Prepared for:

Nevada Division of Environmental Protection Brownfields Program 901 S. Stewart St., Suite 4001 Carson City, NV 89701

On behalf of:

City of Reno 1 E. First St. Reno, NV 89501

Prepared by:



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May 2020

Project No. 19-02-152

Phase II Environmental Site Assessment Report

0 E. Commercial Row APN 011-450-24 and 008-370-33 Brownfields Contract: DEP #17-026 Task #: BC10-20 Cat: 54 Org: 5429 Job #: 6681717 GL: 7060



May 21, 2020

Project No. 19-02-152

Nevada Division of Environmental Protection Nevada Brownfields Program 901 S. Stewart St., Suite 4001 Carson City, NV 89701

Attn: Mr. David Friedman

RE: *Phase II Environmental Site Assessment*, 0 E. Commercial Row, Nevada (APNs 011-450-24 and APN 008-370-33).

Dear Mr. Friedman,

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Phase II Environmental Site Assessment* (ESA) report for the property located at 0 Commercial Row (APNs 011-450-24 and APN 008-370-33).

Preparation of this Phase II ESA report was requested by the Nevada Division of Environmental Protection – Brownfields Program (NBP) in a meeting on July 16, 2019. This report presents the results of Phase II ESA activities performed in accordance with the *Sampling and Analysis Plan* dated February 6, 2020.

Please do not hesitate to contact us if you should have any questions or require additional information.

Sincerely, BROADBENT & ASSOCIATES, INC.

and by

Brandon Reiff, PG, CEM Senior Geologist

Enclosures: Phase II ESA Report

cc: Ms. Eileen Christensen, BEC Environmental, Inc. Ms. Rachel Schlick, BEC Environmental, Inc.

Phase II ESA Report 0 Commercial Row Reno, Nevada

APPROVAL PAGE

Approved by:	5-21-2020
Brandon Reiff, Broadbent Project Manager and CEM	Date
JURAT: I, Brandon Reiff, hereby certify that I am responsible for the services in this docum document. The services described in this document have been provided in a manner consi. the profession and to the best of my knowledge comply with all applicable federal, state ordinances.	ent and for the preparation of this stent with the current standards of and local statutes, regulation and
Approved by:Rachel Schlick	5-26-2020
Rachel Schlick, BEC Quality Assurance Officer	Date
Approved by: Alyssa Krag Arnold, NDEP Brownfields Program Coordinator	Date
Approved by:	
David Friedman, NDEP Superfund Program Coordinator	Date
Approved by:	
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ABREVIATIONS AND ACRONYMS

APN	Assessor's Parcel Number
ASTM	American Society for Testing and Materials
BLS	Below land surface
BEC	BEC Environmental Inc.
CEM	Certified Environmental Manager - Nevada
CERCLA	Comprehensive Environmental Response, Cleanup, and Liability Act
CFR	Code of Federal Regulations
DQO	Data quality objectives
DRO	Diesel Range Organics
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
GRO	Gasoline Range Organics
HASP	Health and Safety Plan
MQO	Measurement quality objective
MS/MSD	Matrix spike and matrix spike duplicate
mg/Kg	Milligrams per kilogram
NBP	Nevada Division of Environmental Protection - Brownfields Program
ORO	Oil Range Organics
PAH	Polycyclic aromatic hydrocarbon
QA	Quality assurance
QA/QC	Quality assurance/quality control
QAPP	Quality assurance program plan
QC	Quality control
REC	Recognized environmental condition
RSL	Regional Screening Level
SAP	Sampling and analysis plan

ABREVIATIONS AND ACRONYMS (CONTINUED)

QA	Quality assurance
SOP	Standard operating procedures
SVOC	Semi-volatile organic compound
ТРН	Total Petroleum Hydrocarbons
USA	Underground Service Alert
USCS	Unified Soil Classification System
VOC	Volatile organic compound
WCHD	Washoe County Health District
µg/Kg	micrograms per kilogram

EXECUTIVE SUMMARY

This report presents the results of a Phase II Environmental Site Assessment (ESA) for at 0 Commercial Row in Reno, Nevada [Assessor's Parcel Numbers (APNs) 011-450-24 and APN 008-370-33]. The lateral boundaries of the investigation include APN 008-370-33 and the eastern portion (east of the Wells Street overpass) of APN 011-450-24 (hereinafter site). A site location map is provided as Drawing 1. This Phase II ESA was conducted to characterize conditions at the site because it is being considered for planned redevelopment or reuse.

FINDINGS

The Phase II ESA included subsurface soil sampling. Ten (10) soil borings (SS-1 through SS-10) were installed at locations shown on Drawing 2. The lateral boundaries of the investigation include APN 008-370-33 and the eastern portion (east of the Wells Street overpass) of APN 011-450-24. The vertical extent of the investigation included shallow subsurface soil to 15 feet below land surface (bls); soil samples were collected from each soil boring at 5 feet bls, 10 feet bls, and 15 feet bls. The following contaminants were detected at concentrations greater than the US EPA Regional Screening Levels (RSLs) and/or Nevada closure criteria at the site:

• Cumulative total petroleum hydrocarbon (TPH) soil concentrations meeting or exceeding 100 milligram per kilogram (mg/Kg) (NDEP Clean Closure concentration for TPH) were in four samples as follows: 246 mg/Kg in SS-1-5 at 5 ft bls, 179 mg/Kg in SS-1-10 at 10 ft bls, 100 mg/Kg in SS-10-5 at 5 ft bls, and 1,850 mg/Kg in SS-8-5 at 5 ft bls.

Volatile organic compounds (VOCs) or TPH-Gasoline Range Organics (THP-GRO) were not detected above the reporting limit in any of the soil samples collected from the site. Additionally, SVOCs were reported at concentrations below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs for each soil sample.

RECOMMENDATIONS

Given the known historical industrial operations which occurred on the site, residual petroleum hydrocarbon soil impacts were known to remain in soil below the site at time of case closure. The Phase II ESA sampling identified shallow subsurface soils at the site contained TPH concentrations that exceeded NDEP clean closure values. Analysis of VOCs via EPA Method 8260B and semi-volatile organic compounds (SVOCs) via EPA Method SW8270C-SIM was conducted on each soil sample. SVOCs were reported at concentrations below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs for each confirmation soil sample.

The site developers are proposing to construct a parking lot to support a nearby housing development (not located on the site). Thus, potential receptors include construction workers that may be moving soil and remnant building features to prepare the site for redevelopment. The development of a parking lot at the site will provide an impervious cap over residual petroleum hydrocarbon soil impacts, thereby reducing exposure and mitigating potential impacts to human health.

Based on the presence of SVOCs in site soil at concentrations below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs and the proposed intended use of the site (parking lot), additional assessment or remediation of soil at the site does not appear warranted. It is recommended to leave residual petroleum hydrocarbon soil impacts in place and redevelop the site in a

manner that is protective of human health and the environment. Additional waste disposal testing is recommended if soils are excavated for off-site disposal. The NBP recommends characterization of site conditions west of the Wells Ave overpass of any portion of APN 011-450-24 or APN 008-370-33 satisfying the ASTM E1903-19 standard prior to development.

1. INTRODUCTION

The City of Reno requested assistance from the Nevada Brownfields Program (NBP) to perform assessment activities to facilitate redevelopment at the site. Activities conducted by the NBP are funded by the Environmental Protection Agency (EPA) through a Brownfields grant under Section 128(a) of the Comprehensive Environmental Response, Cleanup, and Liability Act (CERCLA). The Phase II ESA activities were conducted in accordance with the Sampling and Analysis Plan (SAP) dated February 6, 2020.

The NBP has tasked BEC Environmental Inc. (BEC) and BEC's subcontractor, Broadbent, to prepare this Phase II ESA report under Brownfields Contract: DEP 17-026, Task: BC10-20, Category: 54, Organizational Code: 5429, Job #: 6681717.

Significant levels of petroleum hydrocarbon impacted soils were discovered along Commercial Row during ReTrac construction and trench excavation activities. Discovery of petroleum hydrocarbon impacted soil resulted in several cases being opened by the WCHD and NDEP.

Monitoring of impacted soil was often conducted concurrently during ReTrac construction activity, including sampling and analysis for characterization and remediation of the impacted soil encountered. These historical ReTrac cases have been closed by the WCHD and NDEP with petroleum contamination remaining in place.

The objective of the Phase II ESA on the two subject parcels was to collect definitive data in the form of soil samples for laboratory analysis for petroleum hydrocarbon constituents to inform developers of the existing levels of residual petroleum hydrocarbon soil impacts known to remain at time of closure. Soil samples were analyzed for TPH-GRO, TPH-DRO, and TPH-ORO, VOCs, and SVOCs. The two parcels are adjoining, and as summarized herein, have a similar history regarding previous site development, usage, and environmental concerns. The site developer is proposing to construct a parking lot at the site to support a nearby housing development on separate parcel.

1.1 PURPOSE

This Phase II ESA was completed in conformance with the ASTM E1903-19 (ASTM, 2019) "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process." This Phase II ESA was also completed in general accordance with the Standards for Conducting All Appropriate Inquiries codified in 40 Code of Federal Regulations (CFR) Part 312; ASTM E1903-19 (ASTM, 2019); and project scoping meetings with the stakeholders. The Phase II ESA was necessary to confirm the presence, or the likely presence, of a hazardous substance or petroleum product. The ASTM standard specifies procedures of the scientific method to characterize property conditions in an objective, representative, reproducible, and defensible manner.

1.2 SCOPE OF WORK

The scope of work for the Phase II ESA included the following tasks:

• Retained and scheduled Cascade Drilling Services, L.P. (Cascade) to provide sonic drilling equipment, services, and personnel.

- Contacted Underground Service Alert (USA), as required by law, to locate underground utilities in the vicinity of the work site
- Notified BEC and NDEP of the scheduled field activities.
- Perform a Site reconnaissance to observe current site conditions
- Utilize a private utility locator to clear drilling locations of underground utilities prior to initiating field activities
- Prepare a Health & Safety Plan (HASP) to inform project personnel of potential project hazards, as required by the Occupational Safety and Health Administration (OSHA)
- Observe sonic drilling activities and conduct lithologic logging activities for ten soil borings (SS-1 through SS-10)
- Collect three soil samples from each soil boring at five-foot intervals to 15 feet bls
- Facilitate onsite storage of soil cuttings in 55-gallon drums for future transport and disposal, pending receipt of laboratory analytical results
- Submit collected soil samples to Alpha Analytical, Inc. (a Nevada certified laboratory) for analysis
- Soil samples were analyzed for TPH-GRO, TPH-DRO, and TPH-ORO by SW8015C; VOCs by SW8260B; and SVOCs by SW8270C-SIM
- Prepared this Phase II ESA Report to summarize the findings and conclusions for the site assessment activities in accordance with SAP requirements

1.3 SPECIAL TERMS AND CONDITIONS

This document has been prepared by Broadbent and BEC solely for the use and benefit of NDEP and the City of Reno (Applicant). Any use of this document or information herein by persons or entities other than NDEP and the Applicant without the express written consent of Broadbent and/or BEC, will be at the sole risk and liability of said person or entity. Broadbent and/or BEC will not be liable to NDEP and the Applicant or such persons or entities for any damages resulting therefrom. It is understood that this document may not include all information pertaining to the described site.

1.4 PERSONNEL PERFORMING PHASE II ESA

This Phase II ESA was completed by the following personnel:

Title	Name / Company	Phone Number / Email Address	Responsibilities
NDEP Project Manager	Dave Friedman /		Responsible for NDEP Brownfields
	NDEP	dfriedman@ndep.nv.gov	Project coordination
NDEP Quality Assurance	Mary Siders / NDEP	msiders@ndep.nv.gov	Responsible for NDEP Quality
Officer (QAO)			Assurance review of the SAP and
			QA goals.
Contractor Project	Eileen Christenson /	(702) 304-9830 /	Primary NBP contractor point of
Manager	BEC Environmental, Inc.	eileen@becnv.com	contact and project manager.
_			Responsible for the overall project.

Table 1-1 Key Project Personnel Contact Information and Responsibilities

Contractor QAO	Rachel Schlick /	(702) 304-9830 /	Primary NBP contractor QAO.
	BEC Environmental, inc.	Tacheis@bechv.com	Responsible for QA of the project.
Subcontractor Field	Brandon Reiff /	(775) 322-7969 /	Responsible for preparing and
Team Leader	Broadbent &	breiff@broadbentinc.com	implementing the SAP, managing
	Associates, Inc.		field activities, and the quality
			control (QC) of field sampling
			activities.
	T		
Laboratory Quality	Randy Gardner	(800) 283-1183	Responsible for data validation.
Assurance Officer	Alpha Analytical, Inc.	randyg@alpha-	
		analytical.com	

2. PROJECT AREA DESCRIPTION

The site is within the City of Reno boundaries at an approximate latitude and longitude (center of the site) of 39.5302360 North, -119.8028570 West NAD83. The site is located within the northwest quarter of Section 12, Township 19 North, Range 19 East, relative to the Mount Diablo Baseline and Meridian. The site is covered by the United States Geological Survey (USGS) 6723545 Reno, NV 7.5-minute quadrangle topographic map. A Site Location Map is attached as Drawing 1.

The site is currently a vacant commercial/industrial lot. The site, consisting of two parcels, collectively occupies approximately 3.8 acres in a commercial/industrial area. According to the Washoe County Assessor, the approximate size of Assessor Parcel Number (APN) 011-450-24 is 3.159 acres and the approximate size of APN 008-370-33 is 0.6 acres. The lateral boundaries of this investigation include APN 008-370-33 and the eastern portion (east of the Wells Street overpass) of APN 011-450-24.

Tables 2-1 and 2-2 provide adjoining property descriptions/uses for parcels 011-450-24 and 008-370-33, respectively.

Direction	Address	Use & Occupant	Comments	
North	N/A	Union Pacific Railroad	None	
North	Several	Industrial Buildings	None	
	N/A	Truckee River	None	
South	1010 E Commercial Row	BayStone	APN: 008-370-22	
	0 E Commercial Row	City of Reno- Vacant lot	APN: 011-450-25	
W/oct		NV Energy electrical	ADN: 011 4E0 10	
west	$0 \in Z = SL$	substation	APN: 011-430-19	
	0 E Commercial Row	Vacant Lot	APN: 008-370-33	
East	0 E Commercial Row	Vacant Lot	APN: 008-370-34	
	N/A	E Commercial Row	Public thoroughfare	

Table 2-1 Adjoining Property Uses - APN 011-450-24

Table 2-2 Adjoining Property Uses - APN 008-370-33

Direction	Address	Use & Occupant	Comments
North	N/A	Union Pacific Railroad	None
South	N/A	Truckee River	None
	N/A	E. Commercial Row	Public thoroughfare
	990 E Morrill Ave.	Water Supply Well	APN: 008-370-21
	1010 E Commercial Row	BayStone	APN: 008-370-22
West	0 E. Commercial Row	Vacant Lot	APN: 011-450-24
East	0 E Commercial Row	Vacant Lot	APN: 008-370-34
	1035 E Commercial Row	Vacant Warehouse	APN: 008-370-20

Surface water drains to the nearby Truckee River which is located south of both parcels.

2.1 HISTORICAL BACKGROUND

Between approximately 1946 and 2010, the site appears to have been used for industrial applications (e.g. material and vehicle storage). Structures consistent in appearance with that of small commercial/industrial buildings and a warehouse were observed on the site in historical aerial photographs and Sanborn maps, and historical records indicate the site was likely used to support adjacent industrial operations. The structures and materials were removed from the site by 2010. The site has been predominantly vacant since 2010 and is currently unoccupied.

2.1.1 Previous Investigations and Regulatory Involvement

The two (2) subject parcels (APNs 008-370-33 and 011-450-24) making up the site have undergone previous Phase I/II ESAs and limited remedial activities.

A Phase I ESA performed by S.E.A., Inc. Consulting Engineers (SEA) and dated November 29, 1995 documented petroleum hydrocarbon staining on soil adjacent to a sand/oil separator and the hydraulic service pad area at the site.

In January 1996, SEA excavated below the leach field and the outdoor wash area at the site to obtain soil samples for testing. Visual observation and confirmation soil samples collected by SEA indicated TPH concentrations above Nevada State Action Levels.

In April and May 1996, SEA conducted additional assessment for the extent of TPH in soil beneath the leachfield, around the concrete apron, wash pad, and the drum containment pad. The leachfield formerly received all wastewater generated at the site. The concrete apron extended around the north and east sides of the former maintenance building on the site. The wash pad laid on the east side of the former maintenance building. The concrete drum containment pad laid on the north-central edge of the maintenance building. This assessment included excavating two test pits below the septic leach field, excavating contaminated soil from the northern and eastern edges of the concrete apron and wash pad, and excavating stained soils around the drum containment pad. Six samples were collected from the leachfield test pits (three from each test pit at 3, 6 and 9-10 feet deep) and analyzed for TPH. The soil by the drum containment pad was excavated from an area 13 feet in diameter by 6 feet deep, and two confirmation samples were collected. These were composited into one sample for analysis. 15 soil samples were collected after excavation (eleven on April 22 and four on May 13) from the exposed excavated surfaces along the concrete apron and the wash pad area, to as deep as 5 feet, and composited into eight samples. Confirmation soil samples collected during this assessment by SEA indicated TPH concentrations above Nevada State Action Levels. TPH concentrations ranged from 62 mg/Kg to 3,200 mg/Kg.

SEA concluded that higher concentrations of TPH remain under the apron on the building's north and east sides, further toward the east on the building's east side beyond the limits of the excavation, and at the excavation on the west end of the drum containment area. SEA also concluded that the majority of the accessible high concentrations of TPH had been remediated. Subsequently, SEA submitted a risk-based closure request to the WCHD. A total of 313 tons of petroleum impacted soil was removed for off-site disposal.

In August 1996, the wash pad on the site was closed with regard to its' connection to the sand/oil separator. The sand/oil separator was disconnected from the leach field, rendering it a septic tank, with

no discharge. SEA observed additional soil excavation on the east side of the building, where TPH concentrations remained from previous remedial actions. Approximately 25 tons of petroleum impacted soil was removed for off-site treatment. Following the additional excavation activities, The WCHD concurred with SEA's recommendation and issued a No Further Action (case closure) letter (dated December 18, 1996). The WCHD stated that it "will not require further redial action of the TPH contaminated soil although it is slightly above the State action level of 100 mg/Kg."

In February 2002 a Phase I ESA entitled "ReTRAC Phase I Environmental Site Assessments" was conducted on the site by Lahontan Geoscience (Lahontan). The 2002 Phase I report noted the following: the presence of two buildings, one a long brick building with metal roofing built in 1936, used as office, garage and storage (south side of Site). The other was a long rectangular concrete structure with a flat roof, built in 1979, used as a garage for sealing and striping trucks and storage (east side of Site). The Site had many containers, drums and buckets of liquid epoxy, wastewater from cleaning the painting equipment, and paint. None of the materials appeared to be hazardous by regulation. Other improvements included two 5,000-gallon ASTs with asphalt sealant enclosed by a concrete basin on the east side of the office/garage, and a perimeter fence. The Site was in use at that time by Western Sealing and Striping (WSS). Lahontan recognized the prior petroleum contaminated soil remediation, with residual petroleum contamination left in place. WSS had formerly been permitted with the State Fire Marshall (SFM) for storage of hazardous materials, including toluene and acrylic solvent-based paint. In 1999, WSS notified the SFM that hazardous materials were no longer stored on the premises. Lahontan noted that a previous borehole, B-29, had been drilled on the site for testing of petroleum hydrocarbons and volatile organic compounds. This boring was part of the initial environmental and geotechnical assessment for the ReTRAC project, conducted in 2000 by Kleinfelder Inc. Analytical tests of soil samples for petroleum reported 16 mg/kg for petroleum and non-detect (ND) concentrations for VOCs. Analytical tests for groundwater reported ND for petroleum, and 4.5 ppm for chloroform. Lahontan also concluded that the site could have orphan underground heating oil storage tanks due to the sites age, and noted that severe soil staining was present from spillage of the asphalt sealant mixture near the AST concrete basin (AMEC ESA 2008).

A Phase II ESA was performed by Lahontan GeoScience, Inc. (Lahontan) circa August 2002. Prior to Phase II activities, Lahontan conducted a Phase I for the eastern portion of the Property (APN: 008-360-07 – former APN of eastern portion of APN 011-450-24) and another site (Caravan Campers). The Lahontan Phase I Report entitled "ReTRAC Phase I Environmental Site Assessments" dated February 2002 (Phase I 2002) revealed the presence of stained soil in the parking area of the site. Subsequently, a Phase II investigation (as discussed above) was recommended by Lahontan. On July 28, 2009, excavation activities were stopped due to discovery of a thick tar like substance uncovered on the Property. Additional tar and oil substances were encountered adjacent to and east of the tar pit. Petroleum hydrocarbon impacted soil was excavated and three confirmation soil samples were collected. On August 24 and 25, 2006, two boreholes were advanced to a total depth of 50 feet below ground surface and monitoring wells were installed hydraulically down gradient from the former tar/oil pit to assess if groundwater or the Truckee river had been or were at risk of being impacted by petroleum hydrocarbons associated with the tar/oil pit. Groundwater samples collected on August 26, 2006, from these wells were non-detect for each petroleum hydrocarbon constituent analyzed.

Between June and July 2003, the WSS Warehouse on the site was demolished. Following the demolition of the building on the site, the top two to three feet of soil along the western portion of the site was excavated to accommodate a temporary track during the reconfiguration of the main railroad. This railroad configuration project is known as the ReTRAC project. On July 28, 2003 excavation activities

were stopped due to discovery of a thick tar like substance uncovered on the Property. Additional tar and oil substances were encountered adjacent to and east of the tar pit. The oil and tar pit on the site were contained within a concrete structure which consisted of two separate bays, one for tar and one for heating oil. The two sections were separated by a below-grade concrete wall. The concrete structure measured 30 feet by 35 feet. Subsequently, petroleum hydrocarbon impacted soil was excavated and three confirmation soil samples were collected. Confirmation soil samples collected following the excavation indicated TPH concentrations above Nevada State Action Levels. TPH-extractable concentrations ranged from 100 mg/Kg to 11,500 mg/Kg. Following soil sampling activities, the bottom of the tar/oil pit was abandoned with cement and backfilled with native onsite material.

On August 24 and 25, 2006, two boreholes were advanced to a total depth of 50 feet below ground surface. Upon reaching total depth of the borehole, a groundwater monitoring well was installed in both boreholes. Both monitoring wells were installed hydraulically downgradient of the former tar/oil pit in order to assess if the groundwater and/or Truckee River have or will be impacted by petroleum hydrocarbons from the former tar/oil pit on the site.

A Phase I ESA [dated January 22, 2008 (AMEC, 2008)] was performed by AMEC Earth & Environmental, Inc. (AMEC). The findings of the Phase I ESA 2008 include evidence of the following RECs associated with the subject site (or portion thereof):

- The site overlies a regional plume of perchloroethylene (PCE) in groundwater. The site does not appear to have contributed to the plume.
- Following remedial actions, residual petroleum in soil was noted in multiple locations and at various depths.
- Based on the observations and analytical results of remediation of the tar pit and the oil pit, groundwater may be impacted below the area of remedial excavation.
- Groundwater at a former boring (B-29) on the Property in 2000 was reported as impacted by chloroform.
- A variety of unidentified chemicals may be present beneath the remaining foundations due to the presence of multiple floor drains and to the documented spillage in 2003 of chemicals within the former warehouse on the site.
- The soil and groundwater beneath the former leach field has not been fully assessed (APN 011-450-24)

Mr. Brandon Reiff of Broadbent conducted a site reconnaissance of the site on January 28, 2019, the results of which are summarized in two separate reports; the March 21, 2019 *Phase I Environmental Site Assessment*, 0 E. Commercial Row, (APN: 008-370-33) and the March 22, 2019 *Phase I* Environmental Site Assessment, 0 E. Commercial Row, (APN: 011-450-24).

The above referenced Phase I ESAs identified effectively the same RECs as listed above. Accordingly, a Work Plan entitled City of Reno Phase II Environmental Site Assessments Work Plan (Work Plan) dated July 27, 2019 was prepared for site, upon which the SAP was based. As discussed within the Work Plan, "Phase II ESAs have been proposed to further investigate these RECs and quantitatively assess the potential environmental impacts to the subject properties."

3. PHASE II ASSESSMENT ACTIVITIES

The objective of this assessment was to evaluate the RECs on these two subject parcels to inform developers of the existing levels of residual petroleum hydrocarbon soil impacts known to remain at time of closure of the various environmental cases at the site and site vicinity. These historical cases on the site are summarized in two separate reports; the March 21, 2019 *Phase I Environmental Site Assessment*, 0 E. Commercial Row, (APN: 008-370-33) and the March 22, 2019 *Phase I* Environmental Site Assessment, 0 E. Commercial Row, (APN: 011-450-24).

Site information was reviewed to determine historical uses and identify hazardous substances that may be present on site. The information and site history were used to determine the most effective sampling design to meet the project objectives within the schedule and budgetary constraints. The following potential sources of contamination were identified:

Analytes of concern (AOCs) in soil: TPH-GRO, TPH-DRO, TPH-ORO, VOCs, and SVOCs. AOCs, if
present at concentrations above screening levels, could pose a human health risk via inhalation,
direct contact, or incidental ingestion.

Previous assessment and remediation at the site have documented the presence of petroleum hydrocarbons remaining in soil. Additional data are needed to inform developers of the existing levels of residual petroleum hydrocarbon soil impacts. The developers are proposing to construct a parking lot at the site to support a nearby housing development on a separate parcel. Thus, potential receptors include construction workers that may be moving soil and remnant building features to prepare the site for redevelopment. Based on the stated potential future use, the protection of human health based on an industrial exposure scenario is appropriate.

The following field activities were conducted from February 10, 2020 through February 13, 2020:

- Broadbent personnel observed the advancement and sampling of ten soil borings (SS-1 through SS-10) to a total depth of 15 feet bls at the site. Boring advancement was conducted using a sonic drill rig. During advancement of each boring, soil was continuously cored and the lithology logged.
- Soil samples were collected from each soil boring at 5 feet bls, 10 feet bls, and 15 feet bls. Soil samples analyzed for TPH (DRO & ORO) and SVOCs were collected in certified pre-cleaned glass jars. Soil samples analyzed for TPH-GRO and VOC analyses were collected in Encore[®] samplers. Soil samples were labeled, stored chilled, and delivered to Alpha Analytical, Inc. (Sparks, NV), a Nevada certified laboratory under chain-of-custody protocol.
- A total of 30 soil samples were analyzed for TPH-DRO, TPH-ORO, and TPH-GRO by EPA Method 8015C; SVOCs by EPA Method 8270C-SIM; and VOCs by EPA Method 8260B.
- Upon completion of each soil boring at the site, each borehole was backfilled with neat cement.

Sampling locations are shown in Drawings 2 and 3 and are specified in the table below. The sampling rationale for the sampling locations are specified in the table below.

Sampling IDs	Depth (feet)	Analytical Parameter	Rationale
SS-1, -2, -3, -7, and -10	5, 10 and 15 feet bls	TPH, VOCs, and SVOCs	Verify occurrence of historical soil impact in area of ReTrac construction activity.
SS-6, -8, and -9	5, 10 and 15 feet bls	TPH, VOCs, and SVOCs	Identify chemicals may be present beneath the remaining foundations of the former warehouse due to the presence of multiple floor drains and to the documented spillage in 2003.
SS-4, and -5	5, 10 and 15 feet bls	TPH, VOCs, and SVOCs	To characterize soil beneath the former leach field that has not been fully assessed.

Table 3-1 Sampling Design and Rationale Matrix = Soil

Soil sample analytical results were compared to NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs based on the anticipated future use of the site. The data collected during this site assessment were used to evaluate environmental concerns at the site and identify the potential impact on future redevelopment. The data were specifically used to sufficiently characterize the extent of known petroleum contamination associated with previous releases to the subsurface in the vicinity of the site to support redevelopment decisions.

3.1 SOIL SAMPLING

Based on the historical use of the site, a combination of biased sampling was the most appropriate sampling approach to assess the existing levels of residual petroleum hydrocarbon soil impacts known to remain at time of closure of the various environmental cases at the site.

Soil borings were installed using a sonic drill rig. Three discrete soil samples were collected from each boring at depths of approximately 5, 10 and 15 feet bls. A total of 30 soil samples were collected and analyzed for the following:

- TPH-GRO, DRO, and ORO by SW8015C
- SVOCs by SW8270C-SIM
- VOCs by SW8260B

Boring locations are depicted on Drawing 2. Sub-surface soil sampling was conducted in accordance with the SAP and SOPs in Appendix A. It should be noted that it is Broadbent's policy to hand-clear the first 6.5 feet of all mechanically installed boreholes. Refusal while hand clearing each borehole location was met prior to reaching 6.5 feet bls. Per Section 6.3 (Scenario 2) in the SAP, the decision to proceed with drilling based on professional judgement (subsurface lithology, lack of marked utilities in the area, drillers experience) was followed.

Samples analyzed for VOCs (GRO and EPA Method 8260 constituents) were collected first. Once the desired sample depth was reached, each VOC sample was collected into a sample-dedicated Encore[®] container by pushing the sample container with a "T" bar into an undisturbed portion of the soil core as soon as it was retrieved from the boring. Encore[®] sample containers were labeled, placed in a zip lock bag, and stored in an iced cooler.

Soil samples analyzed for non-VOCs (DRO, ORO and SVOCs) were collected from the soil core using a clean disposable scoop and transferred into laboratory-provided 8-ounce glass jars.

Disposable, nitrile gloves were used during soil sample collection. The soil samples were labeled, placed in a cooler with ice (cooled to 4 °C), and stored until shipment for laboratory analysis accompanied by chain-of-custody documentation. For each cooler that was transported to the laboratory, a 40-millliter volatile organics analysis (VOA) vial was included that was marked "temperature blank." This blank was used by the sample custodian to check the temperature of samples upon receipt.

Soil samples were screened for organic vapors using a photo-ionization detector (PID). The PID was calibrated and operated in accordance with manufacturer instructions. Soil sampling locations and depths were recorded on daily field sheets as sampling was completed. Daily field sheets are included in Appendix B. Photographs taken at representative sampling locations, and at other areas of interest on site, are included in Appendix C.

Soil was continuously logged using the Unified Soil Classification System (USCS). Soil types and other pertinent geologic data were recorded on a boring log. Soil boring/lithologic logs for the site are included in Appendix D. A hand-held photoionization detector (PID) was used to measure VOC concentrations in each sample in the field. PID measurements were recorded on the boring logs.

One trip blank was submitted to the laboratory for analysis each day that samples were collected. Trip blanks for soil samples are VOA vials filled with purged deionized water that are transported to the field and then returned to the laboratory without being opened. A total of three trip blanks were submitted and analyzed for TPH via EPA Method 8015C and VOCs via EPA Method 8260B.

3.2 DEVIATIONS FROM THE SAMPLING AND ANALYSIS PLAN

Soil boring SS-7 was moved approximately two feet north of the originally proposed location (specified in the SAP) due to a large boulder being encountered approximately five feet bls causing refusal of the drill rig.

Soil boring SS-6 was moved. Boring SS-6 was moved approximately two feet east of the originally proposed location (specified in the SAP) due to a concrete pad being encountered approximately two feet bls causing refusal of the borehole hand clearing.

In an email dated February 3, 2020, the NDEP approved the use of EPA analytical method SW8015B for TPH (DRO, GRO, and ORO) analysis. Please note that Alpha Analytical, Inc. is analyzing TPH using EPA method SW8015C as this is the most recent and updated method for TPH analysis.

Per Alpha Analytical, Inc., the trip blanks could not be analyzed for SVOCs via 8270C-SIM. Two-liter vials are necessary in order to perform this analysis of which Alpha Analytical, Inc. does not provide. Trip blanks were therefore analyzed for TPH-GRO, TPH-DRO, and TPH-ORO via EPA method 8015C and VOCs via EPA method 8260B.

None of these deviations is judged to have any adverse impact on the analytical data or conclusions of this report.

4. PHASE II ASSESSMENT RESULTS

Soil sample analytical results were compared to established NDEP and EPA screening levels for the protection of construction workers that may be moving soil and remnant building features to prepare the site for redevelopment. The developers are proposing to construct a parking lot at the site to support a nearby housing development on separate parcel. The following screening levels were selected to correspond with the potential future use of the site:

 Soil sampling results for SVOCs and VOCs are compared to NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs based on the anticipated future use of the site. Soil sample results for TPH are compared to the NDEP action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios (NDEP). Any TPH cumulative total values exceeding 100 mg/Kg would default to EPA RSLs for VOCs and SVOCs (EPA, 2019a).

4.1 SOIL SAMPLING RESULTS

The laboratory analytical results for subsurface soil samples are listed in Tables 1, 2, and 3. Copies of the laboratory analytical reports and chains-of-custody are provided in Appendix E. Sampling locations are shown on Drawings 2 and 3. Soil sample results are discussed below.

4.1.1 TPH Results in Soil

A total of 30 soil samples were collected and analyzed for TPH-GRO, TPH-DRO, and TPH-ORO.

- TPH-DRO was not detected in any of the samples
- TPH-DRO was detected in five samples at concentrations ranging from 17 mg/Kg (SS-5-5) to 350 mg/Kg (SS-8-5)
- TPH-ORO was detected in six samples at concentrations ranging from 65 mg/Kg (SS-6-5) to 1,500 mg/Kg (SS-8-5)
- TPH cumulative total values meeting or exceeding 100 mg/Kg were detected in four samples at concentrations ranging from 100 mg/Kg (SS-10-5) to 1,850 mg/Kg (SS-8-5)

TPH cumulative total values are a sum of the TPH constituents including TPH-GRO, TPH-DRO, TPH-ORO. The NDEP has set <100 mg/Kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Clean Closure criteria are met when all soil sample analytical results (using analytical EPA Method 8015 modified) are below 100 mg/Kg for TPH cumulative total values and TPH constituents. Any TPH cumulative total values exceeding 100 mg/Kg are evaluated using EPA RSLs for VOCs and SVOCs. The TPH cumulative total values are presented in Table 1 and summarized in Table 4-1 below. Laboratory analytical results for TPH-GRO, TPH-DRO, and TPH-ORO are presented in Table 1 and Drawing 3.

Table 4-1 Detected TPH Results Summary

Sample Information	TPH-DRO	TPH-ORO	TPH-cumulative total
Number of Samples	30	30	30
Detected Result Range (mg/Kg)	17 – 350	65 – 1,500	65 – 1,850
Number of Detections	5	6	6
NDEP Clean Closure Value (mg/Kg)	100*	100*	100*
Number of Exceedances	1	3	4

Notes:

mg/Kg = milligrams per kilogram

NDEP = Nevada Department of Environmental Protection

TPH-DRO = total petroleum hydrocarbons for diesel

TPH-ORO = total petroleum hydrocarbons for motor oil

TPH-Cumulative total = sum of all TPH constituents (TPH-DRO, TPH-GRO, TPH-ORO)

* The NDEP has set <100 mg/Kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cumulative TPH values exceeding 100 mg/Kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons constituents.

4.1.2 VOC Results in Soil

A total of 30 soil samples were collected and analyzed for VOCs. VOCs were not detected above laboratory reporting limits in any of the soil samples analyzed. Laboratory analytical results for VOCs are presented in Table 2.

4.1.3 Semi Volatile Organic Compound-Polycyclic Aromatic Hydrocarbons in Soil

A total of 30 soil samples were collected and analyzed for SVOCs. SVOCs were primarily below laboratory reporting limits and/or detected at concentrations below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs.

Soil sample SS-10-5 was the only sample that contained SVOCs at concentrations above laboratory reporting limits. The maximum SVOC concentrations detected in sample SS-10-5 were:

- fluoranthene [46 micrograms per kilogram (µg/Kg)]
- pyrene (47 μg/Kg)
- benzo(b&k)fluoranthene (100 μg/Kg)
- indeno(1,2,3-cd)pyrene (27 μg/Kg)
- benzo(g,h,i)perylene (32 μg/Kg)

None of the reported SVOC concentrations exceeded the EPA RSLs and/or NDEP Petroleum in Soils

Analyte Specific Closure Levels (Industrial). Laboratory analytical results for SVOCs in soil samples are presented in Table 3 and detected results are summarized in Table 4-2 below.

Sample Information	Fluoranthene	Pyrene	Benzo(b&K) fluoranthene	Indeno(1,2,3- cd)pyrene	Benzo(g,h,i)perylene		
Number of Samples	30	30	30 30		30		
Detected Results	46 μg/Kg (0.046 mg/Kg)	47 μg/Kg (0.047 mg/Kg)	100 µg/Kg (0.1 mg/Kg)	27 µg/Кg (0.027 mg/Kg)	32 μg/Kg (0.032 mg/Kg)		
Number of Detections	1	1	1	1	1		
Screening Levels	30,000 mg/Kg (EPA-RSL: industrial) 30,000 mg/Kg (NDEP Industrial Closure Levels)	23,000 mg/Kg (EPA-RSL: industrial) 23,000 mg/Kg (NDEP Industrial Closure Levels)	21 mg/kg Kg benzo(b)- fluoranthene 210 mg/Kg benzo(k)- fluoranthene (EPA-RSL: industrial) 2.9 mg/Kg benzo(b)- fluoranthene 29 mg/Kg benzo(k)- fluoranthene (NDEP Industrial Closure Levels)	21 mg/Kg (EPA- RSL: industrial) 2.9 mg/Kg (NDEP Industrial Closure Levels)	N/A		
Number of Exceedances	0	0	0	0	0		
Notes: < = less than ND = non-detect N/A = not applicable μg/Kg = micrograms per kilogram mg/Kg = milligrams per kilogram EPA RSL = U.S. Environmental Protection Agency Regional Screening Levels (EPA, 2019a)							

Table 4-2 Detected SVOC Results Summary

4.2 QC SAMPLE RESULTS

One trip blank was submitted to the laboratory for analysis each day that samples were collected. A total of three trip blanks were analyzed for TPH-GRO, TPH-DRO, TPH-ORO, and VOCs. Trip blanks for soil samples are VOA vials filled with purged deionized water that are transported to the field and then returned to the laboratory without being opened. Laboratory analytical results for each of the three trip blanks (Trip Blank 1, Trip Blank 2, and Trip Blank 3) were below laboratory reporting limits and therefore below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs.

Laboratory QC Summary Reports listed the following qualifiers:

Work Order BBA2002039

• MSD for chloroethane qualified "R" - RPD outside accepted recovery limits

Work Order BBA2002041

 MS for Benzo(b&k)fluoranthene, isomeric pair qualified "S" – spike recovery outside accepted recovery limits

Work Order BBA2002050

- MS for Benzo(b&k)fluoranthene, isomeric pair qualified "S" spike recovery outside accepted recovery limits
- Laboratory reporting limits were increased for VOC and SVOC results for sample SS-8-5 due to sample foaming

Work Order BBA2002064

- MSD for Benzo(b&k)fluoranthene, isomeric pair qualified "S" spike recovery outside accepted recovery limits
- MS and MSD for Trichlorofluoromethane qualified "S" spike recovery outside accepted recovery limits
- MS for cis-1,2-Dichloroethane qualified "S" spike recovery outside accepted recovery limits
- MS for Chloroform qualified "S" spike recovery outside accepted recovery limits

Based on a review of the laboratory analytical reports and QC summary reports, the data meet the project Data Quality Objectives (DQOs) and are acceptable for project purposes.

5. DISCUSSION

Given the known historical industrial operations which occurred on the site, residual petroleum hydrocarbon soil impacts were known to remain in soils below the subject site at time of regulatory case closure. The Phase II ESA sampling confirmed that shallow subsurface soil at the site contains TPH-DRO, TPH-ORO, and TPH cumulative total concentrations that exceed NDEP clean closure values. Per the laboratory reports, reported concentrations of TPH-DRO may include contributions from heavier-end hydrocarbons such as asphalt/road oil that elute in the DRO range (footnote "L").

None of the soil samples analyzed contained reportable concentrations of TPH-GRO or VOCs. Reportable concentrations of SVOCs were present in one soil sample at concentrations below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs.

The site developers are proposing to construct a parking lot to support a nearby housing development on a separate parcel. Thus, potential receptors include construction workers that may be moving soil and remnant building features to prepare the site for redevelopment. The development of a parking lot at the site will provide an impervious cap over residual petroleum hydrocarbon soil impacts at the site reducing potential exposure and mitigating potential impacts to human health.

6. CONCLUSIONS AND RECOMMENDATIONS

Based on the Phase II ESA results, residual TPH are present in site soil at concentrations exceeding the 100 mg/Kg screening level. Since the presence of the TPH in soil at the site has been previously documented and regulatory cases have been closed with contamination in place, a reportable release is not appropriate and additional assessment does not appear to be warranted.

Reportable concentrations of VOCs were not identified and reportable concentrations of SVOCs in soil are below NDEP Petroleum in Soils Analyte Specific Closure Levels (Industrial) and US EPA RSLs.

Based on the proposed use of the site as a parking lot, it is recommended to leave residual petroleum hydrocarbon soil impacts in place and redevelop the site in a manner that is protective of human health and the environment. Additional waste disposal testing is recommended if soil is disturbed during construction and/or excavated for off-site disposal. The NBP recommends characterization of site conditions west of the Wells Ave overpass of any portion of APN 011-450-24 or APN 008-370-33 satisfying the ASTM E1903-19 standard prior to development.

7. LIMITATIONS

The findings presented in this report are based upon information provided by observations of field personnel, activities reported by Cascade and Broadbent, points investigated, results of laboratory tests performed by Alpha Analytical, Inc., and our understanding of Nevada Administrative Code. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of NDEP, BEC, and the City of Reno. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

8. **REFERENCES**

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DRAWINGS







TABLES

0 Commercial Row, Reno, NV

			2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/11/2020
		NDEP Petroleum in Soils Closure Checklist							
Parameter/Compound	Unit		SS-1-5	SS-1-10	SS-1-15	SS-2-5	SS-2-10	SS-2-15	SS-3-5
трн									
TPH-E (Diesel)	mg/Kg	100*	36 (L)	29 (L)	<10	<10	<10	<10	<10
TPH-E (Oil)	mg/Kg	100*	210	150	<10	<10	<10	<10	<10
TPH-P (Gasoline)	mg/kg	100*	<10	<10	<10	<10	<10	<10	<10
TPH-cummulative total	mg/Kg	100*	246	179	<10	<10	<10	<10	<10

Notes:

TPH-E: total petroleum hydrocarbons-extractable analyzed by EPA method 8015C

TPH-P: total petroleum hydrocarbons-purgable analyzed by EPA method

8015C/SW8260B

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the NDEP "Analyte - Specific Closure" Levels (Industrial)

NA - Not avalable in the NDEP Petroleum in Soils Closure Policy

* - The NDEP has set <100 mg/kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cummulative TPH values exceeding 100 mg/kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons constituents.

Analytical Footnotes:

0 Commercial Row, Reno, NV

			2/11/2020	2/11/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020
		NDEP Petroleum in Soils Closure Checklist							
Parameter/Compound	Unit		SS-3-10	SS-3-15	SS-4-5	SS-4-10	SS-4-15	SS-5-5	SS-5-10
трн									
TPH-E (Diesel)	mg/Kg	100*	<10	<10	<10	<10	<10	17 (L)	<10
TPH-E (Oil)	mg/Kg	100*	<10	<10	<10	<10	<10	75	<10
TPH-P (Gasoline)	mg/kg	100*	<10	<10	<10	<10	<10	<10	<10
TPH-cummulative total	mg/Kg	100*	<10	<10	<10	<10	<10	92	<10

Notes:

TPH-E: total petroleum hydrocarbons-extractable analyzed by EPA method 8015C

TPH-P: total petroleum hydrocarbons-purgable analyzed by EPA method

8015C/SW8260B

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the NDEP "Analyte - Specific Closure" Levels (Industrial)

NA - Not avalable in the NDEP Petroleum in Soils Closure Policy

* - The NDEP has set <100 mg/kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cummulative TPH values exceeding 100 mg/kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons constituents.

Analytical Footnotes:

0 Commercial Row, Reno, NV

			2/12/2020	2/12/2020	2/12/2020	2/12/2020	4/20/2017	4/20/2017	4/20/2017
		NDEP Petroleum in Soils Closure Checklist							
Parameter/Compound	Unit		SS-5-15	SS-6-5	SS-6-10	SS-6-15	SS-7-5	SS-7-10	SS-7-15
трн									
TPH-E (Diesel)	mg/Kg	100*	<10	<10	<10	<10	<10	<10	<10
TPH-E (Oil)	mg/Kg	100*	<10	65	<10	<10	<10	<10	<10
TPH-P (Gasoline)	mg/kg	100*	<10	<10	<10	<10	<10	<10	<10
TPH-cummulative total	mg/Kg	100*	<10	65	<10	<10	<10	<10	<10

Notes:

TPH-E: total petroleum hydrocarbons-extractable analyzed by EPA method 8015C

TPH-P: total petroleum hydrocarbons-purgable analyzed by EPA method

8015C/SW8260B

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the NDEP "Analyte - Specific Closure" Levels (Industrial)

NA - Not avalable in the NDEP Petroleum in Soils Closure Policy

* - The NDEP has set <100 mg/kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cummulative TPH values exceeding 100 mg/kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons constituents.

Analytical Footnotes:

0 Commercial Row, Reno, NV

			2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020
		NDEP Petroleum in Soils Closure Checklist							
Parameter/Compound	Unit		SS-8-5	SS-8-10	SS-8-15	SS-9-5	SS-9-10	SS-9-15	SS-10-5
трн									
TPH-E (Diesel)	mg/Kg	100*	350 (L)	<10	<10	<10	<10	<10	19 (L)
TPH-E (Oil)	mg/Kg	100*	1,500	<10	<10	<10	<10	<10	81
TPH-P (Gasoline)	mg/kg	100*	<10	<10	<10	<10	<10	<10	<10
TPH-cummulative total	mg/Kg	100*	1,850	<10	<10	<10	<10	<10	100

Notes:

TPH-E: total petroleum hydrocarbons-extractable analyzed by EPA method 8015C

TPH-P: total petroleum hydrocarbons-purgable analyzed by EPA method

8015C/SW8260B

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the NDEP "Analyte - Specific Closure" Levels (Industrial)

NA - Not avalable in the NDEP Petroleum in Soils Closure Policy

* - The NDEP has set <100 mg/kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cummulative TPH values exceeding 100 mg/kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons constituents.

Analytical Footnotes:

0 Commercial Row, Reno, NV

			2/11/2020	2/11/2020
		NDEP Petroleum in Soils Closure Checklist		
Parameter/Compound	Unit		SS-10-10	SS-10-15
трн				
TPH-E (Diesel)	mg/Kg	100*	<10	<10
TPH-E (Oil)	mg/Kg	100*	<10	<10
TPH-P (Gasoline)	mg/kg	100*	<10	<10
TPH-cummulative total	mg/Kg	100*	<10	<10

Notes:

TPH-E: total petroleum hydrocarbons-extractable analyzed by EPA method 8015C

TPH-P: total petroleum hydrocarbons-purgable analyzed by EPA method 8015C/SW8260B

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the NDEP "Analyte - Specific Closure" Levels (Industrial)

NA - Not avalable in the NDEP Petroleum in Soils Closure Policy

* - The NDEP has set <100 mg/kg as the TPH action level to obtain "Clean Closure" for a site generally posing an acceptable level of risk for all exposure scenarios. Any cummulative TPH values exceeding 100 mg/kg would default to EPA Regional Screening Levels for volatile organic compounds and polycyclic aromatic hydrocarbons consitiuents.

Analytical Footnotes:

0 Commercial Row, Reno, NV

			NDER	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/11/2020	2/11/2020	2/11/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020
Durante (Compound	11-14	Industrial RSL	Industrial Closure Levels	55.1.5	\$5.1.10	\$5.1.15	55.2.5	\$5-2-10	\$5.2.15	55.2.5	\$5.2.10	\$5.2.15	55.4-5	\$5.4.10	\$5.4.15	55.5.5
Parameter/Compound	Unit			33-1-5	33-1-10	33-1-13	33-2-3	33-2-10	33-2-13	33-3-3	33-3-10	33-3-13	33-4-3	33-4-10	33-4-13	33-3-5
VOCs																
Chloromethane	mg/kg	460		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Vinyl chloride	mg/kg	1.7		<0.02	<0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Chloroethane	mg/kg	57,000		< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Bromomethane	mg/kg	30		<0.08	<0.08	<0.08	< 0.08	<0.08	< 0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Trichlorofluoromethane	mg/kg	350,000		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02
1,1 -Dichloroethene	mg/kg	16		< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
1,3,5- Trimethylbenzene	mg/kg	1,500	12,000	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02
trans- 1,2 -Dichloroethene	mg/kg	23,000		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Styrene	mg/kg	35,000	35,000	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
cis- 1,2-Dichloroethene	mg/kg	2,300		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Chloroform	mg/kg	1.4		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloroethane	mg/kg	2.0		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
1,1,1- Trichloroethane	mg/kg	36,000		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Carbon tetrachloride	mg/kg	2.9		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Benzene	mg/kg	5.1	5.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2 -Dichloropropane	mg/kg	11		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Trichloroethene	mg/kg	6.0		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Bromodichloromethane	mg/kg	1.3		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
cis- 1,3-Dichloropropene	mg/kg	8,200		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
trans- 1,3-Dichloropropene	mg/kg	8.2		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
1,1,2 -Trichloroethane	mg/kg	5.0		<0.02	<0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Toluene	mg/kg	47,000	47,000	<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Dibromochloromethane	mg/kg	39		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Tetrachloroethene	mg/kg	100		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chlorobenzene	mg/kg	1,300		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
Ethylbenzene	mg/kg	25	25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromoform	mg/kg	86		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Xylenes, Total	mg/kg	2,500	2,500	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,1,2,2- Tetrachloroethane	mg/kg	2.7		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl-tertiary-butyl ether	mg/kg	210	210	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,4- Dichlorobenzene	mg/kg	11		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2- Dichlorobenzene	mg/Kg	9,300		<0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02	< 0.02

Notes:

VOCs = Volatile Organic Compounds via EPA Method 8260B

RSL= EPA Regional Screening Level for industrial soils

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the RSLs and/or NDEP "Analyte -

. Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

			NDEP	2/12/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020	4/20/2017	4/20/2017	4/20/2017	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020
Parameter/Compound	Unit	Industrial RSL	Industrial Closure Levels	\$\$-5-10	SS-5-15	SS-6-5	SS-6-10	\$\$-6-15	SS-7-5	SS-7-10	SS-7-15	SS-8-5	SS-8-10	SS-8-15	SS-9-5	SS-9-10
Turuncer compound	Unit															
VOCs																
Chloromethane	mg/kg	460		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.16	<0.08	<0.08	<0.08	<0.08
Vinyl chloride	mg/kg	1.7		< 0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Chloroethane	mg/kg	57,000		<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.04	<0.02	<0.02	<0.02	< 0.02
Bromomethane	mg/kg	30		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.16	<0.08	<0.08	<0.08	<0.08
Trichlorofluoromethane	mg/kg	350,000		<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	<0.02
1,1 -Dichloroethene	mg/kg	16		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
1,3,5- Trimethylbenzene	mg/kg	1,500	12,000	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
trans- 1,2 -Dichloroethene	mg/kg	23,000		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Styrene	mg/kg	35,000	35,000	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
cis- 1,2-Dichloroethene	mg/kg	2,300		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Chloroform	mg/kg	1.4		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
1,2-Dichloroethane	mg/kg	2.0		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.04	< 0.02	<0.02	<0.02	< 0.02
1,1,1- Trichloroethane	mg/kg	36,000		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Carbon tetrachloride	mg/kg	2.9		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Benzene	mg/kg	5.1	5.1	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	< 0.02
1,2 -Dichloropropane	mg/kg	11		<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.04	<0.02	<0.02	<0.02	<0.02
Trichloroethene	mg/kg	6.0		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Bromodichloromethane	mg/kg	1.3		<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.04	<0.02	<0.02	<0.02	<0.02
cis- 1,3-Dichloropropene	mg/kg	8,200		<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.04	<0.02	<0.02	<0.02	<0.02
trans- 1,3-Dichloropropene	mg/kg	8.2		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
1,1,2 -Trichloroethane	mg/kg	5.0		<0.02	< 0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 0.04	<0.02	<0.02	<0.02	<0.02
Toluene	mg/kg	47,000	47,000	<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02
Dibromochloromethane	mg/kg	39		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Tetrachloroethene	mg/kg	100		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
Chlorobenzene	mg/kg	1,300		<0.02	< 0.02	<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	<0.02	< 0.02	< 0.02
Ethylbenzene	mg/kg	25	25	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromoform	mg/kg	86		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
Xylenes, Total	mg/kg	2,500	2,500	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,1,2,2- Tetrachloroethane	mg/kg	2.7		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
Methyl-tertiary-butyl ether	mg/kg	210	210	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,4- Dichlorobenzene	mg/kg	11		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
1,2- Dichlorobenzene	mg/Kg	9,300		<0.02	< 0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	< 0.02	< 0.02	< 0.02	< 0.02

Notes:

VOCs = Volatile Organic Compounds via EPA Method 8260B

RSL= EPA Regional Screening Level for industrial soils

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the RSLs and/or NDEP "Analyte -

. Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

				2/11/2020	2/11/2020	2/11/2020	2/11/2020
Parameter/Compound	Unit	Industrial RSL	Industrial Closure Levels	SS-9-15	SS-10-5	SS-10-10	SS-10-15
VOCs							
Chloromethane	mg/kg	460		<0.08	<0.08	<0.08	<0.08
Vinvl chloride	ma/ka	17		<0.00	<0.00	<0.00	<0.00
Chloroethane	mg/kg	57,000		<0.02	<0.02	<0.02	<0.02
Bromomethane	mg/kg	30		<0.08	<0.08	<0.08	<0.08
Trichlorofluoromethane	mg/kg	350.000		< 0.02	<0.02	<0.02	<0.02
1 1 -Dichloroethene	mg/kg	16		<0.02	<0.02	<0.02	<0.02
1.3.5- Trimethylbenzene	mg/kg	1.500	12.000	< 0.02	< 0.02	< 0.02	< 0.02
trans- 1.2 -Dichloroethene	mg/kg	23.000		<0.02	< 0.02	< 0.02	<0.02
Styrene	mg/kg	35.000	35.000	<0.02	< 0.02	< 0.02	< 0.02
cis- 1.2-Dichloroethene	mg/kg	2.300		<0.02	< 0.02	< 0.02	<0.02
Chloroform	mg/kg	1.4		<0.02	<0.02	<0.02	<0.02
1,2-Dichloroethane	mg/kg	2.0		<0.02	<0.02	<0.02	<0.02
1,1,1- Trichloroethane	mg/kg	36,000		<0.02	< 0.02	<0.02	<0.02
Carbon tetrachloride	mg/kg	2.9		<0.02	< 0.02	<0.02	<0.02
Benzene	mg/kg	5.1	5.1	<0.02	< 0.02	< 0.02	< 0.02
1,2 -Dichloropropane	mg/kg	11		<0.02	<0.02	<0.02	<0.02
Trichloroethene	mg/kg	6.0		<0.02	<0.02	<0.02	<0.02
Bromodichloromethane	mg/kg	1.3		<0.02	<0.02	<0.02	<0.02
cis- 1,3-Dichloropropene	mg/kg	8,200		<0.02	<0.02	<0.02	<0.02
trans- 1,3-Dichloropropene	mg/kg	8.2		<0.02	<0.02	<0.02	<0.02
1,1,2 -Trichloroethane	mg/kg	5.0		<0.02	<0.02	<0.02	<0.02
Toluene	mg/kg	47,000	47,000	<0.02	<0.02	<0.02	<0.02
Dibromochloromethane	mg/kg	39		<0.02	<0.02	<0.02	<0.02
Tetrachloroethene	mg/kg	100		<0.02	<0.02	<0.02	<0.02
Chlorobenzene	mg/kg	1,300		<0.02	<0.02	<0.02	<0.02
Ethylbenzene	mg/kg	25	25	<0.02	<0.02	<0.02	<0.02
Bromoform	mg/kg	86		<0.02	<0.02	<0.02	<0.02
Xylenes, Total	mg/kg	2,500	2,500	<0.02	<0.02	<0.02	<0.02
1,1,2,2- Tetrachloroethane	mg/kg	2.7		<0.02	<0.02	<0.02	<0.02
Methyl-tertiary-butyl ether	mg/kg	210	210	<0.02	<0.02	<0.02	<0.02
1,4- Dichlorobenzene	mg/kg	11		<0.02	<0.02	<0.02	<0.02
1,2- Dichlorobenzene	mg/Kg	9,300		<0.02	<0.02	<0.02	<0.02

Notes:

VOCs = Volatile Organic Compounds via EPA Method 8260B

RSL= EPA Regional Screening Level for industrial soils

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the RSLs and/or NDEP "Analyte -

Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

			NDEP	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/10/2020	2/11/2020	2/11/2020
Parameter/Compound	Unit	Industrial RSL	Industrial Closure Levels	\$5.1.5	55-1-10	\$5.1.15	\$5.2.5	55-2-10	\$5.2.15	55.3.5	\$5.3.10
Parameter/Compound	Unit			33-1-3	33-1-10	33-1-13	33-2-3	33-2-10	33-2-13	33-3-3	33-3-10
SVOCs											
Naphthalene	mg/kg	18	17	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
2-Methylnaphthalene	mg/kg	3,000	3,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1-Methylnaphthalene	mg/kg	73	73	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthylene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthene	mg/kg	45,000	45,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluorene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Phenanthrene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Anthracene	mg/kg	230,000		<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluoranthene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Pyrene	mg/kg	17,000	23,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(a)anthracene	mg/kg	21	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chrysene	mg/kg	210.0	290	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(b&k)fluoranthene, isomeric pair	mg/kg	21	2.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	mg/kg	2.1	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Indeno(1,2,3-cd)pyrene	mg/kg	2	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Dibenz(a,h)anthracene	mg/kg	0.21	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(g,h,i)perylene	mg/Kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025

Notes:

SVOCs = Semi-Volatile Organic Compounds via EPA Method 8270C-SIM

RSL= EPA Regional Screening Level for industrial soils

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the RSLs and/or NDEP "Analyte -

Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

			NDEP	2/11/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020	2/12/2020
Parameter/Compound	Unit	Industrial RSL	Industrial Closure Levels	SS-3-15	SS-4-5	SS-4-10	SS-4-15	SS-5-5	SS-5-10	SS-5-15	SS-6-5
SVOCs											
Naphthalene	mg/kg	18	17	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
2-Methylnaphthalene	mg/kg	3,000	3,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1-Methylnaphthalene	mg/kg	73	73	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthylene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthene	mg/kg	45,000	45,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluorene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Phenanthrene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Anthracene	mg/kg	230,000		<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluoranthene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Pyrene	mg/kg	17,000	23,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(a)anthracene	mg/kg	21	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chrysene	mg/kg	210.0	290	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(b&k)fluoranthene, isomeric pair	mg/kg	21	2.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	mg/kg	2.1	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Indeno(1,2,3-cd)pyrene	mg/kg	2	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Dibenz(a,h)anthracene	mg/kg	0.21	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(g,h,i)perylene	mg/Kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025

Notes:

SVOCs = Semi-Volatile Organic Compounds via EPA Method 8270C-SIM

RSL= EPA Regional Screening Level for industrial soils

Bold indicates a detection of chemical above detection limits.

Red indicates a constituent with a reporting limit above the RSLs and/or NDEP "Analyte -

Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

			NDEP	2/12/2020	2/12/2020	4/20/2017	4/20/2017	4/20/2017	2/11/2020	2/11/2020	2/11/2020
Parameter/Compound	Unit	Industrial RSL	Industrial Closure Levels	SS-6-10	SS-6-15	SS-7-5	SS-7-10	SS-7-15	SS-8-5	SS-8-10	SS-8-15
SVOCs											
Naphthalene	mg/kg	18	17	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
2-Methylnaphthalene	mg/kg	3,000	3,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
1-Methylnaphthalene	mg/kg	73	73	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Acenaphthylene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Acenaphthene	mg/kg	45,000	45,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Fluorene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Phenanthrene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Anthracene	mg/kg	230,000		<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Fluoranthene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Pyrene	mg/kg	17,000	23,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Benzo(a)anthracene	mg/kg	21	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Chrysene	mg/kg	210.0	290	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Benzo(b&k)fluoranthene, isomeric pair	mg/kg	21	2.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050
Benzo(a)pyrene	mg/kg	2.1	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Indeno(1,2,3-cd)pyrene	mg/kg	2	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Dibenz(a,h)anthracene	mg/kg	0.21	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025
Benzo(g,h,i)perylene	mg/Kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.12	<0.025	<0.025

Notes:

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Specific Closure" Levels (Industrial)

0 Commercial Row, Reno, NV

			NDEP	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020	2/11/2020
Denvelo (Denvelo		Industrial RSL	Industrial Closure Levels		55.0.10	55.0.45	55.40.5	SS 10 10	55 10 15
Parameter/Compound	Unit			33-9-5	55-9-10	55-9-15	55-10-5	55-10-10	55-10-15
SVOCs									
Naphthalene	mg/kg	18	17	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
2-Methylnaphthalene	mg/kg	3,000	3,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1-Methylnaphthalene	mg/kg	73	73	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthylene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Acenaphthene	mg/kg	45,000	45,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluorene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Phenanthrene	mg/kg			<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Anthracene	mg/kg	230,000		<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Fluoranthene	mg/kg	22,000	30,000	<0.025	<0.025	<0.025	0.046	<0.025	<0.025
Pyrene	mg/kg	17,000	23,000	<0.025	<0.025	<0.025	0.047	<0.025	<0.025
Benzo(a)anthracene	mg/kg	21	2.9	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chrysene	mg/kg	210.0	290	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(b&k)fluoranthene, isomeric pair	mg/kg	21	2.9	<0.050	<0.050	<0.050	0.100	<0.050	<0.050
Benzo(a)pyrene	mg/kg	2.1	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Indeno(1,2,3-cd)pyrene	mg/kg	2	2.9	<0.025	<0.025	<0.025	0.027	<0.025	<0.025
Dibenz(a,h)anthracene	mg/kg	0.21	0.29	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Benzo(g,h,i)perylene	mg/Kg			<0.025	<0.025	<0.025	0.032	<0.025	<0.025

Notes:

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Specific Closure" Levels (Industrial)