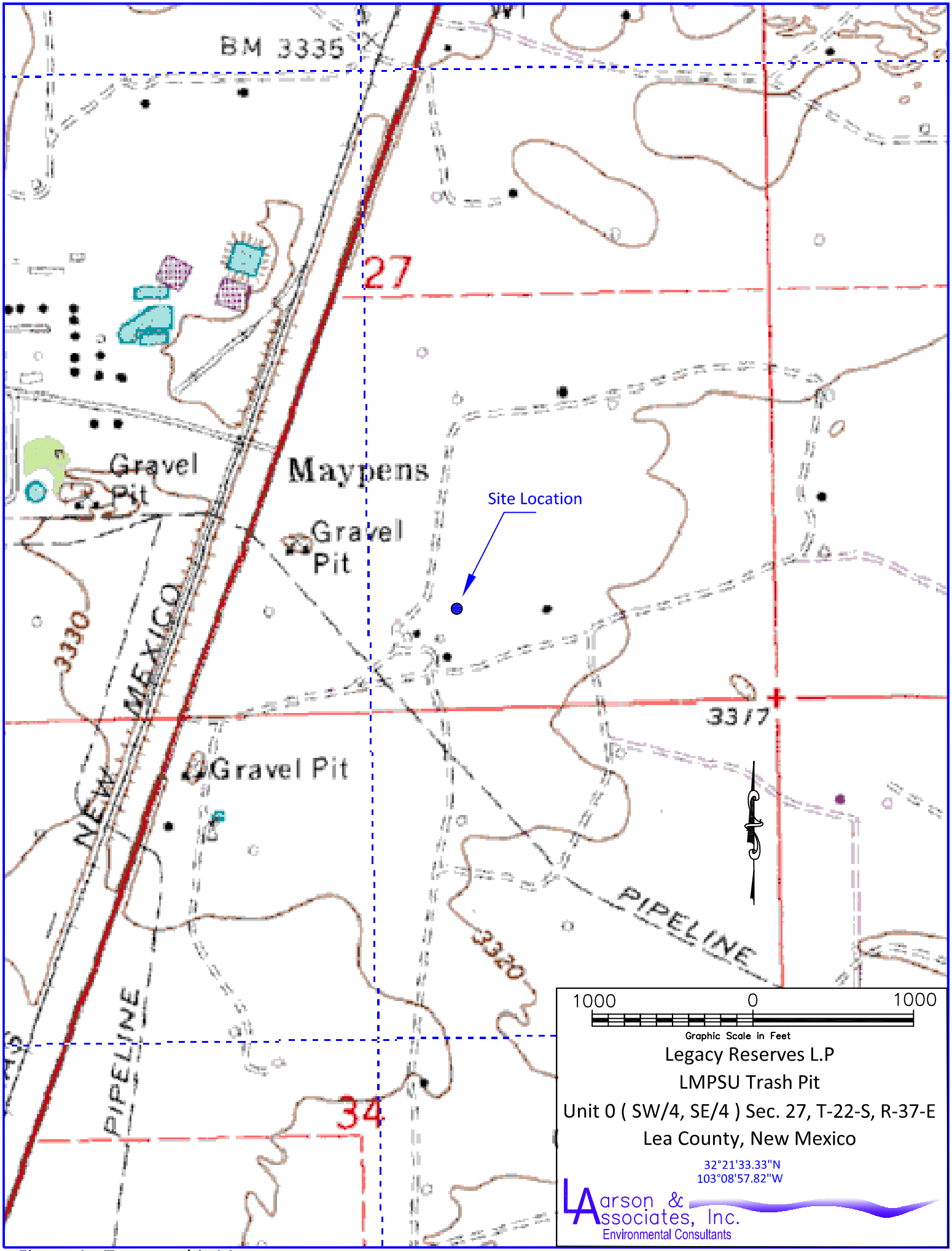
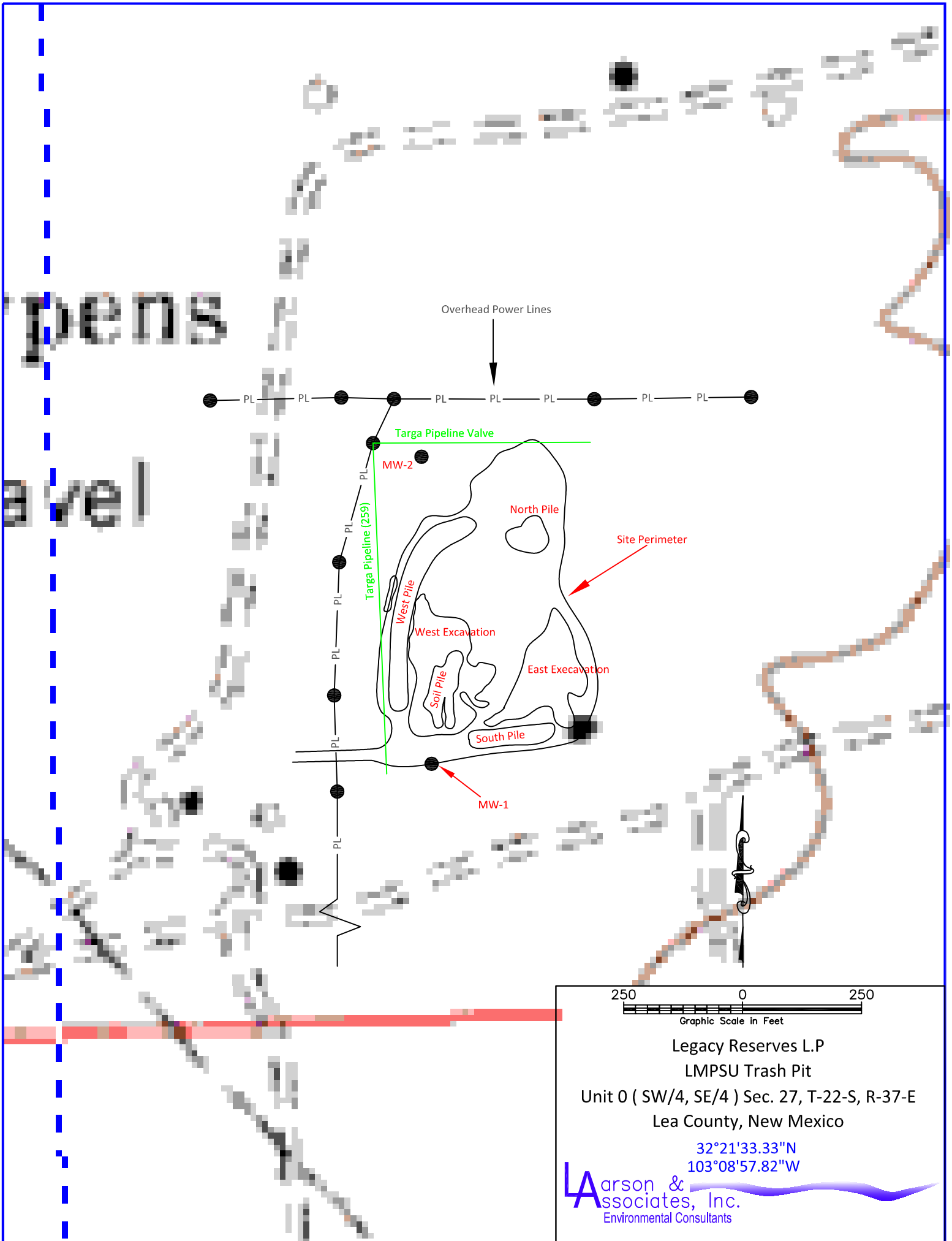


Figure 1 - Topographic Map



Legacy Reserves L.P
LMPSU Trash Pit
Unit 0 (SW/4, SE/4) Sec. 27, T-22-S, R-37-E
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 1b - Detailed Topographic Map

Figure 2a - Aerial Map

Figure 2b - Detailed Aerial Map

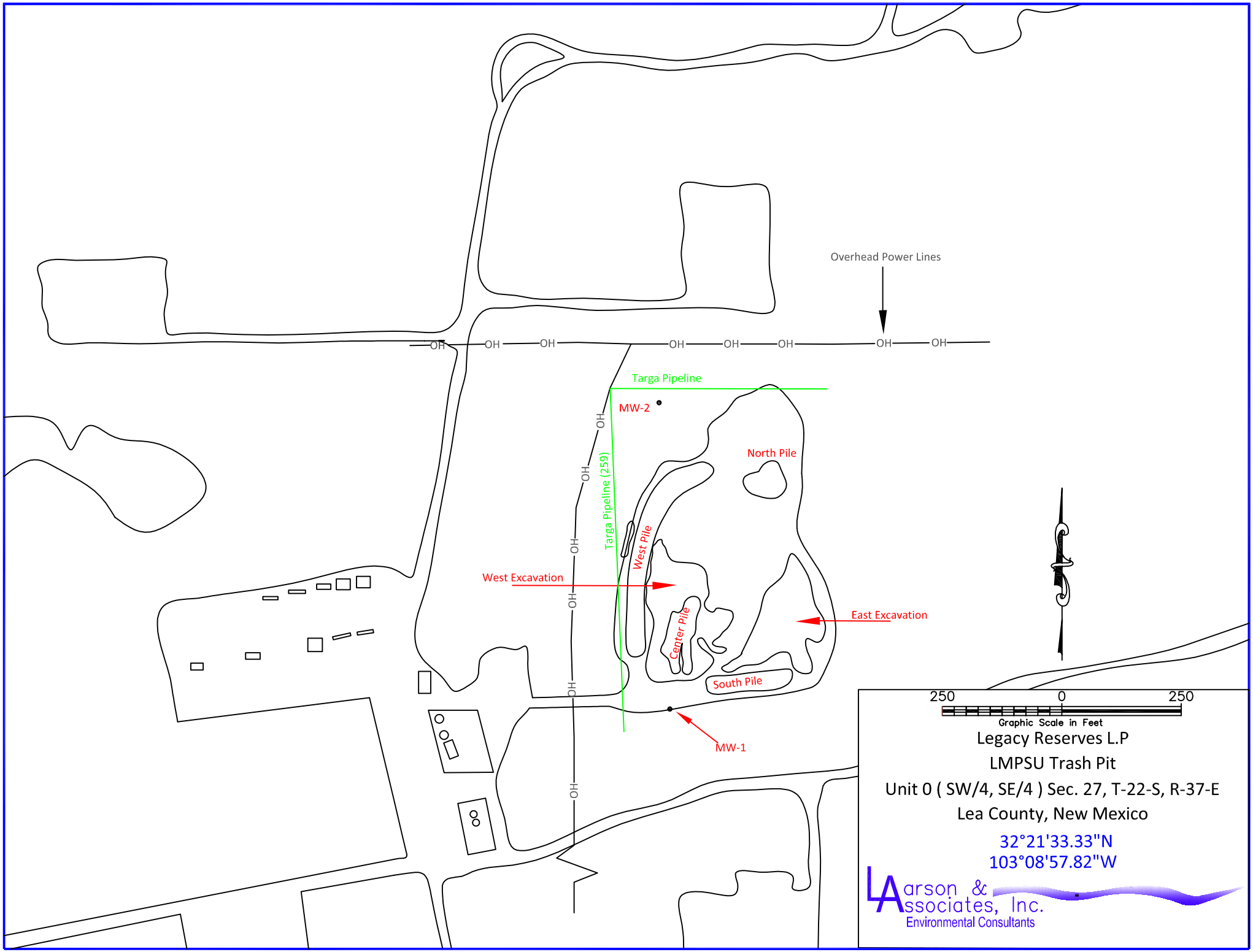
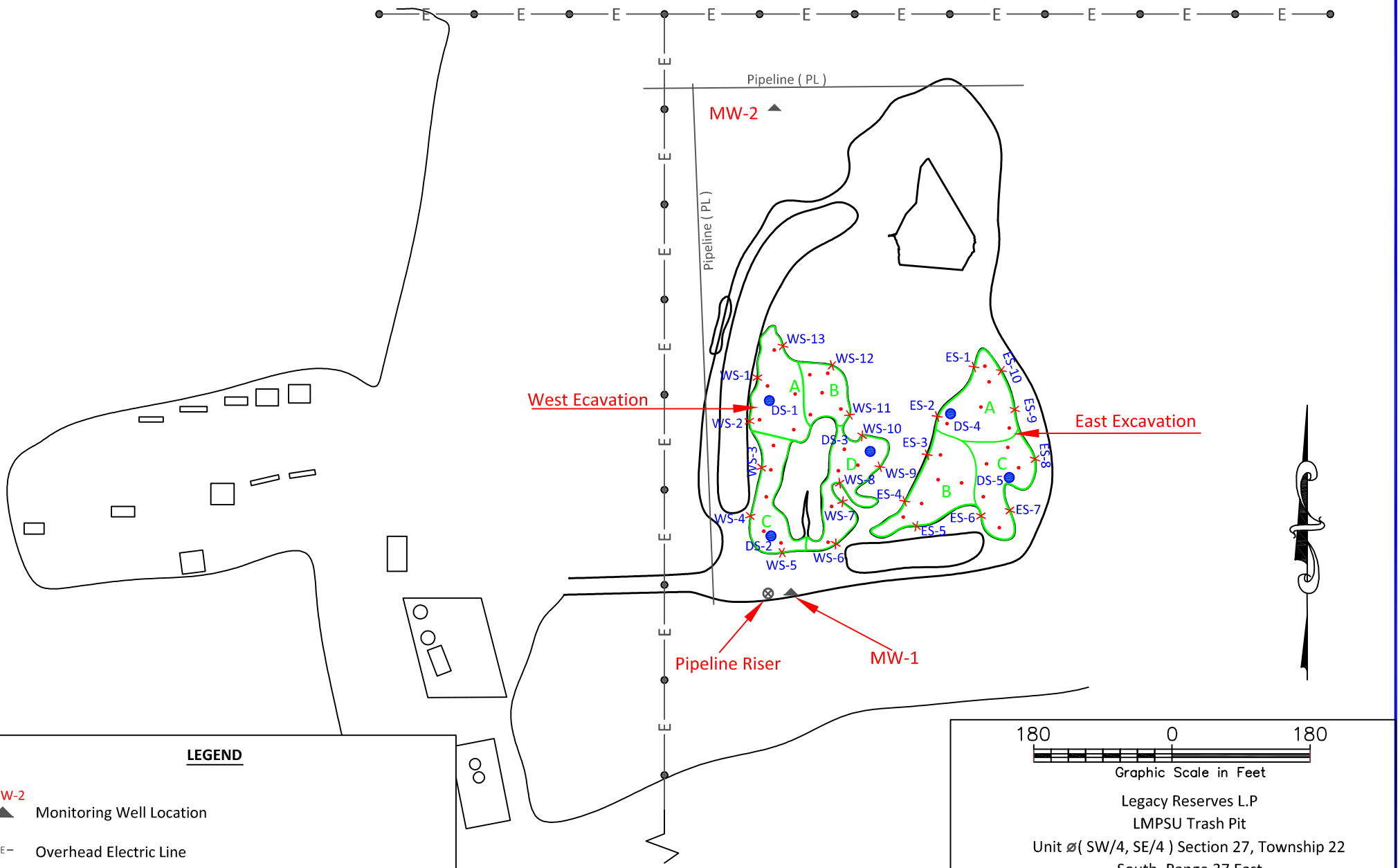


Figure 3a - Site Drawing



LEGEND

MW-2 ▲ Monitoring Well Location

–E– Overhead Electric Line

WS-1 X Sidewall Discrete Sample Location (Approximate)

WEA (A) Bottom Composite (5 Spot) Sample Location (Approximate)

● OCD Bottom Sample Location (Approximate) per

180 0 180

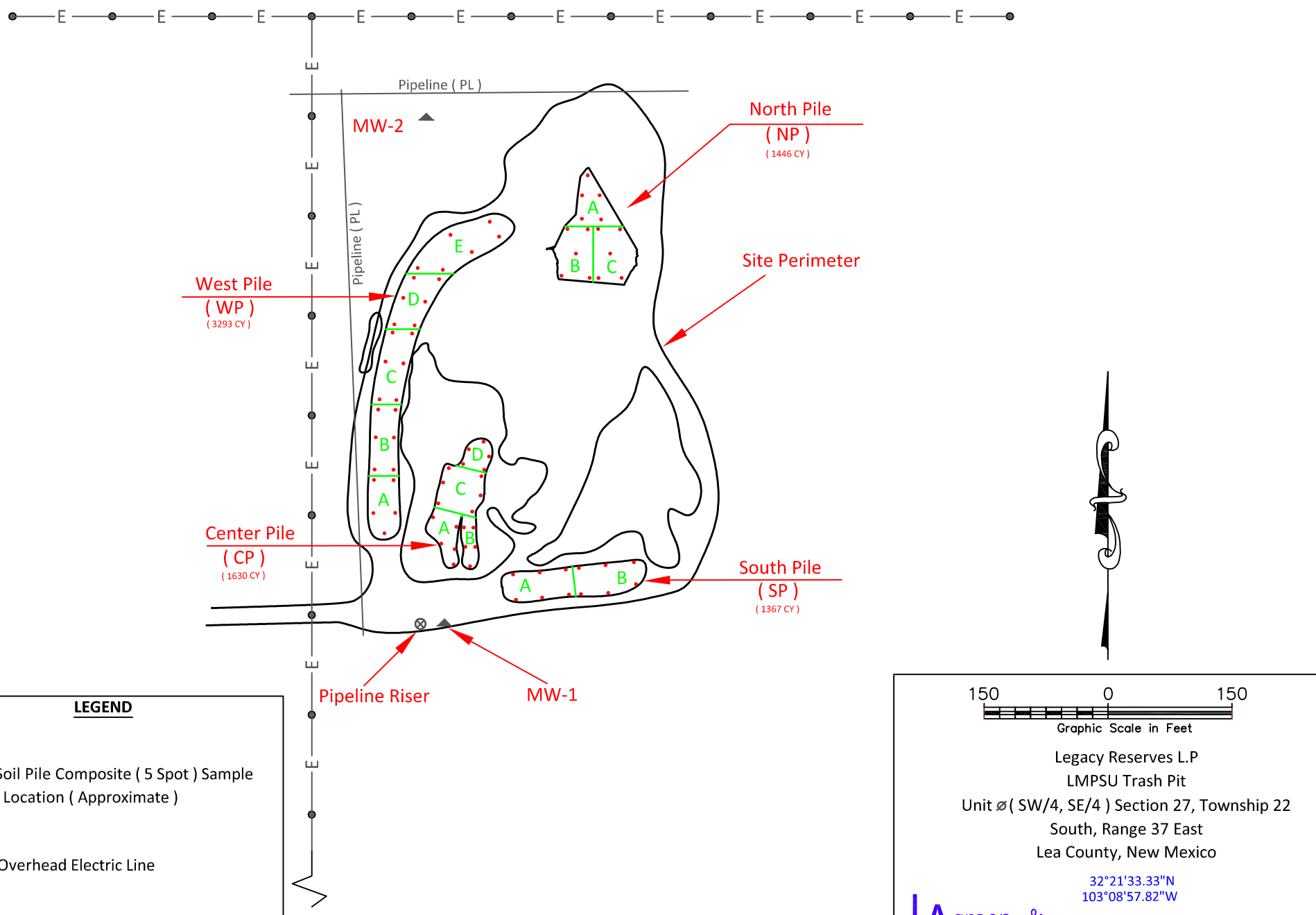
Graphic Scale in Feet

Legacy Reserves L.P
LMPSU Trash Pit
Unit ⌀(SW/4, SE/4) Section 27, Township 22
South, Range 37 East
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 3b - Excavation Soil Sample Location Map



LEGEND

NPA
A
Soil Pile Composite (5 Spot) Sample Location (Approximate)

—E— Overhead Electric Line

Monitoring Well Location

150 0 150

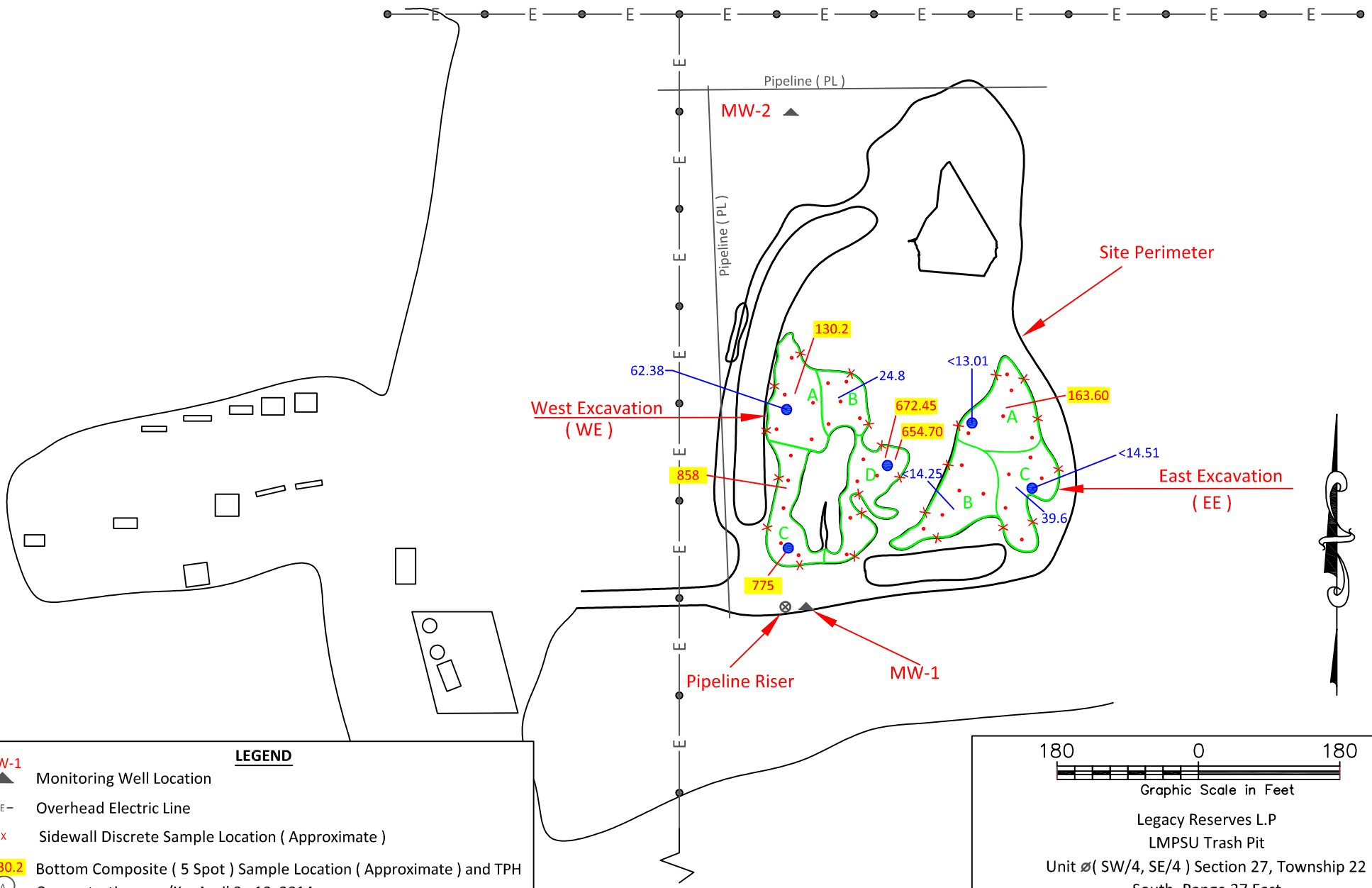
Graphic Scale in Feet

Legacy Reserves L.P
LMPSU Trash Pit
Unit ⌀(SW/4, SE/4) Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 3c - Soil Pile Sample Location Map



LEGEND

MW-1 Monitoring Well Location

Overhead Electric Line

Sidewall Discrete Sample Location (Approximate)

130.2 Bottom Composite (5 Spot) Sample Location (Approximate) and TPH Concentration, mg/Kg, April 9 - 10, 2014

Pipeline Riser

775 < Less then Method Dectection Limit Bottom Sample Bottom Discrete Sample (Approximate) per OCD District 1, and TPH Concentration, mg/K April 8-10, 2014

Concentration Exceeds OCD, 1 Recommended Remediation Action Level - 100 mg/Kg

180 0 180

Graphic Scale in Feet

Legacy Reserves L.P

LMPSU Trash Pit

Unit ⌀(SW/4, SE/4) Section 27, Township 22 South, Range 37 East

Lea County, New Mexico

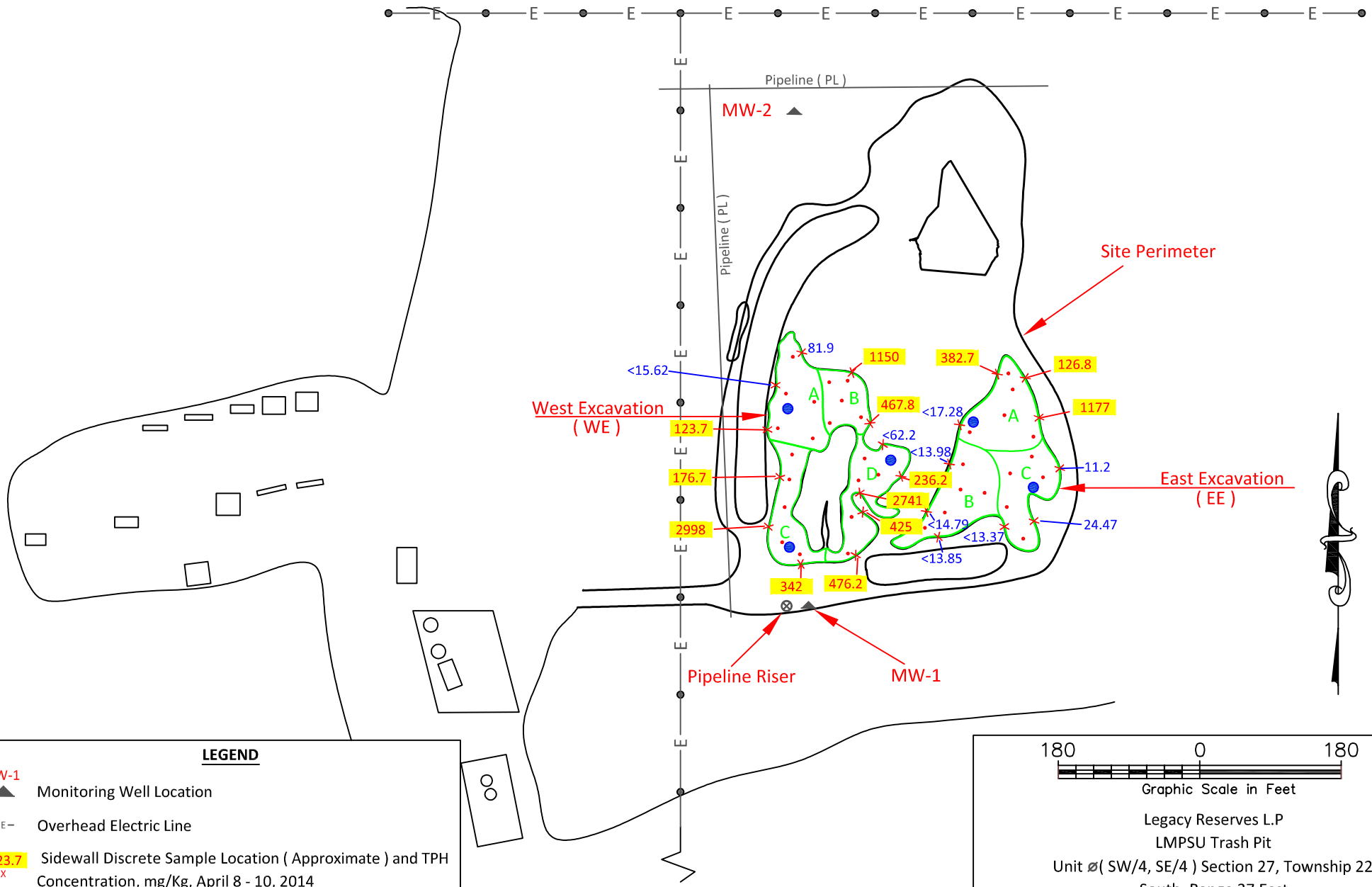
32°21'33.33"N

103°08'57.82"W

Larson & Associates, Inc.

Environmental Consultants

Figure 4a - TPH Concentrations in Bottom Samples, April 8 - 10, 2014



LEGEND

MW-1 Monitoring Well Location

Overhead Electric Line

123.7 Sidewall Discrete Sample Location (Approximate) and TPH Concentration, mg/Kg, April 8 - 10, 2014

Bottom Composite Sample Location

< Less Than Method Detection Limit

Pipeline Riser

Bottom Discrete Sample Location (Approximate) per OCD District 1

Concentration Exceeds OCD, Recommended Remediation Action Level : 100 mg/Kg

180 0 180

Graphic Scale in Feet

Legacy Reserves L.P

LMPSU Trash Pit

Unit ø(SW/4, SE/4) Section 27, Township 22 South, Range 37 East

Lea County, New Mexico

32°21'33.33"N

103°08'57.82"W

Larson & Associates, Inc.

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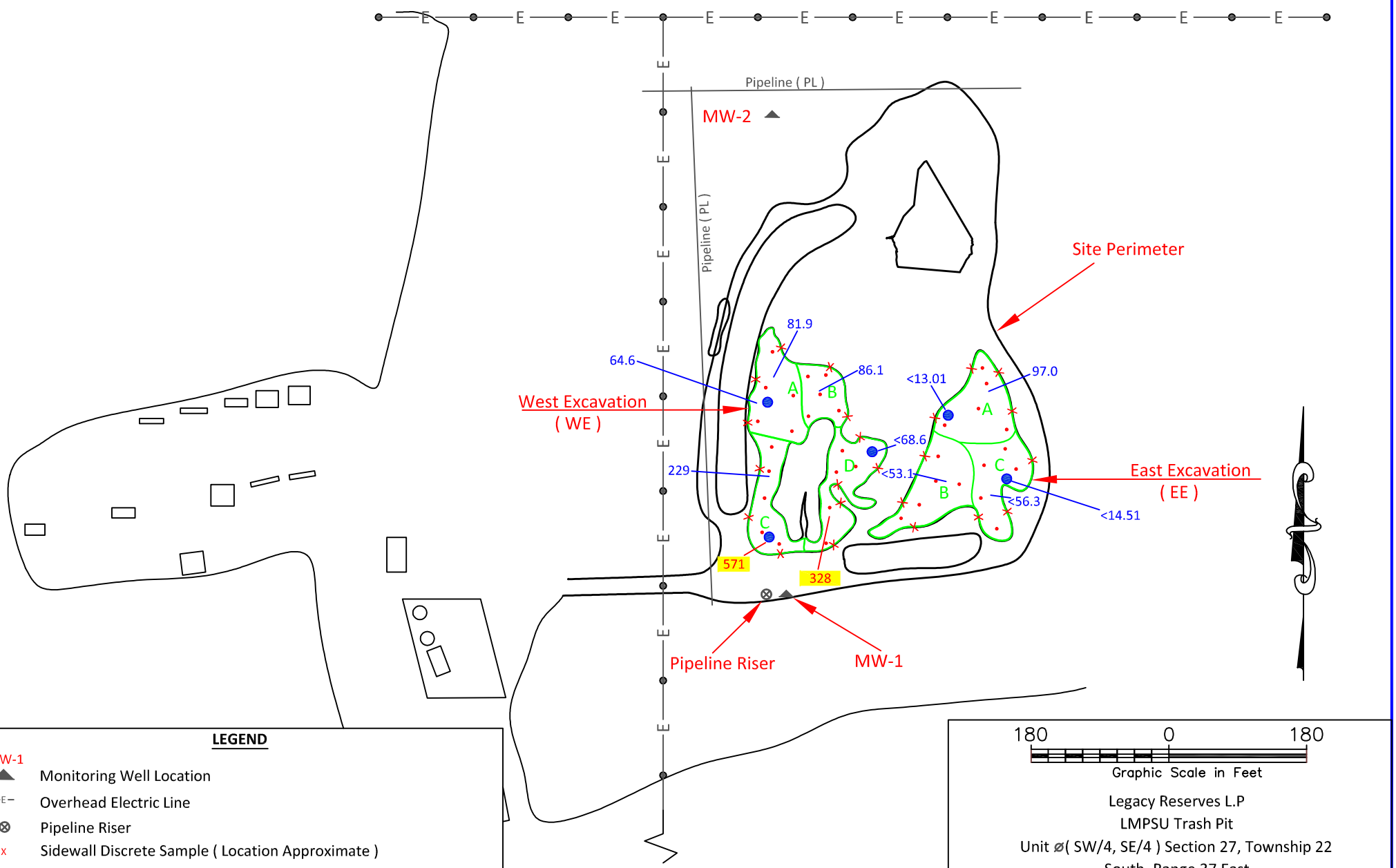
Figure 4b - TPH Concentrations in Sidewall Samples, April 8 - 10, 2014



LEGEND

MW-1 Monitoring Well Location

Overhead Electric Line

Pipeline Riser

x Sidewall Discrete Sample (Location Approximate)

328 (A) Bottom Composite Sample Location (Approximate) and Chloride Concentration, mg/Kg, April 8 -10, 2014

571 <Concentration Less Than Method Detection Limit Bottom Sample

Bottom Discrete Sample Location (Approximate) per OCD District and Chloride Concentration, mg/Kg, April 8 - 10, 2014

Concentration Exceeds WQCC Domestic Water Quality Standard : 250 mg/L

180 0 180

Graphic Scale in Feet

Legacy Reserves L.P

LMPSU Trash Pit

Unit ⌀(SW/4, SE/4) Section 27, Township 22 South, Range 37 East

Lea County, New Mexico

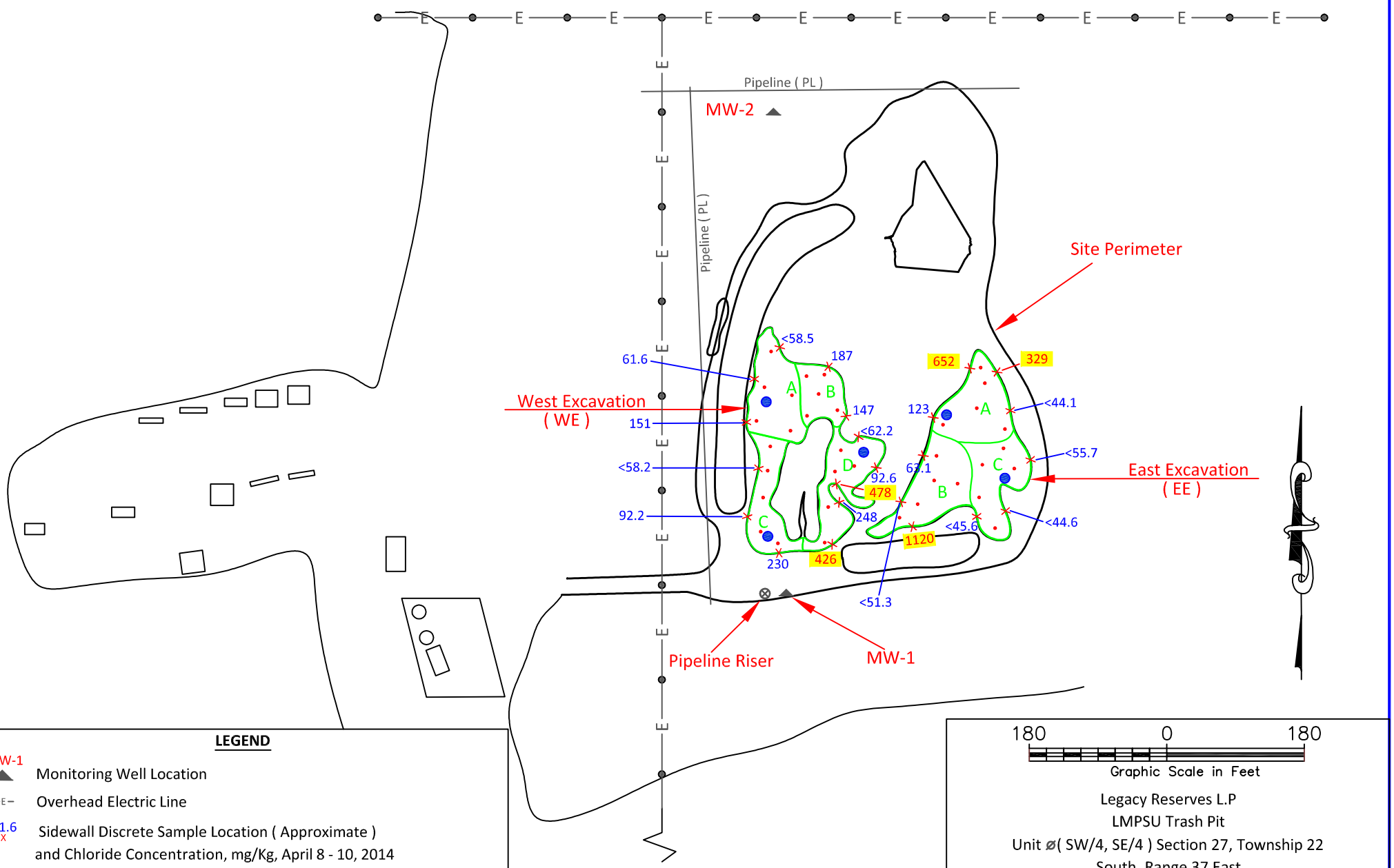
32°21'33.33"N

103°08'57.82"W

Larson & Associates, Inc.

Environmental Consultants

Figure 4c - Chloride Concentrations in Bottom Samples, April 8 - 10, 2014



LEGEND

MW-1 Monitoring Well Location

Overhead Electric Line

61.6 Sidewall Discrete Sample Location (Approximate) and Chloride Concentration, mg/Kg, April 8 - 10, 2014

Bottom Composite (5-Spot) Sample Location (Approximate)

Pipeline Riser

< Concentration Less Than Method Detection Limit
Bottom Sample Location (Approximate) OCD District 1

Concentration Exceeds WQCC Domestic Water Quality Standard : 250 mg/L

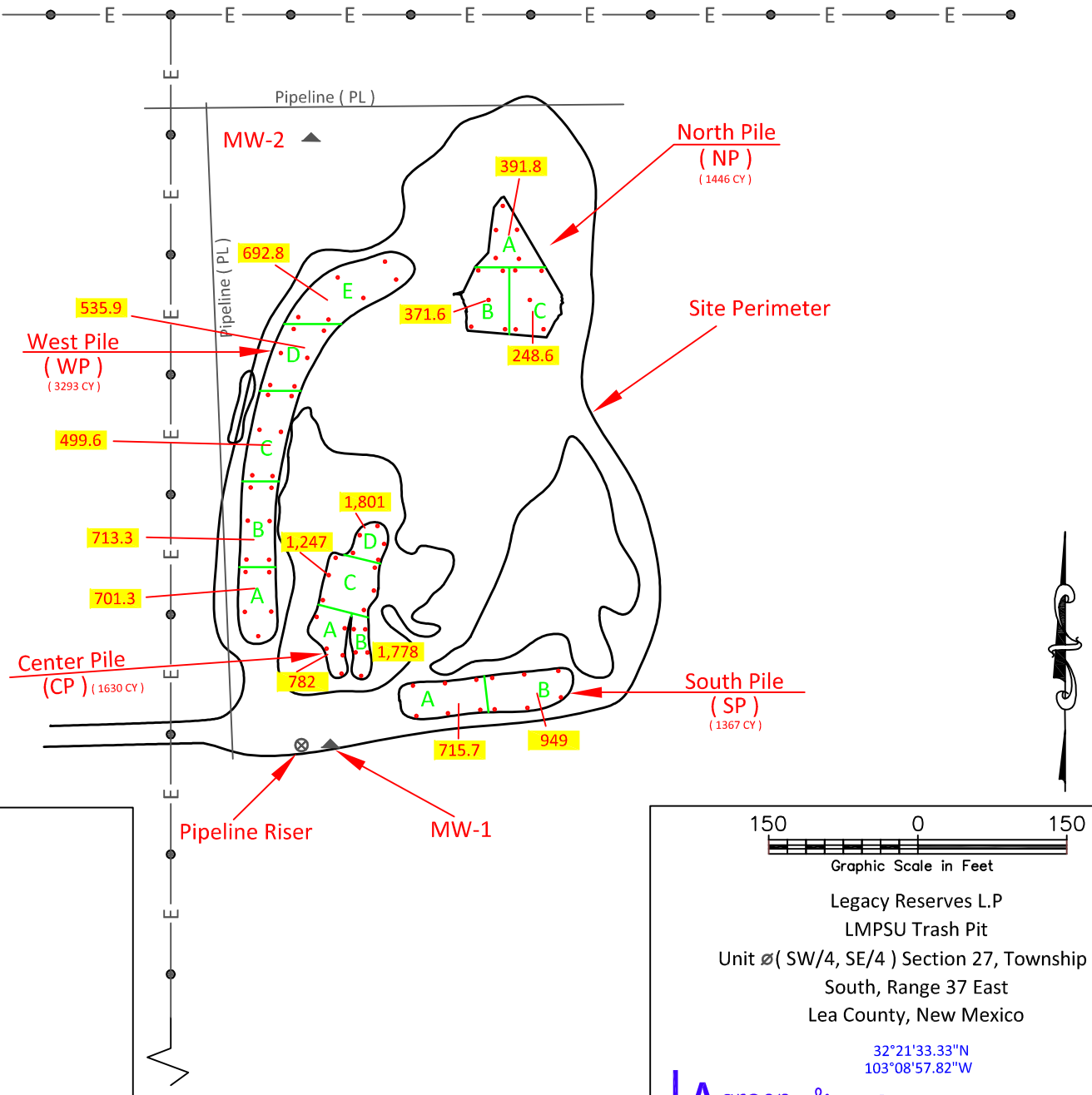
180 0 180
Graphic Scale in Feet

Legacy Reserves L.P
LMPSU Trash Pit
Unit ⌀(SW/4, SE/4) Section 27, Township 22
South, Range 37 East
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4d - Chloride Concentrations in Sidewall Samples, April 8 - 10, 2014



LEGEND

391.8 — Soil Pile Composite Sample (5 Spot) Location (Approximate) and TPH Concentration, mg/Kj, April 9 - 10, 2014

Monitoring Well Location

— E — Overhead Power Lines

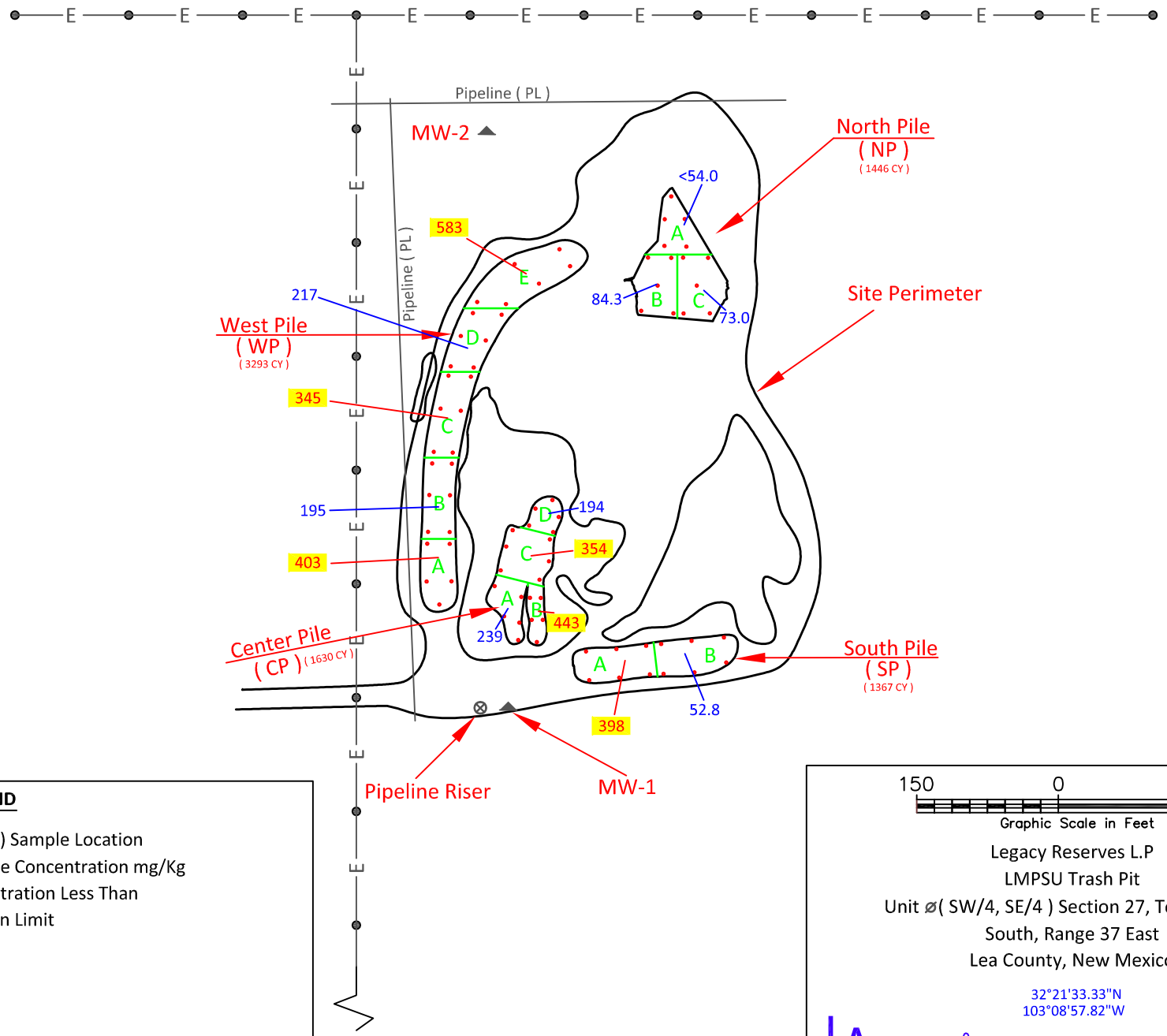
Concentration Exceeds OCD, Recommended Remediation Action Level : 100 mg/Kg

Legacy Reserves L.P
LMPSU Trash Pit
Unit ⌀(SW/4, SE/4) Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4e - TPH Concentrations in Soil Pile Samples, April 8 - 10, 2014



LEGEND

345 / A — Soil Pile Composite (5-Spot) Sample Location (Approximate) and Chloride Concentration mg/Kg April 8 - 10, 2014 < Concentration Less Than Method Detection Limit

Monitoring Well Location

E — Overhead Electric Line

Concentration Exceeds WQCC Domestic Water Quality Standard : 250 mg/L

150 0 150

Graphic Scale in Feet

Legacy Reserves L.P
LMPSU Trash Pit
Unit ⌀(SW/4, SE/4) Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

32°21'33.33"N
103°08'57.82"W

Larson & Associates, Inc.
Environmental Consultants

Figure 4f - Chloride Concentrations in Soil Pile Samples, April 9 - 10, 2014

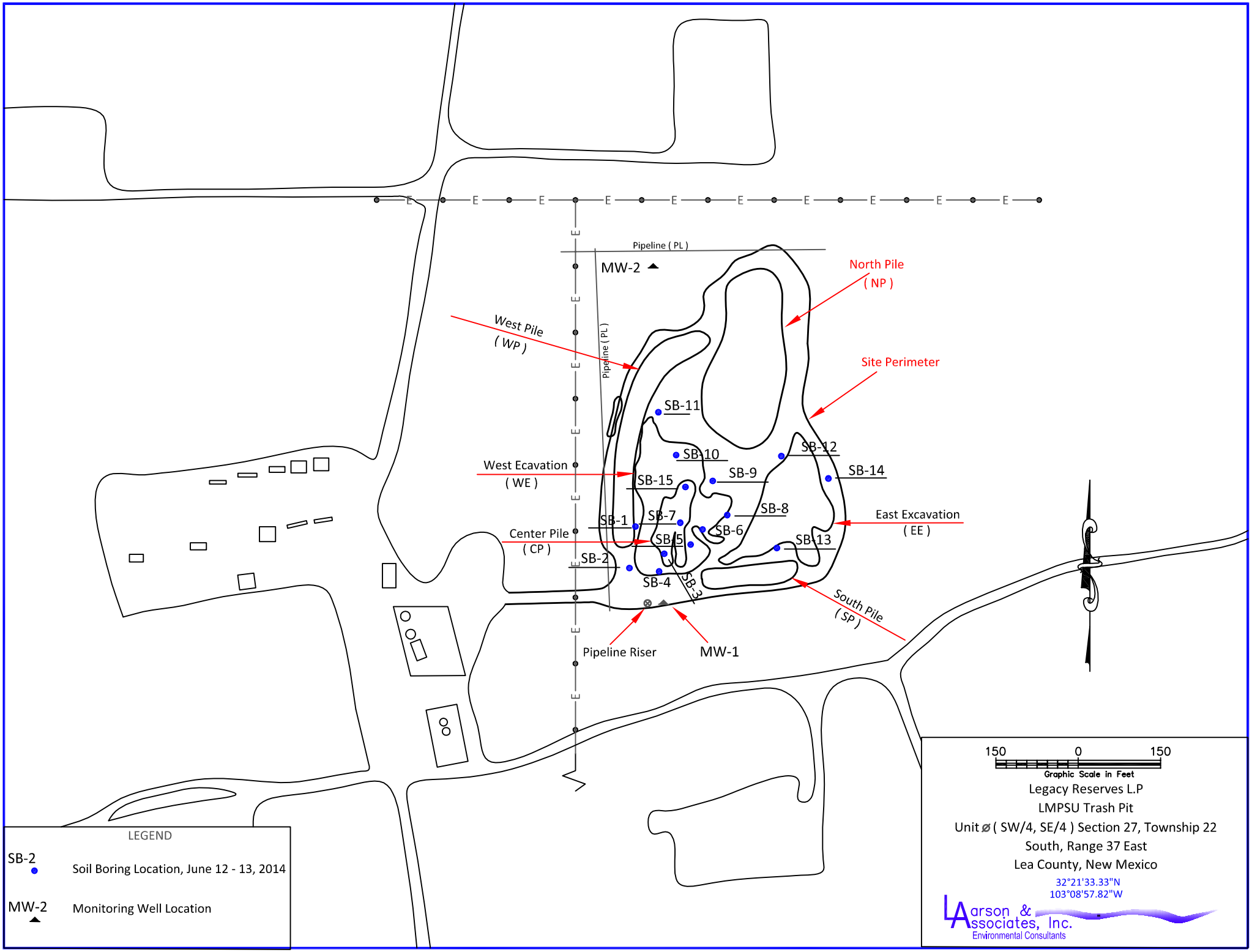


Figure 5a - Soil Boring Location Map

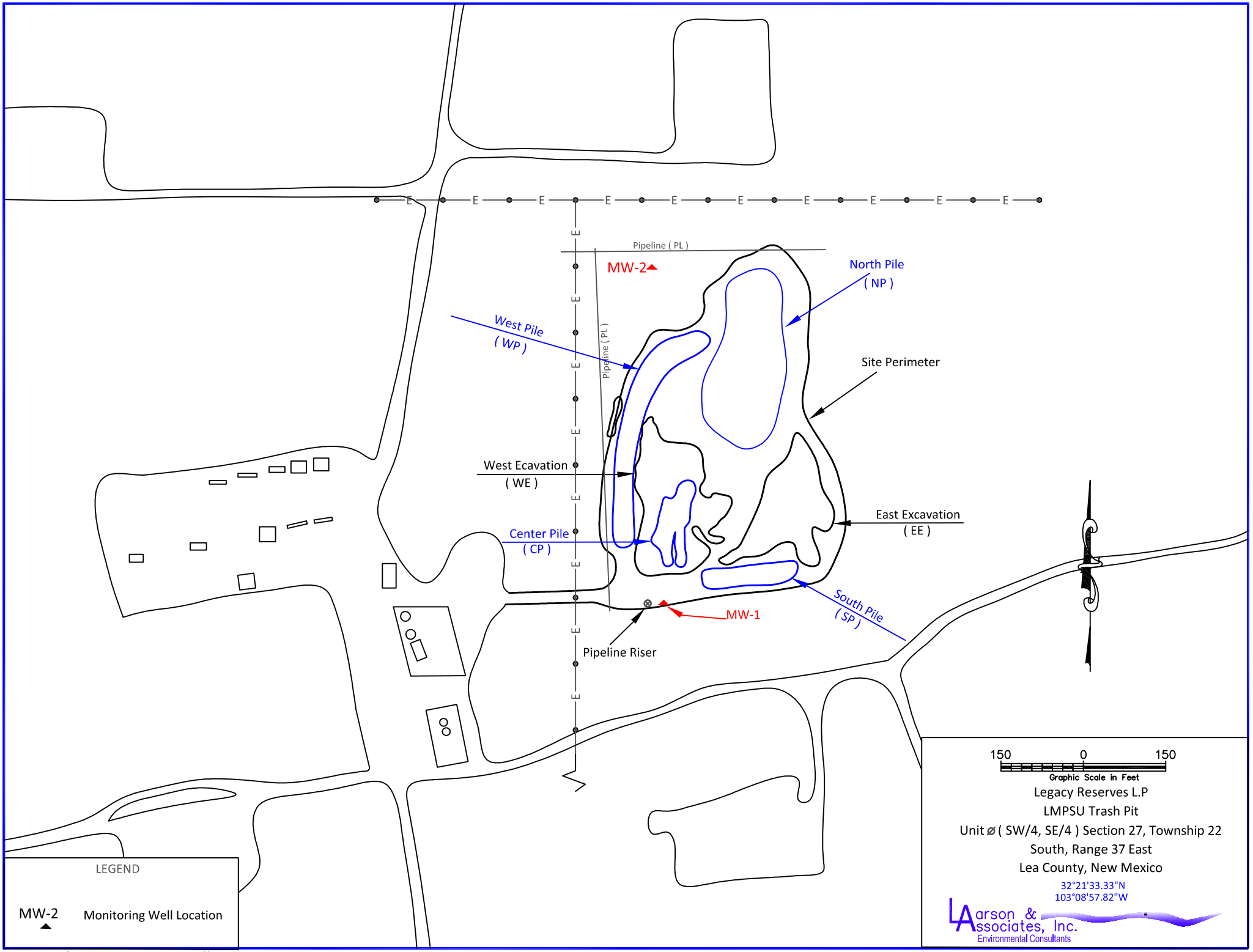


Figure 5b - Monitoring Well Location Map

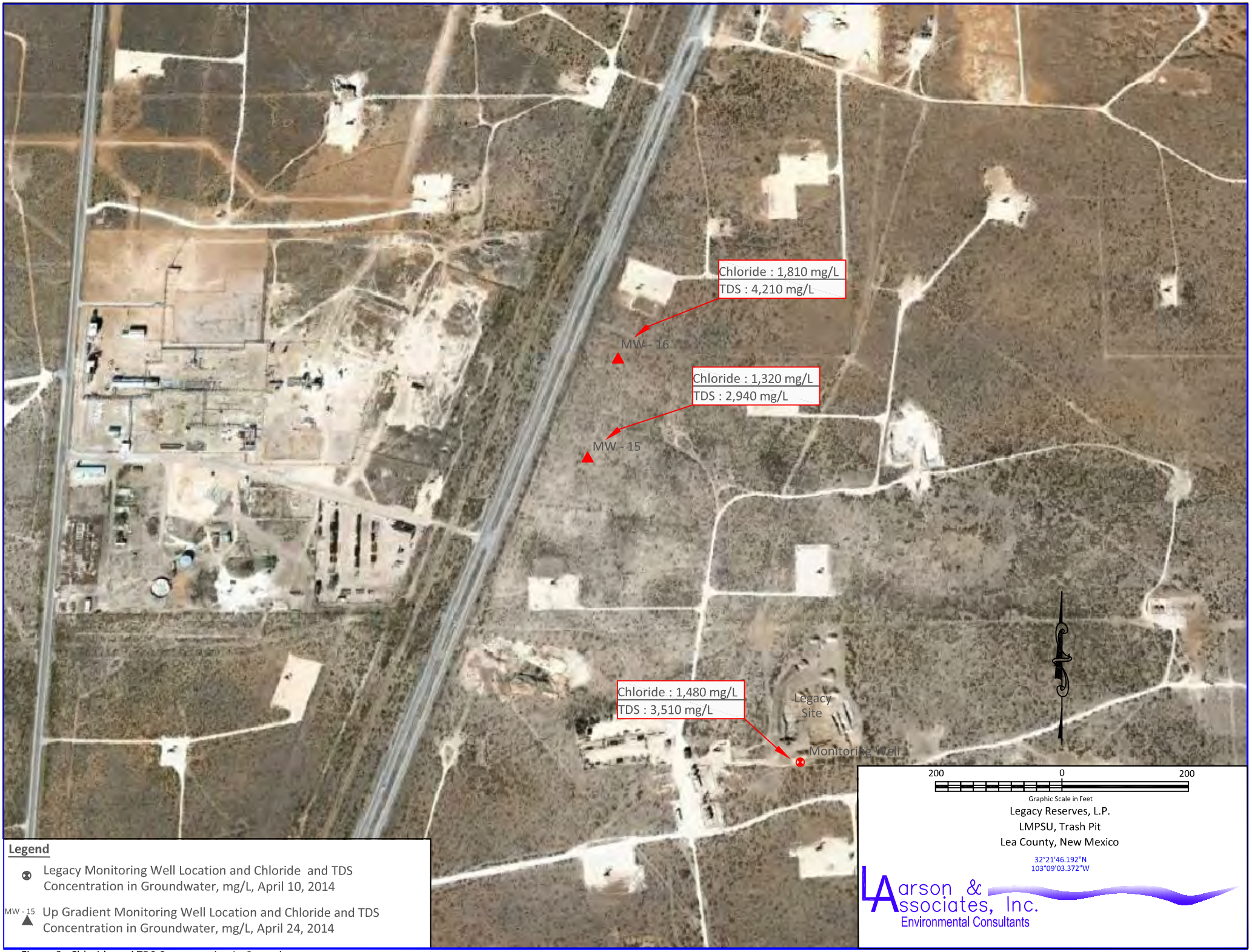


Figure 6 - Chloride and TDS Concentration in Groundwater

Figure 7a - Aerial Map - Historical Photograph February 04, 1968

Figure 7b - Overlay Aerial Map

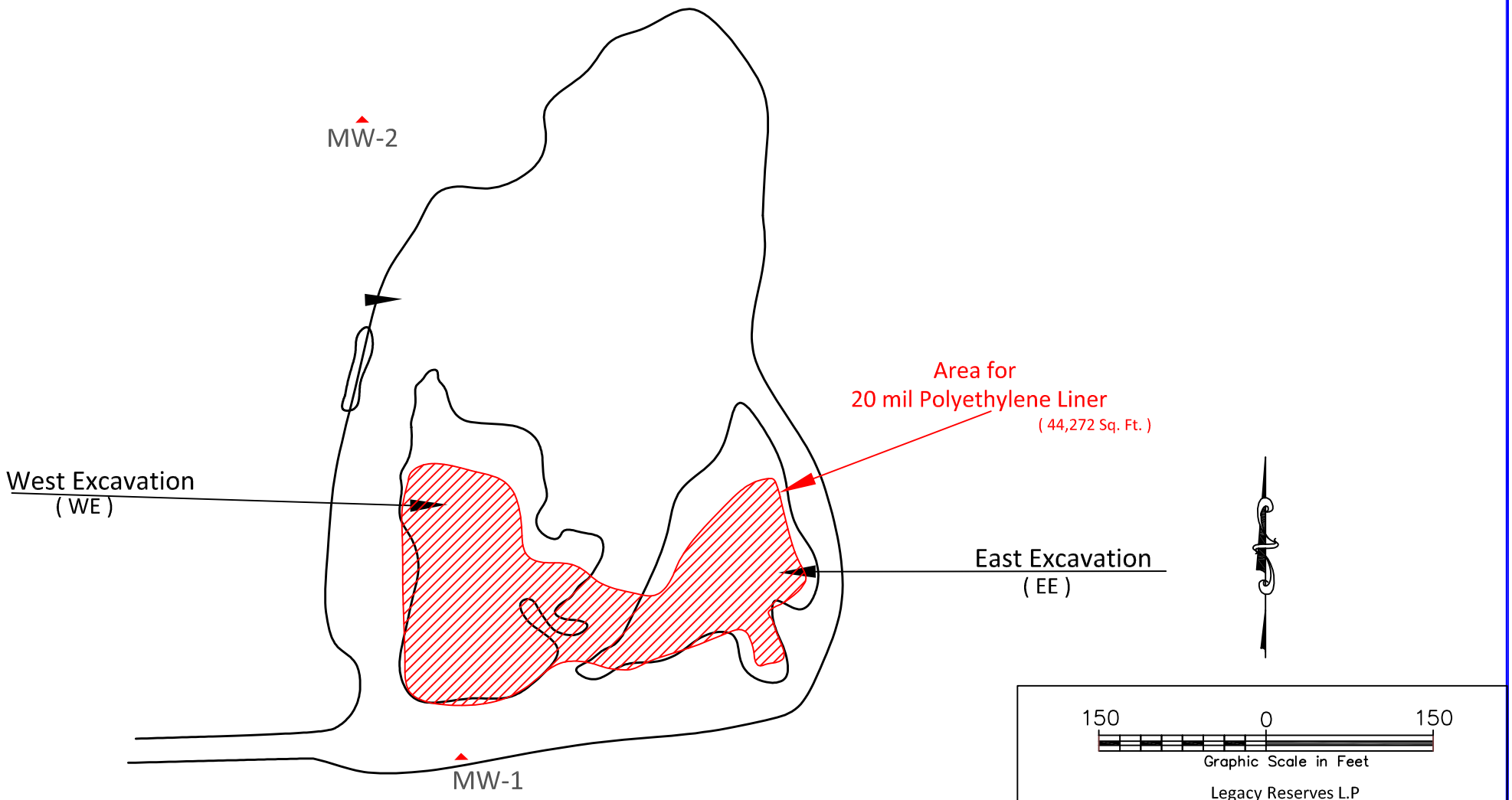


Figure 8 - Area of Polyethylene Liner

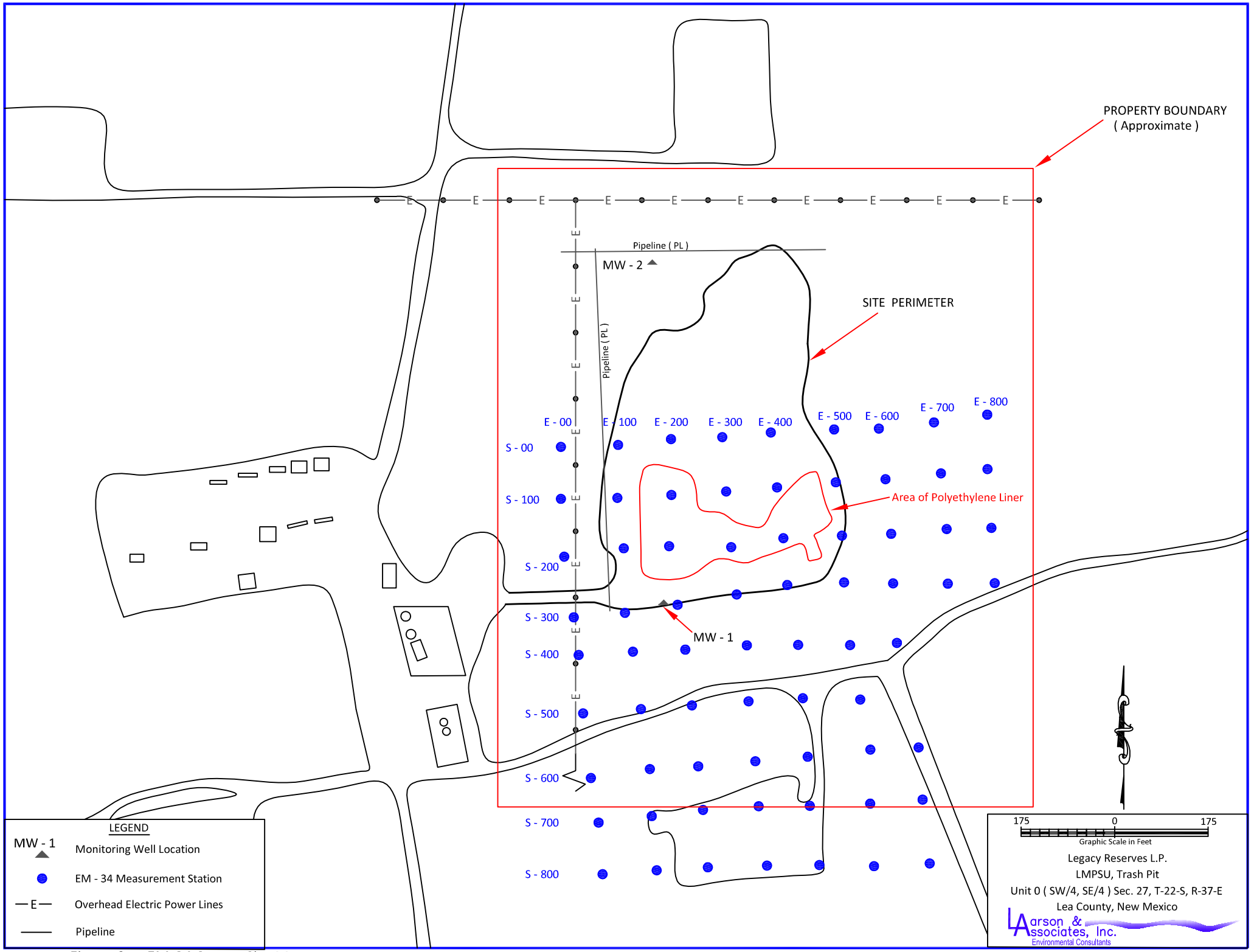


Figure 9a - EM-34 Survey Site Map

Appendix A

OCD Correspondence

New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

May 16, 2011

Behind Plant 1
(100 yds. E of Plant 1)

Whole 158 steps 475' E of 201
E hole additional 50'

Legacy Reserves Operating LP
Attn: Paul T. Horne
P.O. Box 10848
Midland, TX 79702

Email: phorne@legacylp.com

Legacy Reserves Operating LP
303 W. Wall
Suite 1400
Midland, TX 79701

Moriah Resources, Inc.
P.O. Box 5562
Midland, TX 79704

Moriah Resources, Inc.
303 W. Wall
Suite 1500
Midland, TX 79701

Moriah Resources, Inc.
Attn: Alan J. Brown
300 North Marienfeld
Suite 700
Midland, TX 79701

Moriah Resources, Inc.
C/O James Bruce
P.O. Box 1056
Santa Fe, NM 87504-1056

Email: jamesbruc@aol.com

Pecos Production Company
400 W. Illinois
Suite 1070
Midland, TX 79701

Pecos Production Company
400 W. Illinois
Suite 1210
Midland, TX 79701

Re: Buried Oilfield Waste
Location: O-27-22S-37E, Lea County, New Mexico
Lease Operators: Legacy Reserves Operating LP, OGRID 240974
Moriah Resources, Inc., OGRID 224376
Pecos Production Company, OGRID 215758
Anadarko Petroleum Corporation, OGRID 817

Dear Operators of the Above Lease Location:

The Oil Conservation Division (OCD) is investigating a complaint by a landowner that oilfield waste is buried at the above lease location. The OCD is contacting the operator of the lease, identified in OCD records as Legacy Reserves Operating LP (Legacy), and all prior operators of the lease, identified in OCD records as Moriah Resources Inc. (Moriah), Pecos Production Company (Pecos), and Anadarko Petroleum Corporation (Anadarko), to discuss the matter. Barrels, PVC pipes, metal pipes, buckets, rags, and other oilfield wastes were unearthed during a recent excavation of the site. Pictures of the site are enclosed in the attached letter that was sent to Anadarko early on in the OCD's investigation of this matter.

Please contact me at (505) 476-3493 or daniel.sanchez@state.nm.us ***within 10 days*** of receipt of this letter so that I can set up a meeting where we can discuss the matter further.

Your prompt attention to this matter would be greatly appreciated.

Sincerely yours,

Daniel Sanchez
OCD Enforcement & Compliance Manager

cc: Jami Bailey, OCD Director
Geoff Leking, Environmental Specialist, OCD District 1
Larry "Buddy" Hill, Supervisor, OCD District 1
E.L. Gonzales, OCD District 1
Glenn von Gonten, Acting OCD Environmental Bureau Chief
Bill Sims, Landowner
Linda S. Kuhn, Anadarko Petroleum Corporation
Sonny Swazo, OCD Assistant General Counsel

New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Daniel Sanchez
Acting Division Director
Oil Conservation Division

March 29, 2011

Linda S. Kuhn, Sr. Counsel
Anadarko Petroleum Corporation
1201 Lake Robbins Drive
The Woodlands, TX 77380

Certified Mail: 7008 3230 0000 2318 8588

Anadarko Petroleum Corporation
P.O. Box 2497
Midland, Texas 79702

Certified Mail: 7008 3230 0000 2318 8595

Anadarko Petroleum Corporation
P.O. Box 1330
Houston, TX 77251

Certified Mail: 7008 3230 0000 2318 8601

Anadarko Petroleum Corporation
c/o CT Corporation System
123 E. Marcy St.
Santa Fe, NM 87501

Certified Mail: 7008 3230 0000 2318 8618

Anadarko Petroleum Corporation
1209 Orange Street
Wilmington, DE 19801

Certified Mail: 7008 3230 0000 2318 8625

Re: **Buried Oilfield Waste**
Operator: Anadarko Petroleum Corporation, OGRID 817
Location: O-27-22S-37E, Lea County, New Mexico

Dear Operator:

The Oil Conservation Division (OCD) is investigating a complaint by landowner Bill Sims that Anadarko Petroleum Corporation (Anadarko) buried oilfield waste in a trench at the above location while Anadarko was the lease operator.

Mr. Sims unearthed barrels, PVC pipes, metal pipes, buckets, rags, and other oilfield wastes when he recently excavated a portion of the trench. Pictures of the site are enclosed.

Mr. Sims and his family have lived and ranched in the area for generations. According to Mr. Sims, Anadarko had a service yard at the location which it used to service its surrounding wells. Anadarko stockpiled barrels, junk and other items at the service yard. Around 1993, Mr. Sims saw a bulldozer dig a big trench immediately adjacent to the stockpiled barrels and other items at the service yard. A day or two later, Mr. Sims noticed that the stockpiled barrels, junk and other items were gone and the trench had been filed in. OCD records show Anadarko as the lease operator around the time of the incident.

Mr. Sims never saw any excavation or other activity at the location either before or after the incident. According to Mr. Sims, Anadarko had leased the location for decades prior to the incident and continued to lease the location for years after the incident. OCD records show that Anadarko operated the lease as late as 2003.

Section 70-2-12(B)(21) NMSA 1978, gives the OCD the authority to regulate the disposition of nondomestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment.

Section 70-2-12(B) (22) NMSA 1978, gives the OCD the authority to regulate the disposition of nondomestic wastes resulting from the oil field service industry, the transportation of crude oil or natural gas, the treatment of natural gas or the refinement of crude oil to protect public health and the environment, including administering the Water Quality Act [74-6-1 NMSA 1978] as provided in Subsection E of Section 74-6-4 NMSA 1978.

OCD Rule 19.15.34.11 NMAC prohibits the disposal of oilfield waste on or below the surface of the ground, or in another place or in a manner that may constitute a hazard to fresh water, public health, safety or the environment.

Oil field waste is "waste generated in conjunction with the exploration for, drilling for, production of, refining of, processing of, gathering of or transportation of oil, gas or carbon dioxide; waste generated from oil field service company operations; and waste generated from oil field remediation or abatement activity regardless of the date of release." OCD Rule 19.15.2.7.O(3) NMAC.

The buried items are oilfield waste and may constitute a hazard to fresh water, public health, safety or the environment, especially since many of the buried items were items that contained chemicals (such as barrels, buckets, and rags), or transported or could have transported chemicals (such as pipes). The location must be investigated to determine if there has been any unauthorized release to the environment that has contaminated soil and/or ground water.

OCD Rule 19.15.29.11 NMAC requires the responsible person to complete OCD approved corrective action for releases that endanger public health or the environment. OCD Rule 19.15.29.11 NMAC requires the responsible person to address releases in accordance with a remediation plan submitted to and approved by the OCD.

Anadarko must submit a remediation plan pursuant to 19.15.29 NMAC to the OCD. Based on the results of the investigation, OCD will determine what remediation Anadarko must implement if any.

OCD Rule 19.15.34.13 NMAC requires persons to dispose of oilfield wastes that is not produced water by transferring the wastes to an appropriate permitted or registered surface waste management facility.

Anadarko must excavate the oilfield waste and properly dispose of it at an appropriate permitted or registered surface waste management facility.

Please contact me at (505) 476-3493 or daniel.sanchez@state.nm.us within 10 days of receipt of this letter to schedule a compliance conference with me at the OCD's Santa Fe Office. OCD legal counsel may be present at the conference. You may have counsel participate in the conference if you wish.

Section 70-2-12(A), NMSA 1978, gives the OCD the power to collect data; make investigations and inspections; and to examine properties, leases, papers, books and records.

Anadarko must bring the following to the conference:

- the approximate date of the service yard's operation from beginning to end;
- a list of all items and chemicals that passed through the service yard during its operation;
- copies of any permit or other document that purportedly gave Anadarko the authority to bury items at the site;
- a remediation plan to delineate and remediate the site;
- a written explanation and records of what Anadarko did with the oilfield waste at the service yard;
- a written explanation and records of what Anadarko did with the items at the service yard;
- any other information pertinent to this case.

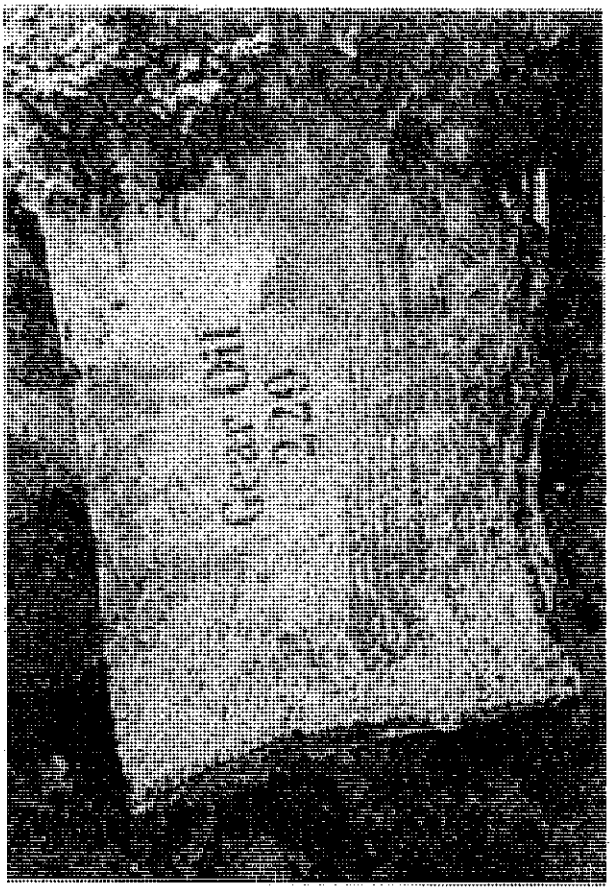
Anadarko's prompt attention to this matter would be greatly appreciated.

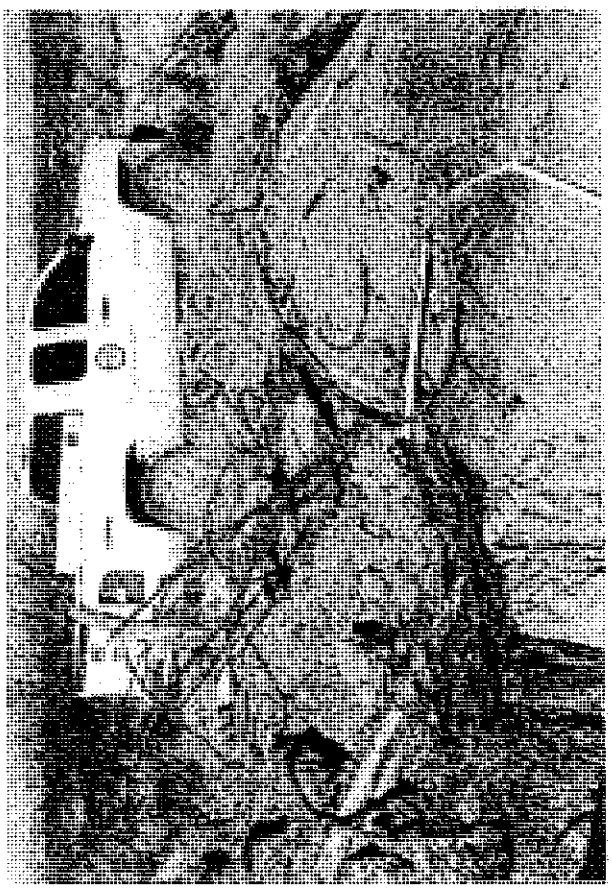
Sincerely,

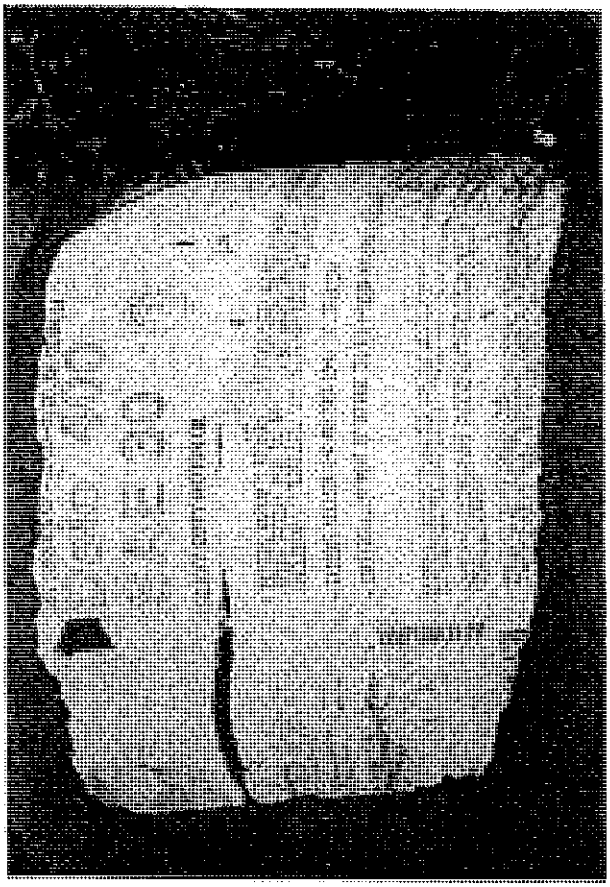
Daniel Sanchez
Acting Division Director
Division Enforcement & Compliance Manager

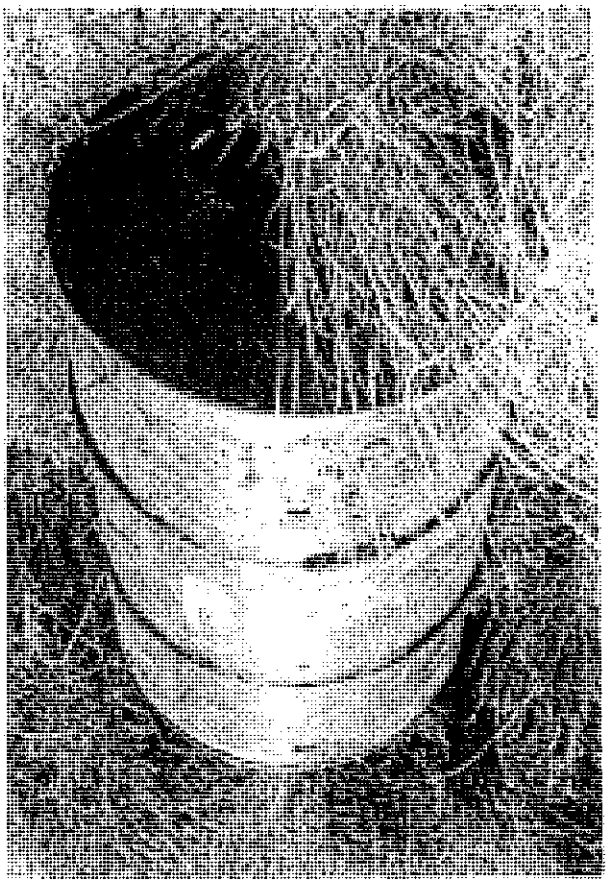
cc: John H. Bemis, EMNRD Cabinet Secretary-Designate

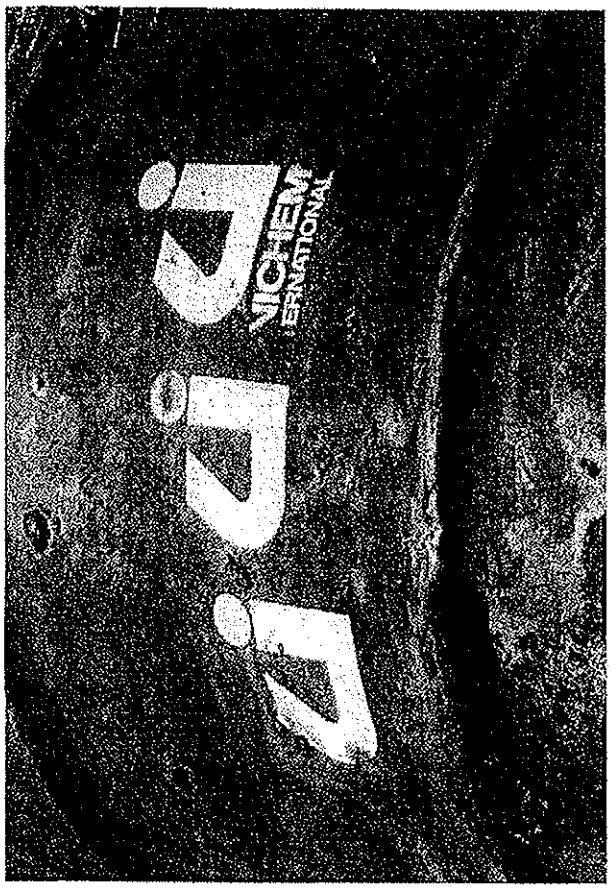
Bill Brancard, EMNRD General Counsel
Sonny Swazo, OCD Assistant General Counsel
Geoff Leking, Environmental Specialist, OCD District 1
Larry "Buddy" Hill, Supervisor, OCD District 1
Glenn von Gonten, Acting OCD Environmental Bureau Chief
Bill Sims, Landowner
Auralie Ashley-Marx, NMED Solid Waste Bureau Chief

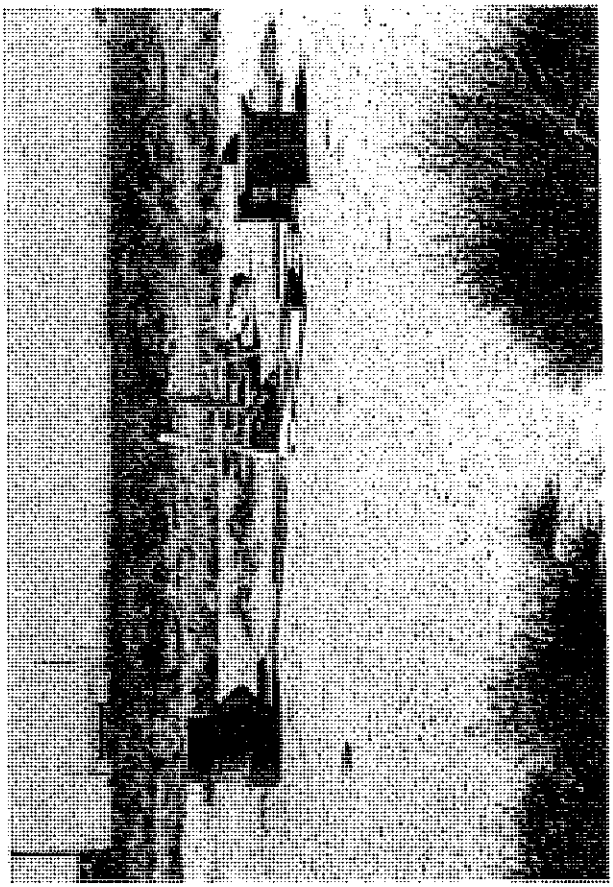


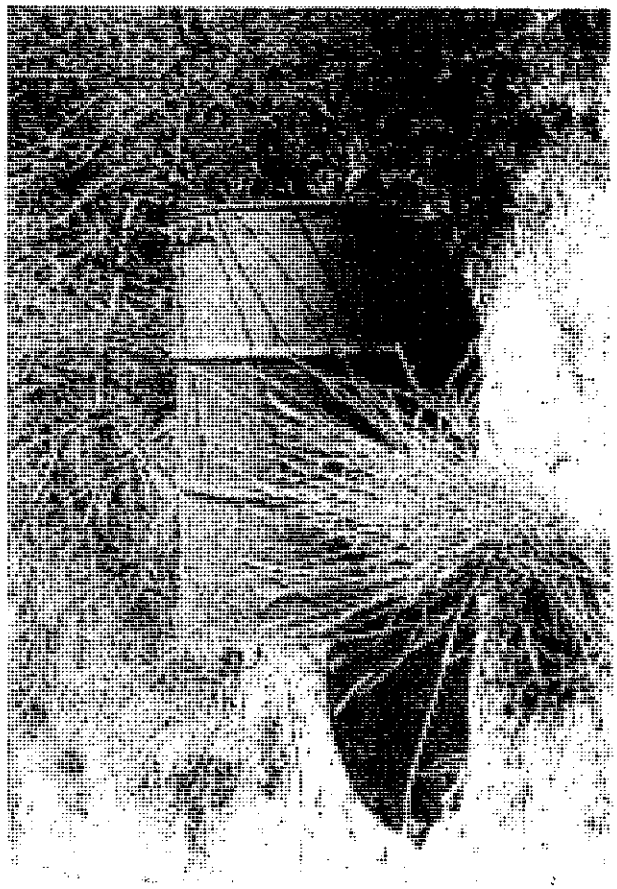


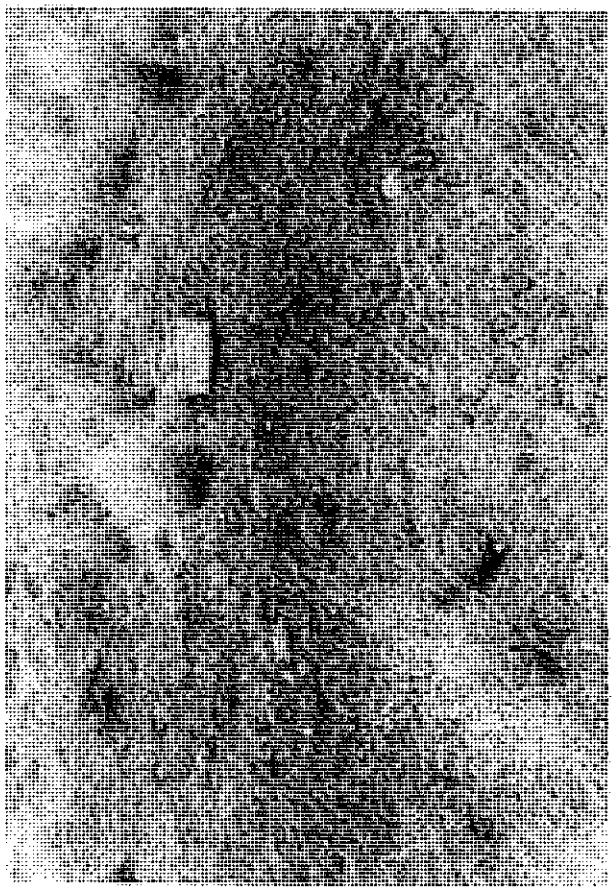


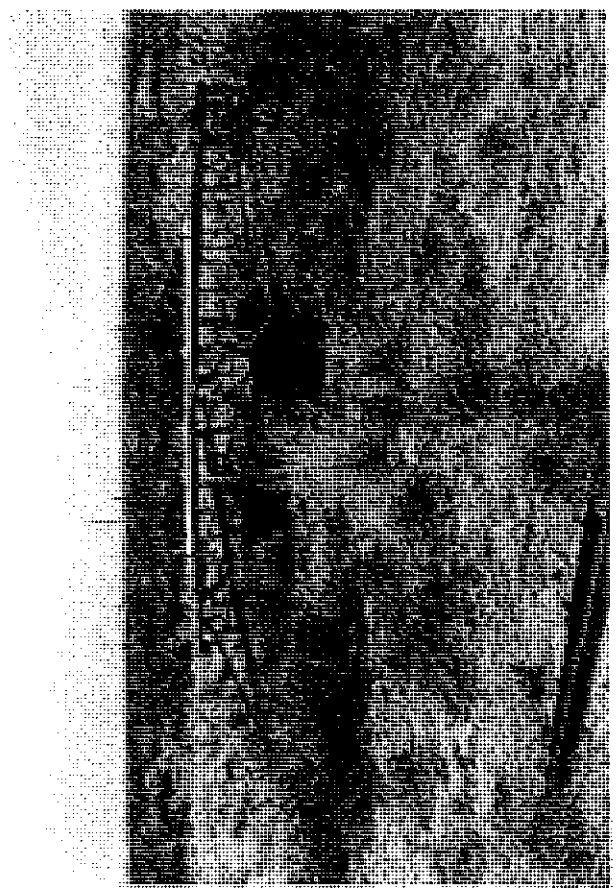


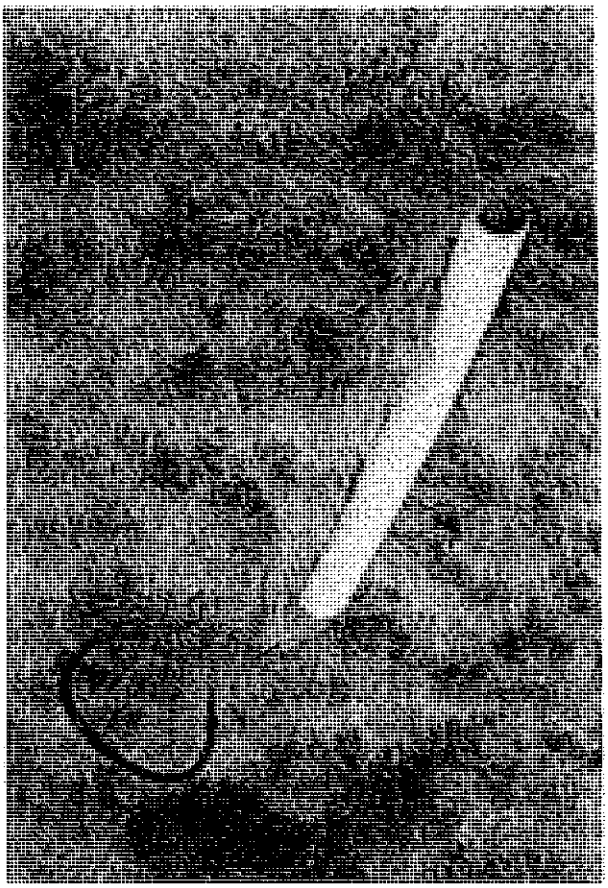

MOTEM
INTERNATIONAL

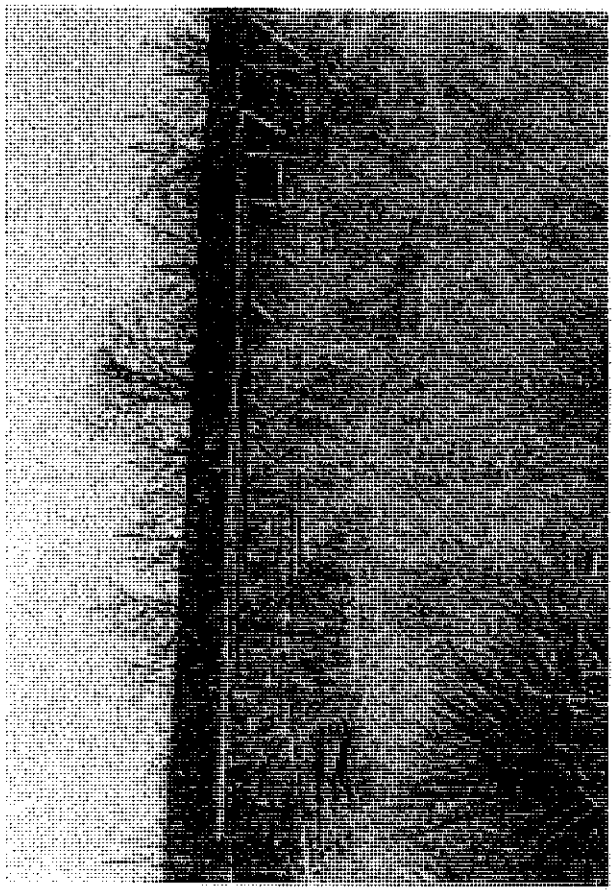


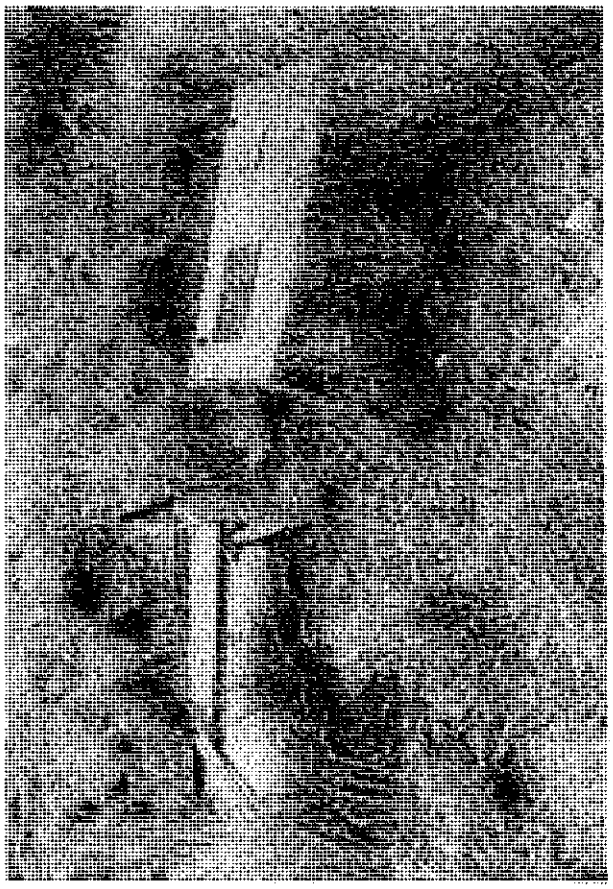












Berry Johnson

From: Paul Horne
Sent: Wednesday, May 18, 2011 11:22 AM
To: Cary Brown; Steve Pruett; Kyle McGraw; Bill Morris
Cc: Ernie Hanson; Berry Johnson
Subject: FW: Anadarko Petroleum Corporation Buried Oilfield Waste

Attachments: 2011 5-16 Letter.pdf

2011 5-16 Letter.pdf (10 MB)

Please read attached letter from NMOCD. This is on the LMPSU. We were aware that the landowner, Bill Simms, was out doing some digging and taking pictures. We believe that someone else had a leak and while digging it up, encountered a bunch of junk and Bill wouldn't let them cover it up. He has not contacted us or asked us to do anything. He has told the NMOCD that Anadarko did this and the NMOCD is investigating. We need to discuss next steps. They are asking us to contact them to setup a meeting. I suggest we might want legal present...Alan Brown?

Paul T. Horne
Legacy Reserves
EVP - Operations
Office(432)-689-5200
Cell(432)559-8473
Fax(432)686-8318

-----Original Message-----
From: Duran-Saenz, Theresa, EMNRD [mailto:Theresa.Duran-Saenz@state.nm.us]
Sent: Monday, May 16, 2011 12:30 PM
To: Paul Horne; jamesbruc@aol.com
Cc: Bailey, Jami, EMNRD; Leking, Geoffrey R, EMNRD; Hill, Larry, EMNRD; Gonzales, Elidio L, EMNRD; VonGonten, Glenn, EMNRD; Linda.Kuhn@anadarko.com; Swazo, Sonny, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Anadarko Petroleum Corporation Buried Oilfield Waste

Dear Operators,

The original letter with attachments is to follow via U.S. Mail.

The message is ready to be sent with the following file or link attachments:

2011 5-16 Letter

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Adrian Jackson

From: Mark Larson
Sent: Friday, August 01, 2014 8:53 AM
To: Heath Loftin
Cc: Adrian Jackson
Subject: FW: Legacy Reserves, L.P., LMPSU Trash Pit Remediation

Heath,
Approved! Here's OCD's approval to proceed with lining and filling the trash pit excavations at LMPSU. We will get this on the schedule. The work will involve grading the bottoms of the excavations, installing the 20 mil liners and filling with soil from the soil piles. We will compact the soil while filling the excavations to minimize settling. As I stated earlier it may be necessary to acquire additional soil to complete filling the excavations to replace soil hauled to disposal and debris removed from the pits. It may be beneficial to acquire the extra soil from the adjoining landowner to the south (Sims?) since it will require landowner approval to access the adjoining property for delineating the groundwater including installing monitoring wells. I will let you know when we are ready to begin. Please contact me if you have questions.
Mark

From: Oberding, Tomas, EMNRD [mailto:Tomas.Oberding@state.nm.us]
Sent: Friday, August 01, 2014 8:35 AM
To: Mark Larson
Subject: RE: Legacy Reserves, L.P., LMPSU Trash Pit Remediation

Aloha and good morning Mark,

Thank you again for coming into the office yesterday. I appreciate the summary of our discussion.
Please consider this the official notice of receipt of these files.
The OCD has no problems with the proposed work plan for this site.
Please also consider this the official notice of clearance (stamp of approval) from OCD to continue along this path in the cleanup of this site.

Please let me know if you have any questions, also please keep me informed as the situation warrants.
Hope you and the entire crew have a wonderful Friday and weekend (enjoy the cooler temps a bit!)
Mahalo
-Doc

Tomáš 'Doc' Oberding, PhD
Environmental Specialist – New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240
(O): (575) 393-6161 ext 111
(C): 575-370-3180
(F): (575) 393-0720
E-Mail: tomas.oberding@state.nm.us
Website: **MailScanner has detected a possible fraud attempt from "webmail.state.nm.us" claiming to be** http://www.emnrd.state.nm.us/ocd/

From: Mark Larson [mailto:Mark@laenvironmental.com]
Sent: Thursday, July 31, 2014 4:11 PM
To: Oberding, Tomas, EMNRD

Cc: Heath Loftin
Subject: Re: Legacy Reserves, L.P., LMPSU Trash Pit Remediation

Hello Tomáš,
This email summarizes our meeting yesterday and requests approval to proceed with the remediation approach discussed during the meeting.

1. The LMPSU trash pit is the location of two historic unlined oil and gas disposal pits and area where a former operator disposed of miscellaneous oilfield material including empty drums, pipe, etc.
2. Groundwater occurs at approximately 42 feet below ground surface (bgs);
3. Legacy excavated between about 7,500 and 12,000 cubic yards of soil during removal of buried debris and disposal pits;
4. Soil was retained on location in 4 piles (west, north, south and center);
5. The center pile was hauled to Sundance due to elevated TPH;
6. LAI personnel collected composite and discrete samples from the excavation and soil piles and from 15 borings drilled in and around the excavations (west and east);
7. The analytical results of borehole samples showed the highest TPH and chloride in boring SB-3, located near south end of west pit;
8. TPH in boring SB-3 decreased below 100 mg/Kg at approximately 25 feet bgs;
9. Chloride in boring SB-3 suggests migration to groundwater as the concentration reported at 3,530 mg/Kg at 35 feet bgs;
10. Groundwater samples from monitoring well (MW-1) located about 50 feet south (down gradient) of the west excavation reported chloride at 2,720 mg/L;
11. The background chloride concentration (MW-2) is 58.8 mg/L;
12. Analysis by synthetic precipitation leaching procedure (TCLP) reported no benzene (<-0.001 mg/L), BTEX (<0.005 mg/L) or TPH (<3.0 mg/L) in composite samples from the soil piles (west, north and south);
13. SPLP chloride results from the soil piles were 7.96 mg/L 9north and south piles) and 36 mg/L (west pile (refer to attached analytical summary);
14. Legacy is the owner of the approximate 40-acre tract encompassing the site.

Per the meeting on July 30, 2014, Legacy proposes the following:

Excavation Closure Plan

1. Remove remaining debris from Site for disposal at Sundance Services, located east of Eunice, New Mexico;
2. Grade bottom of west and east excavations to a level depth of at least 4 feet bgs;
3. Install 20ml liner in bottom of both excavations (refer to attached drawing showing proposed locations for liners);
4. Fill excavations with soil from west, north and south piles and top off with clean topsoil and seed;
5. Submit report to OCD District I and Santa Fe following closure of the excavation;

Groundwater Delineation Plan

6. Submit plan to OCD in Santa Fe and Hobbs for delineate elevated chloride in groundwater south of the site;
7. Delineation to include electromagnetic terrain (EM) conductivity survey and monitoring wells.

You approval of the excavation closure plan is requested . Please contact me if you have questions.
Sincerely,

Mark J. Larson, P.G.
President/Sr. Project Manager
507 N. Marienfeld St., Suite 200
Midland, Texas 79701
Office – 432-687-0901
Cell – 432- 556-8656
Fax – 432-687-0456
mark@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

From: Oberding, Tomas, EMNRD [mailto:Tomas.Oberding@state.nm.us]
Sent: Wednesday, July 30, 2014 11:25 AM
To: Mark Larson; Adrian Jackson
Subject: 7-30 meeting

Aloha Mark and Adrian,

Was nice getting to see you (and meet you Adrian) in the office this morning. I'll await the summary mail for the official confirmation of approval, but based on the discussions, all looks ok to finish these sites with liners and backfill.
One note- the C-141 for the Gas plant site 1RP-3190 is online and can be found at:

http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx

enter 3190 and it is the first link
(you can search all the files by RP that way, as well as by API)-

http://ocdimage.emnrd.state.nm.us/Imaging/FileStore/santafeadmin/ao/256870/pto1419947681_1_ao.pdf

I look forward to working with you. Wishing you both a wonderful afternoon and please let me know if I can help.

Mahalo
-Doc

PS- spent 9 years from 2002-2011 in Hawaii before heading to VietNam and Japan for the past 3 years, so it's been a while since I lived on the mainland. Cheers!

Tomáš 'Doc' Oberding, PhD
Environmental Specialist – New Mexico Oil Conservation Division
Energy, Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, NM 88240
(O): (575) 393-6161 ext 111
(C): 575-370-3180
(F): (575) 393-0720
E-Mail: tomas.oberding@state.nm.us
Website: **MailScanner has detected a possible fraud attempt from "webmail.state.nm.us" claiming to be** http://www.emnrd.state.nm.us/ocd/

Appendix B

Historical Aerial Photographs

Historical Aerial Photographs

http://www.geo-search.net/QuickMap/index.htm?DataID=Standard0000075032

Click on link above to access the map and satellite view of current property

Target Property:

Legacy Reserves, L.P., LMPSU Trash Pit Site
SW/4, SE/4, Section 27, Township 22 South, Range 37 East
Lea County, New Mexico 88231

Prepared For:

Larson & Associates

Order #: 33762
Job #: 75032
Project #: 14-0107-01
Date: 03/17/2014

phone: 888-396-0042 · fax: 512-472-9967 · www.geo-search.com

TARGET PROPERTY SUMMARY

Legacy Reserves, L.P., LMPSU Trash Pit Site
SW/4, SE/4, Section 27, Township 22 South, Range 37 East
Lea County, New Mexico 88231

USGS Quadrangle: ***Rattlesnake Canyon, NM***
Target Property Geometry: ***Point***

Target Property Longitude(s)/Latitude(s):
(-103.149394, 32.359258)

County/Parish Covered:
Lea (NM)

Zipcode(s) Covered:
Eunice NM: 88231

State(s) Covered:
NM

****Target property is located in Radon Zone 2.***
Zone 2 areas have a predicted average indoor radon screening level between 2 and 4 pCi/L (picocuries per liter).

N
W E
S

JOB #: 75032 - 3/17/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *USDA*
DATE: *2011*
COUNTY: *LEA, NM*
SCALE: *1" = 700'*

GeoSearch

N
W E
S

JOB #: 75032 - 3/17/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *USGS*
DATE: *11-01-97*
COUNTY: *LEA, NM*
SCALE: *1" = 700'*

GeoSearch

N
W E
S

JOB #: 75032 - 3/17/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *USGS*
DATE: *06-03-83*
COUNTY: *LEA, NM*
SCALE: *1" = 1320'*

GeoSearch

N
W E
S

JOB #: 75032 - 3/18/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *USGS*
DATE: *02-04-68*
COUNTY: *LEA, NM*
SCALE: *1" = 1320'*

GeoSearch

N
W E
S

JOB #: 75032 - 3/18/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *USGS*
DATE: *02-04-68*
COUNTY: *LEA, NM*
SCALE: *1" = 700'*

GeoSearch

N
W E
S

JOB #: 75032 - 3/17/2014

SITE: *LEGACY RESERVES, L.P., LMPSU TRASH PIT SITE*
SOURCE: *AMS*
DATE: *04-28-54*
COUNTY: *LEA, NM*
SCALE: *1" = 700'*

GeoSearch

Appendix C

Photographs

Photographs

LMPSU Trash Pit, West Excavation, Viewing North

LMPSU Trash Pit, Center Soil Pile, Viewing North

Photographs

LMPSU Trash Pit, West Excavation (East Side), Viewing North

LMPSU Trash Pit, West Excavation (after removing center soil pile) Viewing North

Photographs

LMPSU Trash Pit, West Excavation (after removing center pile) Viewing North

LMPSU Trash Pit, West Excavation, Viewing Northwest

Photographs

LMPSU Trash Pit, West Excavation, Viewing Southwest

LMPSU Trash Pit, West Excavation, Viewing North

Photographs

LMPSU Trash Pit, East Excavation, Viewing North

LMPSU Trash Pit, West Excavation, Viewing Northeast

Photographs

LMPSU Trash Pit, East Excavation Linear Installation, Viewing Northeast

LMPSU Trash Pit, East – West Excavation, Viewing West

Photographs

LMPSU Trash Pit, East Excavation (East Side), Viewing Southwest

LMPSU Trash Pit, Backfill West Excavation, Viewing South

Photographs

LMPSU Trash Pit, Backfill West Excavation Viewing West

LMPSU Trash Pit, Backfill West Excavation, Viewing West

Photographs

LMPSU Trash Pit, Backfill West Excavation, Viewing North

LMPSU Trash Pit, Backfill West Excavation, Viewing North

Photographs

LMPSU Trash Pit, Backfill East Excavation, Viewing Northeast

LMPSU Trash Pit, Backfill Excavations, Viewing Northeast

Photographs

LMPSU Trash Pit, Backfill Excavations, Viewing Northeast

LMPSU Trash Pit, Backfill Excavations, Viewing North

Photographs

LMPSU Trash Pit, Backfill Excavations, Viewing Northeast

LMPSU Trash Pit, Backfill Excavations, Viewing East

Photographs

LMPSU Trash Pit, Backfill Excavations, Viewing Northeast

LMPSU Trash Pit, Backfill Excavations, Viewing North

Photographs

LMPSU Trash Pit, Backfill Excavations, Viewing North

LMPSU Trash Pit, Backfill Excavations, Viewing East

Photographs

LMPSU Trash Pit, Backfill Excavations, Viewing East

Appendix D

Laboratory Reports

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Legacy Trash Pit

Project Number: 14-0107-01

Location: None Given

Lab Order Number: 4F13007

NELAP/TCEQ # T104704156-13-3

Report Date: 06/26/14

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW2 5	4F13007-01	Soil	06/12/14 09:40	06-13-2014 10:00
MW2 10	4F13007-02	Soil	06/12/14 09:46	06-13-2014 10:00
MW2 15	4F13007-03	Soil	06/12/14 09:51	06-13-2014 10:00
MW2 20	4F13007-04	Soil	06/12/14 09:56	06-13-2014 10:00
MW2 25	4F13007-05	Soil	06/12/14 09:50	06-13-2014 10:00
MW2 30	4F13007-06	Soil	06/12/14 10:00	06-13-2014 10:00
SB-9 5	4F13007-11	Soil	06/12/14 13:22	06-13-2014 10:00
SB-9 10	4F13007-12	Soil	06/12/14 13:24	06-13-2014 10:00
SB-9 15	4F13007-13	Soil	06/12/14 13:25	06-13-2014 10:00
SB-9 20	4F13007-14	Soil	06/12/14 13:29	06-13-2014 10:00
SB-9 25	4F13007-15	Soil	06/12/14 13:32	06-13-2014 10:00
SB-9 30	4F13007-16	Soil	06/12/14 13:35	06-13-2014 10:00
SB-9 35	4F13007-17	Soil	06/12/14 13:42	06-13-2014 10:00
SB-10 5	4F13007-19	Soil	06/12/14 12:47	06-13-2014 10:00
SB-10 10	4F13007-20	Soil	06/12/14 12:52	06-13-2014 10:00
SB-10 15	4F13007-21	Soil	06/12/14 12:56	06-13-2014 10:00
SB-10 20	4F13007-22	Soil	06/12/14 13:00	06-13-2014 10:00
SB-10 25	4F13007-23	Soil	06/12/14 13:02	06-13-2014 10:00
SB-10 30	4F13007-24	Soil	06/12/14 13:06	06-13-2014 10:00
SB-11 5	4F13007-27	Soil	06/12/14 10:56	06-13-2014 10:00
SB-11 10	4F13007-28	Soil	06/12/14 11:00	06-13-2014 10:00
SB-11 15	4F13007-29	Soil	06/12/14 11:04	06-13-2014 10:00
SB-12 5	4F13007-35	Soil	06/12/14 14:03	06-13-2014 10:00
SB-12 10	4F13007-36	Soil	06/12/14 14:05	06-13-2014 10:00
SB-12 15	4F13007-37	Soil	06/12/14 14:10	06-13-2014 10:00
SB-12 20	4F13007-38	Soil	06/12/14 14:15	06-13-2014 10:00
SB-12 25	4F13007-39	Soil	06/12/14 14:20	06-13-2014 10:00
SB-12 30	4F13007-40	Soil	06/12/14 14:23	06-13-2014 10:00
SB-12 35	4F13007-41	Soil	06/12/14 14:25	06-13-2014 10:00
SB-14 5	4F13007-43	Soil	06/12/14 14:45	06-13-2014 10:00
SB-14 10	4F13007-44	Soil	06/12/14 14:48	06-13-2014 10:00
SB-14 15	4F13007-45	Soil	06/12/14 14:53	06-13-2014 10:00

Chloride analysis was requested on addtional samples on 06/20/14. This report includes orginal data and added analyses.

MW2 5

4F13007-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**131**	5.32	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

MW2 10

4F13007-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**692**	5.32	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

MW2 15

4F13007-03 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**381**	10.6	mg/kg dry	10	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

MW2 20

4F13007-04 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**315**	5.32	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**6.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

MW2 25

4F13007-05 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**562**	5.49	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

MW2 30

4F13007-06 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**81.2**	5.21	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

SB-9 5

4F13007-11 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**378**	5.43	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P4F1810	06/16/14	06/16/14	TPH 8015M	
>C12-C28	**490**	27.2	mg/kg dry	1	P4F1810	06/16/14	06/16/14	TPH 8015M	
>C28-C35	**267**	27.2	mg/kg dry	1	P4F1810	06/16/14	06/16/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*74.4 %*	*70-130*		*P4F1810*	*06/16/14*	*06/16/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*81.2 %*	*70-130*		*P4F1810*	*06/16/14*	*06/16/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**757**	81.5	mg/kg dry	1	[CALC]	06/16/14	06/16/14	calc	

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4F13007-12 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**316**	1.04	mg/kg dry	1	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**4.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.0	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*96.3 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*107 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.1	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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4F13007-13 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1320**	5.68	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**12.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.4	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	28.4	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	28.4	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.6 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*95.8 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	85.2	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-14 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**344**	5.43	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-15 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**178**	5.43	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-16 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**297**	5.75	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-17 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**500**	5.62	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**11.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-19 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**227**	5.43	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*112 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*112 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	81.5	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-20 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1010**	5.75	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**13.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	28.7	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	28.7	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*98.7 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	86.2	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-21 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**328**	5.56	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P4F1604	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*113 %*	*70-130*		*P4F1604*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	83.3	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-22 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**572**	5.49	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-23 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**621**	5.43	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-24 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**422**	5.38	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-27 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**79.2**	5.56	mg/kg dry	5	P4F2002	06/18/14	06/20/14	EPA 300.0	
% Moisture	**10.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.8	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*94.0 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*104 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	83.3	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-28 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**428**	1.08	mg/kg dry	1	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*97.3 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*106 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	80.6	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-29 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**187**	5.43	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*91.2 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*96.8 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	81.5	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-35 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**286**	5.26	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*103 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*110 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.9	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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4F13007-36 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**700**	5.49	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*92.7 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*99.9 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	82.4	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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4F13007-37 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**581**	5.49	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*93.3 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	82.4	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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4F13007-38 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**136**	10.8	mg/kg dry	10	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Midland TX, 79710	Project Manager: Mark Larson	

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4F13007-39 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**1220**	5.81	mg/kg dry	5	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

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Project Number: 14-0107-01
Project Manager: Mark Larson

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4F13007-40 (Soil)

Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chloride	**102**	1.10	mg/kg dry	1	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**9.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

SB-12 35

4F13007-41 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**67.7**	1.16	mg/kg dry	1	P4F2308	06/23/14	06/23/14	EPA 300.0	
% Moisture	**14.0**	0.1	%	1	P4F2402	06/24/14	06/24/14	% calculation	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SB-14 5

4F13007-43 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**10.9**	1.05	mg/kg dry	1	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**5.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.0 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*102 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	78.9	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

SB-14 10

4F13007-44 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**89.1**	5.43	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**8.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*93.7 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*103 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	ND	81.5	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

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Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SB-14 15

4F13007-45 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**160**	5.38	mg/kg dry	5	P4F1803	06/13/14	06/18/14	EPA 300.0	
% Moisture	**7.0**	0.1	%	1	P4F1601	06/16/14	06/16/14	% calculation	
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C12-C28	**98.0**	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P4F1603	06/13/14	06/14/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*81.6 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*88.5 %*	*70-130*		*P4F1603*	*06/13/14*	*06/14/14*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**98.0**	80.6	mg/kg dry	1	[CALC]	06/13/14	06/14/14	calc	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F1601 - * DEFAULT PREP *** **										
Blank (P4F1601-BLK1)				Prepared & Analyzed: 06/16/14						
% Moisture	ND	0.1	%							
Duplicate (P4F1601-DUP1)		**Source: 4F13004-01**		Prepared & Analyzed: 06/16/14						
% Moisture	1.0	0.1	%		1.0			0.00	20	
Duplicate (P4F1601-DUP2)		**Source: 4F13009-01**		Prepared & Analyzed: 06/16/14						
% Moisture	28.0	0.1	%		28.0			0.00	20	
Duplicate (P4F1601-DUP3)		**Source: 4F13009-02**		Prepared & Analyzed: 06/16/14						
% Moisture	15.0	0.1	%		15.0			0.00	20	
Batch P4F1803 - * DEFAULT PREP *** **										
Blank (P4F1803-BLK1)				Prepared & Analyzed: 06/18/14						
Chloride	ND	1.00	mg/kg wet							
LCS (P4F1803-BS1)				Prepared & Analyzed: 06/18/14						
Chloride	113	1.00	mg/kg wet	100		113	80-120			
LCS Dup (P4F1803-BSD1)				Prepared & Analyzed: 06/18/14						
Chloride	116	1.00	mg/kg wet	100		116	80-120	2.38	20	
Duplicate (P4F1803-DUP1)		**Source: 4F13003-01**		Prepared & Analyzed: 06/18/14						
Chloride	2420	10.4	mg/kg dry		2440			0.728	20	
Matrix Spike (P4F1803-MS1)		**Source: 4F13003-01**		Prepared & Analyzed: 06/18/14						
Chloride	2710	10.4	mg/kg dry		2440		80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F2002 - * DEFAULT PREP *** **										
Blank (P4F2002-BLK1)				Prepared: 06/18/14 Analyzed: 06/20/14						
Chloride	ND	1.00	mg/kg wet							
LCS (P4F2002-BS1)				Prepared: 06/18/14 Analyzed: 06/20/14						
Chloride	123	1.00	mg/kg wet	110		112	80-120			
LCS Dup (P4F2002-BSD1)				Prepared: 06/18/14 Analyzed: 06/20/14						
Chloride	126	1.00	mg/kg wet	110		115	80-120	3.05	20	
Duplicate (P4F2002-DUP1)		**Source: 4F13013-39**		Prepared: 06/18/14 Analyzed: 06/20/14						
Chloride	591	5.75	mg/kg dry		588			0.410	20	
Batch P4F2308 - * DEFAULT PREP *** **										
Blank (P4F2308-BLK1)				Prepared & Analyzed: 06/23/14						
Chloride	ND	1.00	mg/kg wet							
LCS (P4F2308-BS1)				Prepared & Analyzed: 06/23/14						
Chloride	89.7	1.00	mg/kg wet	100		89.7	80-120			
LCS Dup (P4F2308-BSD1)				Prepared & Analyzed: 06/23/14						
Chloride	91.3	1.00	mg/kg wet	100		91.3	80-120	1.74	20	
Duplicate (P4F2308-DUP1)		**Source: 4F23002-01**		Prepared & Analyzed: 06/23/14						
Chloride	96.8	5.88	mg/kg dry		99.9			3.11	20	
Matrix Spike (P4F2308-MS1)		**Source: 4F13007-17**		Prepared & Analyzed: 06/23/14						
Chloride	1010	5.62	mg/kg dry	562	500	91.3	80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F2402 - * DEFAULT PREP *** **										
Blank (P4F2402-BLK1)				Prepared & Analyzed: 06/24/14						
% Moisture	ND	0.1	%							
Duplicate (P4F2402-DUP1)	**Source: 4F13013-46**			Prepared & Analyzed: 06/24/14						
% Moisture	8.0	0.1	%		7.0			13.3	20	
Duplicate (P4F2402-DUP2)	**Source: 4F24003-04**			Prepared & Analyzed: 06/24/14						
% Moisture	17.0	0.1	%		17.0			0.00	20	

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F1603 - TX 1005										
Blank (P4F1603-BLK1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*154*		*"*	*150*		*103*	*70-130*			
Surrogate: o-Terphenyl	*85.4*		*"*	*75.0*		*114*	*70-130*			
LCS (P4F1603-BS1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	1020	25.0	mg/kg wet	1200		84.8	75-125			
>C12-C28	1270	25.0	"	1200		105	75-125			
Surrogate: 1-Chlorooctane	*151*		*"*	*150*		*101*	*70-130*			
Surrogate: o-Terphenyl	*70.6*		*"*	*75.0*		*94.2*	*70-130*			
LCS Dup (P4F1603-BSD1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	1020	25.0	mg/kg wet	1200		84.8	75-125	0.0246	20	
>C12-C28	1270	25.0	"	1200		106	75-125	0.327	20	
Surrogate: 1-Chlorooctane	*151*		*"*	*150*		*101*	*70-130*			
Surrogate: o-Terphenyl	*72.6*		*"*	*75.0*		*96.9*	*70-130*			
Duplicate (P4F1603-DUP1)	**Source: 4F13008-02**			Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	142	26.3	mg/kg dry		136			4.37	20	
>C12-C28	2220	26.3	"		2150			2.87	20	
Surrogate: 1-Chlorooctane	*151*		*"*	*158*		*95.8*	*70-130*			
Surrogate: o-Terphenyl	*79.5*		*"*	*78.9*		*101*	*70-130*			
Batch P4F1604 - TX 1005										
Blank (P4F1604-BLK1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*152*		*"*	*150*		*102*	*70-130*			
Surrogate: o-Terphenyl	*76.1*		*"*	*75.0*		*101*	*70-130*			

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F1604 - TX 1005										
LCS (P4F1604-BS1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	983	25.0	mg/kg wet	1000		98.3	75-125			
>C12-C28	1180	25.0	"	1000		118	75-125			
Surrogate: 1-Chlorooctane	*143*		*"*	*150*		*95.3*	*70-130*			
Surrogate: o-Terphenyl	*67.0*		*"*	*75.0*		*89.3*	*70-130*			
LCS Dup (P4F1604-BSD1)				Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	1010	25.0	mg/kg wet	1000		101	75-125	3.03	20	
>C12-C28	1180	25.0	"	1000		118	75-125	0.0510	20	
Surrogate: 1-Chlorooctane	*150*		*"*	*150*		*100*	*70-130*			
Surrogate: o-Terphenyl	*73.2*		*"*	*75.0*		*97.6*	*70-130*			
Duplicate (P4F1604-DUP1)	**Source: 4F13007-21**			Prepared: 06/13/14 Analyzed: 06/14/14						
C6-C12	ND	27.8	mg/kg dry		ND				20	
>C12-C28	ND	27.8	"		ND				20	
Surrogate: 1-Chlorooctane	*178*		*"*	*167*		*107*	*70-130*			
Surrogate: o-Terphenyl	*94.6*		*"*	*83.3*		*114*	*70-130*			
Batch P4F1810 - TX 1005										
Blank (P4F1810-BLK1)				Prepared & Analyzed: 06/16/14						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*169*		*"*	*200*		*84.6*	*70-130*			
Surrogate: o-Terphenyl	*91.0*		*"*	*100*		*91.0*	*70-130*			
LCS (P4F1810-BS1)				Prepared & Analyzed: 06/16/14						
C6-C12	1200	25.0	mg/kg wet	1200		100	75-125			
>C12-C28	1250	25.0	"	1200		104	75-125			
Surrogate: 1-Chlorooctane	*195*		*"*	*200*		*97.3*	*70-130*			
Surrogate: o-Terphenyl	*93.5*		*"*	*100*		*93.5*	*70-130*			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4F1810 - TX 1005										
LCS Dup (P4F1810-BSD1)				Prepared & Analyzed: 06/16/14						
C6-C12	1170	25.0	mg/kg wet	1200		97.6	75-125	2.82	20	
>C12-C28	1290	25.0	"	1200		107	75-125	3.14	20	
Surrogate: 1-Chlorooctane	*192*		*"*	*200*		*95.8*	*70-130*			
Surrogate: o-Terphenyl	*94.8*		*"*	*100*		*94.8*	*70-130*			
Duplicate (P4F1810-DUP1)		**Source: 4F13013-17**		Prepared: 06/16/14 Analyzed: 06/17/14						
C6-C12	ND	27.5	mg/kg dry		ND				20	
>C12-C28	ND	27.5	"		ND				20	
Surrogate: 1-Chlorooctane	*192*		*"*	*220*		*87.2*	*70-130*			
Surrogate: o-Terphenyl	*106*		*"*	*110*		*96.1*	*70-130*			

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Project: Legacy Trash Pit
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Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 6/26/2014

Brent Barron, Laboratory Director/Technical Director

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 6/12/14 PAGE 1 OF 4
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Legacy Trash Pit
LAI PROJECT #: 14-0107-01 COLLECTOR: Adrian

Data Reported to:

TRRP report? ☐ Yes ☑ No
TIME ZONE: Time zone/State: Mountain / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

4F13007

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 FESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ D.W. 200.8 ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ TOX ☐ FLASHPOINT ☐ TCLP ☐ | RCI ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | TDS ☐ pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐ | Hold | FIELD NOTES

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
MW2 5	01	6/12	940	S	1				X			
10	02		946									
15	03		951									
20	04		956									
25	05		958									
30	06		1000									
35	07		1002									
40	08		1006									
50	09		1015									
60	10		1024									
SB-9 5	11		122								BTEX, MTBE	
10	12		125								BTEX, MTBE	
15	13		126								BTEX, MTBE	
20	14		129								Hold	
25	15		132								Hold	
TOTAL												

RELINQUISHED BY:(Signature) DATE/TIME 6/12/14 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME 6/13/14 10:20 RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY: HCl=
RECEIVING TEMP: 2.6 THERM #:
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Please data before hold time expires for additional analyses!

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 6/12/14 PAGE 2 OF 4
PO #: LAB WORK ORDER #:
PROJECT LOCATION OR NAME: Legacy Trash Pit
LAI PROJECT #: 14-0107-01 COLLECTOR: Adrian

TRRP report? ☐ Yes ☑ No
TIME ZONE: Time zone/State:
S=SOIL P=PAINT W=WATER SL=SLUDGE A=AIR OT=OTHER
4F13007

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	FIELD NOTES
SB-9 30'	16	6/12	135	S	1				X			
35'	17		142									
40'	18		145									
SB-10 5	19		1247									
10	20		1252									
15	21		1256									
20	22		100									
25	23		102									
30	24		106									
35	25		108									
40	26		110									
SB-11 5	27		1056									
10	28		1100									
15	29		1104									
20	31		1112									

ANALYSES: BTEX ☐ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐ Hold

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 6/12/14 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature) 6/13/14 10:07

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 2.1° C THERM #: NCF
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #
☐ HAND DELIVERED

Report data before hold time expires for additional analysis!

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 6/12/14 PAGE 3 OF 4
PO #: _____ LAB WORK ORDER #: _____
PROJECT LOCATION OR NAME: Logan Trash Pit
LAI PROJECT #: 14-0107-01 COLLECTOR: Adam

Data Reported to:

TRRP report? ☐ Yes ☐ No
TIME ZONE: Time zone/State: Mountain / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

4F13007

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐ | Hold

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	BTEX MTBE	TRPH 418.1 TPH 1005 TPH 1006	GASOLINE MOD 8015	DIESEL - MOD 8015	VOC 8260	SVOC 8270 PAH 8270 HOLDPAH	8081 PESTICIDES 8151 HERBICIDES	8082 PCBS	TCLP - METALS (RCRA) TCLP VOC	TCLP - PEST HERB Semi-VOC	TOTAL METALS (RCRA) OTHER LIST	LEAD - TOTAL D.W. 200.8 TCLP	RCI TOX FLASHPOINT	TDS TSS % MOISTURE CYANIDE	pH HEXAVALENT CHROMIUM	EXPLOSIVES PECHLORATE	CHLORIDE ANIONS ALKALINITY	Hold	FIELD NOTES
SB-11 25	31	6/12	1118	S	1				X																		✓		
30	32		1120																								✓		
35	33		1121																								✓		
40	34		1127																								✓		
SB-12 5	35		203								✓	✓													✓				
10	36		205								✓	✓													✓				
15	37		210								✓	✓													✓				
20	38		215																								✓		
25	39		220																								✓		
30	40		223																								✓		
35	41		225																								✓		
40	42		228																								✓		
SB-14 5	43		245								✓	✓													✓				
10	44		248								✓	✓													✓				
15	45		253								✓	✓													✓				
TOTAL																													

RELINQUISHED BY:(Signature) Adam DATE/TIME 6/12/14 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME 6/13/14 11:45 RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY: NCF
RECEIVING TEMP: 2.6 THERM #: _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Report data before hold times expire for additional analysis

CHAIN-OF-CUSTOD

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

DATE: 6/12/14 PAGE 4 OF 9
PO #: _____ LAB WORK ORDER #: _____
PROJECT LOCATION OR NAME: _____
LAI PROJECT #: 14-0107-01 COLLECTOR: AM
Data Reported to:

TRRP report? ☐ Yes ☐ No
TIME ZONE: Time zone/State: Montana

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

4F13007

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SB-14 20	46	6/12	258	S	1				X			L	L	L													L	
25	47		301									L	L	L													L	
30	48		305																								L	
35	49		308																								L	
40	50		311																								L	

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME 6/12/14 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature) 6/13/14 10:30

TURN AROUND TIME
NORMAL ☑
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 2.6 °C THERM #: NCF
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

Report data before hold time expires for additional analysis!

PERMIAN BASIN
ENVIRONMENTAL LAB, LP
10014 SCR 1213
Midland, TX 79706

PBELAB

Analytical Report

Prepared for:

Mark Larson

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Legacy Trash Pit

Project Number: 14-0107-01

Location:

Lab Order Number: 4G03013

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704156-13-3

Report Date: 07/23/14

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp-1	4G03013-01	Soil	07/01/14 13:00	07-03-2014 12:10
Comp-2	4G03013-02	Soil	07/01/14 14:00	07-03-2014 12:10

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Comp-1

4G03013-01 (Soil)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00102	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Toluene	ND	0.00204	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Ethylbenzene	ND	0.00102	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Xylene (p/m)	ND	0.00204	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Xylene (o)	ND	0.00102	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*84.6 %*	*75-125*		*P4G1605*	*07/15/14*	*07/15/14*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.4 %*	*75-125*		*P4G1605*	*07/15/14*	*07/15/14*	*EPA 8021B*	
C6-C12	ND	3.00	mg/L	1	P4G1403	07/07/14	07/12/14	1312/8015M	
>C12-C28	ND	3.00	mg/L	1	P4G1403	07/07/14	07/12/14	1312/8015M	
>C28-C35	ND	3.00	mg/L	1	P4G1403	07/07/14	07/12/14	1312/8015M	
Total Hydrocarbon nC6-nC35	ND	3.00	mg/L	1	P4G1403	07/07/14	07/12/14	1312/8015M	
Surrogate: 1-Chlorooctane		*102 %*	*70-130*		*P4G1403*	*07/07/14*	*07/12/14*	*1312/8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**720**	10.2	mg/kg dry	10	P4G1610	07/16/14	07/16/14	EPA 300.0	
% Moisture	**2.0**	0.1	%	1	P4G1604	07/16/14	07/16/14	% calculation	
SPLP Volatile Halocarbons by EPA Method 1312/8021B									
Benzene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*80-120*		*P4G1607*	*07/15/14*	*07/15/14*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*84.8 %*	*80-120*		*P4G1607*	*07/15/14*	*07/15/14*	*EPA 8021B*	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Comp-1

4G03013-01 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.5	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
>C12-C28	**1090**	25.5	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
>C28-C35	**398**	25.5	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*128 %*	*70-130*		*P4G0901*	*07/08/14*	*07/15/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*137 %*	*70-130*		*P4G0901*	*07/08/14*	*07/15/14*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**1490**	76.5	mg/kg dry	1	[CALC]	07/08/14	07/15/14	calc	
SPLP Extraction by EPA 1312									
Chloride	**36.0**	0.500	mg/L	1	P4G1507	07/14/14	07/16/14	EPA 1312/300.0	

Larson & Associates, Inc.	Project: Legacy Trash Pit	Fax: (432) 687-0456
P.O. Box 50685	Project Number: 14-0107-01	
Midland TX, 79710	Project Manager: Mark Larson	

Comp-2

4G03013-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Organics by GC									
Benzene	ND	0.00101	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Toluene	**0.00221**	0.00202	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Ethylbenzene	ND	0.00101	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Xylene (p/m)	ND	0.00202	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Xylene (o)	ND	0.00101	mg/kg dry	1	P4G1605	07/15/14	07/15/14	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*101 %*	*75-125*		*P4G1605*	*07/15/14*	*07/15/14*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*94.7 %*	*75-125*		*P4G1605*	*07/15/14*	*07/15/14*	*EPA 8021B*	
C6-C12	ND	3.00	mg/L	1	P4G1403	07/07/14	07/14/14	1312/8015M	
>C12-C28	ND	3.00	mg/L	1	P4G1403	07/07/14	07/14/14	1312/8015M	
>C28-C35	ND	3.00	mg/L	1	P4G1403	07/07/14	07/14/14	1312/8015M	
Total Hydrocarbon nC6-nC35	ND	3.00	mg/L	1	P4G1403	07/07/14	07/14/14	1312/8015M	
Surrogate: 1-Chlorooctane		*116 %*	*70-130*		*P4G1403*	*07/07/14*	*07/14/14*	*1312/8015M*	
General Chemistry Parameters by EPA / Standard Methods									
Chloride	**290**	5.05	mg/kg dry	5	P4G1610	07/16/14	07/16/14	EPA 300.0	
% Moisture	**1.0**	0.1	%	1	P4G1604	07/16/14	07/16/14	% calculation	
SPLP Volatile Halocarbons by EPA Method 1312/8021B									
Benzene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P4G1607	07/15/14	07/15/14	EPA 8021B	
Surrogate: a,a,a-Trifluorotoluene		*100 %*	*80-120*		*P4G1607*	*07/15/14*	*07/15/14*	*EPA 8021B*	
Surrogate: 4-Bromofluorobenzene		*89.4 %*	*80-120*		*P4G1607*	*07/15/14*	*07/15/14*	*EPA 8021B*	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Comp-2

4G03013-02 (Soil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	ND	25.3	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
>C12-C28	**514**	25.3	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
>C28-C35	**205**	25.3	mg/kg dry	1	P4G0901	07/08/14	07/15/14	TPH 8015M	
Surrogate: 1-Chlorooctane		*129 %*	*70-130*		*P4G0901*	*07/08/14*	*07/15/14*	*TPH 8015M*	
Surrogate: o-Terphenyl		*134 %*	*70-130*		*P4G0901*	*07/08/14*	*07/15/14*	*TPH 8015M*	*S-GC*
Total Petroleum Hydrocarbon C6-C35	**719**	75.8	mg/kg dry	1	[CALC]	07/08/14	07/15/14	calc	
SPLP Extraction by EPA 1312									
Chloride	**7.96**	2.50	mg/L	5	P4G1507	07/14/14	07/16/14	EPA 1312/300.0	

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Project: Legacy Trash Pit
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Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G1403 - TX 1005										
Blank (P4G1403-BLK1)				Prepared: 07/07/14 Analyzed: 07/17/14						
C6-C12	ND	3.00	mg/L							
>C12-C28	ND	3.00	"							
Surrogate: 1-Chlorooctane	*120*		*"*	*93.8*		*128*	*70-130*			
LCS (P4G1403-BS1)				Prepared: 07/07/14 Analyzed: 07/17/14						
C6-C12	1260	3.00	mg/L	1560		80.7	75-125			
>C12-C28	1270	3.00	"	1560		81.0	75-125			
Surrogate: 1-Chlorooctane	*121*		*"*	*93.8*		*129*	*70-130*			
LCS Dup (P4G1403-BSD1)				Prepared: 07/07/14 Analyzed: 07/17/14						
C6-C12	1290	3.00	mg/L	1560		82.3	75-125	1.99	20	
>C12-C28	1270	3.00	"	1560		81.0	75-125	0.00	20	
Surrogate: 1-Chlorooctane	*123*		*"*	*93.8*		*131*	*70-130*			
Batch P4G1605 - General Preparation (GC)										
Blank (P4G1605-BLK1)				Prepared & Analyzed: 07/15/14						
Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*48.3*		*ug/kg*	*60.0*		*80.6*	*75-125*			
Surrogate: 1,4-Difluorobenzene	*57.4*		*"*	*60.0*		*95.7*	*75-125*			
LCS (P4G1605-BS1)				Prepared & Analyzed: 07/15/14						
Benzene	0.0922	0.00100	mg/kg wet	0.100		92.2	70-130			
Toluene	0.0930	0.00200	"	0.100		93.0	70-130			
Ethylbenzene	0.0905	0.00100	"	0.100		90.5	70-130			
Xylene (p/m)	0.196	0.00200	"	0.200		98.2	70-130			
Xylene (o)	0.101	0.00100	"	0.100		101	70-130			
Surrogate: 1,4-Difluorobenzene	*62.2*		*ug/kg*	*60.0*		*104*	*75-125*			
Surrogate: 4-Bromofluorobenzene	*64.0*		*"*	*60.0*		*107*	*75-125*			

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G1605 - General Preparation (GC)										
Duplicate (P4G1605-DUP1)	**Source: 4G10005-02**		Prepared: 07/15/14 Analyzed: 07/16/14							
Benzene	ND	0.00101	mg/kg dry		ND				20	
Toluene	0.00410	0.00202	"		0.00224			58.6	20	QR-03
Ethylbenzene	0.0176	0.00101	"		0.0252			35.7	20	QR-03
Xylene (p/m)	0.0877	0.00202	"		0.109			21.9	20	QR-03
Xylene (o)	0.0364	0.00101	"		0.0806			75.5	20	QR-03
Surrogate: 4-Bromofluorobenzene	*26.8*		*ug/kg*	*60.0*		*44.6*	*75-125*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*47.0*		*"*	*60.0*		*78.3*	*75-125*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G1604 - * DEFAULT PREP *** **										
Blank (P4G1604-BLK1)				Prepared & Analyzed: 07/16/14						
% Moisture	ND	0.1	%							
Duplicate (P4G1604-DUP1)		**Source: 4G15001-01**		Prepared & Analyzed: 07/16/14						
% Moisture	7.0	0.1	%		8.0			13.3	20	
Batch P4G1610 - * DEFAULT PREP *** **										
Blank (P4G1610-BLK1)				Prepared & Analyzed: 07/16/14						
Chloride	ND	1.00	mg/kg wet							
LCS (P4G1610-BS1)				Prepared & Analyzed: 07/16/14						
Chloride	101	1.00	mg/kg wet	100		101	80-120			
LCS Dup (P4G1610-BSD1)				Prepared & Analyzed: 07/16/14						
Chloride	94.6	1.00	mg/kg wet	100		94.6	80-120	6.14	20	
Duplicate (P4G1610-DUP1)		**Source: 4G14001-01**		Prepared & Analyzed: 07/16/14						
Chloride	24100	58.8	mg/kg dry		24100			0.146	20	
Matrix Spike (P4G1610-MS1)		**Source: 4G14001-01**		Prepared & Analyzed: 07/16/14						
Chloride	28500	58.8	mg/kg dry	4120	24100	106	80-120			

SPLP Volatile Halocarbons by EPA Method 1312/8021B - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G1607 - General Preparation (GC)										
Blank (P4G1607-BLK1)				Prepared & Analyzed: 07/15/14						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*60.0*		*ug/kg*	*60.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*50.7*		*"*	*60.0*		*84.6*	*80-120*			
LCS (P4G1607-BS1)				Prepared & Analyzed: 07/15/14						
Benzene	0.100	0.00100	mg/L	0.100		100	80-120			
Toluene	0.0952	0.00100	"	0.100		95.2	80-120			
Ethylbenzene	0.0896	0.00100	"	0.100		89.6	80-120			
Xylene (p/m)	0.190	0.00100	"	0.200		95.1	80-120			
Xylene (o)	0.0949	0.00100	"	0.100		94.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*60.0*		*ug/kg*	*60.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*62.5*		*"*	*60.0*		*104*	*80-120*			
Duplicate (P4G1607-DUP1)	**Source: 4G07001-10**			Prepared: 07/15/14 Analyzed: 07/16/14						
Benzene	ND	0.00100	mg/L		ND				20	
Toluene	ND	0.00100	"		ND				20	
Ethylbenzene	ND	0.00100	"		ND				20	
Xylene (p/m)	ND	0.00100	"		ND				20	
Xylene (o)	ND	0.00100	"		ND				20	
Surrogate: a,a,a-Trifluorotoluene	*60.0*		*ug/kg*	*60.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.1*		*"*	*60.0*		*78.5*	*80-120*			*S-GC*

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G0901 - TX 1005										
Blank (P4G0901-BLK1)				Prepared & Analyzed: 07/08/14						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*125*		*"*	*150*		*83.0*	*70-130*			
Surrogate: o-Terphenyl	*72.8*		*"*	*75.0*		*97.0*	*70-130*			
LCS (P4G0901-BS1)				Prepared & Analyzed: 07/08/14						
C6-C12	1090	25.0	mg/kg wet	1000		109	75-125			
>C12-C28	1150	25.0	"	1000		115	75-125			
Surrogate: 1-Chlorooctane	*127*		*"*	*150*		*84.8*	*70-130*			
Surrogate: o-Terphenyl	*63.8*		*"*	*75.0*		*85.0*	*70-130*			
Duplicate (P4G0901-DUP1)		**Source: 4G02005-14**		Prepared: 07/08/14 Analyzed: 07/09/14						
C6-C12	ND	25.5	mg/kg dry		ND				20	
>C12-C28	71.4	25.5	"		ND				20	
Surrogate: 1-Chlorooctane	*163*		*"*	*153*		*106*	*70-130*			
Surrogate: o-Terphenyl	*90.9*		*"*	*76.5*		*119*	*70-130*			

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

SPLP Extraction by EPA 1312 - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4G1507 - * DEFAULT PREP *** **										
Blank (P4G1507-BLK1)				Prepared: 07/14/14 Analyzed: 07/16/14						
Chloride	ND	0.500	mg/L							
LCS (P4G1507-BS1)				Prepared: 07/14/14 Analyzed: 07/16/14						
Chloride	9.85	0.500	mg/L	10.0		98.5	80-120			
LCS Dup (P4G1507-BSD1)				Prepared: 07/14/14 Analyzed: 07/16/14						
Chloride	9.36	0.500	mg/L	10.0		93.6	80-120	5.06	20	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Legacy Trash Pit
Project Number: 14-0107-01
Project Manager: Mark Larson

Fax: (432) 687-0456

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 7/23/2014

Brent Barron, Laboratory Director/Technical Director

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Cindy

DATE: 7/2/14 PAGE 1 OF 1

PO #: _____ LAB WORK ORDER #: _____

PROJECT LOCATION OR NAME: Legacy Trash Pit

LAI PROJECT #: 14-0107-01 COLLECTOR: CK

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab # (460301)	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☒	DIESEL - MOD 8015 ☒	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐	SPLP TPH, BTEX, Cl	FIELD NOTES
Comp-1	-01	7/1/14	1:00	S	1				X		X		X														X	X	
Comp-2	-02	7/1/14	2:00	S	1				X		X		X														X	X	
TOTAL																													

RELINQUISHED BY:(Signature) DATE/TIME 7/2/14 1210 RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: _____ THERM #: _____
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL # _____
☐ HAND DELIVERED

April 28, 2014

Coty Woolf
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 1404133

RE: Legacy Pit

Dear Coty Woolf:

DHL Analytical, Inc. received 51 sample(s) on 4/11/2014 for the analyses presented in the following report.

Revision Number 1 for Work Order 1404133: This revision consists of changing the target analyte list, per the client's request. Please replace the original report with this revised report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-13-11

Table of Contents

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Cindy Wolf

DATE: 4/10/14 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 1404133
PROJECT LOCATION OR NAME: Legacy Pad
LAI PROJECT #: 14-0107-01 COLLECTOR: LARC

TRRP report? ☐ Yes ☒ No
TIME ZONE: Time zone/State: NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
SPB comp	01	4/8/14	1025	S	1				X			X	X															
WPE comp	02		1040																									
WPA comp	03		1100																									
SPA comp	04		1100																									
NPH comp	05		1105																									
WPD comp	06		1135																									
WPB comp	07		1135																									
WPC comp	08		1135																									
NPB comp	09		1205																									
NPC comp	10		135																									
ES-2	11	4/9/14	908																									
ES-9	12		915																									
ES-10	13		923																									
ES-1	14		932																									
ES-3	15		937																									
TOTAL																												

RELINQUISHED BY:(Signature) DATE/TIME 4/10/14 1600 RECEIVED BY: (Signature) Lorestan
RELINQUISHED BY:(Signature) Lorestan DATE/TIME 4/11/14 837 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.7 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☐ CARRIER BILL # Lorestan
☐ HAND DELIVERED

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Cory Wolf

DATE: 4/10/14 PAGE 2 OF 4
PO #: LAB WORK ORDER #: 1404133
PROJECT LOCATION OR NAME: Legacy RF
LAI PROJECT #: 14-0107-01 COLLECTOR: CW/RL

TRRP report? ☐ Yes ☒ No
TIME ZONE: Time zone/State: NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐ TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ GASOLINE MOD 8015 ☐ DIESEL - MOD 8015 ☐ VOC 8260 ☐ SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ 8082 PCBS ☐ TCLP - METALS (RCRA) ☐ TCLP VOC ☐ TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ TOTAL METALS (RCRA) ☐ OTHER LIST ☐ LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ RCI ☐ TOX ☐ FLASHPOINT ☐ TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ pH ☐ HEXAVALENT CHROMIUM ☐ EXPLOSIVES ☐ PECHLORATE ☐ CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
ES-4	16	4/9/14	940	S	1				X		X X	
ES-5	17		950									
ES-7	18		1002									
ES-6	19		1003									
ES-8	20		1003									
DS-5	21		1010									
DS-4	22		1015									
EEB comp	23		1100									
EEC comp	24		1120									
EEA comp	25		1125									
WS-3 (5')	26		100									
WS-1 (4')	27		130									
WS-2 (6')	28		200									
WS-12 (6')	29		230									
WS-11 (6')	30		300									
TOTAL												

RELINQUISHED BY:(Signature) DATE/TIME 4/10/14 1600 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME 4/11/14 830 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1-7 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☒ CARRIER BILL #
☐ HAND DELIVERED

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Lotz Wolff

DATE: 4/10/14 PAGE 3 OF 4
PO #: LAB WORK ORDER #: 1404133
PROJECT LOCATION OR NAME: Legacy Pit
LAI PROJECT #: 14-0107-01 COLLECTOR: C. Ramirez

TRRP report? ☐ Yes ☒ No
TIME ZONE: Time zone/State: CST/MDT

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 FESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐	FIELD NOTES
WS-10 (6')	31	4/9/14	330p	S	1				X			X	X															
WS-8 (6')	32	4/10/14	800		1																							
WS-9 (6')	33		830																									
WS-7 (3')	34		900																									
~~DS~~ DS-1	35		930																									
DS-4 (5')	36		1000																									
WS-3 (10')	37		1030																									
WS-5 (6')	38		1100																									
DS-2	39		1130																									
DUP WS-6 (4')	40		1200																									
DS-3	41		1230																									
WE Bkg Comp	42		100p																									
WE A comp	43		130p																									
WE Comp	44		200p																									
WE Dcomp	45		230p																									
TOTAL																												

RELINQUISHED BY:(Signature) DATE/TIME 4/10/14 600p RECEIVED BY: (Signature) R. Forest
RELINQUISHED BY:(Signature) R. Forest DATE/TIME 4/11/14 830 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.7 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☒ CARRIER BILL # R. Forest
☐ HAND DELIVERED

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Cotyhcaft

DATE: 4/10/14 PAGE 4 OF 4
PO #:
LAB WORK ORDER #: 1404133
PROJECT LOCATION OR NAME: Legacy/PIF
LAI PROJECT #: 14-0107-01
COLLECTOR: [illegible]

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: NM

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐, TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐, GASOLINE MOD 8015 ☒, DIESEL - MOD 8015 ☒, VOC 8260 ☐, SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐, 8081 PESTICIDES ☐ 8151 HERBICIDES ☐, 8082 PCBS ☐, TCLP - METALS (RCRA) ☐ TCLP VOC ☐, TCLP - PEST ☐ HERB ☐ Semi-VOC ☐, TOTAL METALS (RCRA) ☐ OTHER LIST ☐, LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐, RCI ☐ TOX ☐ FLASHPOINT ☐, TDS ☒ TSS ☐ % MOISTURE ☐ CYANIDE ☐, pH ☐ HEXAVALENT CHROMIUM ☐, EXPLOSIVES ☐ PECHLORATE ☐, CHLORIDE ☒ ANIONS ☐ ALKALINITY ☒, NO_3, SO_4, Ca, Na, K, Mg

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4/NaOH	ICE	UNPRESERVED	Analyses	FIELD NOTES
CPA comp	46	4/10/14	300p	S	1				X		X X (Gasoline/Diesel 8015)	
CPB comp	47	↓	330p	S	1				X		X X	
CPC comp	48	↓	400p	S	1				X		X X	
CPD comp	49	↓	430p	S	1				X		X X	
MW-1	50	↓	500p	W	3	X			X	X		
				W	1				X		TDS X; Chloride X, Alkalinity X	
				W	1		X		X		X X (cations/anions)	
Trip				W	3	X			X	X		

TOTAL

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
[signature]	4/10/14 1000pm	[signature]
[signature]	4/11/14 830	[signature]

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.7 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☒ CARRIER BILL # [signature]
☐ HAND DELIVERED

Lone Star Overnight

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. 47376958

47376958

2A

2B

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1. To:

Print Name (Person) J. Barker Phone (Important) 512 388[illegible]

Company Name DHL

Street Address (No P.O. Box or P.O. Box Zip Code Deliveries) 2300 Double Creek

Suite / Floor

City Round Rock State TX Zip 7866[illegible]

2. From:

Print Name (Person) [illegible] Phone (Important) 432-687-[illegible]

Company Name LARSON & ASSOCIATES

Street Address 507 NORTH MARIENFELD

Suite / Floor 400

City MIDLAND State TX Zip 79701

3. Service:

Visit www.lso.com for availability of services to your destination and enjoy added features by creating your shipping label online.

- ☐ By 10:30 am Delivery — Check availability at www.lso.com
- ☐ By 8:30 am Delivery (Extra charge, no signature obtained) — Check availability at www.lso.com
- ☐ By 3:00 pm Delivery
- ☐ Ground (next day to most cities)
- ☐ Saturday Delivery (Extra charge, not available on Ground) — Check availability at www.lso.com
- ☐ Other ______

Assumed 10:30 a.m. service unless otherwise noted.

☐ Deliver Without Delivery Signature (See Limits of Liability below)

Release Signature

L______ x W______ x H______

4. Package:

Weight: [illegible]

Your Company's Billing Reference Information [illegible]-0107-[illegible]

Ship Date (mm/dd/yy) 4 10 [illegible]

5. Payment:

FOR COURIER USE ONLY

Courier Number [illegible]

☐ Check here if LSO Supplies are used with Ground Service.

Pick-up Location [illegible]

Date: [illegible]

Time: [illegible]

City Code: [illegible]

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. NO DELIVERY SIGNATURE WILL BE OBTAINED FOR 08:30 AM DELIVERIES. PRIORITY SERVICE PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON GROUND SERVICE. OVERSIZE RATES MAY APPLY. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates

Date Received: 4/11/2014

Work Order Number 1404133

Received by JB

Checklist completed by: _____ 4/11/2014
Signature | Date

Reviewed by JD 4/11/2014
Initials | Date

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.7 °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☑	No ☐	NA ☐ LOT # 7179
	Adjusted? NO		Checked by [illegible]
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted? _____		Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

DHL Analytical, Inc. **Date:** *23-Apr-14*

CLIENT: Larson & Associates
Project: Legacy Pit
Lab Order: 1404133

CASE NARRATIVE

Sample was analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis
Method M8015D - DRO Analysis
Method M8015V - GRO Analysis
Method SW8021B - Volatile Organics by GC Analysis
Method E300 - Anions Analysis
Method M2320 B - Soluble Alkalinity of Soil
Method D2216 - Percent Moisture Analysis

LOG IN

The samples were received and log-in performed on 4/11/2014. A total of 51 samples were received and analyzed. The samples arrived in good condition and were properly packaged. The samples were collected in Mountain Standard Time.

VOLATILES BY GC AND GRO ANALYSIS

As per the TCEQ-NELAP accreditation requirement the following must be noted: NELAP requires a note that if 5035 sampling method for VOCs and GRO is not utilized, the results of samples collected in bulk containers for low level volatile components may be compromised. The client has been notified and has requested the Laboratory to proceed with analysis.

DRO ANALYSIS

For DRO Analysis, the recovery of surrogate Octacosane for the most of the samples and the Matrix Spike Duplicate (1404133-47 MSD) was above the method control limits, due to coelution. The remaining surrogate for these samples were within method control limits. Additionally, the recoveries of both surrogates for the Matrix Spike (1404133-47 MS) were above the method control limits due to coelution and matrix interference. The recoveries of both surrogates for the Continuing Calibration Verification (CCV1-140421) were above the method control limits. The recoveries of the surrogates for the subsequent CCV were within method control limits. These are flagged accordingly in the Analytical Data Report and the QC Summary Report. No further corrective action was taken.

For DRO Analysis, the recoveries of the Continuing Calibration Verification (CCV1-140421), the Matrix Spike and Matrix Spike Duplicate (1404133-47 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. The recoveries of the Laboratory Control Spike and the subsequent CCV were within method control limits. No further corrective action

was taken.

For DRO Analysis, performed on 4/18/2014, hydrocarbons were detected below the reporting limit for Method Blank-62980 and Method Blank-62981. The associated samples analyzed in this run may be biased high. No further corrective action was taken.

For DRO Analysis, performed on 4/21/2014, hydrocarbons were detected below the reporting limit for Method Blank-62981. The associated detected greater than 10x the amount of the method blank. No further corrective action was taken.

GRO ANALYSIS

For GRO Analysis, the recoveries and RPD of the Matrix Spike and Matrix Spike Duplicate (1404133-49 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. The recovery of the associated LCS was within method control limits. No further corrective action was taken.

For GRO Analysis, the recovery of surrogate Tetrachloroethene for the Matrix Spike Duplicate (1404133-49 MSD) was below the method control limits, due to nature of matrix. This is flagged accordingly in the QC Summary Report. No further corrective action was taken.

ANIONS ANALYSIS

For Anions Analysis, for water batch 62862, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate (1404119-01 MS/MSD) was below the method control limits. These are flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS. No further corrective action was taken.

For Anions Analysis, for soil batch 62962, the recovery of Chloride for the Matrix Spike and Matrix Spike Duplicate (1404133-39 MS/MSD) was above the method control limits. These are flagged accordingly in the QC Summary Report. This anion was within method control limits in the associated LCS. No further corrective action was taken.

For Anions Analysis, some of the samples were diluted due to nature of matrix.

DHL Analytical, Inc.

Date: *23-Apr-14*

CLIENT: Larson & Associates
Project: Legacy Pit
Lab Order: 1404133

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1404133-01	SPB Comp		04/08/14 10:25 AM	4/11/2014
1404133-02	WPE Comp		04/08/14 10:40 AM	4/11/2014
1404133-03	WPA Comp		04/08/14 11:00 AM	4/11/2014
1404133-04	SPA Comp		04/08/14 11:00 AM	4/11/2014
1404133-05	NPA Comp		04/08/14 11:05 AM	4/11/2014
1404133-06	WPD Comp		04/08/14 11:35 AM	4/11/2014
1404133-07	WPB Comp		04/08/14 11:35 AM	4/11/2014
1404133-08	WPC Comp		04/08/14 11:35 AM	4/11/2014
1404133-09	NPB Comp		04/08/14 12:05 PM	4/11/2014
1404133-10	NPC Comp		04/08/14 01:35 PM	4/11/2014
1404133-11	ES-2		04/09/14 09:08 AM	4/11/2014
1404133-12	ES-9		04/09/14 09:15 AM	4/11/2014
1404133-13	ES-10		04/09/14 09:23 AM	4/11/2014
1404133-14	ES-1		04/09/14 09:32 AM	4/11/2014
1404133-15	ES-3		04/09/14 09:37 AM	4/11/2014
1404133-16	ES-4		04/09/14 09:42 AM	4/11/2014
1404133-17	ES-5		04/09/14 09:50 AM	4/11/2014
1404133-18	ES-7		04/09/14 10:02 AM	4/11/2014
1404133-19	ES-6		04/09/14 10:03 AM	4/11/2014
1404133-20	ES-8		04/09/14 10:03 AM	4/11/2014
1404133-21	DS-5		04/09/14 10:10 AM	4/11/2014
1404133-22	DS-4		04/09/14 10:15 AM	4/11/2014
1404133-23	EEB Comp		04/09/14 11:00 AM	4/11/2014
1404133-24	EEC Comp		04/09/14 11:20 AM	4/11/2014
1404133-25	EEA Comp		04/09/14 11:25 AM	4/11/2014
1404133-26	WS-13 (5')		04/09/14 01:00 PM	4/11/2014
1404133-27	WS-1 (4')		04/09/14 01:30 PM	4/11/2014
1404133-28	WS-2 (6')		04/09/14 02:00 PM	4/11/2014
1404133-29	WS-12 (2')		04/09/14 02:30 PM	4/11/2014
1404133-30	WS-11 (6')		04/09/14 03:00 PM	4/11/2014
1404133-31	WS-10 (6')		04/09/14 03:30 PM	4/11/2014
1404133-32	WS-8 (6')		04/10/14 08:00 AM	4/11/2014
1404133-33	WS-9 (8')		04/10/14 08:30 AM	4/11/2014
1404133-34	WS-7 (3')		04/10/14 09:00 AM	4/11/2014
1404133-35	DS-1		04/10/14 09:30 AM	4/11/2014
1404133-36	WS-4 (5')		04/10/14 10:00 AM	4/11/2014
1404133-37	WS-3 (10')		04/10/14 10:30 AM	4/11/2014
1404133-38	WS-5 (6')		04/10/14 11:00 AM	4/11/2014
1404133-39	DS-2		04/10/14 11:30 AM	4/11/2014
1404133-40	WS-6 (4')		04/10/14 12:00 PM	4/11/2014
1404133-41	DS-3		04/10/14 12:30 PM	4/11/2014
1404133-42	WEB Comp		04/10/14 01:00 PM	4/11/2014

CLIENT: Larson & Associates
Project: Legacy Pit
Lab Order: 1404133

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1404133-43	WEA Comp		04/10/14 01:30 PM	4/11/2014
1404133-44	WEC Comp		04/10/14 02:00 PM	4/11/2014
1404133-45	WED Comp		04/10/14 02:30 PM	4/11/2014
1404133-46	CPA Comp		04/10/14 03:00 PM	4/11/2014
1404133-47	CPB Comp		04/10/14 03:30 PM	4/11/2014
1404133-48	CPC Comp		04/10/14 04:00 PM	4/11/2014
1404133-49	CPD Comp		04/10/14 04:30 PM	4/11/2014
1404133-50	MW-1		04/10/14 05:00 PM	4/11/2014
1404133-51	Trip		04/10/14	4/11/2014

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-01A	SPB Comp	04/08/14 10:25 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	SPB Comp	04/08/14 10:25 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	SPB Comp	04/08/14 10:25 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	SPB Comp	04/08/14 10:25 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	SPB Comp	04/08/14 10:25 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-02A	WPE Comp	04/08/14 10:40 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	WPE Comp	04/08/14 10:40 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	WPE Comp	04/08/14 10:40 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	WPE Comp	04/08/14 10:40 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	WPE Comp	04/08/14 10:40 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-03A	WPA Comp	04/08/14 11:00 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	WPA Comp	04/08/14 11:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	WPA Comp	04/08/14 11:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	WPA Comp	04/08/14 11:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	WPA Comp	04/08/14 11:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-04A	SPA Comp	04/08/14 11:00 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	SPA Comp	04/08/14 11:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	SPA Comp	04/08/14 11:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	SPA Comp	04/08/14 11:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-05A	NPA Comp	04/08/14 11:05 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	NPA Comp	04/08/14 11:05 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	NPA Comp	04/08/14 11:05 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	NPA Comp	04/08/14 11:05 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	NPA Comp	04/08/14 11:05 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-06A	WPD Comp	04/08/14 11:35 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	WPD Comp	04/08/14 11:35 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	WPD Comp	04/08/14 11:35 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	WPD Comp	04/08/14 11:35 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-06A	WPD Comp	04/08/14 11:35 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-07A	WPB Comp	04/08/14 11:35 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	WPB Comp	04/08/14 11:35 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	WPB Comp	04/08/14 11:35 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	WPB Comp	04/08/14 11:35 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-08A	WPC Comp	04/08/14 11:35 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	WPC Comp	04/08/14 11:35 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	WPC Comp	04/08/14 11:35 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	WPC Comp	04/08/14 11:35 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-09A	NPB Comp	04/08/14 12:05 PM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	NPB Comp	04/08/14 12:05 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	NPB Comp	04/08/14 12:05 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	NPB Comp	04/08/14 12:05 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	NPB Comp	04/08/14 12:05 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-10A	NPC Comp	04/08/14 01:35 PM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	NPC Comp	04/08/14 01:35 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	NPC Comp	04/08/14 01:35 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	NPC Comp	04/08/14 01:35 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-11A	ES-2	04/09/14 09:08 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-2	04/09/14 09:08 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-2	04/09/14 09:08 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-2	04/09/14 09:08 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-12A	ES-9	04/09/14 09:15 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-9	04/09/14 09:15 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-9	04/09/14 09:15 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-9	04/09/14 09:15 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	ES-9	04/09/14 09:15 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-13A	ES-10	04/09/14 09:23 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-13A	ES-10	04/09/14 09:23 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-10	04/09/14 09:23 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-10	04/09/14 09:23 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-14A	ES-1	04/09/14 09:32 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-1	04/09/14 09:32 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-1	04/09/14 09:32 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-1	04/09/14 09:32 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
	ES-1	04/09/14 09:32 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-15A	ES-3	04/09/14 09:37 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-3	04/09/14 09:37 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-3	04/09/14 09:37 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-3	04/09/14 09:37 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-16A	ES-4	04/09/14 09:42 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-4	04/09/14 09:42 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-4	04/09/14 09:42 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-4	04/09/14 09:42 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-17A	ES-5	04/09/14 09:50 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-5	04/09/14 09:50 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-5	04/09/14 09:50 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-5	04/09/14 09:50 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-18A	ES-7	04/09/14 10:02 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-7	04/09/14 10:02 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-7	04/09/14 10:02 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-7	04/09/14 10:02 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-19A	ES-6	04/09/14 10:03 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-6	04/09/14 10:03 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62970
	ES-6	04/09/14 10:03 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-6	04/09/14 10:03 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-20A	ES-8	04/09/14 10:03 AM	Soil	SW9056A	Anion Prep	04/15/14 10:00 AM	62931
	ES-8	04/09/14 10:03 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	ES-8	04/09/14 10:03 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/11/14 03:49 PM	62861
	ES-8	04/09/14 10:03 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/16/14 09:15 AM	62949
1404133-21A	DS-5	04/09/14 10:10 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	DS-5	04/09/14 10:10 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	DS-5	04/09/14 10:10 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	DS-5	04/09/14 10:10 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-22A	DS-4	04/09/14 10:15 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	DS-4	04/09/14 10:15 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	DS-4	04/09/14 10:15 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	DS-4	04/09/14 10:15 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-23A	EEB Comp	04/09/14 11:00 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	EEB Comp	04/09/14 11:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	EEB Comp	04/09/14 11:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	EEB Comp	04/09/14 11:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-24A	EEC Comp	04/09/14 11:20 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	EEC Comp	04/09/14 11:20 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	EEC Comp	04/09/14 11:20 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	EEC Comp	04/09/14 11:20 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-25A	EEA Comp	04/09/14 11:25 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	EEA Comp	04/09/14 11:25 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	EEA Comp	04/09/14 11:25 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	EEA Comp	04/09/14 11:25 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-26A	WS-13 (5')	04/09/14 01:00 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-13 (5')	04/09/14 01:00 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-13 (5')	04/09/14 01:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-13 (5')	04/09/14 01:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-27A	WS-1 (4')	04/09/14 01:30 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-1 (4')	04/09/14 01:30 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-1 (4')	04/09/14 01:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-1 (4')	04/09/14 01:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-28A	WS-2 (6')	04/09/14 02:00 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-2 (6')	04/09/14 02:00 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-2 (6')	04/09/14 02:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-2 (6')	04/09/14 02:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-29A	WS-12 (2')	04/09/14 02:30 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-12 (2')	04/09/14 02:30 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-12 (2')	04/09/14 02:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-12 (2')	04/09/14 02:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-30A	WS-11 (6')	04/09/14 03:00 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-11 (6')	04/09/14 03:00 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-11 (6')	04/09/14 03:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-11 (6')	04/09/14 03:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-31A	WS-10 (6')	04/09/14 03:30 PM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-10 (6')	04/09/14 03:30 PM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-10 (6')	04/09/14 03:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-10 (6')	04/09/14 03:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-32A	WS-8 (6')	04/10/14 08:00 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-8 (6')	04/10/14 08:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-8 (6')	04/10/14 08:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-8 (6')	04/10/14 08:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
	WS-8 (6')	04/10/14 08:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-33A	WS-9 (8')	04/10/14 08:30 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-9 (8')	04/10/14 08:30 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-9 (8')	04/10/14 08:30 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865

Lab Order: 1404133
Client: Larson & Associates
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PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-33A	WS-9 (8')	04/10/14 08:30 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-34A	WS-7 (3')	04/10/14 09:00 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-7 (3')	04/10/14 09:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-7 (3')	04/10/14 09:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-7 (3')	04/10/14 09:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-35A	DS-1	04/10/14 09:30 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	DS-1	04/10/14 09:30 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	DS-1	04/10/14 09:30 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	DS-1	04/10/14 09:30 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-36A	WS-4 (5')	04/10/14 10:00 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-4 (5')	04/10/14 10:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-4 (5')	04/10/14 10:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-4 (5')	04/10/14 10:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
	WS-4 (5')	04/10/14 10:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-37A	WS-3 (10')	04/10/14 10:30 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-3 (10')	04/10/14 10:30 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-3 (10')	04/10/14 10:30 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-3 (10')	04/10/14 10:30 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-38A	WS-5 (6')	04/10/14 11:00 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	WS-5 (6')	04/10/14 11:00 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	WS-5 (6')	04/10/14 11:00 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-5 (6')	04/10/14 11:00 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-39A	DS-2	04/10/14 11:30 AM	Soil	SW9056A	Anion Prep	04/16/14 11:39 AM	62962
	DS-2	04/10/14 11:30 AM	Soil	D2216	Moisture Preparation	04/16/14 03:09 PM	62971
	DS-2	04/10/14 11:30 AM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	DS-2	04/10/14 11:30 AM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-40A	WS-6 (4')	04/10/14 12:00 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	WS-6 (4')	04/10/14 12:00 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988

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Client: Larson & Associates
Project: Legacy Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-40A	WS-6 (4')	04/10/14 12:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 09:33 AM	62865
	WS-6 (4')	04/10/14 12:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:56 AM	62980
1404133-41A	DS-3	04/10/14 12:30 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	DS-3	04/10/14 12:30 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	DS-3	04/10/14 12:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	DS-3	04/10/14 12:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-42A	WEB Comp	04/10/14 01:00 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	WEB Comp	04/10/14 01:00 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	WEB Comp	04/10/14 01:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	WEB Comp	04/10/14 01:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-43A	WEA Comp	04/10/14 01:30 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	WEA Comp	04/10/14 01:30 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	WEA Comp	04/10/14 01:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	WEA Comp	04/10/14 01:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-44A	WEC Comp	04/10/14 02:00 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	WEC Comp	04/10/14 02:00 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	WEC Comp	04/10/14 02:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	WEC Comp	04/10/14 02:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-45A	WED Comp	04/10/14 02:30 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	WED Comp	04/10/14 02:30 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	WED Comp	04/10/14 02:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	WED Comp	04/10/14 02:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
	WED Comp	04/10/14 02:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-46A	CPA Comp	04/10/14 03:00 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	CPA Comp	04/10/14 03:00 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	CPA Comp	04/10/14 03:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	CPA Comp	04/10/14 03:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-47A	CPB Comp	04/10/14 03:30 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986

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PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404133-47A	CPB Comp	04/10/14 03:30 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	CPB Comp	04/10/14 03:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	CPB Comp	04/10/14 03:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-48A	CPC Comp	04/10/14 04:00 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	CPC Comp	04/10/14 04:00 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	CPC Comp	04/10/14 04:00 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	CPC Comp	04/10/14 04:00 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-49A	CPD Comp	04/10/14 04:30 PM	Soil	SW9056A	Anion Prep	04/17/14 09:31 AM	62986
	CPD Comp	04/10/14 04:30 PM	Soil	D2216	Moisture Preparation	04/17/14 09:51 AM	62988
	CPD Comp	04/10/14 04:30 PM	Soil	SW5030A	Purge and Trap Soils GC- Gas	04/12/14 12:22 PM	62867
	CPD Comp	04/10/14 04:30 PM	Soil	SW3550C	Soil Prep Sonication: DRO	04/17/14 08:58 AM	62981
1404133-50A	MW-1	04/10/14 05:00 PM	Aqueous	SW5030C	Purge and Trap Water GC	04/14/14 03:07 PM	62916
1404133-50B	MW-1	04/10/14 05:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/16/14 08:13 AM	62921
	MW-1	04/10/14 05:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/16/14 08:13 AM	62921
1404133-50C	MW-1	04/10/14 05:00 PM	Aqueous	M2320 B	Alkalinity Preparation	04/15/14 12:52 PM	62937
	MW-1	04/10/14 05:00 PM	Aqueous	E300	Anion Preparation	04/11/14 04:06 PM	62862
	MW-1	04/10/14 05:00 PM	Aqueous	E300	Anion Preparation	04/11/14 04:06 PM	62862
	MW-1	04/10/14 05:00 PM	Aqueous	E300	Anion Preparation	04/11/14 04:06 PM	62862
	MW-1	04/10/14 05:00 PM	Aqueous	M2540C	TDS Preparation	04/15/14 08:49 PM	62872
1404133-51A	Trip	04/10/14	Trip Blank	SW5030C	Purge and Trap Water GC	04/14/14 03:07 PM	62916

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Client: Larson & Associates
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ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-01A	SPB Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 12:49 PM	IC2_140415A
	SPB Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	SPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:40 PM	GC15_140417B
	SPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/18/14 10:59 AM	GC15_140417B
	SPB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 07:58 PM	GC4_140411A
1404133-02A	WPE Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 01:48 PM	IC2_140415A
	WPE Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	WPE Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:22 PM	GC15_140417B
	WPE Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/18/14 10:50 AM	GC15_140417B
	WPE Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 08:22 PM	GC4_140411A
1404133-03A	WPA Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 02:02 PM	IC2_140415A
	WPA Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	WPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:49 PM	GC15_140417B
	WPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/18/14 11:08 AM	GC15_140417B
	WPA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 08:46 PM	GC4_140411A
1404133-04A	SPA Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 04:11 PM	IC2_140415A
	SPA Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	SPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/17/14 05:25 PM	GC15_140417B
	SPA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 09:11 PM	GC4_140411A
1404133-05A	NPA Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 04:26 PM	IC2_140415A
	NPA Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	NPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:31 PM	GC15_140417B
	NPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	5	04/18/14 10:41 AM	GC15_140417B
	NPA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 09:35 PM	GC4_140411A
1404133-06A	WPD Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 04:41 PM	IC2_140415A
	WPD Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	WPD Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:58 PM	GC15_140417B
	WPD Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	5	04/18/14 11:17 AM	GC15_140417B

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Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-06A	WPD Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 09:59 PM	GC4_140411A
1404133-07A	WPB Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 02:51 PM	IC2_140415A
	WPB Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	WPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/17/14 05:07 PM	GC15_140417B
	WPB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 10:24 PM	GC4_140411A
1404133-08A	WPC Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 03:06 PM	IC2_140415A
	WPC Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	WPC Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/17/14 05:16 PM	GC15_140417B
	WPC Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 10:48 PM	GC4_140411A
1404133-09A	NPB Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 03:20 PM	IC2_140415A
	NPB Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	NPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:04 PM	GC15_140417B
	NPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	5	04/18/14 10:32 AM	GC15_140417B
	NPB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 11:12 PM	GC4_140411A
1404133-10A	NPC Comp	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 04:55 PM	IC2_140415A
	NPC Comp	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	NPC Comp	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 04:13 PM	GC15_140417B
	NPC Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/11/14 11:37 PM	GC4_140411A
1404133-11A	ES-2	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 05:10 PM	IC2_140415A
	ES-2	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-2	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 01:27 PM	GC15_140417B
	ES-2	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 01:39 AM	GC4_140411A
1404133-12A	ES-9	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 05:24 PM	IC2_140415A
	ES-9	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-9	Soil	M8015D	TPH Extractable by GC - Soil	62949	10	04/18/14 10:23 AM	GC15_140417B
	ES-9	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:39 PM	GC15_140417B
	ES-9	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 02:03 AM	GC4_140411A
1404133-13A	ES-10	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 05:39 PM	IC2_140415A

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Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-13A	ES-10	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-10	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:30 PM	GC15_140417B
	ES-10	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 02:28 AM	GC4_140411A
1404133-14A	ES-1	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 05:53 PM	IC2_140415A
	ES-1	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-1	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:48 PM	GC15_140417B
	ES-1	Soil	M8015D	TPH Extractable by GC - Soil	62949	5	04/18/14 10:14 AM	GC15_140417B
	ES-1	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 02:52 AM	GC4_140411A
1404133-15A	ES-3	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 06:08 PM	IC2_140415A
	ES-3	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-3	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 01:36 PM	GC15_140417B
	ES-3	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 03:16 AM	GC4_140411A
1404133-16A	ES-4	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 06:23 PM	IC2_140415A
	ES-4	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-4	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 01:45 PM	GC15_140417B
	ES-4	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 03:41 AM	GC4_140411A
1404133-17A	ES-5	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 06:52 PM	IC2_140415A
	ES-5	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-5	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 01:54 PM	GC15_140417B
	ES-5	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 04:05 AM	GC4_140411A
1404133-18A	ES-7	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 07:06 PM	IC2_140415A
	ES-7	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-7	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:21 PM	GC15_140417B
	ES-7	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 04:30 AM	GC4_140411A
1404133-19A	ES-6	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 07:21 PM	IC2_140415A
	ES-6	Soil	D2216	Percent Moisture	62970	1	04/17/14 01:06 PM	PMOIST_140416C
	ES-6	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:03 PM	GC15_140417B
	ES-6	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 04:54 AM	GC4_140411A

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-20A	ES-8	Soil	SW9056A	Anions by IC method - Soil	62931	10	04/15/14 07:35 PM	IC2_140415A
	ES-8	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	ES-8	Soil	M8015D	TPH Extractable by GC - Soil	62949	1	04/17/14 02:12 PM	GC15_140417B
	ES-8	Soil	M8015V	TPH Purgeable by GC - Soil	62861	1	04/12/14 05:18 AM	GC4_140411A
1404133-21A	DS-5	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 01:22 PM	IC2_140416B
	DS-5	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	DS-5	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:08 PM	GC15_140418A
	DS-5	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 01:30 PM	GC4_140412A
1404133-22A	DS-4	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 01:46 PM	IC2_140416B
	DS-4	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	DS-4	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:17 PM	GC15_140418A
	DS-4	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 01:55 PM	GC4_140412A
1404133-23A	EEB Comp	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 02:01 PM	IC2_140416B
	EEB Comp	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	EEB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:26 PM	GC15_140418A
	EEB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 02:19 PM	GC4_140412A
1404133-24A	EEC Comp	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 02:15 PM	IC2_140416B
	EEC Comp	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	EEC Comp	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:53 PM	GC15_140418A
	EEC Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 02:46 PM	GC4_140412A
1404133-25A	EEA Comp	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 02:30 PM	IC2_140416B
	EEA Comp	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	EEA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 02:05 PM	GC15_140418A
	EEA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 03:10 PM	GC4_140412A
1404133-26A	WS-13 (5')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 02:44 PM	IC2_140416B
	WS-13 (5')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-13 (5')	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 02:14 PM	GC15_140418A
	WS-13 (5')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 03:35 PM	GC4_140412A

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-27A	WS-1 (4')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 02:59 PM	IC2_140416B
	WS-1 (4')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-1 (4')	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:35 PM	GC15_140418A
	WS-1 (4')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 03:59 PM	GC4_140412A
1404133-28A	WS-2 (6')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 03:14 PM	IC2_140416B
	WS-2 (6')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-2 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 04:02 PM	GC15_140418A
	WS-2 (6')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 04:23 PM	GC4_140412A
1404133-29A	WS-12 (2')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 03:28 PM	IC2_140416B
	WS-12 (2')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-12 (2')	Soil	M8015D	TPH Extractable by GC - Soil	62980	10	04/18/14 04:11 PM	GC15_140418A
	WS-12 (2')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 04:48 PM	GC4_140412A
1404133-30A	WS-11 (6')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 03:43 PM	IC2_140416B
	WS-11 (6')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-11 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	10	04/18/14 03:17 PM	GC15_140418A
	WS-11 (6')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 05:12 PM	GC4_140412A
1404133-31A	WS-10 (6')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 04:32 PM	IC2_140416B
	WS-10 (6')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-10 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 01:44 PM	GC15_140418A
	WS-10 (6')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 06:49 PM	GC4_140412A
1404133-32A	WS-8 (6')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 04:46 PM	IC2_140416B
	WS-8 (6')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-8 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	10	04/21/14 09:36 PM	GC12_140421C
	WS-8 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/18/14 03:26 PM	GC15_140418A
	WS-8 (6')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 07:14 PM	GC4_140412A
1404133-33A	WS-9 (8')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 05:01 PM	IC2_140416B
	WS-9 (8')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-9 (8')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/21/14 09:19 PM	GC12_140421C

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-33A	WS-9 (8')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 07:38 PM	GC4_140412A
1404133-34A	WS-7 (3')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 05:15 PM	IC2_140416B
	WS-7 (3')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-7 (3')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/21/14 09:27 PM	GC12_140421C
	WS-7 (3')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 08:03 PM	GC4_140412A
1404133-35A	DS-1	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 05:30 PM	IC2_140416B
	DS-1	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	DS-1	Soil	M8015D	TPH Extractable by GC - Soil	62980	1	04/18/14 02:23 PM	GC15_140418A
	DS-1	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 08:27 PM	GC4_140412A
1404133-36A	WS-4 (5')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 05:44 PM	IC2_140416B
	WS-4 (5')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-4 (5')	Soil	M8015D	TPH Extractable by GC - Soil	62980	10	04/21/14 09:52 PM	GC12_140421C
	WS-4 (5')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/18/14 04:20 PM	GC15_140418A
	WS-4 (5')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 08:51 PM	GC4_140412A
1404133-37A	WS-3 (10')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 05:59 PM	IC2_140416B
	WS-3 (10')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-3 (10')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/21/14 08:36 PM	GC12_140421C
	WS-3 (10')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 09:16 PM	GC4_140412A
1404133-38A	WS-5 (6')	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 06:14 PM	IC2_140416B
	WS-5 (6')	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	WS-5 (6')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/21/14 08:45 PM	GC12_140421C
	WS-5 (6')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 09:40 PM	GC4_140412A
1404133-39A	DS-2	Soil	SW9056A	Anions by IC method - Soil	62962	10	04/16/14 06:28 PM	IC2_140416B
	DS-2	Soil	D2216	Percent Moisture	62971	1	04/17/14 01:15 PM	PMOIST_140416D
	DS-2	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/18/14 02:32 PM	GC15_140418A
	DS-2	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 10:05 PM	GC4_140412A
1404133-40A	WS-6 (4')	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 11:44 AM	IC2_140417A
	WS-6 (4')	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-40A	WS-6 (4')	Soil	M8015D	TPH Extractable by GC - Soil	62980	5	04/18/14 03:35 PM	GC15_140418A
	WS-6 (4')	Soil	M8015V	TPH Purgeable by GC - Soil	62865	1	04/12/14 10:29 PM	GC4_140412A
1404133-41A	DS-3	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 12:42 PM	IC2_140417A
	DS-3	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	DS-3	Soil	M8015D	TPH Extractable by GC - Soil	62981	5	04/21/14 09:10 PM	GC12_140421C
	DS-3	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 02:32 AM	GC4_140412B
1404133-42A	WEB Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 12:57 PM	IC2_140417A
	WEB Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	WEB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	1	04/18/14 02:59 PM	GC15_140418A
	WEB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 02:57 AM	GC4_140412B
1404133-43A	WEA Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 01:12 PM	IC2_140417A
	WEA Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	WEA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	1	04/18/14 03:44 PM	GC15_140418A
	WEA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 03:22 AM	GC4_140412B
1404133-44A	WEC Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 01:26 PM	IC2_140417A
	WEC Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	WEC Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	5	04/21/14 08:53 PM	GC12_140421C
	WEC Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 03:46 AM	GC4_140412B
1404133-45A	WED Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 01:41 PM	IC2_140417A
	WED Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	WED Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	5	04/21/14 09:44 PM	GC12_140421C
	WED Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	1	04/18/14 03:53 PM	GC15_140418A
	WED Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 04:10 AM	GC4_140412B
1404133-46A	CPA Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 01:55 PM	IC2_140417A
	CPA Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	CPA Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	5	04/18/14 03:08 PM	GC15_140418A
	CPA Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 04:35 AM	GC4_140412B
1404133-47A	CPB Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 02:10 PM	IC2_140417A

Lab Order: 1404133
Client: Larson & Associates
Project: Legacy Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404133-47A	CPB Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	CPB Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	10	04/21/14 10:18 PM	GC12_140421C
	CPB Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 04:59 AM	GC4_140412B
1404133-48A	CPC Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 02:24 PM	IC2_140417A
	CPC Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	CPC Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	5	04/21/14 09:02 PM	GC12_140421C
	CPC Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 05:23 AM	GC4_140412B
1404133-49A	CPD Comp	Soil	SW9056A	Anions by IC method - Soil	62986	10	04/17/14 03:02 PM	IC2_140417A
	CPD Comp	Soil	D2216	Percent Moisture	62988	1	04/18/14 11:46 AM	PMOIST_140417C
	CPD Comp	Soil	M8015D	TPH Extractable by GC - Soil	62981	20	04/21/14 10:26 PM	GC12_140421C
	CPD Comp	Soil	M8015V	TPH Purgeable by GC - Soil	62867	1	04/13/14 05:48 AM	GC4_140412B
1404133-50A	MW-1	Aqueous	SW8021B	Volatile Organics by GC	62916	1	04/14/14 05:51 PM	GC8_140414B
1404133-50B	MW-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	62921	1	04/16/14 06:26 PM	ICP-MS3_140416C
	MW-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	62921	50	04/16/14 08:33 PM	ICP-MS3_140416C
1404133-50C	MW-1	Aqueous	M2320 B	Alkalinity	62937	1	04/15/14 03:04 PM	TITRATOR_140415B
	MW-1	Aqueous	E300	Anions by IC method - Water	62862	1	04/11/14 06:04 PM	IC_140411B
	MW-1	Aqueous	E300	Anions by IC method - Water	62862	10	04/11/14 06:33 PM	IC_140411B
	MW-1	Aqueous	E300	Anions by IC method - Water	62862	100	04/14/14 04:17 PM	IC_140414B
	MW-1	Aqueous	M2540C	Total Dissolved Solids	62872	1	04/16/14 09:40 AM	WC_140415D
1404133-51A	Trip	Trip Blank	SW8021B	Volatile Organics by GC	62916	1	04/14/14 06:11 PM	GC8_140414B

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	SPB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-01
Project No:	14-0107-01	**Collection Date:**	04/08/14 10:25 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	835	103	207		mg/Kg-dry	10	04/18/14 10:59 AM
TPH-ORO >C28-C35	114	31.0	103		mg/Kg-dry	10	04/18/14 10:59 AM
Surr: Isopropylbenzene	74.4	0	47-142		%REC	10	04/18/14 10:59 AM
Surr: Octacosane	477	0	25-162	S	%REC	10	04/18/14 10:59 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.202	0.303		mg/Kg-dry	1	04/11/14 07:58 PM
Surr: Tetrachlorethene	98.7	0	70-134		%REC	1	04/11/14 07:58 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	420	52.8	52.8		mg/Kg-dry	10	04/15/14 12:49 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	5.92	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WPE Comp
Project:	Legacy Pit	**Lab ID:**	1404133-02
Project No:	14-0107-01	**Collection Date:**	04/08/14 10:40 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	633	103	206		mg/Kg-dry	10	04/18/14 10:50 AM
TPH-ORO >C28-C35	59.8	30.9	103	J	mg/Kg-dry	10	04/18/14 10:50 AM
Surr: Isopropylbenzene	76.6	0	47-142		%REC	10	04/18/14 10:50 AM
Surr: Octacosane	330	0	25-162	S	%REC	10	04/18/14 10:50 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.214	0.321		mg/Kg-dry	1	04/11/14 08:22 PM
Surr: Tetrachlorethene	89.0	0	70-134		%REC	1	04/11/14 08:22 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	583	50.0	50.0		mg/Kg-dry	10	04/15/14 01:48 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	9.84	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WPA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-03
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	657	114	228		mg/Kg-dry	10	04/18/14 11:08 AM
TPH-ORO >C28-C35	44.3	34.2	114	J	mg/Kg-dry	10	04/18/14 11:08 AM
Surr: Isopropylbenzene	71.4	0	47-142		%REC	10	04/18/14 11:08 AM
Surr: Octacosane	455	0	25-162	S	%REC	10	04/18/14 11:08 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.230	0.345		mg/Kg-dry	1	04/11/14 08:46 PM
Surr: Tetrachlorethene	94.8	0	70-134		%REC	1	04/11/14 08:46 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	403	57.6	57.6		mg/Kg-dry	10	04/15/14 02:02 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	14.1	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	SPA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-04
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	653	129	259		mg/Kg-dry	10	04/17/14 05:25 PM
TPH-ORO >C28-C35	62.7	38.8	129	J	mg/Kg-dry	10	04/17/14 05:25 PM
Surr: Isopropylbenzene	67.1	0	47-142		%REC	10	04/17/14 05:25 PM
Surr: Octacosane	354	0	25-162	S	%REC	10	04/17/14 05:25 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.265	0.398		mg/Kg-dry	1	04/11/14 09:11 PM
Surr: Tetrachlorethene	97.2	0	70-134		%REC	1	04/11/14 09:11 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	398	65.7	65.7		mg/Kg-dry	10	04/15/14 04:11 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	24.8	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	NPA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-05
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:05 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	350	60.9	122		mg/Kg-dry	5	04/18/14 10:41 AM
TPH-ORO >C28-C35	41.8	18.3	60.9	J	mg/Kg-dry	5	04/18/14 10:41 AM
Surr: Isopropylbenzene	77.8	0	47-142		%REC	5	04/18/14 10:41 AM
Surr: Octacosane	221	0	25-162	S	%REC	5	04/18/14 10:41 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.233	0.350		mg/Kg-dry	1	04/11/14 09:35 PM
Surr: Tetrachlorethene	97.1	0	70-134		%REC	1	04/11/14 09:35 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	54.0	54.0		mg/Kg-dry	10	04/15/14 04:26 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.7	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WPD Comp
Project:	Legacy Pit	**Lab ID:**	1404133-06
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:35 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	476	58.8	118		mg/Kg-dry	5	04/18/14 11:17 AM
TPH-ORO >C28-C35	59.9	17.6	58.8		mg/Kg-dry	5	04/18/14 11:17 AM
Surr: Isopropylbenzene	70.0	0	47-142		%REC	5	04/18/14 11:17 AM
Surr: Octacosane	269	0	25-162	S	%REC	5	04/18/14 11:17 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.209	0.313		mg/Kg-dry	1	04/11/14 09:59 PM
Surr: Tetrachlorethene	95.8	0	70-134		%REC	1	04/11/14 09:59 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	217	58.8	58.8		mg/Kg-dry	10	04/15/14 04:41 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	18.0	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WPB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-07
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:35 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	639	119	238		mg/Kg-dry	10	04/17/14 05:07 PM
TPH-ORO >C28-C35	74.3	35.7	119	J	mg/Kg-dry	10	04/17/14 05:07 PM
Surr: Isopropylbenzene	72.4	0	47-142		%REC	10	04/17/14 05:07 PM
Surr: Octacosane	400	0	25-162	S	%REC	10	04/17/14 05:07 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.230	0.345		mg/Kg-dry	1	04/11/14 10:24 PM
Surr: Tetrachlorethene	99.1	0	70-134		%REC	1	04/11/14 10:24 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	195	54.5	54.5		mg/Kg-dry	10	04/15/14 02:51 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	16.1	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WPC Comp
Project:	Legacy Pit	**Lab ID:**	1404133-08
Project No:	14-0107-01	**Collection Date:**	04/08/14 11:35 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	456	115	230		mg/Kg-dry	10	04/17/14 05:16 PM
TPH-ORO >C28-C35	43.6	34.5	115	J	mg/Kg-dry	10	04/17/14 05:16 PM
Surr: Isopropylbenzene	72.7	0	47-142		%REC	10	04/17/14 05:16 PM
Surr: Octacosane	279	0	25-162	S	%REC	10	04/17/14 05:16 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.210	0.315		mg/Kg-dry	1	04/11/14 10:48 PM
Surr: Tetrachlorethene	97.6	0	70-134		%REC	1	04/11/14 10:48 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	345	59.3	59.3		mg/Kg-dry	10	04/15/14 03:06 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	17.6	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	NPB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-09
Project No:	14-0107-01	**Collection Date:**	04/08/14 12:05 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	320	53.3	107		mg/Kg-dry	5	04/18/14 10:32 AM
TPH-ORO >C28-C35	51.6	16.0	53.3	J	mg/Kg-dry	5	04/18/14 10:32 AM
Surr: Isopropylbenzene	75.4	0	47-142		%REC	5	04/18/14 10:32 AM
Surr: Octacosane	226	0	25-162	S	%REC	5	04/18/14 10:32 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.218	0.327		mg/Kg-dry	1	04/11/14 11:12 PM
Surr: Tetrachlorethene	101	0	70-134		%REC	1	04/11/14 11:12 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	84.3	53.9	53.9		mg/Kg-dry	10	04/15/14 03:20 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	8.73	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	NPC Comp
Project:	Legacy Pit	**Lab ID:**	1404133-10
Project No:	14-0107-01	**Collection Date:**	04/08/14 01:35 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	215	11.2	22.4		mg/Kg-dry	1	04/17/14 04:13 PM
TPH-ORO >C28-C35	33.6	3.36	11.2		mg/Kg-dry	1	04/17/14 04:13 PM
Surr: Isopropylbenzene	68.4	0	47-142		%REC	1	04/17/14 04:13 PM
Surr: Octacosane	188	0	25-162	S	%REC	1	04/17/14 04:13 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.212	0.318		mg/Kg-dry	1	04/11/14 11:37 PM
Surr: Tetrachlorethene	99.6	0	70-134		%REC	1	04/11/14 11:37 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	73.0	52.2	52.2		mg/Kg-dry	10	04/15/14 04:55 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	12.9	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-2
Project:	Legacy Pit	**Lab ID:**	1404133-11
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:08 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	13.1	26.2		mg/Kg-dry	1	04/17/14 01:27 PM
TPH-ORO >C28-C35	ND	3.93	13.1		mg/Kg-dry	1	04/17/14 01:27 PM
Surr: Isopropylbenzene	66.9	0	47-142		%REC	1	04/17/14 01:27 PM
Surr: Octacosane	77.7	0	25-162		%REC	1	04/17/14 01:27 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.256	0.384		mg/Kg-dry	1	04/12/14 01:39 AM
Surr: Tetrachlorethene	103	0	70-134		%REC	1	04/12/14 01:39 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	123	60.6	60.6		mg/Kg-dry	10	04/15/14 05:10 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	29.9	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-9
Project:	Legacy Pit	**Lab ID:**	1404133-12
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:15 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	1030	100	201		mg/Kg-dry	10	04/18/14 10:23 AM
TPH-ORO >C28-C35	147	30.1	100		mg/Kg-dry	10	04/18/14 10:23 AM
Surr: Isopropylbenzene	78.9	0	47-142		%REC	10	04/18/14 10:23 AM
Surr: Octacosane	439	0	25-162	S	%REC	10	04/18/14 10:23 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.201	0.302		mg/Kg-dry	1	04/12/14 02:03 AM
Surr: Tetrachlorethene	96.2	0	70-134		%REC	1	04/12/14 02:03 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	44.1	44.1		mg/Kg-dry	10	04/15/14 05:24 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	3.63	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-10
Project:	Legacy Pit	**Lab ID:**	1404133-13
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:23 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	110	9.92	19.8		mg/Kg-dry	1	04/17/14 02:30 PM
TPH-ORO >C28-C35	16.8	2.97	9.92		mg/Kg-dry	1	04/17/14 02:30 PM
Surr: Isopropylbenzene	69.7	0	47-142		%REC	1	04/17/14 02:30 PM
Surr: Octacosane	142	0	25-162		%REC	1	04/17/14 02:30 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.190	0.285		mg/Kg-dry	1	04/12/14 02:28 AM
Surr: Tetrachlorethene	103	0	70-134		%REC	1	04/12/14 02:28 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	329	45.5	45.5		mg/Kg-dry	10	04/15/14 05:39 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	6.45	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-1
Project:	Legacy Pit	**Lab ID:**	1404133-14
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:32 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	350	51.5	103		mg/Kg-dry	5	04/18/14 10:14 AM
TPH-ORO >C28-C35	32.7	15.5	51.5	J	mg/Kg-dry	5	04/18/14 10:14 AM
Surr: Isopropylbenzene	71.3	0	47-142		%REC	5	04/18/14 10:14 AM
Surr: Octacosane	280	0	25-162	S	%REC	5	04/18/14 10:14 AM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.195	0.293		mg/Kg-dry	1	04/12/14 02:52 AM
Surr: Tetrachlorethene	98.6	0	70-134		%REC	1	04/12/14 02:52 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	652	49.4	49.4		mg/Kg-dry	10	04/15/14 05:53 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	4.39	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-3
Project:	Legacy Pit	**Lab ID:**	1404133-15
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:37 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	10.6	21.2		mg/Kg-dry	1	04/17/14 01:36 PM
TPH-ORO >C28-C35	ND	3.18	10.6		mg/Kg-dry	1	04/17/14 01:36 PM
Surr: Isopropylbenzene	65.4	0	47-142		%REC	1	04/17/14 01:36 PM
Surr: Octacosane	71.8	0	25-162		%REC	1	04/17/14 01:36 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.209	0.313		mg/Kg-dry	1	04/12/14 03:16 AM
Surr: Tetrachlorethene	105	0	70-134		%REC	1	04/12/14 03:16 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	63.1	54.6	54.6		mg/Kg-dry	10	04/15/14 06:08 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	10.6	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-4
Project:	Legacy Pit	**Lab ID:**	1404133-16
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:42 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	11.2	22.4		mg/Kg-dry	1	04/17/14 01:45 PM
TPH-ORO >C28-C35	ND	3.36	11.2		mg/Kg-dry	1	04/17/14 01:45 PM
Surr: Isopropylbenzene	67.2	0	47-142		%REC	1	04/17/14 01:45 PM
Surr: Octacosane	76.2	0	25-162		%REC	1	04/17/14 01:45 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.236	0.354		mg/Kg-dry	1	04/12/14 03:41 AM
Surr: Tetrachlorethene	105	0	70-134		%REC	1	04/12/14 03:41 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	51.3	51.3		mg/Kg-dry	10	04/15/14 06:23 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	15.9	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-5
Project:	Legacy Pit	**Lab ID:**	1404133-17
Project No:	14-0107-01	**Collection Date:**	04/09/14 09:50 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	10.5	20.9		mg/Kg-dry	1	04/17/14 01:54 PM
TPH-ORO >C28-C35	ND	3.14	10.5		mg/Kg-dry	1	04/17/14 01:54 PM
Surr: Isopropylbenzene	70.0	0	47-142		%REC	1	04/17/14 01:54 PM
Surr: Octacosane	76.6	0	25-162		%REC	1	04/17/14 01:54 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.208	0.312		mg/Kg-dry	1	04/12/14 04:05 AM
Surr: Tetrachlorethene	105	0	70-134		%REC	1	04/12/14 04:05 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	1120	53.9	53.9		mg/Kg-dry	10	04/15/14 06:52 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	9.66	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-7
Project:	Legacy Pit	**Lab ID:**	1404133-18
Project No:	14-0107-01	**Collection Date:**	04/09/14 10:02 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	18.7	10.0	20.1	J	mg/Kg-dry	1	04/17/14 02:21 PM
TPH-ORO >C28-C35	5.77	3.01	10.0	J	mg/Kg-dry	1	04/17/14 02:21 PM
Surr: Isopropylbenzene	65.5	0	47-142		%REC	1	04/17/14 02:21 PM
Surr: Octacosane	91.4	0	25-162		%REC	1	04/17/14 02:21 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.184	0.276		mg/Kg-dry	1	04/12/14 04:30 AM
Surr: Tetrachlorethene	106	0	70-134		%REC	1	04/12/14 04:30 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	44.6	44.6		mg/Kg-dry	10	04/15/14 07:06 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	2.52	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-6
Project:	Legacy Pit	**Lab ID:**	1404133-19
Project No:	14-0107-01	**Collection Date:**	04/09/14 10:03 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	10.4	20.9		mg/Kg-dry	1	04/17/14 02:03 PM
TPH-ORO >C28-C35	ND	3.13	10.4		mg/Kg-dry	1	04/17/14 02:03 PM
Surr: Isopropylbenzene	64.5	0	47-142		%REC	1	04/17/14 02:03 PM
Surr: Octacosane	88.0	0	25-162		%REC	1	04/17/14 02:03 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.204	0.306		mg/Kg-dry	1	04/12/14 04:54 AM
Surr: Tetrachlorethene	103	0	70-134		%REC	1	04/12/14 04:54 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	45.6	45.6		mg/Kg-dry	10	04/15/14 07:21 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	5.06	0	0		WT%	1	04/17/14 01:06 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	ES-8
Project:	Legacy Pit	**Lab ID:**	1404133-20
Project No:	14-0107-01	**Collection Date:**	04/09/14 10:03 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	11.2	11.2	22.4	J	mg/Kg-dry	1	04/17/14 02:12 PM
TPH-ORO >C28-C35	ND	3.35	11.2		mg/Kg-dry	1	04/17/14 02:12 PM
Surr: Isopropylbenzene	66.3	0	47-142		%REC	1	04/17/14 02:12 PM
Surr: Octacosane	90.0	0	25-162		%REC	1	04/17/14 02:12 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.207	0.311		mg/Kg-dry	1	04/12/14 05:18 AM
Surr: Tetrachlorethene	101	0	70-134		%REC	1	04/12/14 05:18 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	55.7	55.7		mg/Kg-dry	10	04/15/14 07:35 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	13.4	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	DS-5
Project:	Legacy Pit	**Lab ID:**	1404133-21
Project No:	14-0107-01	**Collection Date:**	04/09/14 10:10 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	11.0	22.0		mg/Kg-dry	1	04/18/14 01:08 PM
TPH-ORO >C28-C35	ND	3.30	11.0		mg/Kg-dry	1	04/18/14 01:08 PM
Surr: Isopropylbenzene	72.6	0	47-142		%REC	1	04/18/14 01:08 PM
Surr: Octacosane	81.1	0	25-162		%REC	1	04/18/14 01:08 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.211	0.316		mg/Kg-dry	1	04/12/14 01:30 PM
Surr: Tetrachlorethene	117	0	70-134		%REC	1	04/12/14 01:30 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	49.8	49.8		mg/Kg-dry	10	04/16/14 01:22 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	10.7	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	DS-4
Project:	Legacy Pit	**Lab ID:**	1404133-22
Project No:	14-0107-01	**Collection Date:**	04/09/14 10:15 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	9.87	19.7		mg/Kg-dry	1	04/18/14 01:17 PM
TPH-ORO >C28-C35	ND	2.96	9.87		mg/Kg-dry	1	04/18/14 01:17 PM
Surr: Isopropylbenzene	71.0	0	47-142		%REC	1	04/18/14 01:17 PM
Surr: Octacosane	91.4	0	25-162		%REC	1	04/18/14 01:17 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.189	0.284		mg/Kg-dry	1	04/12/14 01:55 PM
Surr: Tetrachlorethene	117	0	70-134		%REC	1	04/12/14 01:55 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	49.8	49.8		mg/Kg-dry	10	04/16/14 01:46 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	6.63	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	EEB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-23
Project No:	14-0107-01	**Collection Date:**	04/09/14 11:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	10.8	21.6		mg/Kg-dry	1	04/18/14 01:26 PM
TPH-ORO >C28-C35	ND	3.24	10.8		mg/Kg-dry	1	04/18/14 01:26 PM
Surr: Isopropylbenzene	70.8	0	47-142		%REC	1	04/18/14 01:26 PM
Surr: Octacosane	84.3	0	25-162		%REC	1	04/18/14 01:26 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.212	0.317		mg/Kg-dry	1	04/12/14 02:19 PM
Surr: Tetrachlorethene	113	0	70-134		%REC	1	04/12/14 02:19 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	53.1	53.1		mg/Kg-dry	10	04/16/14 02:01 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	10.3	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	EEC Comp
Project:	Legacy Pit	**Lab ID:**	1404133-24
Project No:	14-0107-01	**Collection Date:**	04/09/14 11:20 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	31.7	10.6	21.3		mg/Kg-dry	1	04/18/14 01:53 PM
TPH-ORO >C28-C35	7.90	3.19	10.6	J	mg/Kg-dry	1	04/18/14 01:53 PM
Surr: Isopropylbenzene	67.0	0	47-142		%REC	1	04/18/14 01:53 PM
Surr: Octacosane	107	0	25-162		%REC	1	04/18/14 01:53 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.225	0.337		mg/Kg-dry	1	04/12/14 02:46 PM
Surr: Tetrachlorethene	110	0	70-134		%REC	1	04/12/14 02:46 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	56.3	56.3		mg/Kg-dry	10	04/16/14 02:15 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	12.8	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	EEA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-25
Project No:	14-0107-01	**Collection Date:**	04/09/14 11:25 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	136	10.2	20.4		mg/Kg-dry	1	04/18/14 02:05 PM
TPH-ORO >C28-C35	27.8	3.06	10.2		mg/Kg-dry	1	04/18/14 02:05 PM
Surr: Isopropylbenzene	67.6	0	47-142		%REC	1	04/18/14 02:05 PM
Surr: Octacosane	173	0	25-162	S	%REC	1	04/18/14 02:05 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.196	0.294		mg/Kg-dry	1	04/12/14 03:10 PM
Surr: Tetrachlorethene	111	0	70-134		%REC	1	04/12/14 03:10 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	97.0	44.7	44.7		mg/Kg-dry	10	04/16/14 02:30 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	4.95	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-13 (5')
Project:	Legacy Pit	**Lab ID:**	1404133-26
Project No:	14-0107-01	**Collection Date:**	04/09/14 01:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	62.1	11.9	23.9		mg/Kg-dry	1	04/18/14 02:14 PM
TPH-ORO >C28-C35	19.8	3.58	11.9		mg/Kg-dry	1	04/18/14 02:14 PM
Surr: Isopropylbenzene	64.6	0	47-142		%REC	1	04/18/14 02:14 PM
Surr: Octacosane	124	0	25-162		%REC	1	04/18/14 02:14 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.243	0.364		mg/Kg-dry	1	04/12/14 03:35 PM
Surr: Tetrachlorethene	95.1	0	70-134		%REC	1	04/12/14 03:35 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	58.5	58.5		mg/Kg-dry	10	04/16/14 02:44 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	20.1	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-1 (4')
Project:	Legacy Pit	**Lab ID:**	1404133-27
Project No:	14-0107-01	**Collection Date:**	04/09/14 01:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	12.0	24.0		mg/Kg-dry	1	04/18/14 01:35 PM
TPH-ORO >C28-C35	ND	3.60	12.0		mg/Kg-dry	1	04/18/14 01:35 PM
Surr: Isopropylbenzene	65.0	0	47-142		%REC	1	04/18/14 01:35 PM
Surr: Octacosane	80.4	0	25-162		%REC	1	04/18/14 01:35 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.213	0.319		mg/Kg-dry	1	04/12/14 03:59 PM
Surr: Tetrachlorethene	105	0	70-134		%REC	1	04/12/14 03:59 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	61.6	61.6		mg/Kg-dry	10	04/16/14 02:59 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.2	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-2 (6')
Project:	Legacy Pit	**Lab ID:**	1404133-28
Project No:	14-0107-01	**Collection Date:**	04/09/14 02:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	96.1	11.9	23.8		mg/Kg-dry	1	04/18/14 04:02 PM
TPH-ORO >C28-C35	27.6	3.56	11.9		mg/Kg-dry	1	04/18/14 04:02 PM
Surr: Isopropylbenzene	67.8	0	47-142		%REC	1	04/18/14 04:02 PM
Surr: Octacosane	200	0	25-162	S	%REC	1	04/18/14 04:02 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.227	0.341		mg/Kg-dry	1	04/12/14 04:23 PM
Surr: Tetrachlorethene	109	0	70-134		%REC	1	04/12/14 04:23 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	151	59.9	59.9		mg/Kg-dry	10	04/16/14 03:14 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	22.1	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-12 (2')
Project:	Legacy Pit	**Lab ID:**	1404133-29
Project No:	14-0107-01	**Collection Date:**	04/09/14 02:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	946	129	258		mg/Kg-dry	10	04/18/14 04:11 PM
TPH-ORO >C28-C35	204	38.7	129		mg/Kg-dry	10	04/18/14 04:11 PM
Surr: Isopropylbenzene	89.1	0	47-142		%REC	10	04/18/14 04:11 PM
Surr: Octacosane	409	0	25-162	S	%REC	10	04/18/14 04:11 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.257	0.385		mg/Kg-dry	1	04/12/14 04:48 PM
Surr: Tetrachlorethene	96.2	0	70-134		%REC	1	04/12/14 04:48 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	187	56.6	56.6		mg/Kg-dry	10	04/16/14 03:28 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	24.7	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-11 (6')
Project:	Legacy Pit	**Lab ID:**	1404133-30
Project No:	14-0107-01	**Collection Date:**	04/09/14 03:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	376	115	231		mg/Kg-dry	10	04/18/14 03:17 PM
TPH-ORO >C28-C35	91.8	34.6	115	J	mg/Kg-dry	10	04/18/14 03:17 PM
Surr: Isopropylbenzene	79.0	0	47-142		%REC	10	04/18/14 03:17 PM
Surr: Octacosane	406	0	25-162	S	%REC	10	04/18/14 03:17 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.207	0.310		mg/Kg-dry	1	04/12/14 05:12 PM
Surr: Tetrachlorethene	92.8	0	70-134		%REC	1	04/12/14 05:12 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	147	55.2	55.2		mg/Kg-dry	10	04/16/14 03:43 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.0	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-10 (6')
Project:	Legacy Pit	**Lab ID:**	1404133-31
Project No:	14-0107-01	**Collection Date:**	04/09/14 03:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	ND	12.6	25.2		mg/Kg-dry	1	04/18/14 01:44 PM
TPH-ORO >C28-C35	ND	3.78	12.6		mg/Kg-dry	1	04/18/14 01:44 PM
Surr: Isopropylbenzene	76.0	0	47-142		%REC	1	04/18/14 01:44 PM
Surr: Octacosane	91.4	0	25-162		%REC	1	04/18/14 01:44 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.223	0.335		mg/Kg-dry	1	04/12/14 06:49 PM
Surr: Tetrachlorethene	113	0	70-134		%REC	1	04/12/14 06:49 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	62.2	62.2		mg/Kg-dry	10	04/16/14 04:32 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	21.5	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-8 (6')
Project:	Legacy Pit	**Lab ID:**	1404133-32
Project No:	14-0107-01	**Collection Date:**	04/10/14 08:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	2140	111	223		mg/Kg-dry	10	04/21/14 09:36 PM
TPH-ORO >C28-C35	601	33.4	111		mg/Kg-dry	10	04/21/14 09:36 PM
Surr: Isopropylbenzene	83.8	0	47-142		%REC	10	04/21/14 09:36 PM
Surr: Octacosane	721	0	25-162	S	%REC	10	04/21/14 09:36 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.220	0.330		mg/Kg-dry	1	04/12/14 07:14 PM
Surr: Tetrachlorethene	91.8	0	70-134		%REC	1	04/12/14 07:14 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	478	54.7	54.7		mg/Kg-dry	10	04/16/14 04:46 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	12.3	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-9 (8')
Project:	Legacy Pit	**Lab ID:**	1404133-33
Project No:	14-0107-01	**Collection Date:**	04/10/14 08:30 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	138	58.8	118		mg/Kg-dry	5	04/21/14 09:19 PM
TPH-ORO >C28-C35	98.2	17.6	58.8		mg/Kg-dry	5	04/21/14 09:19 PM
Surr: Isopropylbenzene	69.4	0	47-142		%REC	5	04/21/14 09:19 PM
Surr: Octacosane	283	0	25-162	S	%REC	5	04/21/14 09:19 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.219	0.329		mg/Kg-dry	1	04/12/14 07:38 PM
Surr: Tetrachlorethene	114	0	70-134		%REC	1	04/12/14 07:38 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	92.6	59.8	59.8		mg/Kg-dry	10	04/16/14 05:01 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.6	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-7 (3')
Project:	Legacy Pit	**Lab ID:**	1404133-34
Project No:	14-0107-01	**Collection Date:**	04/10/14 09:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	265	50.0	100		mg/Kg-dry	5	04/21/14 09:27 PM
TPH-ORO >C28-C35	160	15.0	50.0		mg/Kg-dry	5	04/21/14 09:27 PM
Surr: Isopropylbenzene	75.8	0	47-142		%REC	5	04/21/14 09:27 PM
Surr: Octacosane	432	0	25-162	S	%REC	5	04/21/14 09:27 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.207	0.311		mg/Kg-dry	1	04/12/14 08:03 PM
Surr: Tetrachlorethene	99.8	0	70-134		%REC	1	04/12/14 08:03 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	248	49.1	49.1		mg/Kg-dry	10	04/16/14 05:15 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	6.21	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	DS-1
Project:	Legacy Pit	**Lab ID:**	1404133-35
Project No:	14-0107-01	**Collection Date:**	04/10/14 09:30 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	53.9	12.5	25.1		mg/Kg-dry	1	04/18/14 02:23 PM
TPH-ORO >C28-C35	8.48	3.76	12.5	J	mg/Kg-dry	1	04/18/14 02:23 PM
Surr: Isopropylbenzene	70.1	0	47-142		%REC	1	04/18/14 02:23 PM
Surr: Octacosane	112	0	25-162		%REC	1	04/18/14 02:23 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.224	0.335		mg/Kg-dry	1	04/12/14 08:27 PM
Surr: Tetrachlorethene	104	0	70-134		%REC	1	04/12/14 08:27 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	64.6	63.9	63.9		mg/Kg-dry	10	04/16/14 05:30 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	22.5	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-4 (5')
Project:	Legacy Pit	**Lab ID:**	1404133-36
Project No:	14-0107-01	**Collection Date:**	04/10/14 10:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	2220	116	231		mg/Kg-dry	10	04/21/14 09:52 PM
TPH-ORO >C28-C35	778	34.7	116		mg/Kg-dry	10	04/21/14 09:52 PM
Surr: Isopropylbenzene	76.7	0	47-142		%REC	10	04/21/14 09:52 PM
Surr: Octacosane	921	0	25-162	S	%REC	10	04/21/14 09:52 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.250	0.375		mg/Kg-dry	1	04/12/14 08:51 PM
Surr: Tetrachlorethene	88.8	0	70-134		%REC	1	04/12/14 08:51 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	92.2	54.0	54.0		mg/Kg-dry	10	04/16/14 05:44 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	21.0	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-3 (10')
Project:	Legacy Pit	**Lab ID:**	1404133-37
Project No:	14-0107-01	**Collection Date:**	04/10/14 10:30 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	104	65.2	130	J	mg/Kg-dry	5	04/21/14 08:36 PM
TPH-ORO >C28-C35	72.7	19.6	65.2		mg/Kg-dry	5	04/21/14 08:36 PM
Surr: Isopropylbenzene	74.0	0	47-142		%REC	5	04/21/14 08:36 PM
Surr: Octacosane	253	0	25-162	S	%REC	5	04/21/14 08:36 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.261	0.392		mg/Kg-dry	1	04/12/14 09:16 PM
Surr: Tetrachlorethene	107	0	70-134		%REC	1	04/12/14 09:16 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	58.2	58.2		mg/Kg-dry	10	04/16/14 05:59 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	26.1	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-5 (6')
Project:	Legacy Pit	**Lab ID:**	1404133-38
Project No:	14-0107-01	**Collection Date:**	04/10/14 11:00 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	213	61.0	122		mg/Kg-dry	5	04/21/14 08:45 PM
TPH-ORO >C28-C35	129	18.3	61.0		mg/Kg-dry	5	04/21/14 08:45 PM
Surr: Isopropylbenzene	72.7	0	47-142		%REC	5	04/21/14 08:45 PM
Surr: Octacosane	324	0	25-162	S	%REC	5	04/21/14 08:45 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.228	0.343		mg/Kg-dry	1	04/12/14 09:40 PM
Surr: Tetrachlorethene	100	0	70-134		%REC	1	04/12/14 09:40 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	230	61.0	61.0		mg/Kg-dry	10	04/16/14 06:14 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.1	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	DS-2
Project:	Legacy Pit	**Lab ID:**	1404133-39
Project No:	14-0107-01	**Collection Date:**	04/10/14 11:30 AM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	684	57.4	115		mg/Kg-dry	5	04/18/14 02:32 PM
TPH-ORO >C28-C35	91.0	17.2	57.4		mg/Kg-dry	5	04/18/14 02:32 PM
Surr: Isopropylbenzene	74.0	0	47-142		%REC	5	04/18/14 02:32 PM
Surr: Octacosane	520	0	25-162	S	%REC	5	04/18/14 02:32 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.215	0.323		mg/Kg-dry	1	04/12/14 10:05 PM
Surr: Tetrachlorethene	97.4	0	70-134		%REC	1	04/12/14 10:05 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	571	54.5	54.5		mg/Kg-dry	10	04/16/14 06:28 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	19.4	0	0		WT%	1	04/17/14 01:15 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WS-6 (4')
Project:	Legacy Pit	**Lab ID:**	1404133-40
Project No:	14-0107-01	**Collection Date:**	04/10/14 12:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	384	48.5	97.0		mg/Kg-dry	5	04/18/14 03:35 PM
TPH-ORO >C28-C35	92.2	14.6	48.5		mg/Kg-dry	5	04/18/14 03:35 PM
Surr: Isopropylbenzene	74.7	0	47-142		%REC	5	04/18/14 03:35 PM
Surr: Octacosane	481	0	25-162	S	%REC	5	04/18/14 03:35 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.191	0.287		mg/Kg-dry	1	04/12/14 10:29 PM
Surr: Tetrachlorethene	97.3	0	70-134		%REC	1	04/12/14 10:29 PM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	426	46.4	46.4		mg/Kg-dry	10	04/17/14 11:44 AM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	4.42	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	DS-3
Project:	Legacy Pit	**Lab ID:**	1404133-41
Project No:	14-0107-01	**Collection Date:**	04/10/14 12:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	421	68.7	137		mg/Kg-dry	5	04/21/14 09:10 PM
TPH-ORO >C28-C35	137	20.6	68.7		mg/Kg-dry	5	04/21/14 09:10 PM
Surr: Isopropylbenzene	66.8	0	47-142		%REC	5	04/21/14 09:10 PM
Surr: Octacosane	363	0	25-162	S	%REC	5	04/21/14 09:10 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.282	0.424		mg/Kg-dry	1	04/13/14 02:32 AM
Surr: Tetrachlorethene	96.7	0	70-134		%REC	1	04/13/14 02:32 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	ND	68.6	68.6		mg/Kg-dry	10	04/17/14 12:42 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	33.3	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WEB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-42
Project No:	14-0107-01	**Collection Date:**	04/10/14 01:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	24.8	10.9	21.7		mg/Kg-dry	1	04/18/14 02:59 PM
TPH-ORO >C28-C35	ND	3.26	10.9		mg/Kg-dry	1	04/18/14 02:59 PM
Surr: Isopropylbenzene	72.0	0	47-142		%REC	1	04/18/14 02:59 PM
Surr: Octacosane	92.9	0	25-162		%REC	1	04/18/14 02:59 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.227	0.341		mg/Kg-dry	1	04/13/14 02:57 AM
Surr: Tetrachlorethene	101	0	70-134		%REC	1	04/13/14 02:57 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	86.1	51.6	51.6		mg/Kg-dry	10	04/17/14 12:57 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	14.9	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WEA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-43
Project No:	14-0107-01	**Collection Date:**	04/10/14 01:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	105	13.0	26.0		mg/Kg-dry	1	04/18/14 03:44 PM
TPH-ORO >C28-C35	25.2	3.90	13.0		mg/Kg-dry	1	04/18/14 03:44 PM
Surr: Isopropylbenzene	75.0	0	47-142		%REC	1	04/18/14 03:44 PM
Surr: Octacosane	141	0	25-162		%REC	1	04/18/14 03:44 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.261	0.392		mg/Kg-dry	1	04/13/14 03:22 AM
Surr: Tetrachlorethene	104	0	70-134		%REC	1	04/13/14 03:22 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	81.9	62.4	62.4		mg/Kg-dry	10	04/17/14 01:12 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	26.4	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WEC Comp
Project:	Legacy Pit	**Lab ID:**	1404133-44
Project No:	14-0107-01	**Collection Date:**	04/10/14 02:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	629	50.9	102		mg/Kg-dry	5	04/21/14 08:53 PM
TPH-ORO >C28-C35	229	15.3	50.9		mg/Kg-dry	5	04/21/14 08:53 PM
Surr: Isopropylbenzene	79.7	0	47-142		%REC	5	04/21/14 08:53 PM
Surr: Octacosane	336	0	25-162	S	%REC	5	04/21/14 08:53 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.206	0.309		mg/Kg-dry	1	04/13/14 03:46 AM
Surr: Tetrachlorethene	95.8	0	70-134		%REC	1	04/13/14 03:46 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	229	49.0	49.0		mg/Kg-dry	10	04/17/14 01:26 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	8.65	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	WED Comp
Project:	Legacy Pit	**Lab ID:**	1404133-45
Project No:	14-0107-01	**Collection Date:**	04/10/14 02:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	592	68.5	137		mg/Kg-dry	5	04/21/14 09:44 PM
TPH-ORO >C28-C35	80.1	20.6	68.5		mg/Kg-dry	5	04/21/14 09:44 PM
Surr: Isopropylbenzene	69.6	0	47-142		%REC	5	04/21/14 09:44 PM
Surr: Octacosane	225	0	25-162	S	%REC	5	04/21/14 09:44 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	0.349	0.272	0.408	J	mg/Kg-dry	1	04/13/14 04:10 AM
Surr: Tetrachlorethene	91.7	0	70-134		%REC	1	04/13/14 04:10 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	328	67.8	67.8		mg/Kg-dry	10	04/17/14 01:41 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	29.8	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	CPA Comp
Project:	Legacy Pit	**Lab ID:**	1404133-46
Project No:	14-0107-01	**Collection Date:**	04/10/14 03:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	697	63.1	126		mg/Kg-dry	5	04/18/14 03:08 PM
TPH-ORO >C28-C35	85.0	18.9	63.1		mg/Kg-dry	5	04/18/14 03:08 PM
Surr: Isopropylbenzene	64.2	0	47-142		%REC	5	04/18/14 03:08 PM
Surr: Octacosane	187	0	25-162	S	%REC	5	04/18/14 03:08 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.260	0.390		mg/Kg-dry	1	04/13/14 04:35 AM
Surr: Tetrachlorethene	105	0	70-134		%REC	1	04/13/14 04:35 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	239	61.3	61.3		mg/Kg-dry	10	04/17/14 01:55 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	23.7	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	CPB Comp
Project:	Legacy Pit	**Lab ID:**	1404133-47
Project No:	14-0107-01	**Collection Date:**	04/10/14 03:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	1200	99.9	200		mg/Kg-dry	10	04/21/14 10:18 PM
TPH-ORO >C28-C35	578	30.0	99.9		mg/Kg-dry	10	04/21/14 10:18 PM
Surr: Isopropylbenzene	67.2	0	47-142		%REC	10	04/21/14 10:18 PM
Surr: Octacosane	644	0	25-162	S	%REC	10	04/21/14 10:18 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	ND	0.199	0.299		mg/Kg-dry	1	04/13/14 04:59 AM
Surr: Tetrachlorethene	102	0	70-134		%REC	1	04/13/14 04:59 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	443	45.1	45.1		mg/Kg-dry	10	04/17/14 02:10 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	3.25	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	CPC Comp
Project:	Legacy Pit	**Lab ID:**	1404133-48
Project No:	14-0107-01	**Collection Date:**	04/10/14 04:00 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	1020	59.1	118		mg/Kg-dry	5	04/21/14 09:02 PM
TPH-ORO >C28-C35	227	17.7	59.1		mg/Kg-dry	5	04/21/14 09:02 PM
Surr: Isopropylbenzene	72.3	0	47-142		%REC	5	04/21/14 09:02 PM
Surr: Octacosane	315	0	25-162	S	%REC	5	04/21/14 09:02 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	2.41	0.209	0.313		mg/Kg-dry	1	04/13/14 05:23 AM
Surr: Tetrachlorethene	88.0	0	70-134		%REC	1	04/13/14 05:23 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	354	57.5	57.5		mg/Kg-dry	10	04/17/14 02:24 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	16.3	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between MDL and RL
MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	CPD Comp
Project:	Legacy Pit	**Lab ID:**	1404133-49
Project No:	14-0107-01	**Collection Date:**	04/10/14 04:30 PM
Lab Order:	1404133	**Matrix:**	SOIL

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - SOIL		**M8015D**					Analyst: **AS**
TPH-DRO C10-C28	1300	229	459		mg/Kg-dry	20	04/21/14 10:26 PM
TPH-ORO >C28-C35	501	68.8	229		mg/Kg-dry	20	04/21/14 10:26 PM
Surr: Isopropylbenzene	120	0	47-142		%REC	20	04/21/14 10:26 PM
Surr: Octacosane	1120	0	25-162	S	%REC	20	04/21/14 10:26 PM
TPH PURGEABLE BY GC - SOIL		**M8015V**					Analyst: **AV**
Gasoline Range Organics	0.785	0.232	0.348		mg/Kg-dry	1	04/13/14 05:48 AM
Surr: Tetrachlorethene	99.2	0	70-134		%REC	1	04/13/14 05:48 AM
ANIONS BY IC METHOD - SOIL		**SW9056A**					Analyst: **AV**
Chloride	194	54.5	54.5		mg/Kg-dry	10	04/17/14 03:02 PM
PERCENT MOISTURE		**D2216**					Analyst: **JL**
Percent Moisture	18.8	0	0		WT%	1	04/18/14 11:46 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-1
Project:	Legacy Pit	**Lab ID:**	1404133-50
Project No:	14-0107-01	**Collection Date:**	04/10/14 05:00 PM
Lab Order:	1404133	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC		**SW8021B**					Analyst: **LM**
Benzene	ND	0.000800	0.00200		mg/L	1	04/14/14 05:51 PM
Ethylbenzene	ND	0.00200	0.00600		mg/L	1	04/14/14 05:51 PM
Toluene	ND	0.00200	0.00600		mg/L	1	04/14/14 05:51 PM
Xylenes, Total	ND	0.00300	0.00900		mg/L	1	04/14/14 05:51 PM
Surr: a,a,a-Trifluorotoluene	101	0	87-113		%REC	1	04/14/14 05:51 PM
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SW**
Calcium	168	5.00	15.0		mg/L	50	04/16/14 08:33 PM
Magnesium	195	5.00	15.0		mg/L	50	04/16/14 08:33 PM
Potassium	20.9	0.100	0.300		mg/L	1	04/16/14 06:26 PM
Sodium	840	5.00	15.0		mg/L	50	04/16/14 08:33 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **AV**
Chloride	1480	30.0	100		mg/L	100	04/14/14 04:17 PM
Nitrate-N	ND	0.100	0.500		mg/L	1	04/11/14 06:04 PM
Sulfate	509	10.0	30.0		mg/L	10	04/11/14 06:33 PM
ALKALINITY		**M2320 B**					Analyst: **LM**
Alkalinity, Bicarbonate (As CaCO3)	673	12.5	25.0		mg/L @ pH 4.52	1	04/15/14 03:04 PM
Alkalinity, Carbonate (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.52	1	04/15/14 03:04 PM
Alkalinity, Hydroxide (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.52	1	04/15/14 03:04 PM
Alkalinity, Total (As CaCO3)	673	25.0	25.0		mg/L @ pH 4.52	1	04/15/14 03:04 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **MK**
Total Dissolved Solids (Residue, Filterable)	3510	50.0	50.0		mg/L	1	04/16/14 09:40 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *28-Apr-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	Trip
Project:	Legacy Pit	**Lab ID:**	1404133-51
Project No:	14-0107-01	**Collection Date:**	04/10/14
Lab Order:	1404133	**Matrix:**	TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC		**SW8021B**					Analyst: **LM**
Benzene	ND	0.000800	0.00200		mg/L	1	04/14/14 06:11 PM
Ethylbenzene	ND	0.00200	0.00600		mg/L	1	04/14/14 06:11 PM
Toluene	ND	0.00200	0.00600		mg/L	1	04/14/14 06:11 PM
Xylenes, Total	ND	0.00300	0.00900		mg/L	1	04/14/14 06:11 PM
Surr: a,a,a-Trifluorotoluene	91.3	0	87-113		%REC	1	04/14/14 06:11 PM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC12_140421C

The QC data in batch 62980 applies to the following samples: 1404133-21A, 1404133-22A, 1404133-23A, 1404133-24A, 1404133-25A, 1404133-26A, 1404133-27A, 1404133-28A, 1404133-29A, 1404133-30A, 1404133-31A, 1404133-32A, 1404133-33A, 1404133-34A, 1404133-35A, 1404133-36A, 1404133-37A, 1404133-38A, 1404133-39A, 1404133-40A

Sample ID **MB-62980** Batch ID: **62980** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC12_140421C** Analysis Date: **4/21/2014 8:11:28 PM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	ND	10.0								
TPH-ORO >C28-C35	ND	10.0								
Surr: Isopropylbenzene	5.50		7.500		73.3	47	142			
Surr: Octacosane	7.57		7.500		101	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC12_140421C

The QC data in batch 62981 applies to the following samples: 1404133-41A, 1404133-42A, 1404133-43A, 1404133-44A, 1404133-45A, 1404133-46A, 1404133-47A, 1404133-48A, 1404133-49A

Sample ID **MB-62981** Batch ID: **62981** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC12_140421C** Analysis Date: **4/21/2014 8:19:56 PM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	4.87	10.0								
TPH-ORO >C28-C35	ND	10.0								
Surr: Isopropylbenzene	4.84		7.500		64.5	47	142			
Surr: Octacosane	7.22		7.500		96.2	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC12_140421C

Sample ID **ICV-140421**	Batch ID: **R72554**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC12_140421C**	Analysis Date: **4/21/2014 7:54:32 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	546	10.0	500.0	0	109	80	120			
Surr: Isopropylbenzene	26.2		25.00		105	80	120			
Surr: Octacosane	27.4		25.00		110	80	120			

Sample ID **CCV1-140421**	Batch ID: **R72554**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC12_140421C**	Analysis Date: **4/21/2014 10:09:46 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	327	10.0	250.0	0	131	80	120			S
Surr: Isopropylbenzene	16.7		12.50		133	80	120			S
Surr: Octacosane	16.9		12.50		135	80	120			S

Sample ID **CCV2-140421**	Batch ID: **R72554**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC12_140421C**	Analysis Date: **4/21/2014 11:00:35 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	291	10.0	250.0	0	117	80	120			
Surr: Isopropylbenzene	14.2		12.50		113	80	120			
Surr: Octacosane	13.6		12.50		109	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_140417B

The QC data in batch 62949 applies to the following samples: 1404133-01A, 1404133-02A, 1404133-03A, 1404133-04A, 1404133-05A, 1404133-06A, 1404133-07A, 1404133-08A, 1404133-09A, 1404133-10A, 1404133-11A, 1404133-12A, 1404133-13A, 1404133-14A, 1404133-15A, 1404133-16A, 1404133-17A, 1404133-18A, 1404133-19A, 1404133-20A

Sample ID **LCS-62949** Batch ID: **62949** TestNo: **M8015D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC15_140417B** Analysis Date: **4/17/2014 12:43:05 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	105	10.0	125.0	0	84.3	50	114			
Surr: Isopropylbenzene	5.69		7.500		75.8	47	142			
Surr: Octacosane	5.66		7.500		75.5	25	162			

Sample ID **1404133-20AMS** Batch ID: **62949** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GC15_140417B** Analysis Date: **4/17/2014 12:52:04 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	116	11.1	138.3	11.20	76.0	50	114			
Surr: Isopropylbenzene	5.82		8.298		70.2	47	142			
Surr: Octacosane	6.94		8.298		83.7	25	162			

Sample ID **1404133-20AMSD** Batch ID: **62949** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **GC15_140417B** Analysis Date: **4/17/2014 1:01:03 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	116	10.8	135.1	11.20	77.8	50	114	0.042	30	
Surr: Isopropylbenzene	5.78		8.104		71.3	47	142	0	0	
Surr: Octacosane	6.97		8.104		86.0	25	162	0	0	

Sample ID **MB-62949** Batch ID: **62949** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC15_140417B** Analysis Date: **4/17/2014 1:19:01 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	ND	10.0								
TPH-ORO >C28-C35	ND	10.0								
Surr: Isopropylbenzene	5.23		7.500		69.7	47	142			
Surr: Octacosane	5.86		7.500		78.2	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_140417B

Sample ID **ICV-140417**	Batch ID: **R72456**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC15_140417B**	Analysis Date: **4/17/2014 12:33:17 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	475	10.0	500.0	0	95.1	80	120			
TPH-ORO >C28-C35	0	10.0	0							
Surr: Isopropylbenzene	24.5		25.00		97.9	80	120			
Surr: Octacosane	21.2		25.00		84.9	80	120			

Sample ID **CCV1-140417**	Batch ID: **R72456**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140417B**	Analysis Date: **4/17/2014 3:55:38 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	251	10.0	250.0	0	101	80	120			
TPH-ORO >C28-C35	0.0543	10.0	0							
Surr: Isopropylbenzene	12.5		12.50		99.6	80	120			
Surr: Octacosane	10.5		12.50		84.1	80	120			

Sample ID **CCV2-140417**	Batch ID: **R72456**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140417B**	Analysis Date: **4/17/2014 5:43:20 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	234	10.0	250.0	0	93.5	80	120			
TPH-ORO >C28-C35	0	10.0	0							
Surr: Isopropylbenzene	12.1		12.50		96.9	80	120			
Surr: Octacosane	10.5		12.50		83.7	80	120			

Sample ID **ICV-140418**	Batch ID: **R72456**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC15_140417B**	Analysis Date: **4/18/2014 9:47:34 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	468	10.0	500.0	0	93.5	80	120			
TPH-ORO >C28-C35	1.26	10.0	0							
Surr: Isopropylbenzene	24.8		25.00		99.1	80	120			
Surr: Octacosane	21.3		25.00		85.2	80	120			

Sample ID **CCV1-140418**	Batch ID: **R72456**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140417B**	Analysis Date: **4/18/2014 11:35:16 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	260	10.0	250.0	0	104	80	120			
TPH-ORO >C28-C35	0.145	10.0	0							
Surr: Isopropylbenzene	13.4		12.50		107	80	120			
Surr: Octacosane	10.8		12.50		86.2	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_140418A

The QC data in batch 62980 applies to the following samples: 1404133-21A, 1404133-22A, 1404133-23A, 1404133-24A, 1404133-25A, 1404133-26A, 1404133-27A, 1404133-28A, 1404133-29A, 1404133-30A, 1404133-31A, 1404133-32A, 1404133-33A, 1404133-34A, 1404133-35A, 1404133-36A, 1404133-37A, 1404133-38A, 1404133-39A, 1404133-40A

Sample ID **LCS-62980** Batch ID: **62980** TestNo: **M8015D** Units: **mg/Kg**
SampType: **LCS** Run ID: **GC15_140418A** Analysis Date: **4/18/2014 11:47:51 AM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	99.9	10.0	125.0	0	79.9	50	114			
Surr: Isopropylbenzene	5.38		7.500		71.8	47	142			
Surr: Octacosane	5.84		7.500		77.8	25	162			

Sample ID **1404133-22AMS** Batch ID: **62980** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MS** Run ID: **GC15_140418A** Analysis Date: **4/18/2014 12:05:50 PM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	108	10.1	126.7	0	85.1	50	114			
Surr: Isopropylbenzene	5.86		7.599		77.0	47	142			
Surr: Octacosane	6.71		7.599		88.3	25	162			

Sample ID **1404133-22AMSD** Batch ID: **62980** TestNo: **M8015D** Units: **mg/Kg-dry**
SampType: **MSD** Run ID: **GC15_140418A** Analysis Date: **4/18/2014 12:14:48 PM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	113	10.6	132.4	0	85.5	50	114	5.00	30	
Surr: Isopropylbenzene	6.28		7.945		79.0	47	142	0	0	
Surr: Octacosane	7.04		7.945		88.6	25	162	0	0	

Sample ID **MB-62980** Batch ID: **62980** TestNo: **M8015D** Units: **mg/Kg**
SampType: **MBLK** Run ID: **GC15_140418A** Analysis Date: **4/18/2014 12:50:42 PM** Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	5.25	10.0								
TPH-ORO >C28-C35	ND	10.0								
Surr: Isopropylbenzene	4.75		7.500		63.4	47	142			
Surr: Octacosane	10.1		7.500		135	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_140418A

The QC data in batch 62981 applies to the following samples: 1404133-41A, 1404133-42A, 1404133-43A, 1404133-44A, 1404133-45A, 1404133-46A, 1404133-47A, 1404133-48A, 1404133-49A

Sample ID **LCS-62981**	Batch ID: **62981**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 11:56:51 AM**	Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	97.1	10.0	125.0	0	77.6	50	114			
Surr: Isopropylbenzene	5.03		7.500		67.1	47	142			
Surr: Octacosane	5.72		7.500		76.3	25	162			

Sample ID **1404133-47AMS**	Batch ID: **62981**	TestNo: **M8015D**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 12:23:47 PM**	Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	966	49.1	122.7	1197	-189	50	114			S
Surr: Isopropylbenzene	10.6		7.362		144	47	142			S
Surr: Octacosane	35.7		7.362		485	25	162			S

Sample ID **1404133-47AMSD**	Batch ID: **62981**	TestNo: **M8015D**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 12:32:46 PM**	Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	986	49.9	124.8	1197	-169	50	114	2.07	30	S
Surr: Isopropylbenzene	5.73		7.490		76.6	47	142	0	0	
Surr: Octacosane	48.1		7.490		643	25	162	0	0	S

Sample ID **MB-62981**	Batch ID: **62981**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 12:59:40 PM**	Prep Date: **4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	3.78	10.0								
TPH-ORO >C28-C35	ND	10.0								
Surr: Isopropylbenzene	4.35		7.500		58.1	47	142			
Surr: Octacosane	6.21		7.500		82.9	25	162			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_140418A

Sample ID **ICV-140418**	Batch ID: **R72490**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 9:47:34 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	468	10.0	500.0	0	93.5	80	120			
Surr: Isopropylbenzene	24.8		25.00		99.1	80	120			
Surr: Octacosane	21.3		25.00		85.2	80	120			

Sample ID **CCV1-140418**	Batch ID: **R72490**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 11:35:16 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	260	10.0	250.0	0	104	80	120			
Surr: Isopropylbenzene	13.4		12.50		107	80	120			
Surr: Octacosane	10.8		12.50		86.2	80	120			

Sample ID **CCV2-140418**	Batch ID: **R72490**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 2:50:42 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	269	10.0	250.0	0	108	80	120			
Surr: Isopropylbenzene	13.7		12.50		110	80	120			
Surr: Octacosane	11.5		12.50		91.7	80	120			

Sample ID **CCV3-140418**	Batch ID: **R72490**	TestNo: **M8015D**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC15_140418A**	Analysis Date: **4/18/2014 4:38:19 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	271	10.0	250.0	0	108	80	120			
Surr: Isopropylbenzene	14.2		12.50		113	80	120			
Surr: Octacosane	11.6		12.50		93.1	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140411A

The QC data in batch 62861 applies to the following samples: 1404133-01A, 1404133-02A, 1404133-03A, 1404133-04A, 1404133-05A, 1404133-06A, 1404133-07A, 1404133-08A, 1404133-09A, 1404133-10A, 1404133-11A, 1404133-12A, 1404133-13A, 1404133-14A, 1404133-15A, 1404133-16A, 1404133-17A, 1404133-18A, 1404133-19A, 1404133-20A

Sample ID **LCS-62861**	Batch ID: **62861**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GC4_140411A**	Analysis Date: **4/11/2014 5:24:02 PM**	Prep Date: **4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.02	0.200	5.000	0	80.3	68	126			
Surr: Tetrachlorethene	0.360		0.4000		90.0	70	134			

Sample ID **MB-62861**	Batch ID: **62861**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GC4_140411A**	Analysis Date: **4/11/2014 7:33:56 PM**	Prep Date: **4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.412		0.4000		103	70	134			

Sample ID **1404133-01AMS**	Batch ID: **62861**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GC4_140411A**	Analysis Date: **4/12/2014 12:01:57 AM**	Prep Date: **4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	3.59	0.201	5.024	0	71.6	68	126			
Surr: Tetrachlorethene	0.344		0.4019		85.6	70	134			

Sample ID **1404133-01AMSD**	Batch ID: **62861**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GC4_140411A**	Analysis Date: **4/12/2014 12:26:11 AM**	Prep Date: **4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	3.75	0.204	5.110	0	73.3	68	126	4.16	30	
Surr: Tetrachlorethene	0.336		0.4088		82.1	70	134	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140411A

Sample ID **ICV-140411**	Batch ID: **R72355**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC4_140411A**	Analysis Date: **4/11/2014 4:35:02 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	8.43	0.200	10.00	0	84.3	80	120			
Surr: Tetrachlorethene	0.310		0.4000		77.6	70	134			

Sample ID **CCV1-140411**	Batch ID: **R72355**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140411A**	Analysis Date: **4/12/2014 12:50:51 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.40	0.200	5.000	0	88.0	80	120			
Surr: Tetrachlorethene	0.395		0.4000		98.7	70	134			

Sample ID **CCV2-140411**	Batch ID: **R72355**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140411A**	Analysis Date: **4/12/2014 6:32:17 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.47	0.200	5.000	0	89.4	80	120			
Surr: Tetrachlorethene	0.403		0.4000		101	70	134			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140412A

The QC data in batch 62865 applies to the following samples: 1404133-21A, 1404133-22A, 1404133-23A, 1404133-24A, 1404133-25A, 1404133-26A, 1404133-27A, 1404133-28A, 1404133-29A, 1404133-30A, 1404133-31A, 1404133-32A, 1404133-33A, 1404133-34A, 1404133-35A, 1404133-36A, 1404133-37A, 1404133-38A, 1404133-39A, 1404133-40A

Sample ID **LCS-62865**	Batch ID: **62865**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 11:25:45 AM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.49	0.200	5.000	0	89.8	68	126			
Surr: Tetrachlorethene	0.390		0.4000		97.5	70	134			

Sample ID **MB-62865**	Batch ID: **62865**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 1:03:07 PM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.420		0.4000		105	70	134			

Sample ID **1404133-40AMS**	Batch ID: **62865**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 10:53:45 PM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	3.91	0.208	5.200	0	75.3	68	126			
Surr: Tetrachlorethene	0.367		0.4160		88.3	70	134			

Sample ID **1404133-40AMSD**	Batch ID: **62865**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 11:18:08 PM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	3.61	0.183	4.581	0	78.8	68	126	8.06	30	
Surr: Tetrachlorethene	0.322		0.3664		88.0	70	134	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140412A

Sample ID **ICV-140412**	Batch ID: **R72356**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 10:34:08 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	8.66	0.200	10.00	0	86.6	80	120			
Surr: Tetrachlorethene	0.380		0.4000		95.0	70	134			

Sample ID **CCV1-140412**	Batch ID: **R72356**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140412A**	Analysis Date: **4/12/2014 6:01:17 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.57	0.200	5.000	0	91.5	80	120			
Surr: Tetrachlorethene	0.408		0.4000		102	70	134			

Sample ID **CCV2-140412**	Batch ID: **R72356**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140412A**	Analysis Date: **4/13/2014 12:06:39 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.72	0.200	5.000	0	94.3	80	120			
Surr: Tetrachlorethene	0.409		0.4000		102	70	134			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140412B

The QC data in batch 62867 applies to the following samples: 1404133-41A, 1404133-42A, 1404133-43A, 1404133-44A, 1404133-45A, 1404133-46A, 1404133-47A, 1404133-48A, 1404133-49A

Sample ID **LCS-62867**	Batch ID: **62867**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **LCS**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 12:31:12 AM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.87	0.200	5.000	0	97.5	68	126			
Surr: Tetrachlorethene	0.415		0.4000		104	70	134			

Sample ID **MB-62867**	Batch ID: **62867**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **MBLK**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 2:08:30 AM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	0.200								
Surr: Tetrachlorethene	0.410		0.4000		102	70	134			

Sample ID **1404133-49AMS**	Batch ID: **62867**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MS**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 6:12:56 AM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	2.70	0.228	5.702	0.7852	33.6	68	126			S
Surr: Tetrachlorethene	0.385		0.4562		84.4	70	134			

Sample ID **1404133-49AMSD**	Batch ID: **62867**	TestNo: **M8015V**	Units: **mg/Kg-dry**
SampType: **MSD**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 6:37:10 AM**	Prep Date: **4/12/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	1.78	0.237	5.933	0.7852	16.8	68	126	40.9	30	SR
Surr: Tetrachlorethene	0.298		0.4746		62.7	70	134	0	0	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC4_140412B

Sample ID **ICV-140412**	Batch ID: **R72358**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **ICV**	Run ID: **GC4_140412B**	Analysis Date: **4/12/2014 10:34:08 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	8.66	0.200	10.00	0	86.6	80	120			
Surr: Tetrachlorethene	0.380		0.4000		95.0	70	134			

Sample ID **CCV1-140412**	Batch ID: **R72358**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140412B**	Analysis Date: **4/12/2014 6:01:17 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.57	0.200	5.000	0	91.5	80	120			
Surr: Tetrachlorethene	0.408		0.4000		102	70	134			

Sample ID **CCV2-140412**	Batch ID: **R72358**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 12:06:39 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.72	0.200	5.000	0	94.3	80	120			
Surr: Tetrachlorethene	0.409		0.4000		102	70	134			

Sample ID **CCV3-140412**	Batch ID: **R72358**	TestNo: **M8015V**	Units: **mg/Kg**
SampType: **CCV**	Run ID: **GC4_140412B**	Analysis Date: **4/13/2014 7:25:51 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics	4.72	0.200	5.000	0	94.4	80	120			
Surr: Tetrachlorethene	0.406		0.4000		101	70	134			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC8_140414B

The QC data in batch 62916 applies to the following samples: 1404133-50A, 1404133-51A

Sample ID **MB-62916**	Batch ID: **62916**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **MBLK**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 3:55:46 PM**	Prep Date: **4/14/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00200								
Toluene	ND	0.00600								
Ethylbenzene	ND	0.00600								
Xylenes, Total	ND	0.00900								
Surr: a,a,a-Trifluorotoluene	200		200.0		100	87	113			

Sample ID **LCS-62916**	Batch ID: **62916**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **LCS**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 4:15:12 PM**	Prep Date: **4/14/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0495	0.00200	0.0500	0	98.9	81	125			
Toluene	0.0510	0.00600	0.0500	0	102	84	123			
Ethylbenzene	0.0508	0.00600	0.0500	0	102	83	119			
Xylenes, Total	0.152	0.00900	0.150	0	101	81	117			
Surr: a,a,a-Trifluorotoluene	201		200.0		101	87	113			

Sample ID **1404118-01AMS**	Batch ID: **62916**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **MS**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 5:13:05 PM**	Prep Date: **4/14/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0504	0.00200	0.0500	0	101	81	125			
Toluene	0.0521	0.00600	0.0500	0	104	84	123			
Ethylbenzene	0.0520	0.00600	0.0500	0	104	83	119			
Xylenes, Total	0.156	0.00900	0.150	0	104	81	117			
Surr: a,a,a-Trifluorotoluene	202		200.0		101	87	113			

Sample ID **1404118-01AMSD**	Batch ID: **62916**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **MSD**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 5:32:15 PM**	Prep Date: **4/14/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0518	0.00200	0.0500	0	104	81	125	2.75	20	
Toluene	0.0539	0.00600	0.0500	0	108	84	123	3.33	20	
Ethylbenzene	0.0537	0.00600	0.0500	0	107	83	119	3.22	20	
Xylenes, Total	0.162	0.00900	0.150	0	108	81	117	3.64	20	
Surr: a,a,a-Trifluorotoluene	202		200.0		101	87	113	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GC8_140414B

Sample ID **ICV-140414**	Batch ID: **R72378**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **ICV**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 12:26:22 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0968	0.00200	0.100	0	96.8	80	120			
Toluene	0.0998	0.00600	0.100	0	99.8	80	120			
Ethylbenzene	0.100	0.00600	0.100	0	100	80	120			
Xylenes, Total	0.299	0.00900	0.300	0	99.7	80	120			
Surr: a,a,a-Trifluorotoluene	199		200.0		99.5	87	113			

Sample ID **CCV1-140414**	Batch ID: **R72378**	TestNo: **SW8021B**	Units: **mg/L**
SampType: **CCV**	Run ID: **GC8_140414B**	Analysis Date: **4/14/2014 7:10:29 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0498	0.00200	0.0500	0	99.5	80	120			
Toluene	0.0514	0.00600	0.0500	0	103	80	120			
Ethylbenzene	0.0514	0.00600	0.0500	0	103	80	120			
Xylenes, Total	0.154	0.00900	0.150	0	102	80	120			
Surr: a,a,a-Trifluorotoluene	198		200.0		98.8	87	113			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140416C

The QC data in batch 62921 applies to the following samples: 1404133-50B

Sample ID	MB-62921	Batch ID:	62921	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS3_140416C	Analysis Date:	4/16/2014 3:31:00 PM	Prep Date:	4/16/2014

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	0.300								
Magnesium	ND	0.300								
Potassium	ND	0.300								
Sodium	ND	0.300								

Sample ID	LCS-62921	Batch ID:	62921	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS3_140416C	Analysis Date:	4/16/2014 3:49:00 PM	Prep Date:	4/16/2014

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.86	0.300	5.00	0	97.3	80	120			
Magnesium	4.72	0.300	5.00	0	94.4	80	120			
Potassium	4.95	0.300	5.00	0	99.1	80	120			
Sodium	4.76	0.300	5.00	0	95.2	80	120			

Sample ID	LCSD-62921	Batch ID:	62921	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS3_140416C	Analysis Date:	4/16/2014 3:55:00 PM	Prep Date:	4/16/2014

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.85	0.300	5.00	0	97.0	80	120	0.247	15	
Magnesium	4.80	0.300	5.00	0	95.9	80	120	1.60	15	
Potassium	4.99	0.300	5.00	0	99.7	80	120	0.644	15	
Sodium	4.82	0.300	5.00	0	96.4	80	120	1.34	15	

Sample ID	1404120-01C SD	Batch ID:	62921	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS3_140416C	Analysis Date:	4/16/2014 4:13:00 PM	Prep Date:	4/16/2014

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	11.4	1.50	0	11.6				1.91	10	
Magnesium	5.09	1.50	0	4.91				3.66	10	
Potassium	1.97	1.50	0	1.92				2.67	10	
Sodium	18.9	1.50	0	18.7				0.957	10	

Sample ID	1404120-01C PDS	Batch ID:	62921	TestNo:	SW6020A	Units:	mg/L
SampType:	PDS	Run ID:	ICP-MS3_140416C	Analysis Date:	4/16/2014 5:14:00 PM	Prep Date:	4/16/2014

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	16.0	0.300	5.00	11.6	87.4	80	120			
Magnesium	9.56	0.300	5.00	4.91	93.1	80	120			
Potassium	6.89	0.300	5.00	1.92	99.4	80	120			
Sodium	22.7	0.300	5.00	18.7	80.2	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140416C

Sample ID **1404120-01C MS**	Batch ID: **62921**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS3_140416C**	Analysis Date: **4/16/2014 5:20:00 PM**	Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	16.3	0.300	5.00	11.6	93.2	80	120			
Magnesium	9.58	0.300	5.00	4.91	93.4	80	120			
Potassium	6.88	0.300	5.00	1.92	99.1	80	120			
Sodium	23.0	0.300	5.00	18.7	86.6	80	120			

Sample ID **1404120-01C MSD**	Batch ID: **62921**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS3_140416C**	Analysis Date: **4/16/2014 5:26:00 PM**	Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	16.4	0.300	5.00	11.6	96.0	80	120	0.855	15	
Magnesium	9.71	0.300	5.00	4.91	96.1	80	120	1.40	15	
Potassium	6.93	0.300	5.00	1.92	100	80	120	0.826	15	
Sodium	23.4	0.300	5.00	18.7	93.4	80	120	1.46	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140416C

Sample ID	**ILCVL-140416**	Batch ID:	**R72445**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140416C**	Analysis Date:	**4/16/2014 2:59:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.0978	0.300	0.100	0	97.8	70	130			
Magnesium	0.0993	0.300	0.100	0	99.3	70	130			
Potassium	0.112	0.300	0.100	0	112	70	130			
Sodium	0.108	0.300	0.100	0	108	70	130			

Sample ID	**LCVL1-140416**	Batch ID:	**R72445**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140416C**	Analysis Date:	**4/16/2014 5:56:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.0993	0.300	0.100	0	99.3	70	130			
Magnesium	0.0956	0.300	0.100	0	95.6	70	130			
Potassium	0.113	0.300	0.100	0	113	70	130			
Sodium	0.0992	0.300	0.100	0	99.2	70	130			

Sample ID	**LCVL2-140416**	Batch ID:	**R72445**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140416C**	Analysis Date:	**4/16/2014 7:45:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.106	0.300	0.100	0	106	70	130			
Magnesium	0.0942	0.300	0.100	0	94.2	70	130			
Potassium	0.107	0.300	0.100	0	107	70	130			
Sodium	0.103	0.300	0.100	0	103	70	130			

Sample ID	**LCVL3-140416**	Batch ID:	**R72445**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140416C**	Analysis Date:	**4/16/2014 9:15:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.0971	0.300	0.100	0	97.1	70	130			
Magnesium	0.0953	0.300	0.100	0	95.3	70	130			
Sodium	0.0965	0.300	0.100	0	96.5	70	130			

Sample ID	**ICV1-140416**	Batch ID:	**R72445**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**ICV**	Run ID:	**ICP-MS3_140416C**	Analysis Date:	**4/16/2014 2:47:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2.51	0.300	2.50	0	100	90	110			
Magnesium	2.45	0.300	2.50	0	97.9	90	110			
Potassium	2.60	0.300	2.50	0	104	90	110			
Sodium	2.42	0.300	2.50	0	96.8	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140416C

Sample ID **CCV1-140416**	Batch ID: **R72445**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS3_140416C**	Analysis Date: **4/16/2014 5:32:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.39	0.300	5.00	0	108	90	110			
Magnesium	5.27	0.300	5.00	0	105	90	110			
Potassium	5.48	0.300	5.00	0	110	90	110			
Sodium	5.30	0.300	5.00	0	106	90	110			

Sample ID **CCV2-140416**	Batch ID: **R72445**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS3_140416C**	Analysis Date: **4/16/2014 7:09:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.43	0.300	5.00	0	109	90	110			
Magnesium	5.24	0.300	5.00	0	105	90	110			
Potassium	5.52	0.300	5.00	0	110	90	110			
Sodium	5.36	0.300	5.00	0	107	90	110			

Sample ID **CCV3-140416**	Batch ID: **R72445**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS3_140416C**	Analysis Date: **4/16/2014 8:39:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.29	0.300	5.00	0	106	90	110			
Magnesium	5.23	0.300	5.00	0	105	90	110			
Sodium	5.27	0.300	5.00	0	105	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140411B

The QC data in batch 62862 applies to the following samples: 1404133-50C

Sample ID	**LCS-62862**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 4:37:06 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110			
Nitrate-N	5.23	0.500	5.000	0	105	90	110			
Sulfate	31.4	3.00	30.00	0	105	90	110			

Sample ID	**LCSD-62862**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCSD**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 4:51:43 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.4	1.00	10.00	0	104	90	110	1.19	20	
Nitrate-N	5.28	0.500	5.000	0	106	90	110	0.966	20	
Sulfate	31.6	3.00	30.00	0	105	90	110	0.594	20	

Sample ID	**MB-62862**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 5:06:19 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.00								
Nitrate-N	ND	0.500								
Sulfate	ND	3.00								

Sample ID	**1404119-01AMS**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MS**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 6:48:33 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	13.0	0.500	4.516	8.711	95.4	90	110			
Sulfate	75.4	3.00	20.00	56.25	95.6	90	110			

Sample ID	**1404119-01AMSD**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MSD**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 7:03:10 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	13.0	0.500	4.516	8.711	95.1	90	110	0.120	20	
Sulfate	75.1	3.00	20.00	56.25	94.3	90	110	0.345	20	

Sample ID	**1404119-01AMS**	Batch ID:	**62862**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MS**	Run ID:	**IC_140411B**	Analysis Date:	**4/11/2014 7:17:46 PM**	Prep Date:	**4/11/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	421	10.0	200.0	276.0	72.7	90	110			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140411B

Sample ID **1404119-01AMSD**	Batch ID: **62862**	TestNo: **E300**	Units: **mg/L**		
SampType: **MSD**	Run ID: **IC_140411B**	Analysis Date: **4/11/2014 7:32:22 PM**	Prep Date: **4/11/2014**		

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	422	10.0	200.0	276.0	73.0	90	110	0.146	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140411B

Sample ID **ICV-140411**	Batch ID: **R72403**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC_140411B**	Analysis Date: **4/11/2014 4:22:30 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.1	1.00	25.00	0	105	90	110			
Nitrate-N	13.0	0.500	12.50	0	104	90	110			
Sulfate	78.7	3.00	75.00	0	105	90	110			

Sample ID **CCV1-140411**	Batch ID: **R72403**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140411B**	Analysis Date: **4/11/2014 7:46:59 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.4	1.00	10.00	0	104	90	110			
Nitrate-N	5.26	0.500	5.000	0	105	90	110			
Sulfate	31.5	3.00	30.00	0	105	90	110			

Qualifiers:			
B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140414B

Sample ID **ICV-140414**	Batch ID: **R72404**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC_140414B**	Analysis Date: **4/14/2014 10:12:23 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	27.1	1.00	25.00	0	108	90	110			
Nitrate-N	13.5	0.500	12.50	0	108	90	110			

Sample ID **CCV2-140414**	Batch ID: **R72404**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140414B**	Analysis Date: **4/14/2014 2:58:48 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.5	1.00	10.00	0	105	90	110			
Nitrate-N	5.23	0.500	5.000	0	105	90	110			

Sample ID **CCV3-140414**	Batch ID: **R72404**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140414B**	Analysis Date: **4/14/2014 6:34:52 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Nitrate-N	5.35	0.500	5.000	0	107	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140415A

The QC data in batch 62931 applies to the following samples: 1404133-01A, 1404133-02A, 1404133-03A, 1404133-04A, 1404133-05A, 1404133-06A, 1404133-07A, 1404133-08A, 1404133-09A, 1404133-10A, 1404133-11A, 1404133-12A, 1404133-13A, 1404133-14A, 1404133-15A, 1404133-16A, 1404133-17A, 1404133-18A, 1404133-19A, 1404133-20A

Sample ID	**LCS-62931**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCS**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 11:33:46 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	50.3	5.00	50.00	0	101	80	120			

Sample ID	**LCSD-62931**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCSD**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 11:48:21 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	50.9	5.00	50.00	0	102	80	120	1.27	15	

Sample ID	**MB-62931**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**MBLK**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 12:02:55 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	5.00								

Sample ID	**1404133-01ADUP**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**DUP**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 1:04:30 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	455	51.5	0	420.3				7.89	10	

Sample ID	**1404133-01AMS**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MS**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 1:19:04 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	540	53.0	106.1	420.3	113	80	120			

Sample ID	**1404133-01AMSD**	Batch ID:	**62931**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MSD**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 1:33:38 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	525	50.2	100.5	420.3	105	80	120	2.75	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140415A

Sample ID	**ICV-140415**	Batch ID:	**R72416**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**ICV**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 11:10:09 AM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.6	5.00	25.00	0	102	90	110			

Sample ID	**CCV1-140415**	Batch ID:	**R72416**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 3:35:32 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	5.00	10.00	0	101	90	110			

Sample ID	**CCV2-140415**	Batch ID:	**R72416**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 6:37:38 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	5.00	10.00	0	101	90	110			

Sample ID	**CCV3-140415**	Batch ID:	**R72416**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140415A**	Analysis Date:	**4/15/2014 7:50:30 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	5.00	10.00	0	101	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140416B

The QC data in batch 62962 applies to the following samples: 1404133-21A, 1404133-22A, 1404133-23A, 1404133-24A, 1404133-25A, 1404133-26A, 1404133-27A, 1404133-28A, 1404133-29A, 1404133-30A, 1404133-31A, 1404133-32A, 1404133-33A, 1404133-34A, 1404133-35A, 1404133-36A, 1404133-37A, 1404133-38A, 1404133-39A

Sample ID	**MB-62962**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**MBLK**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 12:32:17 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	5.00								

Sample ID	**LCS-62962**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCS**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 12:46:52 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	48.9	5.00	50.00	0	97.8	80	120			

Sample ID	**LCSD-62962**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCSD**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 1:01:26 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	49.8	5.00	50.00	0	99.5	80	120	1.75	15	

Sample ID	**1404133-39ADUP**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**DUP**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 6:43:10 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	588	57.0	0	570.9				2.88	10	

Sample ID	**1404133-39AMS**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MS**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 6:57:45 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	798	59.6	119.1	570.9	191	80	120			S

Sample ID	**1404133-39AMSD**	Batch ID:	**62962**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MSD**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 7:12:19 PM**	Prep Date:	**4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	888	60.4	120.7	570.9	263	80	120	10.6	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140416B

Sample ID	**ICV-140416**	Batch ID:	**R72466**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**ICV**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 8:54:13 AM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.1	5.00	25.00	0	101	90	110			

Sample ID	**CCV1-140416**	Batch ID:	**R72466**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 11:17:17 AM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.81	5.00	10.00	0	98.1	90	110			

Sample ID	**CCV2-140416**	Batch ID:	**R72466**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 3:57:46 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.82	5.00	10.00	0	98.2	90	110			

Sample ID	**CCV3-140416**	Batch ID:	**R72466**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140416B**	Analysis Date:	**4/16/2014 7:26:54 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.99	5.00	10.00	0	99.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140417A

The QC data in batch 62986 applies to the following samples: 1404133-40A, 1404133-41A, 1404133-42A, 1404133-43A, 1404133-44A, 1404133-45A, 1404133-46A, 1404133-47A, 1404133-48A, 1404133-49A

Sample ID	**MB-62986**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**MBLK**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 10:57:30 AM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	5.00								

Sample ID	**LCS-62986**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCS**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 11:12:04 AM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	52.8	5.00	50.00	0	106	80	120			

Sample ID	**LCSD-62986**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**LCSD**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 11:26:39 AM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	51.1	5.00	50.00	0	102	80	120	3.31	15	

Sample ID	**1404133-40ADUP**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**DUP**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 11:59:15 AM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	443	51.0	0	425.6				4.04	10	

Sample ID	**1404133-40AMS**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MS**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 12:13:49 PM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	529	48.3	96.51	425.6	107	80	120			

Sample ID	**1404133-40AMSD**	Batch ID:	**62986**	TestNo:	**SW9056A**	Units:	**mg/Kg-dry**
SampType:	**MSD**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 12:28:24 PM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	540	51.3	102.6	425.6	112	80	120	2.09	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140417A

Sample ID	**ICV-140417**	Batch ID:	**R72495**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**ICV**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 10:24:18 AM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.0	5.00	25.00	0	104	90	110			

Sample ID	**CCV1-140417**	Batch ID:	**R72495**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 2:39:34 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	5.00	10.00	0	102	90	110			

Sample ID	**CCV2-140417**	Batch ID:	**R72495**	TestNo:	**SW9056A**	Units:	**mg/Kg**
SampType:	**CCV**	Run ID:	**IC2_140417A**	Analysis Date:	**4/17/2014 4:55:38 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	5.00	10.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_140416C

The QC data in batch 62970 applies to the following samples: 1404133-01A, 1404133-02A, 1404133-03A, 1404133-04A, 1404133-05A, 1404133-06A, 1404133-07A, 1404133-08A, 1404133-09A, 1404133-10A, 1404133-11A, 1404133-12A, 1404133-13A, 1404133-14A, 1404133-15A, 1404133-16A, 1404133-17A, 1404133-18A, 1404133-19A

Sample ID **1404133-19A-DUP** Batch ID: **62970** TestNo: **D2216** Units: **WT%**
SampType: **DUP** Run ID: **PMOIST_140416C** Analysis Date: **4/17/2014 1:06:00 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	5.09	0	0	5.059				0.661	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_140416D

The QC data in batch 62971 applies to the following samples: 1404133-20A, 1404133-21A, 1404133-22A, 1404133-23A, 1404133-24A, 1404133-25A, 1404133-26A, 1404133-27A, 1404133-28A, 1404133-29A, 1404133-30A, 1404133-31A, 1404133-32A, 1404133-33A, 1404133-34A, 1404133-35A, 1404133-36A, 1404133-37A, 1404133-38A, 1404133-39A

Sample ID **1404133-39A-DUP** Batch ID: **62971** TestNo: **D2216** Units: **WT%**

SampType: **DUP** Run ID: **PMOIST_140416D** Analysis Date: **4/17/2014 1:15:00 PM** Prep Date: **4/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	18.9	0	0	19.43				2.64	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_140417C

The QC data in batch 62988 applies to the following samples: 1404133-40A, 1404133-41A, 1404133-42A, 1404133-43A, 1404133-44A, 1404133-45A, 1404133-46A, 1404133-47A, 1404133-48A, 1404133-49A

Sample ID	**1404137-28A-DUP**	Batch ID:	**62988**	TestNo:	**D2216**	Units:	**WT%**
SampType:	**DUP**	Run ID:	**PMOIST_140417C**	Analysis Date:	**4/18/2014 11:46:00 AM**	Prep Date:	**4/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture	13.1	0	0	13.99				6.92	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140415B

The QC data in batch 62937 applies to the following samples: 1404133-50C

Sample ID	**MB-62937**	Batch ID:	**62937**	TestNo:	**M2320 B**	Units:	**mg/L @ pH 4.34**
SampType:	**MBLK**	Run ID:	**TITRATOR_140415B**	Analysis Date:	**4/15/2014 1:53:00 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	20.0								
Alkalinity, Carbonate (As CaCO3)	ND	20.0								
Alkalinity, Hydroxide (As CaCO3)	ND	20.0								
Alkalinity, Total (As CaCO3)	ND	20.0								

Sample ID	**LCS-62937**	Batch ID:	**62937**	TestNo:	**M2320 B**	Units:	**mg/L @ pH 4.3**
SampType:	**LCS**	Run ID:	**TITRATOR_140415B**	Analysis Date:	**4/15/2014 1:56:00 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	54.0	20.0	50.00	0	108	74	129			

Sample ID	**1404133-50C DUP**	Batch ID:	**62937**	TestNo:	**M2320 B**	Units:	**mg/L @ pH 4.52**
SampType:	**DUP**	Run ID:	**TITRATOR_140415B**	Analysis Date:	**4/15/2014 3:17:00 PM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	665	25.0	0	673.4				1.30	20	
Alkalinity, Carbonate (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	665	25.0	0	673.4				1.30	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140415B

Sample ID **ICV-140415**	Batch ID: **R72417**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.49**
SampType: **ICV**	Run ID: **TITRATOR_140415B**	Analysis Date: **4/15/2014 1:51:00 PM**	Prep Date: **4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1.52	20.0	0							
Alkalinity, Carbonate (As CaCO3)	100	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	98	102			

Sample ID **CCV1-140415**	Batch ID: **R72417**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.5**
SampType: **CCV**	Run ID: **TITRATOR_140415B**	Analysis Date: **4/15/2014 3:22:00 PM**	Prep Date: **4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	17.4	20.0	0							
Alkalinity, Carbonate (As CaCO3)	80.5	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	97.9	20.0	100.0	0	97.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404133
Project: Legacy Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_140415D

The QC data in batch 62872 applies to the following samples: 1404133-50C

Sample ID	**MB-62872**	Batch ID:	**62872**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**WC_140415D**	Analysis Date:	**4/16/2014 9:40:00 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	10.0								

Sample ID	**LCS-62872**	Batch ID:	**62872**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**WC_140415D**	Analysis Date:	**4/16/2014 9:40:00 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	761	10.0	745.6	0	102	90	113			

Sample ID	**1404113-02A-DUP**	Batch ID:	**62872**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140415D**	Analysis Date:	**4/16/2014 9:40:00 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	3110	50.0	0	3090				0.484	5	

Sample ID	**1404141-02D-DUP**	Batch ID:	**62872**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140415D**	Analysis Date:	**4/16/2014 9:40:00 AM**	Prep Date:	**4/15/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	522	10.0	0	523.0				0.191	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

May 05, 2014

Coty Woolf
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 1404295

RE: Legacy Trash Pit

Dear Coty Woolf:

DHL Analytical, Inc. received 2 sample(s) on 4/25/2014 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-14-12

Table of Contents

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants

507 N. Marienfeld, Ste. 200
Midland, TX 79701
432-687-0901

Data Reported to: Cory Linoff

DATE: 4/24/14 PAGE 1 OF 1
PO #: LAB WORK ORDER #: 1404295
PROJECT LOCATION OR NAME: Legacy Tracy #1
LAI PROJECT #: 14-0107-01 COLLECTOR: Kw

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: NM

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☒ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☒ | Ca, Mg, K, Na, Silica, NO3

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	TDS	CHLORIDES	ANIONS ☐ ALKALINITY ☒	Ca, Mg, K, Na, Silica, NO3	FIELD NOTES
MW 15 ~~SH~~	01	4/24/14	1120	W	1				X		X	X	X		
"		"	1120	"	1		X		X			X			
MW 16	02	"	1130	"	1				X		X	X	X		
"		V	1130	V	1		X		X			X			

TOTAL

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
4/24/14 4:10pm

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)
4/25/14 8:32

RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 1.4 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED
☒ CARRIER BILL # Fedex
☐ HAND DELIVERED

LSO

WWW.LSO.COM
Questions? Call 800-800-8984

Airbill No. 48814338

48814338

1. To: Print Name (Person): PHL analytical Phone (Important): (512)388-8[illegible]

Company Name: PHL analytical

Street Address (No P.O. Box or P.O. Box Zip Code® Deliveries): 2300 Double creek Dr

Suite / Floor:

City: Round Rock State: TX Zip: 78664

2. From: Print Name (Person): Phone (Important): 432-687-0001

Company Name: LARSON & ASSOCIATES, INC.

Street Address: 507 N. MARIENFELD

Suite / Floor: #200

City: MIDLAND State: TX Zip: 79701

3. Service: Visit www.lso.com for availability of services to your destination and enjoy added features by creating your shipping label online.

- ☐ **LSO Priority Overnight*** By 10:30 a.m. to most cities
- ☐ **LSO Early Overnight*** By 8:30 a.m. select cities
- ☐ **LSO Economy Next Day*** By 3 p.m. to most cities
- ☐ **LSO 2nd Day***
- ☐ **LSO Ground**
- ☐ **LSO Saturday***
- ☐ Other_____

*Check commitment times and availability at www.lso.com

Assumed LSO Priority Overnight service unless otherwise noted.

☐ Deliver Without Delivery Signature (See Limits of Liability below)

Release Signature

L_____ x W_____ x H_____

4. Package: Weight: 1lb

Your Company's Billing Reference Information

Ship Date: (mm/dd/yy) / /

5. Payment:

FOR DRIVER USE ONLY

Driver Number 10129

☐ Check here if LSO Supplies are used with LSO Ground Service.

Pick-up Location C

Date: 4-26-13

Time: 1010

City Code:

©1991-2012 Lone Star Overnight

LIMIT OF LIABILITY: We are not responsible for claims in excess of $100 for any reason unless you: 1) declare a greater value (not to exceed $25,000); 2) pay an additional fee; 3) and document your actual loss in a timely manner. We will not pay any claim in excess of the actual loss. We are not liable for any special or consequential damages. Additional limitations of liability are contained in our current Service Guide. If you ask us to deliver a package without obtaining a delivery signature, you release us of all liability for claims resulting from such service. **NO DELIVERY SIGNATURE WILL BE OBTAINED FOR LSO EARLY OVERNIGHT SERVICE. PACKAGING PROVIDED BY LSO IS NOT INTENDED FOR USE ON LSO GROUND SERVICE. OVERSIZE RATES MAY APPLY. DELIVERY COMMITMENTS MAY VARY. ADDITIONAL FEES MAY APPLY.**

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates

Date Received: 4/25/2014

Work Order Number 1404295

Received by JB

Checklist completed by: Signature 4/25/2014 Date

Reviewed by JD Initials 4/25/2014 Date

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	1.6 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☑	No ☐	NA ☐ LOT # 7179
	Adjusted? NO		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Page 1 of 1

DHL Analytical, Inc. **Date:** *05-May-14*

CLIENT: Larson & Associates
Project: Legacy Trash Pit
Lab Order: 1404295

CASE NARRATIVE

Sample was analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis
Method E300 - Anions Analysis
Method M2320 B - Alkalinity
Method M2540C - Total Dissolved Solids Analysis

LOG IN

The samples were received and log-in performed on 4/25/2014. A total of 2 samples were received and analyzed. The samples arrived in good condition and were properly packaged. Samples were collected in Mountain Standard Time.

METALS ANALYSIS

For Metals Analysis, the recovery of Potassium for the post Digestion Spike (140428/63-01 PDS) was marginally above the method control limits. These are flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

DHL Analytical, Inc.

Date: *05-May-14*

CLIENT: Larson & Associates
Project: Legacy Trash Pit
Lab Order: 1404295

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1404295-01	MW-15		04/24/14 11:20 AM	4/25/2014
1404295-02	MW-16		04/24/14 11:30 AM	4/25/2014

Lab Order: 1404295
Client: Larson & Associates
Project: Legacy Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1404295-01A	MW-15	04/24/14 11:20 AM	Aqueous	M2320 B	Alkalinity Preparation	04/25/14 02:47 PM	63182
	MW-15	04/24/14 11:20 AM	Aqueous	E300	Anion Preparation	04/28/14 02:18 PM	63214
	MW-15	04/24/14 11:20 AM	Aqueous	E300	Anion Preparation	04/25/14 02:56 PM	63183
	MW-15	04/24/14 11:20 AM	Aqueous	M2540C	TDS Preparation	04/30/14 05:30 PM	63271
1404295-01B	MW-15	04/24/14 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/28/14 09:42 AM	63199
1404295-02A	MW-16	04/24/14 11:30 AM	Aqueous	M2320 B	Alkalinity Preparation	04/25/14 02:47 PM	63182
	MW-16	04/24/14 11:30 AM	Aqueous	E300	Anion Preparation	04/28/14 02:18 PM	63214
	MW-16	04/24/14 11:30 AM	Aqueous	E300	Anion Preparation	04/25/14 02:56 PM	63183
	MW-16	04/24/14 11:30 AM	Aqueous	M2540C	TDS Preparation	04/30/14 05:30 PM	63271
1404295-02B	MW-16	04/24/14 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/28/14 09:42 AM	63199
	MW-16	04/24/14 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/28/14 09:42 AM	63199

Lab Order: 1404295
Client: Larson & Associates
Project: Legacy Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1404295-01A	MW-15	Aqueous	M2320 B	Alkalinity	63182	1	04/25/14 04:06 PM	TITRATOR_140425B
	MW-15	Aqueous	E300	Anions by IC method - Water	63214	100	04/28/14 08:34 PM	IC2_140428B
	MW-15	Aqueous	E300	Anions by IC method - Water	63183	1	04/25/14 06:46 PM	IC2_140425A
	MW-15	Aqueous	M2540C	Total Dissolved Solids	63271	1	05/01/14 09:00 AM	WC_140430C
1404295-01B	MW-15	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	63199	50	04/29/14 11:58 AM	ICP-MS4_140429A
1404295-02A	MW-16	Aqueous	M2320 B	Alkalinity	63182	1	04/25/14 04:12 PM	TITRATOR_140425B
	MW-16	Aqueous	E300	Anions by IC method - Water	63214	100	04/28/14 08:49 PM	IC2_140428B
	MW-16	Aqueous	E300	Anions by IC method - Water	63183	1	04/25/14 07:00 PM	IC2_140425A
	MW-16	Aqueous	M2540C	Total Dissolved Solids	63271	1	05/01/14 09:00 AM	WC_140430C
1404295-02B	MW-16	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	63199	100	04/29/14 12:36 PM	ICP-MS4_140429A
	MW-16	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	63199	50	04/29/14 12:00 PM	ICP-MS4_140429A

DHL Analytical, Inc.

Date: *05-May-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-15
Project:	Legacy Trash Pit	**Lab ID:**	1404295-01
Project No:	14-0107-01	**Collection Date:**	04/24/14 11:20 AM
Lab Order:	1404295	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SW**
Calcium	304	5.00	15.0		mg/L	50	04/29/14 11:58 AM
Magnesium	201	5.00	15.0		mg/L	50	04/29/14 11:58 AM
Potassium	15.9	5.00	15.0		mg/L	50	04/29/14 11:58 AM
Sodium	430	5.00	15.0		mg/L	50	04/29/14 11:58 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **AV**
Chloride	1320	30.0	100		mg/L	100	04/28/14 08:34 PM
Nitrate-N	0.757	0.100	0.500		mg/L	1	04/25/14 06:46 PM
Sulfate	492	100	300		mg/L	100	04/28/14 08:34 PM
ALKALINITY		**M2320 B**					Analyst: **LM**
Alkalinity, Bicarbonate (As CaCO3)	249	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:06 PM
Alkalinity, Carbonate (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:06 PM
Alkalinity, Hydroxide (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:06 PM
Alkalinity, Total (As CaCO3)	249	25.0	25.0		mg/L @ pH 4.51	1	04/25/14 04:06 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **MK**
Total Dissolved Solids (Residue, Filterable)	2940	50.0	50.0		mg/L	1	05/01/14 09:00 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *05-May-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-16
Project:	Legacy Trash Pit	**Lab ID:**	1404295-02
Project No:	14-0107-01	**Collection Date:**	04/24/14 11:30 AM
Lab Order:	1404295	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020A**					Analyst: **SW**
Calcium	778	10.0	30.0		mg/L	100	04/29/14 12:36 PM
Magnesium	172	5.00	15.0		mg/L	50	04/29/14 12:00 PM
Potassium	16.3	5.00	15.0		mg/L	50	04/29/14 12:00 PM
Sodium	836	5.00	15.0		mg/L	50	04/29/14 12:00 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **AV**
Chloride	1810	30.0	100		mg/L	100	04/28/14 08:49 PM
Nitrate-N	4.39	0.100	0.500		mg/L	1	04/25/14 07:00 PM
Sulfate	555	100	300		mg/L	100	04/28/14 08:49 PM
ALKALINITY		**M2320 B**					Analyst: **LM**
Alkalinity, Bicarbonate (As CaCO3)	238	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:12 PM
Alkalinity, Carbonate (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:12 PM
Alkalinity, Hydroxide (As CaCO3)	ND	12.5	25.0		mg/L @ pH 4.51	1	04/25/14 04:12 PM
Alkalinity, Total (As CaCO3)	238	25.0	25.0		mg/L @ pH 4.51	1	04/25/14 04:12 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **MK**
Total Dissolved Solids (Residue, Filterable)	4210	50.0	50.0		mg/L	1	05/01/14 09:00 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_140429A

The QC data in batch 63199 applies to the following samples: 1404295-01B, 1404295-02B

Sample ID **MB-63199** Batch ID: **63199** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_140429A** Analysis Date: **4/29/2014 11:39:00 AM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	0.300								
Magnesium	ND	0.300								
Potassium	ND	0.300								
Sodium	ND	0.300								

Sample ID **LCS-63199** Batch ID: **63199** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_140429A** Analysis Date: **4/29/2014 11:41:00 AM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.67	0.300	5.00	0	93.3	80	120			
Magnesium	4.85	0.300	5.00	0	97.0	80	120			
Potassium	4.98	0.300	5.00	0	99.5	80	120			
Sodium	4.82	0.300	5.00	0	96.4	80	120			

Sample ID **LCSD-63199** Batch ID: **63199** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_140429A** Analysis Date: **4/29/2014 11:42:00 AM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.65	0.300	5.00	0	93.0	80	120	0.351	15	
Magnesium	4.89	0.300	5.00	0	97.7	80	120	0.746	15	
Potassium	4.85	0.300	5.00	0	97.0	80	120	2.59	15	
Sodium	4.85	0.300	5.00	0	96.9	80	120	0.533	15	

Sample ID **1404283-01A SD** Batch ID: **63199** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_140429A** Analysis Date: **4/29/2014 11:48:00 AM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	12.3	7.50	0	12.8				4.14	10	
Magnesium	4.54	7.50	0	4.58				0.940	10	
Potassium	4.27	7.50	0	4.39				2.71	10	
Sodium	29.7	7.50	0	30.4				2.39	10	

Sample ID **1404283-01A PDS** Batch ID: **63199** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_140429A** Analysis Date: **4/29/2014 12:08:00 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	41.0	1.50	25.0	12.8	113	80	120			
Magnesium	33.6	1.50	25.0	4.58	116	80	120			
Potassium	34.5	1.50	25.0	4.39	121	80	120			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_140429A

Sample ID **1404283-01A PDS**	Batch ID: **63199**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:08:00 PM**	Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	60.4	1.50	25.0	30.5	120	80	120			

Sample ID **1404283-01A MS**	Batch ID: **63199**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:09:00 PM**	Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	17.4	0.300	5.00	12.8	92.5	80	120			
Magnesium	9.52	0.300	5.00	4.70	96.3	80	120			
Potassium	9.27	0.300	5.00	4.55	94.3	80	120			
Sodium	35.8	0.300	5.00	30.7	102	80	120			

Sample ID **1404283-01A MSD**	Batch ID: **63199**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:11:00 PM**	Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	17.3	0.300	5.00	12.8	90.2	80	120	0.657	15	
Magnesium	9.51	0.300	5.00	4.70	96.1	80	120	0.113	15	
Potassium	9.34	0.300	5.00	4.55	95.7	80	120	0.782	15	
Sodium	35.0	0.300	5.00	30.7	87.0	80	120	2.06	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_140429A

Sample ID **ICV-1404029**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 11:00:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2.51	0.300	2.50	0	100	90	110			
Magnesium	2.64	0.300	2.50	0	106	90	110			
Potassium	2.60	0.300	2.50	0	104	90	110			
Sodium	2.68	0.300	2.50	0	107	90	110			

Sample ID **LCVL-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 11:04:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.105	0.300	0.100	0	105	70	130			
Magnesium	0.109	0.300	0.100	0	109	70	130			
Potassium	0.104	0.300	0.100	0	104	70	130			
Sodium	0.101	0.300	0.100	0	101	70	130			

Sample ID **CCV1-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 11:29:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.74	0.300	5.00	0	94.9	90	110			
Magnesium	5.06	0.300	5.00	0	101	90	110			
Potassium	5.00	0.300	5.00	0	100	90	110			
Sodium	4.91	0.300	5.00	0	98.2	90	110			

Sample ID **LCVL1-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 11:33:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.106	0.300	0.100	0	106	70	130			
Magnesium	0.108	0.300	0.100	0	108	70	130			
Potassium	0.103	0.300	0.100	0	103	70	130			
Sodium	0.102	0.300	0.100	0	102	70	130			

Sample ID **CCV2-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:13:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.72	0.300	5.00	0	94.4	90	110			
Magnesium	5.00	0.300	5.00	0	100	90	110			
Potassium	4.88	0.300	5.00	0	97.5	90	110			
Sodium	4.78	0.300	5.00	0	95.6	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_140429A

Sample ID **LCVL2-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:17:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.103	0.300	0.100	0	103	70	130			
Magnesium	0.107	0.300	0.100	0	107	70	130			
Potassium	0.0983	0.300	0.100	0	98.3	70	130			
Sodium	0.104	0.300	0.100	0	104	70	130			

Sample ID **CCV3-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:40:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.70	0.300	5.00	0	94.0	90	110			

Sample ID **LCVL3-140429**	Batch ID: **R72754**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_140429A**	Analysis Date: **4/29/2014 12:44:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.101	0.300	0.100	0	101	70	130			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140425A

The QC data in batch 63183 applies to the following samples: 1404295-01A, 1404295-02A

Sample ID	**MB-63183**	Batch ID:	**63183**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**IC2_140425A**	Analysis Date:	**4/25/2014 3:24:11 PM**	Prep Date:	**4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	ND	0.500								

Sample ID	**LCS-63183**	Batch ID:	**63183**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**IC2_140425A**	Analysis Date:	**4/25/2014 3:38:45 PM**	Prep Date:	**4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	5.15	0.500	5.000	0	103	90	110			

Sample ID	**LCSD-63183**	Batch ID:	**63183**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCSD**	Run ID:	**IC2_140425A**	Analysis Date:	**4/25/2014 3:53:20 PM**	Prep Date:	**4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	5.09	0.500	5.000	0	102	90	110	1.32	20	

Sample ID	**1404284-08BMS**	Batch ID:	**63183**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MS**	Run ID:	**IC2_140425A**	Analysis Date:	**4/25/2014 4:34:57 PM**	Prep Date:	**4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	14.4	0.500	4.516	9.923	99.1	90	110			

Sample ID	**1404284-08BMSD**	Batch ID:	**63183**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MSD**	Run ID:	**IC2_140425A**	Analysis Date:	**4/25/2014 4:49:31 PM**	Prep Date:	**4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	14.3	0.500	4.516	9.923	97.3	90	110	0.567	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140425A

Sample ID **ICV-140425**	Batch ID: **R72810**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_140425A**	Analysis Date: **4/25/2014 3:06:29 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	13.0	0.500	12.50	0	104	90	110			

Sample ID **CCV1-140425**	Batch ID: **R72810**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_140425A**	Analysis Date: **4/25/2014 7:29:50 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate-N	5.32	0.500	5.000	0	106	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140428B

The QC data in batch 63214 applies to the following samples: 1404295-01A, 1404295-02A

Sample ID **MB-63214** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 3:48:24 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.00								
Sulfate	ND	3.00								

Sample ID **LCS-63214** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 4:02:59 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.4	1.00	10.00	0	104	90	110			
Sulfate	31.0	3.00	30.00	0	103	90	110			

Sample ID **LCSD-63214** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 4:17:33 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.4	1.00	10.00	0	104	90	110	0.235	20	
Sulfate	31.2	3.00	30.00	0	104	90	110	0.499	20	

Sample ID **1404297-08CMS** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 9:18:36 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3140	100	2000	1168	98.8	90	110			
Sulfate	3330	300	2000	1445	94.3	90	110			

Sample ID **1404297-08CMSD** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 9:33:10 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3170	100	2000	1168	100	90	110	0.988	20	
Sulfate	3370	300	2000	1445	96.4	90	110	1.25	20	

Sample ID **1404297-10CMS** Batch ID: **63214** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_140428B** Analysis Date: **4/28/2014 10:02:19 PM** Prep Date: **4/28/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2670	100	2000	660.1	101	90	110			
Sulfate	2740	300	2000	850.9	94.4	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140428B

Sample ID **1404297-10CMSD**	Batch ID: **63214**	TestNo: **E300**	Units: **mg/L**		
SampType: **MSD**	Run ID: **IC2_140428B**	Analysis Date: **4/28/2014 10:16:54 PM**	Prep Date: **4/28/2014**		

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2670	100	2000	660.1	100	90	110	0.171	20	
Sulfate	2730	300	2000	850.9	93.9	90	110	0.319	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_140428B

Sample ID **ICV-140428**	Batch ID: **R72816**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_140428B**	Analysis Date: **4/28/2014 10:44:44 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.9	1.00	25.00	0	108	90	110			
Sulfate	79.6	3.00	75.00	0	106	90	110			

Sample ID **CCV1-140428**	Batch ID: **R72816**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_140428B**	Analysis Date: **4/28/2014 3:30:56 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Sulfate	31.3	3.00	30.00	0	104	90	110			

Sample ID **CCV2-140428**	Batch ID: **R72816**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_140428B**	Analysis Date: **4/28/2014 6:52:51 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.5	1.00	10.00	0	105	90	110			
Sulfate	31.3	3.00	30.00	0	104	90	110			

Sample ID **CCV3-140428**	Batch ID: **R72816**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_140428B**	Analysis Date: **4/28/2014 10:46:03 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.6	1.00	10.00	0	106	90	110			
Sulfate	31.4	3.00	30.00	0	105	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140425B

The QC data in batch 63182 applies to the following samples: 1404295-01A, 1404295-02A

Sample ID **MB-63182**	Batch ID: **63182**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.28**
SampType: **MBLK**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 2:58:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	20.0								
Alkalinity, Carbonate (As CaCO3)	ND	20.0								
Alkalinity, Hydroxide (As CaCO3)	ND	20.0								
Alkalinity, Total (As CaCO3)	ND	20.0								

Sample ID **LCS-63182**	Batch ID: **63182**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.06**
SampType: **LCS**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 3:02:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	56.5	20.0	50.00	0	113	74	129			

Sample ID **1404283-01D DUP**	Batch ID: **63182**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.44**
SampType: **DUP**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 3:07:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	41.1	25.0	0	40.90				0.488	20	
Alkalinity, Carbonate (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	41.1	25.0	0	40.90				0.488	20	

Sample ID **1404297-10C DUP**	Batch ID: **63182**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.52**
SampType: **DUP**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 5:07:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	662	25.0	0	660.2				0.287	20	
Alkalinity, Carbonate (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	25.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	662	25.0	0	660.2				0.287	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140425B

Sample ID **ICV-140425**	Batch ID: **R72719**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.49**
SampType: **ICV**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 2:57:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	7.04	20.0	0							
Alkalinity, Carbonate (As CaCO3)	93.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	101	20.0	100.0	0	101	98	102			

Sample ID **CCV1-140425**	Batch ID: **R72719**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.49**
SampType: **CCV**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 3:54:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	15.9	20.0	0							
Alkalinity, Carbonate (As CaCO3)	83.2	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	99.1	20.0	100.0	0	99.1	90	110			

Sample ID **CCV2-140425**	Batch ID: **R72719**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.48**
SampType: **CCV**	Run ID: **TITRATOR_140425B**	Analysis Date: **4/25/2014 5:12:00 PM**	Prep Date: **4/25/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	23.8	20.0	0							
Alkalinity, Carbonate (As CaCO3)	75.0	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	98.9	20.0	100.0	0	98.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1404295
Project: Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_140430C

The QC data in batch 63271 applies to the following samples: 1404295-01A, 1404295-02A

Sample ID	**MB-63271**	Batch ID:	**63271**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**WC_140430C**	Analysis Date:	**5/1/2014 9:00:00 AM**	Prep Date:	**4/30/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	10.0								

Sample ID	**LCS-63271**	Batch ID:	**63271**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**WC_140430C**	Analysis Date:	**5/1/2014 9:00:00 AM**	Prep Date:	**4/30/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	757	10.0	745.6	0	102	90	113			

Sample ID	**1404284-01B-DUP**	Batch ID:	**63271**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140430C**	Analysis Date:	**5/1/2014 9:00:00 AM**	Prep Date:	**4/30/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	693	10.0	0	691.0				0.289	5	

Sample ID	**1404295-02A-DUP**	Batch ID:	**63271**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140430C**	Analysis Date:	**5/1/2014 9:00:00 AM**	Prep Date:	**4/30/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	4220	50.0	0	4210				0.237	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

June 24, 2014

Coty Woolf
Larson & Associates
507 N. Marienfeld #200
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 1406153

RE: Eunice NM / Legacy Trash Pit

Dear Coty Woolf:

DHL Analytical, Inc. received 2 sample(s) on 6/14/2014 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-14-12

Table of Contents

DHL ANALYTICAL
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№ 58739

CHAIN-OF-CUSTODY

CLIENT: Larson and associates
ADDRESS: 507 N Marienfeld Ste 1200
PHONE: (432)687-0901 FAX/E-MAIL:
DATA REPORTED TO: mark Larson
ADDITIONAL REPORT COPIES TO: cory Wolf

DATE: 6-13-14 PAGE 1 OF 1
PO #: DHL WORK ORDER #: 1406153
PROJECT LOCATION OR NAME: Eunice NM / Legacy Trash Pit
CLENT PROJECT #: 14-0107-01 COLLECTOR:

Authorize 5% surcharge for TRRP Report? ☐ Yes ☑ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ (METHOD 8021) | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO (METHOD 8015) ☐ DRO (METHOD 8105) ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8081 PEST ☐ 608 PEST/PCB ☐ 8270 PEST ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ 8330 EXPL ☐ PERCHLORATE ☐ | METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ | RCRA ☐ TX11 ☐ ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☑ ☐ | CHLORIDE ☐ ANIONS ☐ | TCLP SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☑ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | Containers

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES	Containers	FIELD NOTES
MW 1	01	6-13-14	9:30am	W	Poly	2				✓		✓ ✓ ✓ ✓		
MW 2	02	6-13-14	9:58am	W	Poly	2				✓		✓ ✓ ✓ ✓		
TOTAL														

RELINQUISHED BY: (Signature) DATE/TIME 6-13-14 11:55am RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME 6/13/14 830 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return 3

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☑
NORMAL ☐
OTHER ☐ _____

LABORATORY USE ONLY:
RECEIVING TEMP: 0.9 THERM #: 57
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☐ NOT USED
☐ CARRIER BILL #:
☐ APC DELIVERY
☐ HAND DELIVERED

LSO
It's all in the delivery.

Airbill No. Z1013688

Lone Star Overnight
1-800-800-8984
www.lso.com

SHIP TO:
SAMPLE RECEIVING
DHL ANALYTICAL
2300 DOUBLE CREEK DRIVE
ROUND ROCK, TX 78664
5123888222

From:
RICHARD WATT
LARSON AND ASSOCIATES
507 N. MARIENFELD, SUITE 200
MIDLAND, TX 79707
4326870901

B | **AUS**

LSO PRIORITY OVERNIGHT
10:30 IN MOST CITIES
LATER IN REMOTE CITIES

PRINT DATE: 6/13/2014
QUICKCODE: DHL WEIGHT: 16.00LBS
REF 1: 1D00V.0000
ADULT SIG REQ

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name Larson & Associates | Date Received: 6/14/2014

Work Order Number 1406153 | Received by JB

Checklist completed by: [signature] Signature | 6/16/2014 Date | Reviewed by: DL Initials | 6/16/2014 Date

Carrier name LoneStar

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☐	No ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	0.9 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted Larson | Date contacted: 6/16/14 | Person contacted Coty

Contacted by: [signature] | Regarding Nitrates - hold time

Comments: Per Coty, proceed with analysis in advance of hold time for Nitrates. Flag data.

Corrective Action

DHL Analytical, Inc. **Date:** *24-Jun-14*

CLIENT: Larson & Associates
Project: Eunice NM / Legacy Trash Pit
Lab Order: 1406153

CASE NARRATIVE

Sample was analyzed using the methods outlined in the following references:

Method E300 - Anions Analysis
Method SW6020A - Metals Analysis
Method M2540C - Total Dissolved Solids Analysis
Method M2320 B - Alkalinity Analysis

LOG IN

The samples were received and log-in performed on 6/14/14. A total of 2 samples were received. The Time of Collection was Mountain Standard Time. The samples were submitted to DHL Analytical outside of the HoldTime for the Anions analysis (Nitrate-N). Proceeded with analysis as per the client. All Nitrate-N results are flagged with a "C" to designate this. The samples arrived in good condition and were properly packaged.

ANIONS ANALYSIS

For Anions analysis performed on 6/18/14 the matrix spikes and matrix spike duplicate recoveries (1406125-03 MS/MSD & 1406177-02 MS/MSD) were slightly below control limits for Chloride and/or Nitrate-N. These are flagged accordingly in the QC summary report. The reference samples selected for the matrix spikes and matrix spike duplicates were not from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Anions analysis performed on 6/18/14 the CCVs (CCV2-140618 & CCV3-140618) were slightly below control limits for Nitrate-N. These are flagged accordingly. The associated samples were the matrix spikes and matrix spike duplicates (1406125-03 MS/MSD & 1406177-02 MS/MSD). These QC samples may be biased low for this analyte. No further corrective actions were taken.

METALS ANALYSIS

For Metals analysis performed on 6/19/14 the matrix spike and matrix spike duplicate recoveries were above control limits for all analytes. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Metals analysis performed on 6/19/14 the PDS recovery was slightly below control limits for Magnesium. This is flagged accordingly. The serial dilution was within control limits for this analyte. No further corrective actions were taken.

For Metals analysis performed on 6/19/14 the LCVLs (ILCVL-140619 & LCVL1-140619) were slightly above control limits for Sodium. These are flagged accordingly. The associated ICV and CCV (ICV-140619 & CCV1-140619) were within control limits for this analyte. No further corrective actions were taken.

TDS ANALYSIS

For TDS analysis performed on 6/16/14 the sample and sample duplicate (1406127-01 and 1406127-1 DUP) had the RPD slightly above control limits. This is flagged accordingly in the QC summary report. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *24-Jun-14*

CLIENT: Larson & Associates
Project: Eunice NM / Legacy Trash Pit
Lab Order: 1406153

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1406153-01	MW-1		06/13/14 09:20 AM	6/14/2014
1406153-02	MW-2		06/13/14 09:59 AM	6/14/2014

Lab Order: 1406153
Client: Larson & Associates
Project: Eunice NM / Legacy Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1406153-01A	MW-1	06/13/14 09:20 AM	Aqueous	M2320 B	Alkalinity Preparation	06/17/14 09:04 AM	64141
	MW-1	06/13/14 09:20 AM	Aqueous	E300	Anion Preparation	06/18/14 09:16 AM	64209
	MW-1	06/13/14 09:20 AM	Aqueous	E300	Anion Preparation	06/18/14 09:16 AM	64209
	MW-1	06/13/14 09:20 AM	Aqueous	M2540C	TDS Preparation	06/16/14 06:28 PM	64173
1406153-01B	MW-1	06/13/14 09:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved - 10µ Filter	06/19/14 10:31 AM	64243
	MW-1	06/13/14 09:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved - 10µ Filter	06/19/14 10:31 AM	64243
1406153-02A	MW-2	06/13/14 09:59 AM	Aqueous	M2320 B	Alkalinity Preparation	06/17/14 09:04 AM	64141
	MW-2	06/13/14 09:59 AM	Aqueous	E300	Anion Preparation	06/18/14 09:16 AM	64209
	MW-2	06/13/14 09:59 AM	Aqueous	E300	Anion Preparation	06/18/14 09:16 AM	64209
	MW-2	06/13/14 09:59 AM	Aqueous	M2540C	TDS Preparation	06/16/14 06:28 PM	64173
1406153-02B	MW-2	06/13/14 09:59 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved - 10µ Filter	06/19/14 10:31 AM	64243

Lab Order: 1406153
Client: Larson & Associates
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1406153-01A	MW-1	Aqueous	M2320 B	Alkalinity	64141	1	06/17/14 12:33 PM	TITRATOR_140617B
	MW-1	Aqueous	E300	Anions by IC method - Water	64209	100	06/18/14 03:14 PM	IC_140618A
	MW-1	Aqueous	E300	Anions by IC method - Water	64209	1	06/18/14 10:28 AM	IC_140618A
	MW-1	Aqueous	M2540C	Total Dissolved Solids	64173	1	06/17/14 09:01 AM	WC_140616B
1406153-01B	MW-1	Aqueous	SW6020A	Trace Metals-ICPMS (10µ filter)	64243	100	06/19/14 04:29 PM	ICP-MS3_140619A
	MW-1	Aqueous	SW6020A	Trace Metals-ICPMS (10µ filter)	64243	50	06/19/14 03:53 PM	ICP-MS3_140619A
1406153-02A	MW-2	Aqueous	M2320 B	Alkalinity	64141	1	06/17/14 12:37 PM	TITRATOR_140617B
	MW-2	Aqueous	E300	Anions by IC method - Water	64209	10	06/18/14 03:28 PM	IC_140618A
	MW-2	Aqueous	E300	Anions by IC method - Water	64209	1	06/18/14 10:43 AM	IC_140618A
	MW-2	Aqueous	M2540C	Total Dissolved Solids	64173	1	06/17/14 09:01 AM	WC_140616B
1406153-02B	MW-2	Aqueous	SW6020A	Trace Metals-ICPMS (10µ filter)	64243	50	06/19/14 04:05 PM	ICP-MS3_140619A

DHL Analytical, Inc.

Date: *24-Jun-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-1
Project:	Eunice NM / Legacy Trash Pit	**Lab ID:**	1406153-01
Project No:	14-0107-01	**Collection Date:**	06/13/14 09:20 AM
Lab Order:	1406153	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS-ICPMS (10µ FILTER)		**SW6020A**					Analyst: **SW**
Calcium	447	5.00	15.0		mg/L	50	06/19/14 03:53 PM
Magnesium	384	5.00	15.0		mg/L	50	06/19/14 03:53 PM
Potassium	29.5	5.00	15.0		mg/L	50	06/19/14 03:53 PM
Sodium	1420	10.0	30.0		mg/L	100	06/19/14 04:29 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **AV**
Chloride	2720	30.0	100		mg/L	100	06/18/14 03:14 PM
Nitrate-N	ND	0.100	0.500	C	mg/L	1	06/18/14 10:28 AM
Sulfate	896	100	300		mg/L	100	06/18/14 03:14 PM
ALKALINITY		**M2320 B**					Analyst: **LM**
Alkalinity, Bicarbonate (As CaCO3)	394	10.0	20.0		mg/L @ pH 4.51	1	06/17/14 12:33 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	06/17/14 12:33 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.51	1	06/17/14 12:33 PM
Alkalinity, Total (As CaCO3)	394	20.0	20.0		mg/L @ pH 4.51	1	06/17/14 12:33 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **MK**
Total Dissolved Solids (Residue, Filterable)	6700	200	200		mg/L	1	06/17/14 09:01 AM

Qualifiers:

*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
RL	Reporting Limit	S	Spike Recovery outside control limits
N	Parameter not NELAC certified		

DHL Analytical, Inc.

Date: *24-Jun-14*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-2
Project:	Eunice NM / Legacy Trash Pit	**Lab ID:**	1406153-02
Project No:	14-0107-01	**Collection Date:**	06/13/14 09:59 AM
Lab Order:	1406153	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS-ICPMS (10µ FILTER)		**SW6020A**					Analyst: **SW**
Calcium	48.2	5.00	15.0		mg/L	50	06/19/14 04:05 PM
Magnesium	30.6	5.00	15.0		mg/L	50	06/19/14 04:05 PM
Potassium	7.86	5.00	15.0	J	mg/L	50	06/19/14 04:05 PM
Sodium	114	5.00	15.0		mg/L	50	06/19/14 04:05 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **AV**
Chloride	58.8	3.00	10.0		mg/L	10	06/18/14 03:28 PM
Nitrate-N	1.54	0.100	0.500	C	mg/L	1	06/18/14 10:43 AM
Sulfate	121	1.00	3.00		mg/L	1	06/18/14 10:43 AM
ALKALINITY		**M2320 B**					Analyst: **LM**
Alkalinity, Bicarbonate (As CaCO3)	227	10.0	20.0		mg/L @ pH 4.49	1	06/17/14 12:37 PM
Alkalinity, Carbonate (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.49	1	06/17/14 12:37 PM
Alkalinity, Hydroxide (As CaCO3)	ND	10.0	20.0		mg/L @ pH 4.49	1	06/17/14 12:37 PM
Alkalinity, Total (As CaCO3)	227	20.0	20.0		mg/L @ pH 4.49	1	06/17/14 12:37 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **MK**
Total Dissolved Solids (Residue, Filterable)	564	10.0	10.0		mg/L	1	06/17/14 09:01 AM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	B	Analyte detected in the associated Method Blank
	C	Sample Result or QC discussed in the Case Narrative	DF	Dilution Factor
	E	TPH pattern not Gas or Diesel Range Pattern	J	Analyte detected between MDL and RL
	MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit
	RL	Reporting Limit	S	Spike Recovery outside control limits
	N	Parameter not NELAC certified		

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140619A

The QC data in batch 64243 applies to the following samples: 1406153-01B, 1406153-02B

Sample ID **MB-64243** Batch ID: **64243** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 3:23:00 PM** Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	0.300								
Magnesium	ND	0.300								
Potassium	ND	0.300								
Sodium	ND	0.300								

Sample ID **FB-64243** Batch ID: **64243** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 3:29:00 PM** Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	0.300								
Magnesium	ND	0.300								
Potassium	ND	0.300								
Sodium	ND	0.300								

Sample ID **LCS-64243** Batch ID: **64243** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 3:35:00 PM** Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.91	0.300	5.00	0	98.2	80	120			
Magnesium	4.82	0.300	5.00	0	96.3	80	120			
Potassium	4.85	0.300	5.00	0	97.0	80	120			
Sodium	4.99	0.300	5.00	0	99.8	80	120			

Sample ID **LCSD-64243** Batch ID: **64243** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 3:41:00 PM** Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.94	0.300	5.00	0	98.7	80	120	0.467	15	
Magnesium	4.88	0.300	5.00	0	97.7	80	120	1.36	15	
Potassium	4.94	0.300	5.00	0	98.7	80	120	1.76	15	
Sodium	5.06	0.300	5.00	0	101	80	120	1.47	15	

Sample ID **1406153-01B SD** Batch ID: **64243** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 3:59:00 PM** Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	440	75.0	0	447				1.53	10	
Magnesium	407	75.0	0	384				5.70	10	
Potassium	29.9	75.0	0	29.5				1.21	10	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140619A

Sample ID **1406153-01B PDS**	Batch ID: **64243**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS3_140619A**	Analysis Date: **6/19/2014 4:11:00 PM**	Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	736	15.0	250	447	115	80	120			
Magnesium	693	15.0	250	384	124	80	120			S
Potassium	299	15.0	250	29.5	108	80	120			

Sample ID **1406153-01B MS**	Batch ID: **64243**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS3_140619A**	Analysis Date: **6/19/2014 4:17:00 PM**	Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	465	15.0	5.00	447	367	80	120			S
Magnesium	408	15.0	5.00	384	481	80	120			S
Potassium	36.2	15.0	5.00	29.5	132	80	120			S
Sodium	1380	15.0	5.00	1330	1120	80	120			S

Sample ID **1406153-01B MSD**	Batch ID: **64243**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS3_140619A**	Analysis Date: **6/19/2014 4:23:00 PM**	Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	465	15.0	5.00	447	366	80	120	0.010	15	S
Magnesium	408	15.0	5.00	384	475	80	120	0.073	15	S
Potassium	35.8	15.0	5.00	29.5	126	80	120	0.889	15	S
Sodium	1380	15.0	5.00	1330	1160	80	120	0.145	15	S

Sample ID **1406153-01B SD**	Batch ID: **64243**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS3_140619A**	Analysis Date: **6/19/2014 4:36:00 PM**	Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	1380	150	0	1420				3.15	10	

Sample ID **1406153-01B PDS**	Batch ID: **64243**	TestNo: **SW6020A**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS3_140619A**	Analysis Date: **6/19/2014 4:42:00 PM**	Prep Date: **6/19/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	2020	30.0	500	1420	119	80	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140619A

Sample ID	**ILCVL-140619**	Batch ID:	**R73857**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140619A**	Analysis Date:	**6/19/2014 12:46:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.109	0.300	0.100	0	109	70	130			
Magnesium	0.114	0.300	0.100	0	114	70	130			
Potassium	0.123	0.300	0.100	0	123	70	130			
Sodium	0.134	0.300	0.100	0	134	70	130			S

Sample ID	**LCVL1-140619**	Batch ID:	**R73857**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140619A**	Analysis Date:	**6/19/2014 3:11:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.109	0.300	0.100	0	109	70	130			
Magnesium	0.113	0.300	0.100	0	113	70	130			
Potassium	0.121	0.300	0.100	0	121	70	130			
Sodium	0.140	0.300	0.100	0	140	70	130			S

Sample ID	**LCVL2-140619**	Batch ID:	**R73857**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**LCVL**	Run ID:	**ICP-MS3_140619A**	Analysis Date:	**6/19/2014 5:00:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.112	0.300	0.100	0	112	70	130			
Magnesium	0.116	0.300	0.100	0	116	70	130			
Potassium	0.114	0.300	0.100	0	114	70	130			
Sodium	0.119	0.300	0.100	0	119	70	130			

Sample ID	**ICV1-140619**	Batch ID:	**R73857**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**ICV**	Run ID:	**ICP-MS3_140619A**	Analysis Date:	**6/19/2014 12:14:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2.58	0.300	2.50	0	103	90	110			
Magnesium	2.63	0.300	2.50	0	105	90	110			
Potassium	2.62	0.300	2.50	0	105	90	110			
Sodium	2.67	0.300	2.50	0	107	90	110			

Sample ID	**CCV1-140619**	Batch ID:	**R73857**	TestNo:	**SW6020A**	Units:	**mg/L**
SampType:	**CCV**	Run ID:	**ICP-MS3_140619A**	Analysis Date:	**6/19/2014 2:59:00 PM**	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.57	0.300	5.00	0	91.4	90	110			
Magnesium	4.56	0.300	5.00	0	91.2	90	110			
Potassium	4.64	0.300	5.00	0	92.9	90	110			
Sodium	4.74	0.300	5.00	0	94.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_140619A

Sample ID **CCV2-140619** Batch ID: **R73857** TestNo: **SW6020A** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS3_140619A** Analysis Date: **6/19/2014 4:48:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.58	0.300	5.00	0	91.6	90	110			
Magnesium	4.57	0.300	5.00	0	91.3	90	110			
Potassium	4.68	0.300	5.00	0	93.5	90	110			
Sodium	4.70	0.300	5.00	0	93.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140618A

The QC data in batch 64209 applies to the following samples: 1406153-01A, 1406153-02A

Sample ID	**MB-64209**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 9:42:39 AM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.00								
Nitrate-N	ND	0.500								
Sulfate	ND	3.00								

Sample ID	**LCS-64209**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 9:57:15 AM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.65	1.00	10.00	0	96.5	90	110			
Nitrate-N	4.87	0.500	5.000	0	97.4	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

Sample ID	**LCSD-64209**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**LCSD**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 10:11:51 AM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.59	1.00	10.00	0	95.9	90	110	0.606	20	
Nitrate-N	4.86	0.500	5.000	0	97.2	90	110	0.199	20	
Sulfate	30.5	3.00	30.00	0	102	90	110	0.393	20	

Sample ID	**1406177-02DMS**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MS**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 5:10:00 PM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	54.1	1.00	20.00	37.47	83.3	90	110			S
Nitrate-N	5.13	0.500	4.516	1.313	84.6	90	110			S
Sulfate	58.4	3.00	20.00	38.15	101	90	110			

Sample ID	**1406177-02DMSD**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MSD**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 5:24:36 PM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	54.2	1.00	20.00	37.47	83.7	90	110	0.176	20	S
Nitrate-N	5.51	0.500	4.516	1.313	93.0	90	110	7.11	20	
Sulfate	58.5	3.00	20.00	38.15	102	90	110	0.135	20	

Sample ID	**1406125-03DMS**	Batch ID:	**64209**	TestNo:	**E300**	Units:	**mg/L**
SampType:	**MS**	Run ID:	**IC_140618A**	Analysis Date:	**6/18/2014 5:39:13 PM**	Prep Date:	**6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140618A

Sample ID **1406125-03DMS**	Batch ID: **64209**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 5:39:13 PM**	Prep Date: **6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2300	100	2000	407.3	94.8	90	110			
Nitrate-N	367	50.0	451.6	0	81.3	90	110			S
Sulfate	2410	300	2000	439.4	98.5	90	110			

Sample ID **1406125-03DMSD**	Batch ID: **64209**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 5:53:49 PM**	Prep Date: **6/18/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2290	100	2000	407.3	94.1	90	110	0.664	20	
Nitrate-N	369	50.0	451.6	0	81.7	90	110	0.445	20	S
Sulfate	2410	300	2000	439.4	98.4	90	110	0.122	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC_140618A

Sample ID **ICV-140618**	Batch ID: **R73845**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 9:25:53 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	24.4	1.00	25.00	0	97.6	90	110			
Nitrate-N	12.4	0.500	12.50	0	98.8	90	110			
Sulfate	76.7	3.00	75.00	0	102	90	110			

Sample ID **CCV1-140618**	Batch ID: **R73845**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 1:10:12 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.65	1.00	10.00	0	96.5	90	110			
Nitrate-N	4.81	0.500	5.000	0	96.2	90	110			
Sulfate	30.4	3.00	30.00	0	101	90	110			

Sample ID **CCV2-140618**	Batch ID: **R73845**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 4:12:33 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.59	1.00	10.00	0	95.9	90	110			
Nitrate-N	4.29	0.500	5.000	0	85.8	90	110			S
Sulfate	30.7	3.00	30.00	0	102	90	110			

Sample ID **CCV3-140618**	Batch ID: **R73845**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC_140618A**	Analysis Date: **6/18/2014 6:37:41 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Nitrate-N	4.21	0.500	5.000	0	84.3	90	110			S
Sulfate	30.9	3.00	30.00	0	103	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140617B

The QC data in batch 64141 applies to the following samples: 1406153-01A, 1406153-02A

Sample ID **MB-64141**	Batch ID: **64141**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.39**
SampType: **MBLK**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 9:29:00 AM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	20.0								
Alkalinity, Carbonate (As CaCO3)	ND	20.0								
Alkalinity, Hydroxide (As CaCO3)	ND	20.0								
Alkalinity, Total (As CaCO3)	ND	20.0								

Sample ID **LCS-64141**	Batch ID: **64141**	TestNo: **M2320 B**	Units: **mg/L @ pH 3.78**
SampType: **LCS**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 9:33:00 AM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	62.0	20.0	50.00	0	124	74	129			

Sample ID **1406125-10D DUP**	Batch ID: **64141**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.52**
SampType: **DUP**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 12:24:00 PM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	412	20.0	0	418.1				1.35	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	412	20.0	0	418.1				1.35	20	

Sample ID **1406153-02A DUP**	Batch ID: **64141**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.5**
SampType: **DUP**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 12:42:00 PM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	229	20.0	0	227.0				0.964	20	
Alkalinity, Carbonate (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	229	20.0	0	227.0				0.964	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_140617B

Sample ID **ICV-140617**	Batch ID: **R73789**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.48**
SampType: **ICV**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 9:28:00 AM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	1.92	20.0	0							
Alkalinity, Carbonate (As CaCO3)	100	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	98	102			

Sample ID **CCV1-140617**	Batch ID: **R73789**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.48**
SampType: **CCV**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 12:13:00 PM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	3.92	20.0	0							
Alkalinity, Carbonate (As CaCO3)	96.6	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	101	20.0	100.0	0	101	90	110			

Sample ID **CCV2-140617**	Batch ID: **R73789**	TestNo: **M2320 B**	Units: **mg/L @ pH 3.93**
SampType: **CCV**	Run ID: **TITRATOR_140617B**	Analysis Date: **6/17/2014 12:47:00 PM**	Prep Date: **6/17/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	25.5	20.0	0							
Alkalinity, Carbonate (As CaCO3)	81.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	0	20.0	0							
Alkalinity, Total (As CaCO3)	107	20.0	100.0	0	107	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: Larson & Associates
Work Order: 1406153
Project: Eunice NM / Legacy Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_140616B

The QC data in batch 64173 applies to the following samples: 1406153-01A, 1406153-02A

Sample ID	**MB-64173**	Batch ID:	**64173**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**MBLK**	Run ID:	**WC_140616B**	Analysis Date:	**6/17/2014 9:01:00 AM**	Prep Date:	**6/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	10.0								

Sample ID	**LCS-64173**	Batch ID:	**64173**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**LCS**	Run ID:	**WC_140616B**	Analysis Date:	**6/17/2014 9:01:00 AM**	Prep Date:	**6/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	778	10.0	745.6	0	104	90	113			

Sample ID	**1406127-01B-DUP**	Batch ID:	**64173**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140616B**	Analysis Date:	**6/17/2014 9:01:00 AM**	Prep Date:	**6/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	2690	50.0	0	2510				6.92	5	R

Sample ID	**1406153-02A-DUP**	Batch ID:	**64173**	TestNo:	**M2540C**	Units:	**mg/L**
SampType:	**DUP**	Run ID:	**WC_140616B**	Analysis Date:	**6/17/2014 9:01:00 AM**	Prep Date:	**6/16/2014**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	555	10.0	0	564.0				1.61	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

Appendix E

Boring Logs and Well Completion Diagram

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____) 2 4 6 8 10 12 14 16 18	SAMPLE	REMARKS: BACKGROUND PID READING (SOIL: _____ PPM; SOIL: _____ PPM)
	1	7.5YR5/6 Strong brown, sandy clay, fine-med grain					
	5		CL				9:40 0.8 ppm
	10	10YR8/2 very pale caliche friable, dry chert modules fine sand grains, caliche concentration					9:46 0.8 ppm
	15	5YR7/6 Caliche, reddish yellow very grained sand less than 10% chert modules, slightly moist	Caliche				9:51 0.8 ppm
	20	SAA more chert modules and larger size					9:56 0.8 ppm
	25	Caliche 7.5YR8/2 pinkish white, friable, very fine grains, dry caliche concentration consolidated 50% coarse grains					9:58 0.8 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North of Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : MW-2

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____) 2 4 6 8 10 12 14 16 18	SAMPLE	REMARKS: BACKGROUND PID READING (SOIL: ____ PPM; SOIL: ____ PPM)
	26		Caliche				
							10:00 0.8 ppm
	30	5YR6/6 reddish yellow very fine to med grained sand chert, Pink 5YR8/4, damp					
							10:02 0.8 ppm
	35	more moist SAA	SW				
	40	<2% chert very moist SAA					10:06 0.8 ppm
	45						
	50						10:15 0.8 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North of Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : MW-2

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
43.27 ▽	51	5YR4/6 SAA, yellowish reddish fine med grained, very moist well rounded, sand grains	SW				10:15 0.8 ppm
	55						
		5YR4/6 yellowish reddish med grains sand sandy clay (no ribbon)					
		balled up very moist					
	60						10:24 0.8 ppm
		TD : 60' Groundwater Not Observed					
	65						
	70						
	75						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North of Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : MW-2

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	9 : 10				PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	7.5YR5/4 Brown organic smell, organic rich sandy soil, moist					
	5		SW				9:12 0.0 ppm
	10	7.5YR6/4 light brown sand v. fine - fine grains moist					9:13 0.0 ppm
	15	10YR7/3 v. pale brown, sandy clay v. fine to med grains, moist <5% chert	CL				9:14 0.0 ppm
	20	7.5YR8/5 pink caliche v. fine - fine sand grains friable	SW				9:17 0.0 ppm
	25	10YR7/4 v. pale brown, sand v. fine - fine grains, <2% chert					9:19 0.0 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : West of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 1

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING SOIL : ____ PPM SOIL : ____ PPM)
	26	<2% chert	SW				
	30	SAA					9:21 0.0 ppm
	35	SAA					9:21 0.0 ppm
	40	5YR5/6 yellowish red sand, river bed material					9:22 0.0 ppm
		TD : 40' Groundwater Not Observed					
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : West of West Excavation

LAI GEOLOGIST : AJ

DRILLING CONTRACTOR : SPC

DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 1

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	9 : 31				PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	7.5YR6/3 light sandy soil organic fine grain and small <2% amount of clay damp	SW				
	5						9:36 0.0 ppm
	10	clayey sand odor, damp	SM				9:40 0.0 ppm
	15	10YR7/1 light gray sand v. fine - med. strong odor moist	SW				9:41 0.0 ppm
	20	SAA <5% chert damp					9:43 2.6 ppm
	25						9:51 2.6 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South West of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 2

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____)	SAMPLE	REMARKS (BACKGROUND PID READING)
	26	7.5 YR8/3 Pink Sand v. fine - fine damp - no odor					9:51 2.6 ppm
	30	7.5YR2/4 pink	SW				9:53 2.6 ppm
	35	SAA damp increasing in cherty gravels					9:55 2.6 ppm
	40	7.5YR6/2 pinkish gray sand, odor, moist, chert gravel					9:56 0.0 ppm
		TD : 40' Groundwater Not Observed					
	45						
	50						

PID READING scale: 2 4 6 8 10 12 14 16 18

SOIL : _____ PPM

SOIL : _____ PPM

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

LABORATORY TEST LOCATION

PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : South West of West Excavation

LAI GEOLOGIST : AJ

DRILLING CONTRACTOR : SPC

DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 2

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC (11 : 37)	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X 25)	SAMPLE	REMARKS (BACKGROUND PID READING)
	1	Soil Excavated to 10'					
	5						
	10	10YR7/3 v. pale brown, caliche friable damp	Caliche				
	15	10YR7/1 light gray caliche, friable strong odor damp					11:40 2.76 ppm
	20	10YR7/1 light gray sand v. fine - fine, 10YR7/1 light gray sand v. fine - fine, strong odor strong odor SAA	SW				11:42 1.28 ppm
	25						11:44 11.5 ppm

SOIL : _____ PPM
SOIL : _____ PPM

PID READING scale: 2 4 6 8 10 12 14 16 18

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South Bottom of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 3

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____) 2 4 6 8 10 12 14 16 18	SAMPLE	REMARKS: BACKGROUND PID READING (SOIL: _____ PPM; SOIL: _____ PPM)
	26	SAA					
		damp, odor					
	30	10YR6/2 light brownish gray, sand v. fine to fine	SW				11:45 2.6 ppm
		damp - moist odor 10% chert					
	35	TD : 35' Groundwater Not Observed					11:49 7.9 ppm
	40						
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : South Bottom of West Excavation

LAI GEOLOGIST : AJ

DRILLING CONTRACTOR : SPC

DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 3

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	8 : 48				PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	5YR5/6 yellowish red sand moist	SW				
	5						8:50 0.0 ppm
	10	10YR8/2 v. pale brown caliche, damp	Caliche				8:52 0.0 ppm
		50% chert, harder more consolidated layer					
	15	10YR8/3 v. pale brown sand, moist 10% chert	SW				8:54 0.0 ppm
	20	10YR7/4 v. pale brown sand					8:55 0.0 ppm
		<10% chert					
		damp					
	25	5YR5/6 yellowish red					8:58 0.0 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 4

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	26	sand			PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
							12:35 0.0 ppm
	30	SAA more hard, chert modules, 50% more	SW				8:59 0.0 ppm
	35	SAA less chert about 10% not as much river bed material as SB - 13					9:01 0.0 ppm
	40	TD : 40' Groundwater Not Observed					9:03 0.0 ppm
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 4

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
		11 : 55			PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	Soil Excavated to 5'					
	5						
	10	7.5YR7/4 pink sand odor	SW				12:02 2.6 ppm
	15	SAA					12:03 0.0 ppm
		odor					
	20	5YR5/6 yellowish red					12:05 0.0 ppm
		SAA moist odor					
	25	sand fine to v. fine moist, odor					12:07 2.6 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South East Corner of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 5

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____)	SAMPLE	REMARKS (BACKGROUND PID READING)
	26	SAA <15% chert	SW				12:07 2.6 ppm
	30	TD : 30' Groundwater Not Observed					12:09 2.6 ppm
	35						
	40						
	45						
	50						

PID READING scale: 2 4 6 8 10 12 14 16 18

REMARKS — BACKGROUND PID READING
SOIL : _____ PPM
SOIL : _____ PPM

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South East of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 5

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
		12 : 25			PPM X _____ 2 4 6 8 10 12 14 16 18		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	Soil Excavated to 10'					
	5						
	10	5YR5/6 yellowish red moist sandy clay v. fine - fine	CL				12:29 0.8 ppm
	15	10YR7/1 light gray clayey / snady fine v. fine moist	SM				12:30 0.8 ppm
	20	7.5YR8/5 pink caliche v. fine - fine sand grains friable	Caliche				12:31 0.0 ppm
	25						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 6

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	26	7.5 YR7/4 Pink Sand	SW		PPM X _____ 2 4 6 8 10 12 14 16 18		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
							12:35 0.0 ppm
	30	7.5YR6/4 light brown sand v.fine - fine					12:38 0.0 ppm
		TD : 30' Groundwater Not Observed					
	35						
	40						
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 6

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	10 : 40				PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	7.5YR5/8, strong brown sand, fine v. fine <2% chert					
	5						10:44 0.0 ppm
	10	SAA	SW				10:46 0.0 ppm
	15	7.5YR7/4 pink SAA Increased chert					10:48 0.0 ppm
	20	7.5YR5/8 strong brown					10:49 0.0 ppm
	25	SAA					

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : Center of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 7

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM SOIL : _____ PPM
	26	5YR5/6 Yellowish Red, moist sand clay v. fine - fine					
	30	SAA <5% chert					10:55 0.0 ppm
			SW				
	35	SAA					10:56 0.0 ppm
		Riverbed gravel SAA chert agate chalcedony					
	40	TD : 40' Groundwater Not Observed					10:58 0.0 ppm
	45						11:00 0.0 ppm
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : Center of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014
BORING NUMBER : SB - 7

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC (12 : 47)	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM)
	1						
	5	Soil Excavated to 20'					
	10						
	15						
	20	7.5YR 8/2 pinkish white caliche v. fine - sand, moist	Caliche				12:50 0.0 ppm
		7.5YR8/4 pink caliche with more consolidated sand (25 Ft.) moist					
	25						12:51 0.0 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : SPC
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 8

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM SOIL : _____ PPM
	26		Caliche				
	30	5YR5/6 Yellowish Red Sand Moist	SW				12:52 0.0 ppm
	35	SAA					12:53 0.0 ppm
	40	SAA TD : 40' Groundwater Not Observed					12:54 0.0 ppm
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : East of West Excavation

LAI GEOLOGIST : ANJ

DRILLING CONTRACTOR : SPC

DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 8

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	1 : 20				PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM
							SOIL : _____ PPM
	1	7.5 YR 6/6 reddish yellow SAA SB - 11					
	5		SW				1:22 0.8
	10	10YR v. pale brown sand very fine sand unconsildated damp					1:24 2.6
	15	7.5YR8/2 pinkish white caliche damp	Caliche				1:25 0.8
	20	7.5YR 7/4 pink sandy caliche 10% chert modules damp	SW				1:29 0.8
	25	SAA damp					1:32 2.6

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 9

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING SOIL: ____ PPM; SOIL: ____ PPM)
	26						
	30	5YR 4/6 yellowish red sand fine to v. fine grained sand unconsolidated moist	SW				1:35 2.6
	35	SAA					1:42 2.6
	40	5YR 4/6 yellowish red course to fine grain river channel deposit sand grains and chert v. moist agate					1:45 2.6
		TD : 40' Groundwater Not Observed					
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : East of West Excavation

LAI GEOLOGIST : AJ

DRILLING CONTRACTOR : Scarborough

DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 9

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
		12 : 40			PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM
							SOIL : _____ PPM
	1	7.5 YR 6/6 reddish yellow					
	5	Clayey sand with colored slight odor fine to red well rounded consolidated medium stiff clay	CL				12:47 0.8
	10	10YR 8/3 v. pale brown sandy clay moist semi consolidated 90% fine medium grains	CL				12:52 6.1
	15	7.5YR 8/2 pinkish white caliche					12:56 0.8
	20	7.5YR 8/4 pink	Caliche				1:00 0.8
	25						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 10

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X _____) 2 4 6 8 10 12 14 16 18	SAMPLE	REMARKS: BACKGROUND PID READING (SOIL: _____ PPM; SOIL: _____ PPM)
	26	5YR 8/3 pink sand - fine very fine grained, well rounded etc.	SW				1:02 0.8
	30	5YR 8/2 pinkish, caliche, friable	Caliche				1:06 0.8
	35	SAA	SW				1:08 0.8
		5YR 4/6 yellowish red sandy clay v. fine to medium unconsildated v. moist	CL				1:10 0.8
	40	TD : 40' Groundwater Not Observed					
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 10

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
		10 : 53			PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	7.5 YR 6/6 reddish yellow clayey sand, multi came out as core,					
	5	slight odor damp fine to med. well rounded grains consolidated medium stiff clay 10YR8/3 very pale brown friable,	SW				10:56 0.8
	10	20% course grains fine - medium sand grains unconsolidated damp slight odor chart molecules <5% SAA					11:00 0.8
	15						11:04 0.8
	20	7.5YR8/3 pink sand with fires					11:12 0.8
	25	5YR6/6 reddish yellow <10% chest modules fine med grained sand rounded unconsolidated damp, slight odor					11:18 0.8

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : East of West Excavation

LAI GEOLOGIST : ANJ

DRILLING CONTRACTOR : SPI

DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 11

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING; SOIL : ____ PPM; SOIL : ____ PPM)
	26						
	30	SAA	SW				11:20 0.8
		very moist					
	35	5YR 4/6 yellowish red					11:21 0.8
		SAA					
		moist					
		< 20% clay					
		5YR6/6 yellowish brown fin - ned grains cementation of calcite friable with consolidated					
	40	50% moist					11:27 0.8
		TD : 40' Groundwater Not Observed					
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : ____
LOCATION : Legacy Trash Pit
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : SPI
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014
BORING NUMBER : SB - 11

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC (1 : 55)	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING SOIL : ____ PPM SOIL : ____ PPM)
	1	Soil Excavated to 3'					
	5	7.5 YR 8/2 pinkish white Caliche friable, caliche cement, damp					2:03 0.8
	10	SAA	Caliche				2:05 0.8
	15	5YR8/3 pink, caliche more sand v. fine less consolidated damp					2:10 0.8
	20	5YR6/6 reddish yellow sand, <10% chart modules v. fine to fine grains sand	SW				2:15 0.8
	25						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North West of East Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPI
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 12

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____)	SAMPLE	REMARKS (BACKGROUND PID READING)
	26	5YR7/4 pink caliche v. fine - coarse grains unconsolidated	Caliche				2:20 0.8
	30	5YR6/6 reddish yellow sand <10% chert v. fine to fine grain sand	SW				2:23 0.8
	35						2:25 0.8
	40	5YR4/6 yellowish red over bed sands chert, agate, chalcedony TD : 40' Groundwater Not Observed					2:28 0.8
	45						
	50						

PID READING scale: 2 4 6 8 10 12 14 16 18

BACKGROUND PID READING
SOIL : _____ PPM
SOIL : _____ PPM

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North West of Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPI
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 12

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
		8:20			PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	5YR5/6 yellowish red sandy clay v. fine to fine grains					
	5	Caliche SA Before	CL				8:24 0.0
	10	10YR8/2 very pale brown, caliche 30% chert modules					8:26 0.0
	15	Caliche more fine grains no chert very friable	Caliche				8:27 0.0
	20	Caliche					8:28 0.0
	25		SW				

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South of East Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014
BORING NUMBER : SB - 13

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	26	10YR7/3 v. pale brown sand, <2% chert	SW				8:31 0.0
	30	10YR8/2 v. pale brown, caliche, friable					8:34 0.0
	35	5YR5/6 yellowish red sand v. fine - fine SAA Riverbed, chert, agate chalcedony					8:35 0.0
	40	TD : 40' Groundwater Not Observed					8:36 0.0
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : South of East Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPI
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014
BORING NUMBER : SB - 13

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC (2 : 40)	DESCRIPTION USCS	GRAPHIC LOG	PID READING (PPM X ____ ; 2 4 6 8 10 12 14 16 18)	SAMPLE	REMARKS (BACKGROUND PID READING SOIL : ____ PPM SOIL : ____ PPM)
	1	5YR 8/2 pinkish white					
	5	Caliche SA Before					2:45 0.8
			Caliche				
	10	Caliche					2:48 0.8
	15	SAA But harder and more consolidated chert					2:53 0.8
	20	SAA	SW				2:58 0.8
	25	SAA <10% chert models					3:01 0.8

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
L LABORATORY TEST LOCATION
\+ PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : East of East Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc. Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 14

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM SOIL : _____ PPM
	26						
		Really Hard					
		quartz stringer					
	30	5YR5/6 yellowish red					3:05 0.8
			SW				
	35	SAA					3:08 0.8
		SAA					
	40	TD : 40' Groundwater Not Observed					3:11 0.8
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER

STANDARD PENETRATION TEST

UNDISTURBED SAMPLE

WATER TABLE (24 HRS)

WATER TABLE (TIME OF BORING)

L LABORATORY TEST LOCATION

\+ PENETROMETER (TONS/ SQ. FT)

NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01

HOLE DIAMETER : 5"

LOCATION : East of East Excavation

LAI GEOLOGIST : AJ

DRILLING CONTRACTOR : SPI

DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 12 - 2014

BORING NUMBER : SB - 14

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
	10 : 15				PPM X _____ (2 4 6 8 10 12 14 16 18)		BACKGROUND PID READING SOIL : _____ PPM SOIL : _____ PPM
	1	Soil Excavated to 2'					
	5	7.5YR7/4 pink sandy clay, friable, v. fine - fine grians	CL				10:17 0.0 ppm
	10	5YR5/6 yellowish red sand v. fine - fine, moist, no odor	SW				10:18 0.0 ppm
	15	5YR8/2 pinkish white, caliche, friable	Caliche				10:20 0.0 ppm
	20	5YR7/4 pink sand v. fine - fine moist, no odor	SW				10:22 0.0 ppm
	25	SAA					10:26 0.0 ppm

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : West of West Excavation
LAI GEOLOGIST : AJ
DRILLING CONTRACTOR : SPI
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014

BORING NUMBER : SB - 15

BORING RECORD

GEOLOGIC UNIT	DEPTH	DESCRIPTION LITHOLOGIC	DESCRIPTION USCS	GRAPHIC LOG	PID READING	SAMPLE	REMARKS
					PPM X _____		BACKGROUND PID READING
					2 4 6 8 10 12 14 16 18		SOIL : _____ PPM SOIL : _____ PPM
	26						
	30	7.5YR6/4 light brown SAA, increased moister causing darker pink	SW				10:29 0.0 ppm
	35						10:30 0.0 ppm
		SAA with the addition of river bed gravels chert, agate, chalcedony					
	40	TD : 40' Groundwater Not Observed					10:32 0.0 ppm
	45						
	50						

ONE CONTINUOUS AUGER SAMPLER
STANDARD PENETRATION TEST
UNDISTURBED SAMPLE
WATER TABLE (24 HRS)
WATER TABLE (TIME OF BORING)
LABORATORY TEST LOCATION
PENETROMETER (TONS/ SQ. FT)
NR NO RECOVERY

JOB NUMBER : 14 - 0107 - 01
HOLE DIAMETER : 5"
LOCATION : North Center of West Excavation
LAI GEOLOGIST : ANJ
DRILLING CONTRACTOR : Scarborough
DRILLING METHOD : AR

Larson & Associates, Inc.
Environmental Consultants

DRILL DATE : 6 - 13 - 2014
BORING NUMBER : SB - 15

SUBGRADE - MONITORING WELL INSTALLATION RECORD

CASING STICKDOWN_____ FEET

TOP of CASING ELEVATION _____ FEET AMSL

GROUND LEVEL ELEVATION _____ FEET AMSL

TIME WELL INSTALLATION BEGAN:_____

TIME DRILLED STOPPED:_____

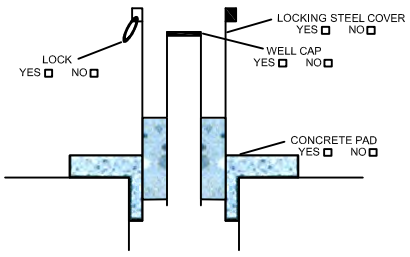
TIME WELL INSTALLATION FINISHED:_____

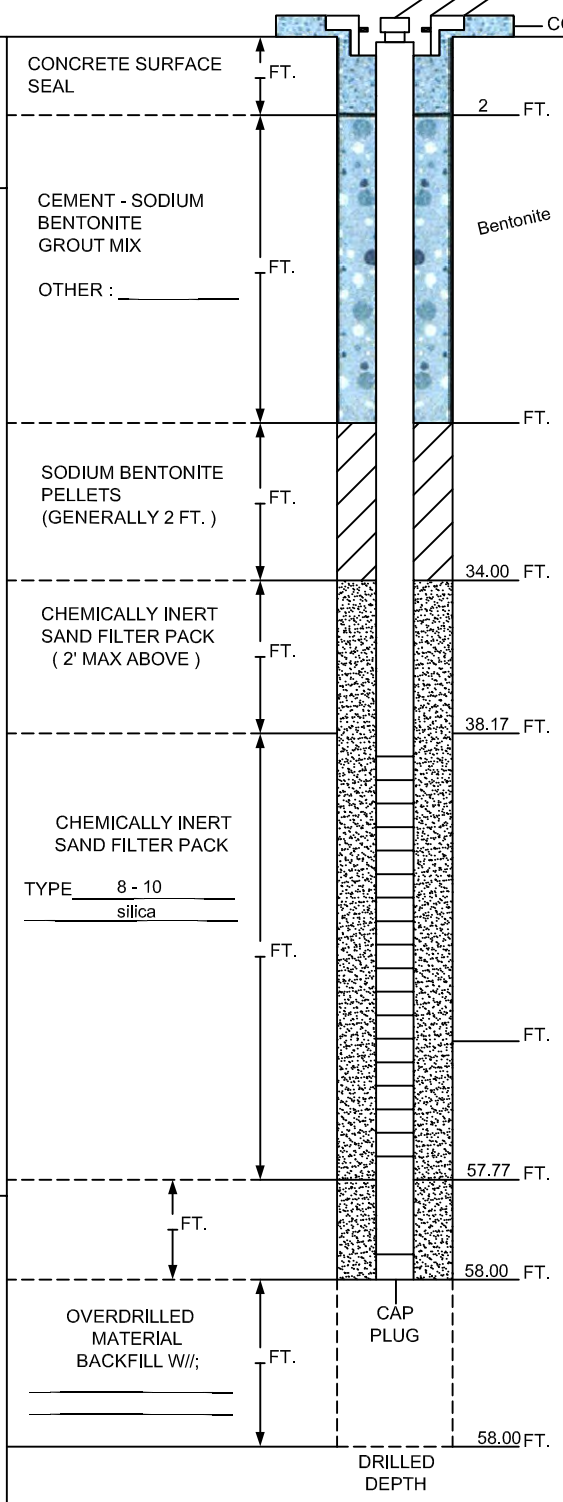
OBSERVATIONS

SUMP - 0.52

SCREEN - 9.73

ABOVE GRADE
MONITORING WELL INSTILLATION RECORD





SPECIFICATIONS

WATER TIGHT COVER : YES ☐ NO ☐

COMPRESSION CAP WITH LOCK : YES ☐ NO ☐

NEOPRENE WATER TIGHT GASKET : YES ☐ NO ☐

FLUSH WATER TIGHT PROTECTOR : YES ☐ NO ☐

CONCRETE PAD : YES ☐ NO ☐ SIZE_____

1. TYPE OF CASING: PVC ☐ GALVANIZED ☐ TEFLON ☐
2. TYPE OF CASING/SCREEN JOINTS: SCREW COUPLE ☐ OTHER:_____ ☐
3. TYPE OF WELL SCREEN: PVC ☐ GALVANIZED ☐ TEFLON ☐ OTHER_____ ☐
4. DIAMETER OF RISER AND WELL SCREEN (I.D.) RISER_____INCHES, SCREEN_____INCHES
5. SLOT SIZE OF SCREEN:_____
6. TYPE OF SCREEN PERFORATION: FACTORY SLOTTED ☐ OTHER_____ ☐
7. BOREHOLE DIAMETER=_____INCHES
8. WERE DRILLING ADDITIVES USED: YES ☐ NO ☐ BENTONITE ☐ WATER ☐ AIR ☐ GALLON / VOLUME USED:_____
9. WAS CASING USED: YES ☐ NO ☐ TYPE OF CONDUCTOR CASING? STEEL ☐ PVC ☐ DEPTH:_____TO_____ FEET DIAMETER OF CONDUCTOR CASING:_____
10. INTAL WATER LEVEL: 43.14 Ft. BGS
11. STABILIZED WATER LEVEL:_____
12. HOW WAS WELL DEVELOPED? BAILING PUMPING ☐ AIR SURGING (AIR or NITROGEN) ☐ OTHER_____ ☐
13. TIME SPENT on WELL DEVELOPMENT? _____ / _____MINUTES / HOURS
14. APPROXIMATE WATER VOLUME REMOVED: _____GALLONS
15. WATER CLARITY BEFORE DEVELOPMENT? CLEAR ☐ TURBIO ☐ OPAQUE ☐
16. WATER CLARITY AFTER DEVELOPMENT? CLEAR ☐ TURBIO ☐ OPAQUE ☐
17. WATER ODOR? IF YES, DESCRIBE_____
18. WATER COLOR? IF YES, DESCRIBE_____
19. WATER LEVEL SUMMARY (FROM TOP of CASING) BEFORE DEVELOPMENT _____FT. DATE_____ AFTER DEVELOPMENT _____FT. DATE_____ WATER LEVEL_____FT. DATE_____
20. SAMPLING METHOD_____

WELL COMPLETION MATERIALS :

LENGTH OF SCREEN USED : 20 FT.

LENGTH OF RISER USED : 40 FT.

AMOUNT OF BENTONITE USED : _____FT.

AMOUNT OF SAND FILTER USED : _____FT.

AMOUNT OF CEMENT USED : _____FT.

AMOUNT OF CONCRETE USED : _____FT.

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WELL NUMBER : MW - 2 (DPW - 2)

JOB NAME / NUMBER Legacy / 14 - 0107 - 01

LOCATION : N. of Location

INSTALLATION DATE : 6 - 12 - 2014

LA GEOLOGIST : AJ

DRILLING CONTRACTOR : ADI

DRILLING METHOD : DR

Appendix F

Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

1RP-3360

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

HOBBS OCD

SEP 29 2014

RECEIVED

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Legacy Reserves, L.P.	Contact: Heath Loftin, Production Superintendent
Address: 303 West Wall St., Ste. 1800, Midland, TX 79701	Telephone No.: (432) 689-5200
Facility Name: LMPSU Trash Pit	Facility Type: Unauthorized Solid Waste Disposal Pit

Surface Owner: Legacy Reserves, L.P.	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
O	27	22S	37E	640	South	2,080	East	

Latitude 32° 21' 28.40" **Longitude** 103° 8' 50.07"

NATURE OF RELEASE

Type of Release: Produced water (historic)	Volume of Release: Unknown	Volume Recovered: N/A
Source of Release: Unlined disposal pit (historic)	Date and Hour of Occurrence Unknown	Date and Hour of Discovery: May 5, 2014
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* A compliant from an adjoining landowner identified the LMPSU as the location of an unauthorized trash pit that was used by a previous operator and buried in the early 2000's. Legacy Reserves, L.P., as current operator of the LMPSU, was informed of the trash pit in a letter from OCD in May 2011. Legacy contract with Etech to excavate the trash pit. While excavating the trash pit the contractor uncovered tow (2) historic unlined disposal pits that received produced water and hydrocarbons from the lease tank battery. The pits are visible in a historic aerial photograph dated February 4, 1968. The pits appeared covered in a later photograph (June 3, 1983).

Describe Area Affected and Cleanup Action Taken.* The trash and historic disposal pits are located about 500 feet northeast of the LMPSU tank battery. Etech excavated soil, trash and debris between about 4 and 20 feet below ground surface. The waste was segregated from the soil and hauled to a permitted disposal facility. Approximately 7,000 to as much as 9,000 cubic yards of soil was excavated and retained on location in 4 piles (west, north, south and center). The center pile, approximately 1,640 cubic yards, contained elevated concentrations of total petroleum hydrocarbons (YPH) and chloride and was hauled to Sundance Services, east of Eunice, New Mexico. Upon delineating the chloride and TPH in the vadose zone and a determination of leaching potential (SPLP) OCD approved closing the excavations by installing a 20 mil thickness liner in the bottom and covering with soil from the onsite piles. The disposal pits are located near the west side of the site. Two (2) monitoring wells (MW-1 and MW-2) were installed south and north of the disposal pits, respectively. Laboratory results of groundwater samples from well MW-2 reported chloride and total dissolved solids at 2720 mg/L and 6700 mg/L, respectively. Legacy will delineate the groundwater impact.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Heath Loftin	OIL CONSERVATION DIVISION 1RP-3360 Approved by Environmental Specialist:	
Printed Name: Heath Loftin		
Title: Production Superintendent	Approval Date: 9-29-14	Expiration Date:
E-mail Address: hloftin@legacylp.com	Conditions of Approval:	Attached ☐
Date: September 29, 2014 Phone: (432) 689-5200		

* Attach Additional Sheets If Necessary

Ogrid 240974
F10 1427359851
N70 1427 254875
P70 1427 255423