

**LIMITED PHASE II  
ENVIRONMENTAL SITE ASSESSMENT**

**SUNDANCE GOLF COURSE  
9725 NORTH NINE MILE ROAD  
NINE MILE FALLS, WASHINGTON 99206**

Project Number: 192860.00

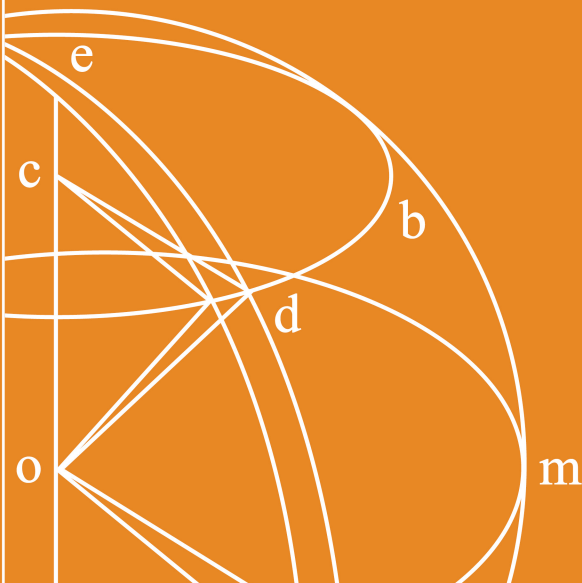
Date: November 10, 2020

**Prepared for:**

Sundance Meadows LLC  
Attn: Mike Kinney  
PO Box 935  
Otis Orchards, Washington 99027

**Prepared by:**

Fulcrum Environmental Consulting, Inc.  
207 West Boone Avenue  
Spokane, Washington 99201





**Report Title:** Limited Phase II Environmental Site Assessment

**Project Number:** 192860.00

**Date:** November 10, 2020

**Site:** Sundance Golf Course  
9725 North Nine Mile Road  
Nine Mile Falls, Washington 99206

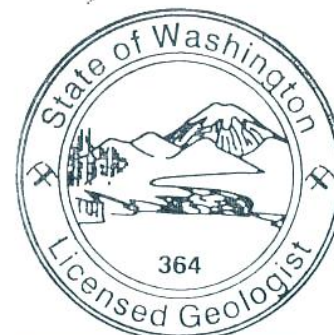
**Prepared for:** Sundance Meadows LLC  
Attn: Mike Kinney  
PO Box 935  
Otis Orchards, Washington 99027

**Prepared by:** Fulcrum Environmental Consulting, Inc.  
207 West Boone Avenue  
Spokane, Washington 99201  
509.459.9220

The professionals who completed site services, prepared, and reviewed this report include but are not limited to:

**Authored by:**  **Date:** 11/10/2020

Travis Trent, PG, CIH  
Principal



Travis Lyle Trent



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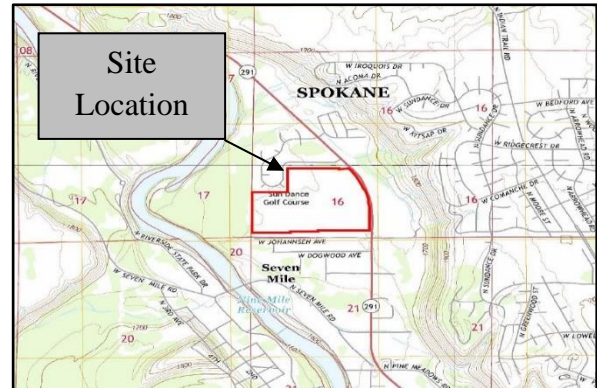
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## 1.0 INTRODUCTION

Fulcrum Environmental Consulting, Inc. (Fulcrum) was retained by Sundance Meadows LLC to complete a Limited Phase II Environmental Site Assessment (ESA) of the former Sundance Golf Course property located at 9725 North Nine Mile Road in Nine Mile Falls, Washington (site). A Phase I Environmental Site Assessment completed by Fulcrum in May of 2019 identified three areas of environmental concern summarized as follows:



*General Subject Site Location*

- Covered storage area – A covered storage area in the former maintenance yard was identified with two ASTs. An approximate 500-gallon tank that appeared to contain diesel and an approximate 300-gallon tank that appeared to contain gasoline. In addition, a number of drums were identified in the area that were suspect for oil/grease. Potential was identified for exposed soil in the covered storage area to have been impacted by gas/diesel/oil- range petroleum hydrocarbons, BTEX and PAHs.
- Suspect Agricultural Chemical AST – A single approximate 300-gallon AST was identified along the north side of the former maintenance building. During the Phase I ESA it was identified to be filled with a clear liquid. Based on site use and observed condition, the clear liquid was identified as a suspect agricultural chemical and site soils beneath the AST were identified as suspect for residual impact from overfilling, drips, spills.
- Storage Shed – A former storage shed where bags and containers of agricultural chemicals used for golf course maintenance were stored on wood pallets over a dirt floor. Potential was identified for exposed soils to be impacted by residual agricultural chemicals from leaks/spills.

### 1.1 Scope of Services

Fulcrum's scope of work was to conduct soil sampling to evaluate for the potential residual soil impact associated with petroleum hydrocarbons and agricultural chemicals associated with a covered storage area in the maintenance area, a 300-gallon suspect agricultural chemical AST, and a storage shed. Fulcrum's scope of work was to conduct soil sampling to evaluate for the potential residual soil impact associated with the identified environmental concerns. Specific services are summarized as follows:

- Fulcrum inspected the site to confirm removal of three (3) ASTs, the stored agricultural chemicals and petroleum hydrocarbon products in the covered storage area and the stored agricultural chemicals in the storage shed.
- Following acceptable visual inspection, Fulcrum collected two (2) soil samples to confirm



absence of residual agricultural chemical contamination and five (5) soil samples to confirm absence of residual petroleum hydrocarbon impact.

- The two (2) samples collected to evaluate for residual agricultural chemical contamination were analyzed for Organophosphorus Pesticides by method EPA 8081 and Chlorinated Herbicides by method EPA 8151A.
- The five (5) samples to assess site soils for residual petroleum hydrocarbon impact were analyzed for Gasoline Range Organics by method Northwest Total Petroleum Hydrocarbons for Gasoline (NWTPH-Gx); Benzene, Toluene, Ethylbenzene, and Toluene (BTEX) by method EPA 8260; Total Lead by method EPA 6020; and Diesel & Heavy Oil Range Organics by method NWTPH-Dx. In addition two of the five samples were analyzed for Total Lead by method EPA 6020 and one sample was analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by method EPA 8270-SIM.
- Fulcrum subcontracted Fremont Analytical, Inc. of Seattle, Washington, to complete laboratory analytical services. Analytical data will be evaluated against quality assurance/quality control validation criteria and applicable environmental regulatory thresholds as established by the Washington State Department of Ecology (Ecology).
- Results of the Phase II investigation and contaminated soil remediation are presented in this summary report documenting investigation activities, remedial actions, and conclusions.

Fulcrum's testing identified a small area of petroleum contaminated soil (PCS) associated with the covered storage area. Fulcrum's scope of work was expanded to include coordination and oversight of removal of the identified soils in accordance with applicable regulations followed by collection of three (3) additional confirmatory soil samples.

Site services were completed by or under the direction of Travis Trent, a Washington State Licensed Geologist and Principal with Fulcrum with over 25-years of experience in environmental site assessments. Relevant professional certifications are presented in Appendix A.

## 1.2 Background

The Sundance Golf Course site remained vacant until approximately 1968 when it was developed into an 18-hole golf course. The site functioned as an 18-hole golf course for another 50 years until it was permanently closed in October 2018. During that time the site was traditionally maintained by professional greens keepers using typical fertilizers and herbicides during operation.



*View of typical fairway*



## **2.0 DISCUSSION OF PERTINENT REGULATIONS AND GUIDANCE**

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### **2.1 Regulatory Cleanup Standards**

Fulcrum has provided evaluation of the soils under the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) criteria. In March of 1989, MTCA went into effect in Washington State. The MTCA regulations, WAC 173-340, set standards to ensure quality of cleanup and protection of human health and the environment in Washington State. A major portion of the MTCA regulation (completed in 1991) was the development of numerical cleanup standards and requirements for cleanup actions. Three options were established under MTCA for site-specific cleanup levels: Method A, B, and C. Method A defines cleanup levels for 25 of the most common hazardous substances found at sites. Method B levels are set using a site risk assessment, which enables consideration of site-specific characteristics. Method C is similar to Method B; however, the individual substance's cancer risk portion of the assessment is set at 1 in 100,000 rather than 1 in 1,000,000.

Rule amendments to MTCA, which became effective August 15, 2001, changed the cleanup levels of petroleum hydrocarbon contamination. Whereas diesel and heavy oil concentrations were increased, the MTCA Method A cleanup levels for gasoline and gasoline components Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) were lowered significantly. Changes to MTCA since 2001 have primarily been of an administrative nature; however, Ecology continues to review research and through a recommendation and review process, adjust chemical-specific cleanup standards.

Based on the type of contaminants identified at the site, Fulcrum has determined that MTCA Method A Cleanup Levels are the most appropriate and conservative for determining site cleanup threshold values for the site. Method B cleanup levels were selected for constituents where Method A cleanup levels have not been established.

## **3.0 SITE LOCATION AND DESCRIPTION**

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The former Sundance Golf Course site is located at 9725 North Nine Mile Road in Nine Mile Falls, Washington. The subject site consists of the following three Spokane County Tax Parcels totaling approximately 89.43 acres: 26163.9025, 26163.9028, and 26163.9031. The subject site parcels consist of one (1) former clubhouse with an associated paved parking lot, four (4) storage warehouses, and three (3) pump houses. The majority of the subject site is occupied by a Non-operational 18-hole golf course. See Figure 1 for a topographic map of the subject site location.



### 3.1 Regional Geologic Setting

From a regional perspective, the subject site lies on the eastern portion of the Columbia Plateau, an extensive, relatively featureless plain overlain by middle Tertiary basaltic lava inter-layered with sedimentary materials. The Columbia Plateau impinges upon the folded, faulted, and metamorphosed rocks of the Idaho Panhandle. The subject site lies in Spokane County, a region with warm dry summers and cool moist winters. Average annual precipitation in the Spokane area is less than 20-inches per year. The subject site is located on the Pleistocene age Glacial Lake Missoula outwash plain deposits. These deposits consist of thick layers of fine-medium grained sand deposited during a series of outburst floods that resulted from repeated collapse of the ice dam that impounded ancient Glacial Lake Missoula. Groundwater flow beneath the subject site is generally north-northwest toward the Spokane River. Site soils are sandy glaciofluvial deposits laid down at the end of the last ice age during these floods.

### 3.2 Soil Type

Site soils are identified by the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey as dominantly SPRINGDALE GRAVELLY ASHY COARSE SANDY LOAM across the subject site with an area of URBAN LAND SPRINGDALE DISTURBED COMPLEX.

Site soils are identified by the EDR database report as dominantly AVONVILLE, a fine gravelly-silt loam. The soil has a moderate infiltration rate with deep and moderately deep, moderately well and well-drained soils that are moderately coarse in texture. The soil has an intermediate water holding capacity. Depth to the bedrock is estimated at greater than 60 inches below ground surface (bgs).



*View of excavation area showing near surface site soils.*

AVONVILLE soil horizons are described to consist of the following:

- From 0 to 16 inches bgs – fine gravelly – silt loam
- From 16 to 25 inches bgs – very gravelly – silt loam
- From 25 to 37 inches bgs – very gravelly – sandy loam
- From 37 to 60 inches bgs – very gravelly – sand





## 4.0 FIELD ACTIVITIES

On September 26, 2019, Travis Trent arrived on site and completed an evaluation of the areas where agricultural chemical and petroleum hydrocarbon products were previously stored. The two ASTs and miscellaneous drums had been removed from the covered storage area, the suspect agricultural chemical AST had been removed from the north side of the storage building, and the agricultural chemicals had been removed from the storage shed. No remaining agricultural chemicals or petroleum hydrocarbon products were observed to be stored on the property.

### 4.1 Covered Storage Area

Fulcrum's inspection found the two ASTs and the drums to have been removed from the covered storage area. A fresh layer of soil had been placed throughout the covered storage area. Fulcrum randomly select five locations for sampling of soils within the covered storage area. In each location soil was hand excavated to an approximate depth of 1 foot (ft) below ground surface (bgs) and a soil sample was collected at the observed interface between the fresh soils and the former soils forming the floor of the covered storage area. See Figures 2 and 3 for soil sample location maps. All five samples (SGC-092619-01 through 05) were analyzed for gas, BTEX, and diesel/oil. Two of the sample locations (SGC-092619-01 and 04) were also analyzed for lead and one sample, was analyzed for PAHs.



### 4.2 Suspect Agricultural Chemical AST

A single 300-gallon AST had been located alongside the north side of the former maintenance building. At the time of the Phase I ESA it had been filled with a clear liquid and was presumed to have been used for storage of agricultural chemicals based on site use and observed conditions. The AST had been removed. No residual soil staining was observed but a small area of distressed vegetation (less than 3 square feet) was present in the former suspect agricultural chemical AST location.



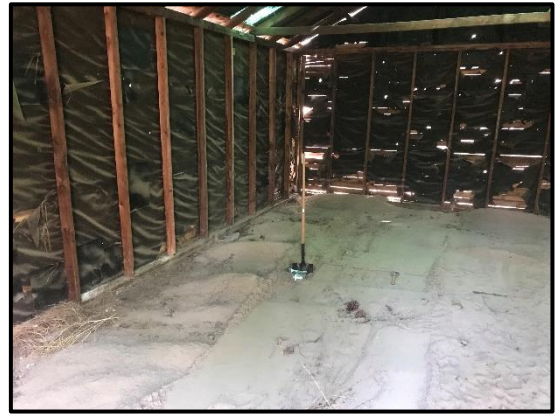
*View of AST storage area and localized stressed vegetation (see arrow) located proximal to the northwest corner of the warehouse shed*



A single sample (SGC-092610-07) was collected from the location of the distressed vegetation at a depth of approximately 1 ft bgs. The sample was analyzed for herbicides and pesticides.

### 4.3 Shed

Fulcrum completed a visual inspection of shed that had been identified as a storage area for agricultural chemicals associated with golf course maintenance. All contents had been removed leaving the exposed sand floor. No suspect discoloration or any other indication of release or spills was observed. A single location was randomly selected for sampling. Fulcrum hand excavated the location to a depth of 6-inches bgs observing for any staining, discoloration, or other indication of impact. No indication of impact was identified and a sample (SGC-092610-08) was collected at approximately 6-inches bgs. The sample was analyzed for herbicides and pesticides.



*View of non-native sand overlain on bare soil within chemical storage shed. The shovel indicates where the soil was taken at approximately 6-inches bgs in native soil.*

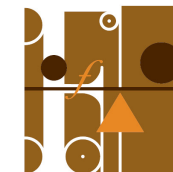
### 4.4 Sample Collection Methodology

At each sample location soil samples were collected using a cleanable hand tool and placed into laboratory supplied clean, four-ounce borosilicate glass jars with Teflon-lined lids and methanol preserved 40 milliliter (ml) clear glass volatile organic analysis (VOA) containers. New, clean nitrile gloves were used for each sample set and sampling tools were cleaned and decontaminated between each sample. Following collection, each sample was placed into the laboratory provided container, labeled with a unique identification number, logged onto a chain-of-custody, and placed into a cooler with ice.

The samples were packaged on ice and shipped overnight via commercial carrier under chain-of-custody to Fremont Analytical of Seattle, Washington for analysis.

### 4.5 September 26, 2019 Sample Analysis

A total of seven (7) samples were collected representing the three locations. The samples were shipped to Fremont Analytical of Seattle for analysis using the following methodologies:



- Gasoline range organics by Northwest Total Petroleum Hydrocarbons Gasoline Extended (NWTPH-Gx).
- Diesel range organics by NWTPH Diesel Extended.
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX) by EPA Method 8260C.
- Lead by EPA Method 6020B.
- Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
- Organophosphorus Pesticides analysis by method EPA 8081 and Chlorinated Herbicides analysis by method EPA 8151A.

Table 1 presents a summary of the September 26, 2019 analytical results. All results are presented in milligrams of analyte per kilogram (mg/kg) of soil. See Appendix B for analytical results and Appendix C for site photographs.

**Table 1: September 26, 2019 - Surface Soil Sample Results in ppm (mg/Kg)**

Sample Location	Sample #	Gasoline	Benzene	Toluene	Ethylbenzene	Xylene	Lead	Diesel-range hydrocarbons	Heavy oil-range hydrocarbons	Combined Diesel-range and Heavy oil-range hydrocarbons <sup>1</sup>	PAHs	Herbicides <sup>2</sup>	Organophosphorus Pesticides <sup>3</sup>
1	SGC-092619-01	ND	ND	ND	ND	ND	9.76	ND	ND	ND	-	-	-
2	SGC-092619-02	<b>36.1</b>	ND	0.135	ND	.230	-	ND	46.7	46.7	-	-	-
3	SGC-092619-03	ND	ND	ND	ND	ND	-	173	1,080	1,253	-	-	-
4	SGC-092619-04	ND	ND	ND	ND	ND	13.7	ND	143	143	ND	-	-
5	SGC-092619-05	ND	ND	ND	ND	ND	-	ND	ND	ND	-	-	-
7	SGC-092619-07	-	-	-	-	-	-	-	-	-	-	ND	ND
8	SGC-092619-08	-	-	-	-	-	-	-	-	-	-	.0448 <sup>5</sup>	ND
<b>MTCA Method A Cleanup Level (mg/Kg)</b>		<b>30<sup>4</sup></b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>250</b>	<b>2,000</b>			<b>0.1</b>	<b>2,400<sup>6</sup></b>	-

**Bolded** concentrations were found above applicable Cleanup Levels

mg/Kg – milligrams per kilogram (equal to parts per million [ppm]).

ND – Analyte not detected at the laboratory method detection limit.

“-“ Not Analyzed

1 Diesel-range and heavy oil-range hydrocarbon concentrations are combined together per MTCA Method A cleanup standards for soil

2 Herbicides have specific cleanup values according to the Washington State Department of Ecology’s Cleanup Levels and Risk Calculation (CLARC) table

3 Organophosphorus Pesticides have specific cleanup values according to the Washington State Department of Ecology’s Cleanup Levels and Risk Calculation (CLARC) table

4 MTCA cleanup levels for gasoline range organics are 100 mg/Kg for gasoline mixtures without benzene and the total of ethylbenzene, toluene, and xylene are less than 1% of the gasoline mixture. All other gasoline mixture have a MTCA Method A cleanup level of 30 mg/Kg

5 Concentration of Dicamba (a type of chlorinated herbicide) that was the only herbicide detected

6 MTCA Method B Cleanup level for Dicamba





All soils samples were identified to be under MTCA Method A Cleanup Levels with the exception of one sample (SGC-092619-02) taken from 1.0 feet bgs at sample location 02 within the eastern section of the covered storage area. Laboratory analytical reported detectable concentrations of gasoline at 36.1 mg/Kg, which is above the MTCA method A Cleanup Level of 30 mg/Kg.

Fulcrum notified the owner of the sampling results and recommended that the Petroleum Contaminated Soil (PCS) associated with the SGC-092619-02 test location be excavated and transported to Graham Road Landfill for disposal as PCS.

The owner contacted with Able Cleanup Services of Spokane to provide excavation, transportation, and disposal of the contaminated soil. Fulcrum's scope of work was expanded to include remedial oversight and to conduct post remediation confirmatory soil sampling.

## 5.0 PCS REMOVAL AND CONFIRMATIONAL SAMPLING

On October 22, 2020, Fulcrum arrived on site to conduct remediation oversight of PCS associated with the AST and Drum Storage area proximal to the maintenance storage building. The purpose of the work was to remove all PCS and conduct characterization and confirmatory sampling sufficient to determine if contaminated soil had been removed. See Figure 4 for the excavation extents and soil sample locations.



*View of northern AST and Drum Storage  
Remedial Excavation Area within the  
maintenance yard*

To facilitate access to the sample SGC-092619-02 area, the covered shed structure was knocked over and removed. An area centered on the sample SGC-092619-02 area measuring 20 feet long and 12 feet wide was excavated to a depth of approximately 2 ft bgs. No suspect staining, discoloration, odor or other field indicators of petroleum hydrocarbon impact were identified during the excavation or in remaining site soils at the bottom and sidewalls of the excavation area.

The excavated soil, totaling 16.30-tons, was transported to Graham Road Landfill for disposal as PCS (see Appendix D for copy of the disposal receipt).

Following completion of excavation activities, Fulcrum collected 3 soil samples (SGC-102220-01 through SGC-102220-03) from representative locations and depths of the excavation sidewalls and pit bottom to confirm absence of residual contamination.



Soil samples were collected into clean laboratory-supplied four-ounce borosilicate clear glass jars with Teflon-lined lids and 40-milliliter (ml) methanol-preserved clear glass volatile organic analysis (VOA) containers. Each soil sample was given a unique project identification number. New clean nitrile gloves were used for each sample set.



*View of southern AST and Drum Storage  
Remedial Excavation Area within the  
maintenance yard*

## 5.1 October 22, 2020 Sample Analysis

Samples were packaged on ice and shipped overnight via commercial carrier under chain-of-custody to Fremont Analytical, Inc. (Fremont) of Seattle, Washington for analysis. Based on the sample location and potential contaminants of concern, the following analyses were requested for each sample collected:

- Gasoline range organics by Northwest Total Petroleum Hydrocarbons Gasoline Extended (NWTPH-Gx).
- Diesel range organics by NWTPH Diesel Extended (NWTPH-Dx).
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX) by EPA Method 8260C.

Table 2 presents a summary of the October 22, 2020 analytical results and sample locations. All results are presented in milligrams of analyte per kilogram (mg/kg) of soil. See Figure 4 for a sample location map and Appendix C for analytical results.

**Table 2: October 22, 2020 – Confirmatory Soil Sample Results in pm (mg/kg)**

Sample Location	Sample #	Gasoline	Benzene	Toluene	Ethylbenzene	Xylene	Diesel
Central pit bottom at 2 ft bgs	SGC-102220-01	ND	ND	0.0259	ND	0.0969	ND
North central side wall at 1.5 ft bgs	SGC-102220-01	ND	ND	ND	ND	ND	ND
West sidewall pit bottom near south end	SGC-102220-01	ND	ND	ND	ND	ND	ND
<b>MTCA Method A Cleanup Levels</b>		<b>30<sup>+</sup></b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>2,000</b>

mg/Kg – milligrams per kilogram (equal to parts per million [ppm]).

ND – Analyte not detected at the laboratory method detection limit.

+ MTCA cleanup levels for gasoline range organics are 100 mg/Kg for gasoline mixtures without benzene and the total of ethylbenzene, toluene, and xylene are less than 1% of the gasoline mixture. All other gasoline mixture have a MTCA Method A cleanup level of 30 mg/Kg



All soils samples were identified to be non-detect for gasoline, diesel, and BTEX with the exception of sample SGC-102220-01 taken from the central pit bottom at 2 ft bgs. Laboratory analytical identified detectable concentrations of toluene and total xylenes, both substantially below their respective MTCA Method A Cleanup Levels.

## **6.0 DISCUSSION**

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Fulcrum conducted Phase II investigation of three conditions identified during the Phase I ESA with potential for adverse environmental impact to the subject site.

- Covered storage area – A covered storage area in the former maintenance yard was identified with two ASTs. An approximate 500-gallon tank that appeared to contain diesel and an approximate 300-gallon tank that appeared to contain gasoline. In addition, a number of drums were identified in the area that were suspect for oil/grease. Potential was identified for exposed soil in the covered storage area to have been impacted by gas/diesel/oil- range petroleum hydrocarbons, BTEX and PAHs.
- Suspect Agricultural Chemical AST – A single approximate 300-gallon AST was identified along the north side of the former maintenance building. During the Phase I ESA it was identified to be filled with a clear liquid. Based on site use and observed condition, the clear liquid was identified as a suspect agricultural chemical and site soils beneath the AST were identified as suspect for residual impact from overfilling, drips, spills.
- Storage Shed – A former storage shed where bags and containers of agricultural chemicals used for golf course maintenance were stored on wood pallets over a dirt floor. Potential was identified for exposed soils to be impacted by residual agricultural chemicals from leaks/spills.

### **6.1 Covered Storage Area**

Fulcrum's initial investigation consisted of the collection of five (5) samples from the covered storage area. Analytical results identified gasoline range hydrocarbons in sample SGC-092619-02 at 36.1 mg/kg as compared to the MTCA Method A cleanup value of 30 mg/kg. On October 22, 2020, 16.30-tons of soil was excavated from this area and disposed of as PCS at Graham Road landfill. Confirmatory samples taken from this location demonstrated that the remedial action was sufficient and that no further remediation was necessary in this location.

### **6.2 Suspect Agricultural Chemical AST**

A single sample collected from an area of distressed vegetation in the location of the removed AST was non-detect for all tested herbicides and pesticides. No further investigation of this location/condition was recommended.



### **6.3 Storage Shed**

One (1) sample was collected from the storage shed following removal of the stored agricultural chemicals. Analysis for pesticides and herbicides resulted in no detectable concentrations of any analytes except for Dicamba (a type of chlorinated herbicide) which was detected with a concentration of 0.0448 mg/kg. The MTCA regulatory threshold of for Dicamba is 2,400 mg/kg. No further investigation of this location/condition was recommended.

## **7.0 CONCLUSIONS**

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Fulcrum Environmental Consulting, Inc. (Fulcrum) was retained by Sundance Meadows LLC to complete a Limited Phase II Environmental Site Assessment (ESA) of a property located at 9725 North Nine Mile Road in Nine Mile Falls, Washington (site). The investigation assessed potential adverse environmental conditions associated with a covered storage area, suspect agricultural chemical AST, and a shed used to store agricultural chemicals for maintenance of the golf course. Initial sampling of the three (3) areas identified no suspect residual contamination associated with the suspect agricultural chemical AST or shed.

Testing in the covered storage area identified a small area of gasoline contaminated soil just above the regulatory threshold. This area was over excavated (16.30-tons of soil were removed) with all excavated soil transported to Graham Road Landfill for disposal as PCS. Confirmatory samples collected at the conclusion of the excavation demonstrated that no PCS remained.

Based on the results of the physical investigation and soil sampling as summarized in this report, it is Fulcrum's professional opinion that there are no remaining environmental concerns associated with the covered storage area, suspect agricultural chemical AST, or the shed formerly used to store agricultural chemicals for maintenance of the golf course .

## **8.0 LIMITATIONS**

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Fulcrum Environmental Consulting, Inc. has performed professional services in accordance with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. The conclusions and recommendations are based upon our field observations, field screening, and independent laboratory analysis.

Professional services included site investigation, sample collection, and limited field observations. Fulcrum makes no warranties expressed or implied as to the accuracy or completeness of other's work included or referenced herein, nor the use of segregated portions of this report. This document does not imply that the property is free of other environmental concerns. This report is



solely for the use and information of our client. Any reliance on this report by a third party is at that party's sole risk.

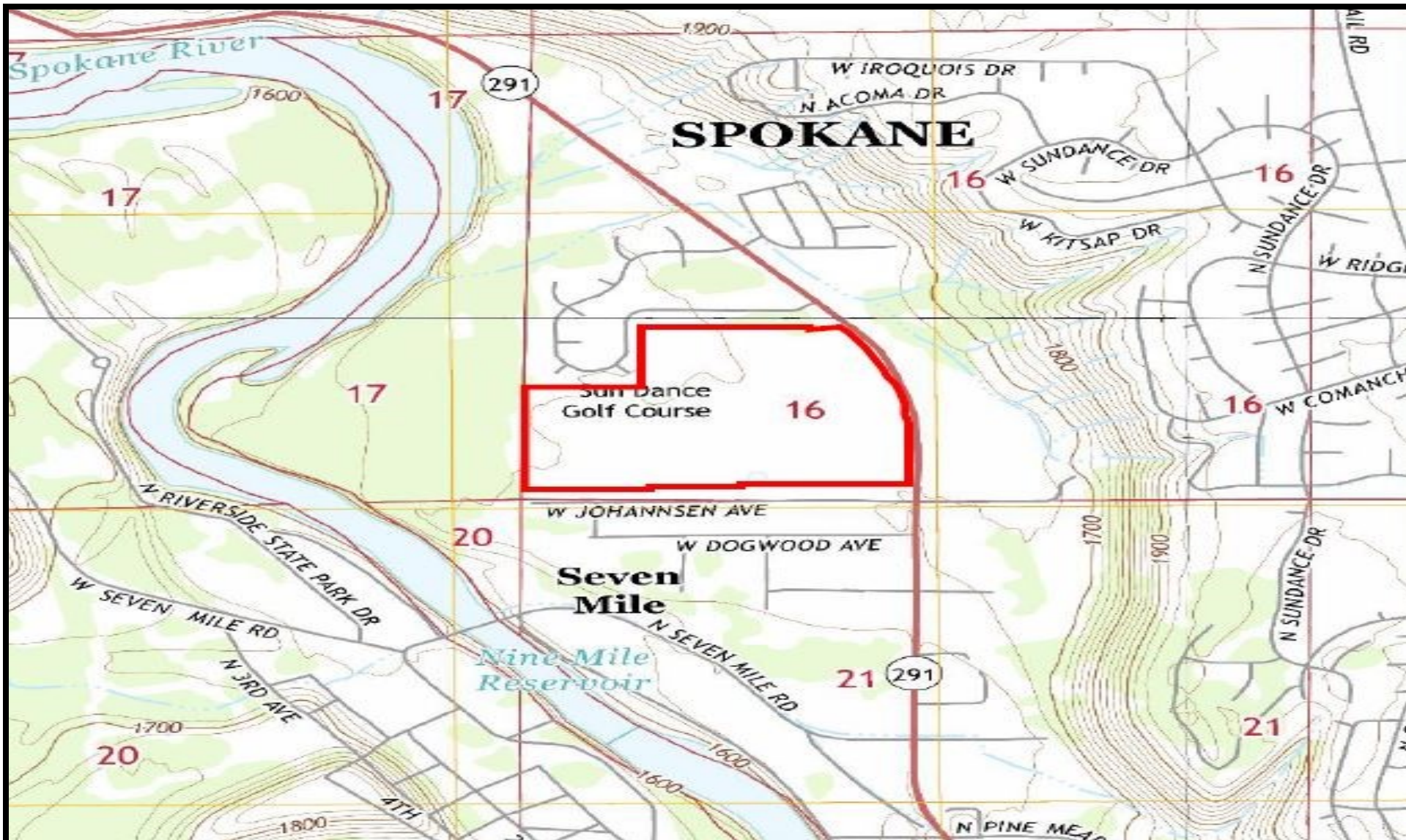
Opinions and recommendations contained in this report apply to conditions existing at the time services were performed. Fulcrum Environmental Consulting, Inc. is not responsible for the impact of changes in environmental standards, practices, or regulations subsequent to the performance of services. Fulcrum Environmental Consulting, Inc. assumes no liability for conditions that were not included in our scope of services, or conditions not generally recognized as predictable when services were performed.



## **FIGURES**

- Figure 1: Topographic Map of the Former Sundance Golf Course Site Location
- Figure 2: Aerial View of September 26, 2019 Soil Sample Locations
- Figure 3: AST and Drum Storage area Soil Sample Location Map
- Figure 4: AST and Drum Storage area Excavation Extents and Confirmatory Sample Location Map





## LEGEND

Figure 1: Topographic Map of the Former Sundance Golf Course Site Location



Approximate subject site location



**FULCRUM**  
environmental consulting



Fulcrum  
Environmental  
Consulting, Inc.

207 West Boone Avenue  
Spokane, Washington  
99201  
(509) 459-9220

Map By: Fulcrum Environmental

Project Number: 192860.00

Date: 11/05/2020

Reviewed By: Travis Trent



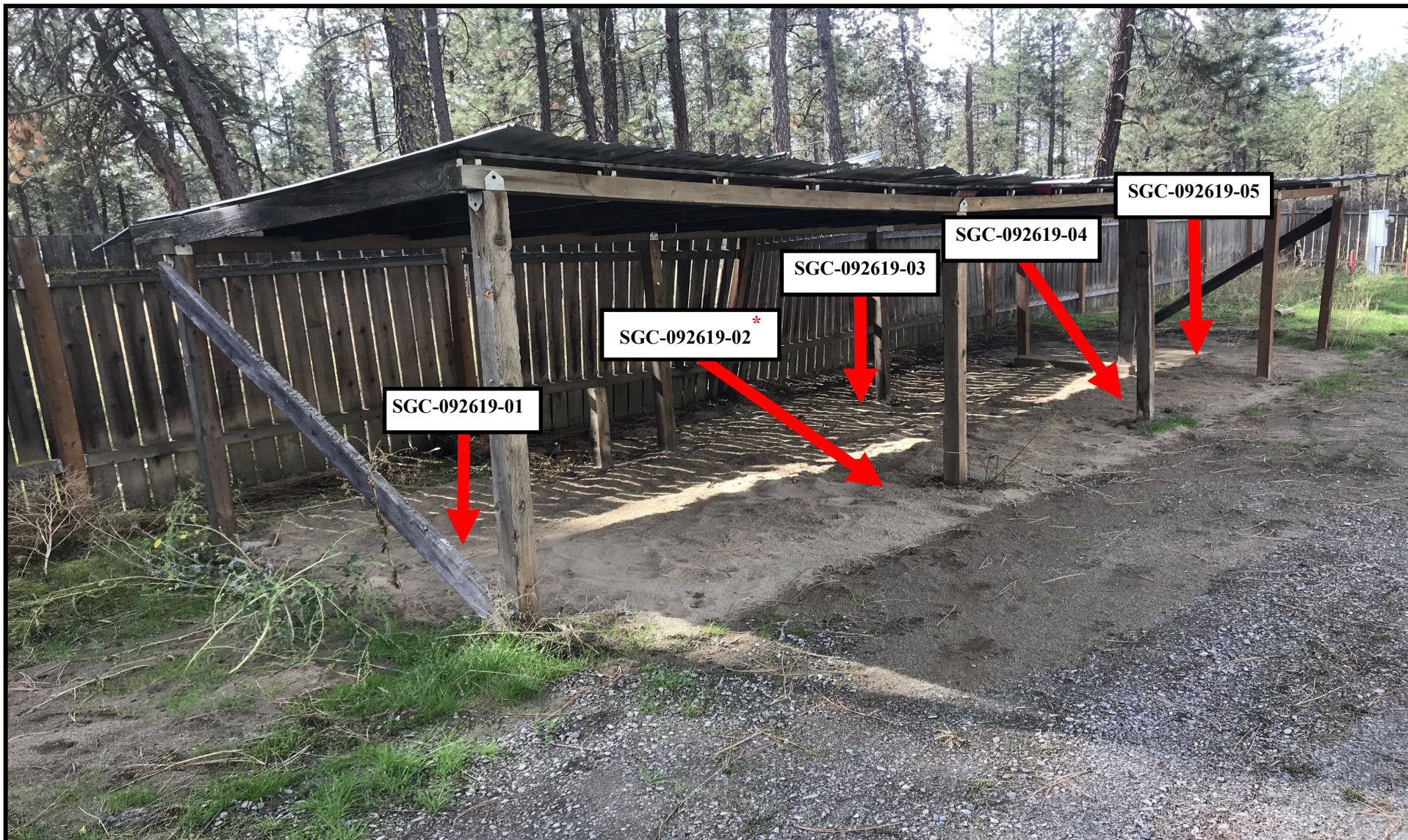


## LEGEND

Figure 2: Aerial View of September 26, 2019 Soil Sample Locations



<p>— Approximate subject site boundary</p> <p>□ Above Ground Storage Tank (AST)</p> <p>SGC-092619-XX Soil Sample Identifier</p> <p>↓ Soil Sample Location</p> <p>Drums</p> <p>— Approximate parcel boundaries</p>	<p><b>FULCRUM</b> environmental consulting</p>	<p>Fulcrum Environmental Consulting, Inc. 207 West Boone Avenue Spokane, Washington 99201</p>
<p>Map By: Fulcrum Environmental</p>	<p>Project Number: 192860.00</p>	
<p>Date: 11/05/2020</p>	<p>Reviewed By: Travis Trent</p>	





## LEGEND

Figure 3: AST and Drum Storage area Soil Sample Location Map

SGC-092619-XX	Soil Sample Identifier	* Sample concentration exceeds MTCA Method A Cleanup Level
	Soil Sample Location	



Fulcrum  
Environmental  
Consulting, Inc. 207 West Boone Avenue  
Spokane, Washington  
99201  
(509) 459-9220

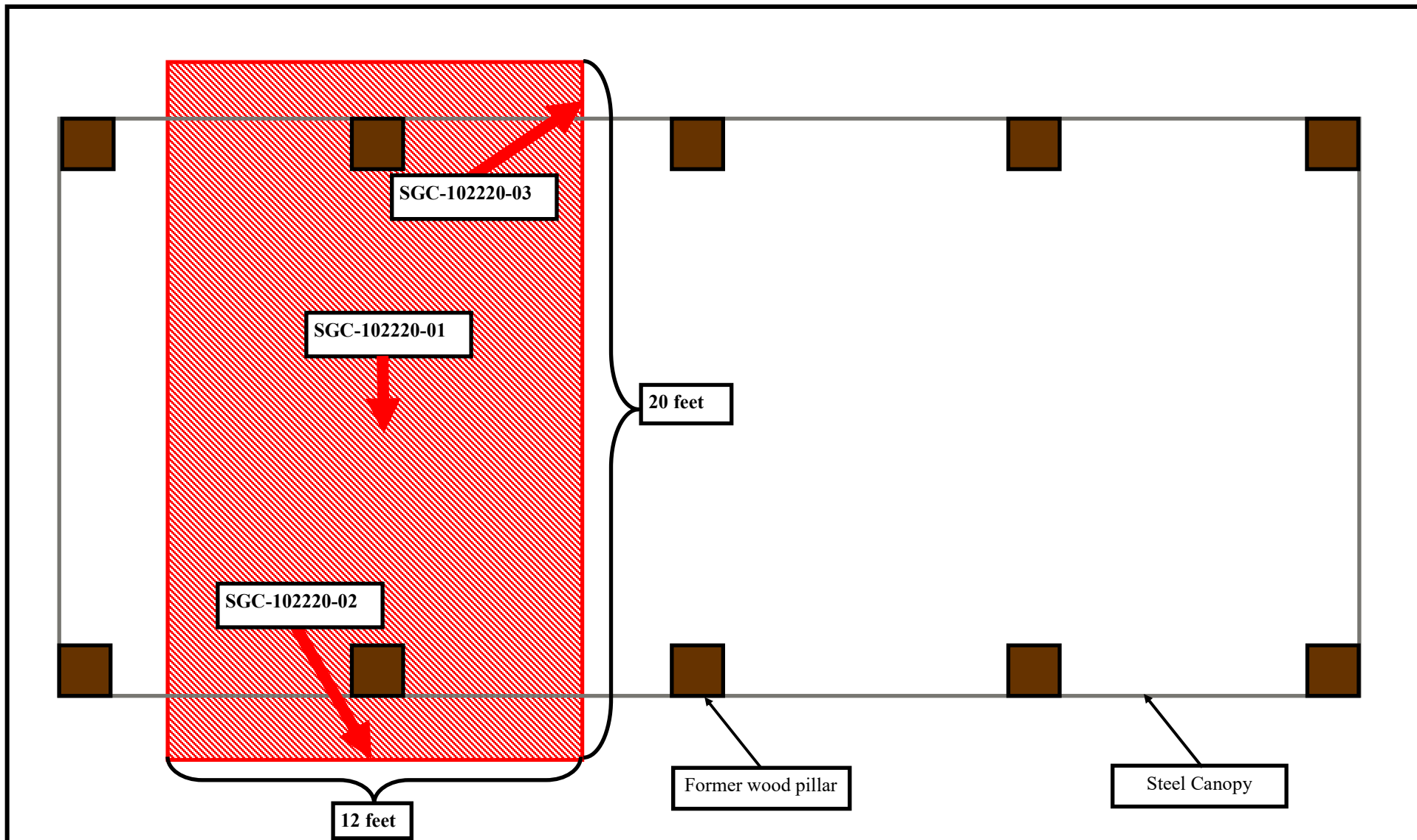
Map By: Fulcrum Environmental

Project Number: 192860.00

Date Updated: 11/05/2020

Reviewed By: Travis Trent





### LEGEND



Wood pillar

Soil Sample Identifier

SGC-092619-XX



Approximate area of excavation

down to 2.0 feet below native soil

Soil Sample Location



Figure 4: AST and Drum Storage area Excavation Extents and Confirmatory Sample Location Map



Fulcrum  
Environmental  
Consulting, Inc.

207 West Boone Avenue  
Spokane, Washington  
99201  
(509) 459-9220

Map By: Fulcrum Environmental

Project Number: 192860.00

Date Updated: 11/05/2020

Reviewed By: Travis Trent



## **APPENDIX A**

### Professional Certifications



# STATE OF WASHINGTON

DEPARTMENT OF LICENSING – BUSINESS AND PROFESSIONS DIVISION

THIS CERTIFIES THAT THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A



GEOLOGIST  
Hydrogeologist

Travis L Trent  
1127 W 8th Ave  
Spokane WA 99204-3107

364  
License Number

2002-01-08  
Issue Date

2021-06-06  
Expiration Date

Teresa Berntsen  
Teresa Berntsen, Director



## **APPENDIX B**

### Laboratory Analytical Reports



**Fulcrum Environmental**

Scott Groat  
207 W Boone Ave.  
Spokane, WA 99201

**RE: Sundance Golf Course PH II**  
**Work Order Number: 1909462**

October 17, 2019

**Attention Scott Groat:**

Fremont Analytical, Inc. received 8 sample(s) on 9/27/2019 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Herbicides by EPA Method 8151A***  
***Organophosphorus Pesticides by EPA Method 8270-SIM***  
***Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)***  
***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020B***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

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**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Work Order:** 1909462

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**Work Order Sample Summary**

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Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1909462-001	SGC-092619-01	09/26/2019 10:57 AM	09/27/2019 10:16 AM
1909462-002	SGC-092619-02	09/26/2019 11:00 AM	09/27/2019 10:16 AM
1909462-003	SGC-092619-03	09/26/2019 11:05 AM	09/27/2019 10:16 AM
1909462-004	SGC-092619-04	09/26/2019 11:10 AM	09/27/2019 10:16 AM
1909462-005	SGC-092619-05	09/26/2019 11:15 AM	09/27/2019 10:16 AM
1909462-006	SGC-092619-06	09/26/2019 11:20 AM	09/27/2019 10:16 AM
1909462-007	SGC-092619-07	09/26/2019 11:42 AM	09/27/2019 10:16 AM
1909462-008	SGC-092619-08	09/26/2019 12:01 PM	09/27/2019 10:16 AM

---

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**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

10/17/19: Revision 1 includes added Diesel analysis.



**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 1909462  
Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-001  
**Client Sample ID:** SGC-092619-01

**Collection Date:** 9/26/2019 10:57:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>						
				Batch ID: 26115		Analyst: DW
Diesel (Fuel Oil)	ND	18.4	H	mg/Kg-dry	1	10/11/2019 8:05:33 PM
Heavy Oil	ND	45.9	H	mg/Kg-dry	1	10/11/2019 8:05:33 PM
Surr: 2-Fluorobiphenyl	84.9	50 - 150	H	%Rec	1	10/11/2019 8:05:33 PM
Surr: o-Terphenyl	87.0	50 - 150	H	%Rec	1	10/11/2019 8:05:33 PM
<b><u>Gasoline by NWTPH-Gx</u></b>						
				Batch ID: 25995		Analyst: KT
Gasoline	ND	6.64		mg/Kg-dry	1	10/1/2019 11:23:04 AM
Surr: Toluene-d8	99.5	65 - 135		%Rec	1	10/1/2019 11:23:04 AM
Surr: 4-Bromofluorobenzene	97.1	65 - 135		%Rec	1	10/1/2019 11:23:04 AM
<b><u>Volatile Organic Compounds by EPA Method 8260D</u></b>						
				Batch ID: 25995		Analyst: KT
Benzene	ND	0.0265		mg/Kg-dry	1	10/1/2019 11:23:04 AM
Toluene	ND	0.0265		mg/Kg-dry	1	10/1/2019 11:23:04 AM
Ethylbenzene	ND	0.0332		mg/Kg-dry	1	10/1/2019 11:23:04 AM
m,p-Xylene	ND	0.0664		mg/Kg-dry	1	10/1/2019 11:23:04 AM
o-Xylene	ND	0.0332		mg/Kg-dry	1	10/1/2019 11:23:04 AM
Surr: Dibromofluoromethane	104	56.5 - 129		%Rec	1	10/1/2019 11:23:04 AM
Surr: Toluene-d8	103	64.5 - 151		%Rec	1	10/1/2019 11:23:04 AM
Surr: 1-Bromo-4-fluorobenzene	96.7	54.8 - 168		%Rec	1	10/1/2019 11:23:04 AM
<b><u>Total Metals by EPA Method 6020B</u></b>						
				Batch ID: 25997		Analyst: CO
Lead	9.76	0.165		mg/Kg-dry	1	10/1/2019 7:10:45 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>						
				Batch ID: R54300		Analyst: ZR
Percent Moisture	3.70	0.500		wt%	1	10/2/2019 9:47:58 AM



## Analytical Report

Work Order: 1909462

Date Reported: 10/17/2019

**Client:** Fulcrum Environmental

**Collection Date:** 9/26/2019 11:00:00 AM

**Project:** Sundance Golf Course PH II

**Lab ID:** 1909462-002

**Matrix:** Soil

**Client Sample ID:** SGC-092619-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 26115

Analyst: DW

Diesel (Fuel Oil)	46.7	20.0	H	mg/Kg-dry	1	10/11/2019 8:35:42 PM
Heavy Oil	ND	50.0	H	mg/Kg-dry	1	10/11/2019 8:35:42 PM
Surr: 2-Fluorobiphenyl	86.6	50 - 150	H	%Rec	1	10/11/2019 8:35:42 PM
Surr: o-Terphenyl	89.0	50 - 150	H	%Rec	1	10/11/2019 8:35:42 PM

**Gasoline by NWTPH-Gx**

Batch ID: 25995

Analyst: KT

Gasoline	36.1	6.74		mg/Kg-dry	1	10/1/2019 12:28:08 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/1/2019 12:28:08 PM
Surr: 4-Bromofluorobenzene	101	65 - 135		%Rec	1	10/1/2019 12:28:08 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 25995

Analyst: KT

Benzene	ND	0.0270		mg/Kg-dry	1	10/1/2019 12:28:08 PM
Toluene	0.135	0.0270		mg/Kg-dry	1	10/1/2019 12:28:08 PM
Ethylbenzene	ND	0.0337		mg/Kg-dry	1	10/1/2019 12:28:08 PM
m,p-Xylene	0.146	0.0674		mg/Kg-dry	1	10/1/2019 12:28:08 PM
o-Xylene	0.0839	0.0337		mg/Kg-dry	1	10/1/2019 12:28:08 PM
Surr: Dibromofluoromethane	88.1	56.5 - 129		%Rec	1	10/1/2019 12:28:08 PM
Surr: Toluene-d8	102	64.5 - 151		%Rec	1	10/1/2019 12:28:08 PM
Surr: 1-Bromo-4-fluorobenzene	100	54.8 - 168		%Rec	1	10/1/2019 12:28:08 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R54300

Analyst: ZR

Percent Moisture	4.86	0.500		wt%	1	10/2/2019 9:47:58 AM
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## Analytical Report

Work Order: 1909462  
Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-003  
**Client Sample ID:** SGC-092619-03

**Collection Date:** 9/26/2019 11:05:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>						
				Batch ID: 26115		Analyst: DW
Diesel (Fuel Oil)	173	19.6	H	mg/Kg-dry	1	10/11/2019 9:05:59 PM
Heavy Oil	1,080	49.0	H	mg/Kg-dry	1	10/11/2019 9:05:59 PM
Surr: 2-Fluorobiphenyl	105	50 - 150	H	%Rec	1	10/11/2019 9:05:59 PM
Surr: o-Terphenyl	104	50 - 150	H	%Rec	1	10/11/2019 9:05:59 PM
<b><u>Gasoline by NWTPH-Gx</u></b>						
				Batch ID: 25995		Analyst: KT
Gasoline	ND	4.94		mg/Kg-dry	1	10/4/2019 10:50:02 AM
Surr: Toluene-d8	105	65 - 135		%Rec	1	10/4/2019 10:50:02 AM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	10/4/2019 10:50:02 AM
<b><u>Volatile Organic Compounds by EPA Method 8260D</u></b>						
				Batch ID: 25995		Analyst: KT
Benzene	ND	0.0198		mg/Kg-dry	1	10/1/2019 1:00:23 PM
Toluene	ND	0.0198		mg/Kg-dry	1	10/1/2019 1:00:23 PM
Ethylbenzene	ND	0.0247		mg/Kg-dry	1	10/1/2019 1:00:23 PM
m,p-Xylene	ND	0.0494		mg/Kg-dry	1	10/1/2019 1:00:23 PM
o-Xylene	ND	0.0247		mg/Kg-dry	1	10/1/2019 1:00:23 PM
Surr: Dibromofluoromethane	99.6	56.5 - 129		%Rec	1	10/1/2019 1:00:23 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/1/2019 1:00:23 PM
Surr: 1-Bromo-4-fluorobenzene	102	54.8 - 168		%Rec	1	10/1/2019 1:00:23 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>						
				Batch ID: R54300		Analyst: ZR
Percent Moisture	6.49	0.500		wt%	1	10/2/2019 9:47:58 AM



## Analytical Report

Work Order: 1909462  
Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-004  
**Client Sample ID:** SGC-092619-04

**Collection Date:** 9/26/2019 11:10:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>				Batch ID: 26115		Analyst: DW
Diesel (Fuel Oil)	ND	19.4	H	mg/Kg-dry	1	10/11/2019 9:36:09 PM
Heavy Oil	143	48.6	H	mg/Kg-dry	1	10/11/2019 9:36:09 PM
Surr: 2-Fluorobiphenyl	87.4	50 - 150	H	%Rec	1	10/11/2019 9:36:09 PM
Surr: o-Terphenyl	89.4	50 - 150	H	%Rec	1	10/11/2019 9:36:09 PM

<b><u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u></b>				Batch ID: 25987		Analyst: SB
Naphthalene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
2-Methylnaphthalene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
1-Methylnaphthalene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Acenaphthylene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Acenaphthene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Fluorene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Phenanthrene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Anthracene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Fluoranthene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Pyrene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Benz(a)anthracene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Chrysene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Benzo(b)fluoranthene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Benzo(k)fluoranthene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Benzo(a)pyrene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Indeno(1,2,3-cd)pyrene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Dibenz(a,h)anthracene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Benzo(g,h,i)perylene	ND	38.1		µg/Kg-dry	1	9/30/2019 11:41:12 PM
Surr: 2-Fluorobiphenyl	53.2	24.4 - 151		%Rec	1	9/30/2019 11:41:12 PM
Surr: Terphenyl-d14 (surr)	50.8	31.4 - 162		%Rec	1	9/30/2019 11:41:12 PM

<b><u>Gasoline by NWTPH-Gx</u></b>				Batch ID: 25995		Analyst: KT
Gasoline	ND	5.19		mg/Kg-dry	1	10/4/2019 11:22:36 AM
Surr: Toluene-d8	98.9	65 - 135		%Rec	1	10/4/2019 11:22:36 AM
Surr: 4-Bromofluorobenzene	98.9	65 - 135		%Rec	1	10/4/2019 11:22:36 AM

<b><u>Volatile Organic Compounds by EPA Method 8260D</u></b>				Batch ID: 25995		Analyst: KT
Benzene	ND	0.0208		mg/Kg-dry	1	10/1/2019 1:32:36 PM
Toluene	ND	0.0208		mg/Kg-dry	1	10/1/2019 1:32:36 PM
Ethylbenzene	ND	0.0260		mg/Kg-dry	1	10/1/2019 1:32:36 PM



## Analytical Report

Work Order: 1909462  
Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-004  
**Client Sample ID:** SGC-092619-04

**Collection Date:** 9/26/2019 11:10:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 25995

Analyst: KT

m,p-Xylene	ND	0.0519		mg/Kg-dry	1	10/1/2019 1:32:36 PM
o-Xylene	ND	0.0260		mg/Kg-dry	1	10/1/2019 1:32:36 PM
Surr: Dibromofluoromethane	97.3	56.5 - 129		%Rec	1	10/1/2019 1:32:36 PM
Surr: Toluene-d8	101	64.5 - 151		%Rec	1	10/1/2019 1:32:36 PM
Surr: 1-Bromo-4-fluorobenzene	102	54.8 - 168		%Rec	1	10/1/2019 1:32:36 PM

**Total Metals by EPA Method 6020B**

Batch ID: 25997

Analyst: CO

Lead	13.7	0.171		mg/Kg-dry	1	10/1/2019 7:16:19 PM
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**Sample Moisture (Percent Moisture)**

Batch ID: R54300

Analyst: ZR

Percent Moisture	7.04	0.500		wt%	1	10/2/2019 9:47:58 AM
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## Analytical Report

Work Order: 1909462

Date Reported: 10/17/2019

**Client:** Fulcrum Environmental

**Collection Date:** 9/26/2019 11:15:00 AM

**Project:** Sundance Golf Course PH II

**Lab ID:** 1909462-005

**Matrix:** Soil

**Client Sample ID:** SGC-092619-05

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>				Batch ID: 26115		Analyst: DW
Diesel (Fuel Oil)	ND	18.7	H	mg/Kg-dry	1	10/11/2019 10:06:22 PM
Heavy Oil	ND	46.9	H	mg/Kg-dry	1	10/11/2019 10:06:22 PM
Surr: 2-Fluorobiphenyl	88.7	50 - 150	H	%Rec	1	10/11/2019 10:06:22 PM
Surr: o-Terphenyl	90.6	50 - 150	H	%Rec	1	10/11/2019 10:06:22 PM

**Gasoline by NWTPH-Gx**

Batch ID: 25995      Analyst: KT

Gasoline	ND	5.43	mg/Kg-dry	1	10/1/2019 2:04:44 PM
Surr: Toluene-d8	99.3	65 - 135	%Rec	1	10/1/2019 2:04:44 PM
Surr: 4-Bromofluorobenzene	100	65 - 135	%Rec	1	10/1/2019 2:04:44 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 25995      Analyst: KT

Benzene	ND	0.0217	mg/Kg-dry	1	10/1/2019 2:04:44 PM
Toluene	ND	0.0217	mg/Kg-dry	1	10/1/2019 2:04:44 PM
Ethylbenzene	ND	0.0272	mg/Kg-dry	1	10/1/2019 2:04:44 PM
m,p-Xylene	ND	0.0543	mg/Kg-dry	1	10/1/2019 2:04:44 PM
o-Xylene	ND	0.0272	mg/Kg-dry	1	10/1/2019 2:04:44 PM
Surr: Dibromofluoromethane	98.0	56.5 - 129	%Rec	1	10/1/2019 2:04:44 PM
Surr: Toluene-d8	102	64.5 - 151	%Rec	1	10/1/2019 2:04:44 PM
Surr: 1-Bromo-4-fluorobenzene	99.8	54.8 - 168	%Rec	1	10/1/2019 2:04:44 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R54300      Analyst: ZR

Percent Moisture	3.45	0.500	wt%	1	10/2/2019 9:47:58 AM
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## Analytical Report

Work Order: 1909462

Date Reported: 10/17/2019

Client: Fulcrum Environmental

Collection Date: 9/26/2019 11:42:00 AM

Project: Sundance Golf Course PH II

Lab ID: 1909462-007

Matrix: Soil

Client Sample ID: SGC-092619-07

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Herbicides by EPA Method 8151A

Batch ID: 26068

Analyst: SB

Dicamba	ND	32.4		µg/Kg-dry	1	10/9/2019 5:00:20 PM
2,4-D	ND	27.8		µg/Kg-dry	1	10/9/2019 5:00:20 PM
2,4-DP	ND	23.1		µg/Kg-dry	1	10/9/2019 5:00:20 PM
2,4,5-TP (Silvex)	ND	18.5		µg/Kg-dry	1	10/9/2019 5:00:20 PM
2,4,5-T	ND	46.3		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Dinoseb	ND	27.8		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Dalapon	ND	185		µg/Kg-dry	1	10/9/2019 5:00:20 PM
2,4-DB	ND	23.1		µg/Kg-dry	1	10/9/2019 5:00:20 PM
MCPP	ND	4,070		µg/Kg-dry	1	10/9/2019 5:00:20 PM
MCPA	ND	2,590		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Picloram	ND	46.3		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Bentazon	ND	32.4		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Chloramben	ND	18.5		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Acifluorfen	ND	74.0		µg/Kg-dry	1	10/9/2019 5:00:20 PM
3,5-Dichlorobenzoic acid	ND	37.0		µg/Kg-dry	1	10/9/2019 5:00:20 PM
4-Nitrophenol	ND	27.8		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Dacthal (DCPA)	ND	27.8		µg/Kg-dry	1	10/9/2019 5:00:20 PM
Surr: 2,4-Dichlorophenylacetic acid	73.4	15.3 - 163		%Rec	1	10/9/2019 5:00:20 PM

### Organophosphorus Pesticides by EPA Method 8270-SIM

Batch ID: 26031

Analyst: SB

DDVP	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Mevinphos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
TEPP	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Demeton, Total	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Ethoprophos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Naled	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Sulfotepp	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Monocrotophos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Phorate	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Dimethoate	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Diazinon	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Disulfoton	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Parathion, methyl	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Fenchophos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Malathion	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Dursban	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Fenthion	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Parathion	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM





## Analytical Report

Work Order: 1909462  
Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-007  
**Client Sample ID:** SGC-092619-07

**Collection Date:** 9/26/2019 11:42:00 AM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Organophosphorus Pesticides by EPA Method 8270-SIM**

Batch ID: 26031

Analyst: SB

Trichloronate	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Merphos	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Stirophos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Prothiofos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Fensulfothion	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Sulprofos	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
EPN	ND	52.7		µg/Kg-dry	1	10/4/2019 2:31:30 PM
Guthion	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Coumaphos	ND	52.7	Q	µg/Kg-dry	1	10/4/2019 2:31:30 PM
Surr: Triphenylphosphate	73.7	10.7 - 154		%Rec	1	10/4/2019 2:31:30 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Sample Moisture (Percent Moisture)**

Batch ID: R54300

Analyst: ZR

Percent Moisture	6.13	0.500		wt%	1	10/2/2019 9:47:58 AM
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## Analytical Report

Work Order: 1909462

Date Reported: 10/17/2019

**Client:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II  
**Lab ID:** 1909462-008  
**Client Sample ID:** SGC-092619-08

**Collection Date:** 9/26/2019 12:01:00 PM

**Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Herbicides by EPA Method 8151A

Batch ID: 26068

Analyst: SB

Dicamba	44.8	33.7		µg/Kg-dry	1	10/9/2019 5:20:50 PM
2,4-D	ND	28.9		µg/Kg-dry	1	10/9/2019 5:20:50 PM
2,4-DP	ND	24.1		µg/Kg-dry	1	10/9/2019 5:20:50 PM
2,4,5-TP (Silvex)	ND	19.3		µg/Kg-dry	1	10/9/2019 5:20:50 PM
2,4,5-T	ND	48.1		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Dinoseb	ND	28.9		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Dalapon	ND	193		µg/Kg-dry	1	10/9/2019 5:20:50 PM
2,4-DB	ND	24.1		µg/Kg-dry	1	10/9/2019 5:20:50 PM
MCPP	ND	4,240		µg/Kg-dry	1	10/9/2019 5:20:50 PM
MCPA	ND	2,700		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Picloram	ND	48.1		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Bentazon	ND	33.7		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Chloramben	ND	19.3		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Acifluorfen	ND	77.0		µg/Kg-dry	1	10/9/2019 5:20:50 PM
3,5-Dichlorobenzoic acid	ND	38.5		µg/Kg-dry	1	10/9/2019 5:20:50 PM
4-Nitrophenol	ND	28.9		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Dacthal (DCPA)	ND	28.9		µg/Kg-dry	1	10/9/2019 5:20:50 PM
Surr: 2,4-Dichlorophenylacetic acid	82.7	15.3 - 163		%Rec	1	10/9/2019 5:20:50 PM

### Organophosphorus Pesticides by EPA Method 8270-SIM

Batch ID: 26031

Analyst: SB

DDVP	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Mevinphos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
TEPP	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Demeton, Total	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Ethoprophos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Naled	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Sulfotepp	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Monocrotophos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Phorate	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Dimethoate	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Diazinon	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Disulfoton	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Parathion, methyl	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Fenchophos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Malathion	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Dursban	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Fenthion	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Parathion	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM



## Analytical Report

Work Order: 1909462

Date Reported: 10/17/2019

**Client:** Fulcrum Environmental

**Collection Date:** 9/26/2019 12:01:00 PM

**Project:** Sundance Golf Course PH II

**Lab ID:** 1909462-008

**Matrix:** Soil

**Client Sample ID:** SGC-092619-08

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Organophosphorus Pesticides by EPA Method 8270-SIM**

Batch ID: 26031

Analyst: SB

Trichloronate	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Merphos	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Stirophos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Prothiofos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Fensulfothion	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Sulprofos	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
EPN	ND	48.4		µg/Kg-dry	1	10/4/2019 3:48:01 PM
Guthion	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Coumaphos	ND	48.4	Q	µg/Kg-dry	1	10/4/2019 3:48:01 PM
Surr: Triphenylphosphate	35.5	10.7 - 154		%Rec	1	10/4/2019 3:48:01 PM

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Sample Moisture (Percent Moisture)**

Batch ID: R54300

Analyst: ZR

Percent Moisture	1.55	0.500		wt%	1	10/2/2019 9:47:58 AM
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**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Total Metals by EPA Method 6020B

Sample ID: <b>MB-25997</b>		SampType: <b>MBLK</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54317</b>		
Client ID: <b>MBLKS</b>		Batch ID: <b>25997</b>						Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075936</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Lead	ND	0.155									
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Sample ID: <b>LCS-25997</b>		SampType: <b>LCS</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54317</b>		
Client ID: <b>LCSS</b>		Batch ID: <b>25997</b>			Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075937</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Lead	16.4	0.157	19.69	0	83.1	80	120				
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Sample ID: <b>1909469-001ADUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54317</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25997</b>			Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075939</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Lead	6.75	0.220						6.106	10.1	20	
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Sample ID: <b>1909469-001AMS</b>		SampType: <b>MS</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54317</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25997</b>			Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075941</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Lead	28.2	0.222	27.76	6.106	79.6	75	125				
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Sample ID: <b>1909469-001AMSD</b>		SampType: <b>MSD</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54317</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25997</b>			Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075942</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Lead	29.9	0.222	27.76	6.106	85.6	75	125	28.20	5.76	20	
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**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>MB-26115</b>		SampType: <b>MBLK</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/11/2019</b>			RunNo: <b>54538</b>		
Client ID: <b>MBLKS</b>		Batch ID: <b>26115</b>			Analysis Date: <b>10/11/2019</b>					SeqNo: <b>1081147</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	18.5		20.00		92.5	50	150				
Surr: o-Terphenyl	18.8		20.00		94.2	50	150				

Sample ID: <b>LCS-26115</b>		SampType: <b>LCS</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/11/2019</b>			RunNo: <b>54538</b>		
Client ID: <b>LCSS</b>		Batch ID: <b>26115</b>			Analysis Date: <b>10/11/2019</b>					SeqNo: <b>1081148</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	573	20.0	500.0	0	115	65	135				
Surr: 2-Fluorobiphenyl	20.0		20.00		100	50	150				
Surr: o-Terphenyl	18.6		20.00		92.9	50	150				

Sample ID: <b>1910160-001ADUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/11/2019</b>		RunNo: <b>54538</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>26115</b>			Analysis Date: <b>10/12/2019</b>				SeqNo: <b>1081161</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	ND	21.1						0		30	
Heavy Oil	ND	52.8						0		30	
Surr: 2-Fluorobiphenyl	20.4		21.12		96.5	50	150		0		
Surr: o-Terphenyl	20.4		21.12		96.7	50	150		0		

Sample ID: <b>1910160-001AMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/11/2019</b>			RunNo: <b>54538</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>26115</b>					Analysis Date: <b>10/12/2019</b>			SeqNo: <b>1081162</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel (Fuel Oil)	509	20.3	507.6	0	100	65	135				
Surr: 2-Fluorobiphenyl	19.1		20.31		94.3	50	150				
Surr: o-Terphenyl	18.5		20.31		91.0	50	150				

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>1910160-001AMS</b>		SampType: <b>MS</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/11/2019</b>		RunNo: <b>54538</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>26115</b>			Analysis Date: <b>10/12/2019</b>				SeqNo: <b>1081162</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>1910160-001AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/11/2019</b>			RunNo: <b>54538</b>		
Client ID: <b>BATCH</b>	Batch ID: <b>26115</b>					Analysis Date: <b>10/12/2019</b>			SeqNo: <b>1081163</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	494	20.1	503.1	0	98.1	65	135	509.4	3.12	30	
Surr: 2-Fluorobiphenyl	17.8		20.13		88.3	50	150		0		
Surr: o-Terphenyl	16.4		20.13		81.6	50	150		0		

Sample ID: 1910160-009ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 10/11/2019			RunNo: 54538		
Client ID: BATCH		Batch ID: 26115					Analysis Date: 10/12/2019			SeqNo: 1081171	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	21.0						0		30	
Heavy Oil	ND	52.4						0		30	
Surr: 2-Fluorobiphenyl	16.5		20.96		78.8	50	150		0		
Surr: o-Terphenyl	17.1		20.96		81.5	50	150		0		



Work Order: 1909462

CLIENT: Fulcrum Environmental

Project: Sundance Golf Course PH II

## QC SUMMARY REPORT

### Organophosphorus Pesticides by EPA Method 8270-SIM

Sample ID: <b>MB-26031</b>		SampType: <b>MBLK</b>		Units: <b>µg/Kg</b>		Prep Date: <b>10/2/2019</b>			RunNo: <b>54390</b>		
Client ID: <b>MBLKS</b>		Batch ID: <b>26031</b>		Analysis Date: <b>10/4/2019</b>						SeqNo: <b>1077771</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DDVP	ND	50.0									Q
Mevinphos	ND	50.0									
TEPP	ND	50.0									Q
Demeton, Total	ND	50.0									
Ethoprophos	ND	50.0									
Naled	ND	50.0									
Sulfotepp	ND	50.0									
Monocrotophos	ND	50.0									
Phorate	ND	50.0									Q
Dimethoate	ND	50.0									
Diazinon	ND	50.0									
Disulfoton	ND	50.0									Q
Parathion, methyl	ND	50.0									
Fenchorphos	ND	50.0									
Malathion	ND	50.0									
Dursban	ND	50.0									
Fenthion	ND	50.0									
Parathion	ND	50.0									
Trichloronate	ND	50.0									
Merphos	ND	50.0									Q
Stirophos	ND	50.0									
Prothiofos	ND	50.0									
Fensulfothion	ND	50.0									
Sulprofos	ND	50.0									
EPN	ND	50.0									
Guthion	ND	50.0									Q
Coumaphos	ND	50.0									Q
Surr: Triphenylphosphate	23.9		20.00		120	10.7	154				

#### NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Organophosphorus Pesticides by EPA Method 8270-SIM

Sample ID: <b>LCS-26031</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>10/2/2019</b>			RunNo: <b>54390</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>26031</b>	Analysis Date: <b>10/4/2019</b>						SeqNo: <b>1077772</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DDVP	11.7	50.0	20.00	0	58.6	7.85	133				
Mevinphos	10.1	50.0	20.00	0	50.3	28.7	131				
TEPP	6.14	50.0	20.00	0	30.7	5	119				
Demeton, Total	12.3	50.0	20.00	0	61.6	31.4	149				
Ethoprophos	12.5	50.0	20.00	0	62.7	31.9	144				
Naled	16.6	50.0	20.00	0	83.1	10	147				
Sulfotepp	16.5	50.0	20.00	0	82.3	26.9	144				
Monocrotophos	18.0	50.0	20.00	0	90.0	10	129				
Phorate	11.7	50.0	20.00	0	58.7	40.9	118				
Dimethoate	14.8	50.0	20.00	0	73.9	23.6	127				
Diazinon	9.53	50.0	20.00	0	47.6	37.1	132				
Disulfoton	8.96	50.0	20.00	0	44.8	37.9	122				
Parathion, methyl	11.2	50.0	20.00	0	55.8	16.8	143				
Fenchorphos	11.0	50.0	20.00	0	55.0	36.7	117				
Malathion	16.0	50.0	20.00	0	80.2	26.9	131				
Dursban	10.7	50.0	20.00	0	53.4	40.8	124				
Fenthion	11.2	50.0	20.00	0	55.8	36.6	127				
Parathion	14.5	50.0	20.00	0	72.4	37.6	129				
Trichloronate	10.5	50.0	20.00	0	52.4	41.5	123				
Merphos	3.57	50.0	20.00	0	17.8	10	122				
Stirophos	10.8	50.0	20.00	0	54.0	20.6	126				
Prothiofos	12.6	50.0	20.00	0	63.1	37.1	135				
Fensulfothion	12.5	50.0	20.00	0	62.4	14.6	152				
Sulprofos	12.8	50.0	20.00	0	63.8	34.6	137				
EPN	18.4	50.0	20.00	0	92.0	26.7	150				
Guthion	13.7	50.0	20.00	0	68.5	5	151				
Coumaphos	10.1	50.0	20.00	0	50.5	10	152				
Surr: Triphenylphosphate	19.8		20.00		98.8	10.7	154				



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Organophosphorus Pesticides by EPA Method 8270-SIM

Sample ID: 1909462-007ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 10/2/2019			RunNo: 54390			
Client ID: SGC-092619-07		Batch ID: 26031		Analysis Date: 10/4/2019							SeqNo: 1077774	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
DDVP	ND	48.1						0		30	Q	
Mevinphos	ND	48.1						0		30		
TEPP	ND	48.1						0		30	Q	
Demeton, Total	ND	48.1						0		30		
Ethoprophos	ND	48.1						0		30		
Naled	ND	48.1						0		30		
Sulfotepp	ND	48.1						0		30		
Monocrotophos	ND	48.1						0		30		
Phorate	ND	48.1						0		30	Q	
Dimethoate	ND	48.1						0		30		
Diazinon	ND	48.1						0		30		
Disulfoton	ND	48.1						0		30	Q	
Parathion, methyl	ND	48.1						0		30		
Fenchorphos	ND	48.1						0		30		
Malathion	ND	48.1						0		30		
Dursban	ND	48.1						0		30		
Fenthion	ND	48.1						0		30		
Parathion	ND	48.1						0		30		
Trichloronate	ND	48.1						0		30		
Merphos	ND	48.1						0		30	Q	
Stirophos	ND	48.1						0		30		
Prothiofos	ND	48.1						0		30		
Fensulfothion	ND	48.1						0		30		
Sulprofos	ND	48.1						0		30		
EPN	ND	48.1						0		30		
Guthion	ND	48.1						0		30	Q	
Coumaphos	ND	48.1						0		30	Q	
Surr: Triphenylphosphate	17.8		19.23		92.4	10.7	154		0			

**NOTES:**

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Organophosphorus Pesticides by EPA Method 8270-SIM

Sample ID: 1909462-007AMS	SampType: MS	Units: µg/Kg-dry				Prep Date: 10/2/2019			RunNo: 54390		
Client ID: SGC-092619-07	Batch ID: 26031	Analysis Date: 10/4/2019						SeqNo: 1077775			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DDVP	7.10	50.5	20.20	0	35.1	5	138				
Mevinphos	8.67	50.5	20.20	0	42.9	5	148				
TEPP	2.71	50.5	20.20	0	13.4	5	121				
Demeton, Total	8.14	50.5	20.20	0	40.3	24.3	141				
Ethoprophos	11.9	50.5	20.20	0	58.7	13.2	145				
Naled	21.3	50.5	20.20	0	106	5	121				
Sulfotepp	11.4	50.5	20.20	0	56.6	26.8	120				
Monocrotophos	5.34	50.5	20.20	0	26.4	5	196				
Phorate	10.4	50.5	20.20	0	51.6	29.4	122				
Dimethoate	7.16	50.5	20.20	0	35.5	5	161				
Diazinon	7.89	50.5	20.20	0	39.0	9.74	142				
Disulfoton	6.85	50.5	20.20	0	33.9	23.9	137				
Parathion, methyl	8.32	50.5	20.20	0	41.2	5.64	177				
Fenchorphos	8.87	50.5	20.20	0	43.9	25.3	131				
Malathion	7.69	50.5	20.20	0	38.1	23.5	121				
Dursban	8.28	50.5	20.20	0	41.0	28.2	128				
Fenthion	8.43	50.5	20.20	0	41.7	24.2	136				
Parathion	8.94	50.5	20.20	0	44.3	5	173				
Trichloronate	8.33	50.5	20.20	0	41.2	28.5	122				
Merphos	2.51	50.5	20.20	0	12.4	5	90.1				
Stirophos	8.60	50.5	20.20	0	42.6	9.46	152				
Prothiofos	11.3	50.5	20.20	0	56.2	23.7	157				
Fensulfothion	9.09	50.5	20.20	0	45.0	5	174				
Sulprofos	11.6	50.5	20.20	0	57.5	12	173				
EPN	12.2	50.5	20.20	0	60.8	13.8	157				
Guthion	11.6	50.5	20.20	0	57.5	5	177				
Coumaphos	9.50	50.5	20.20	0	47.0	5	232				
Surr: Triphenylphosphate	10.5		20.20		52.2	10.7	154				

Work Order: 1909462

CLIENT: Fulcrum Environmental

Project: Sundance Golf Course PH II

## QC SUMMARY REPORT

### Organophosphorus Pesticides by EPA Method 8270-SIM

Sample ID: 1909462-007AMSD	SampType: MSD	Units: µg/Kg-dry				Prep Date: 10/2/2019			RunNo: 54390		
Client ID: SGC-092619-07	Batch ID: 26031	Analysis Date: 10/4/2019							SeqNo: 1077776		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DDVP	11.6	49.3	19.71	0	58.9	5	138	0		30	
Mevinphos	16.3	49.3	19.71	0	82.7	5	148	0		30	
TEPP	8.95	49.3	19.71	0	45.4	5	121	0		30	
Demeton, Total	23.9	49.3	19.71	0	121	24.3	141	0		30	
Ethoprophos	16.6	49.3	19.71	0	84.4	13.2	145	0		30	
Naled	33.0	49.3	19.71	0	168	5	121	0		30	S
Sulfotepp	17.0	49.3	19.71	0	86.5	26.8	120	0		30	
Monocrotophos	14.0	49.3	19.71	0	70.9	5	196	0		30	
Phorate	15.1	49.3	19.71	0	76.8	29.4	122	0		30	
Dimethoate	20.5	49.3	19.71	0	104	5	161	0		30	
Diazinon	19.6	49.3	19.71	0	99.4	9.74	142	0		30	
Disulfoton	19.1	49.3	19.71	0	97.0	23.9	137	0		30	
Parathion, methyl	13.1	49.3	19.71	0	66.7	5.64	177	0		30	
Fenchorphos	13.5	49.3	19.71	0	68.5	25.3	131	0		30	
Malathion	11.7	49.3	19.71	0	59.4	23.5	121	0		30	
Dursban	11.9	49.3	19.71	0	60.1	28.2	128	0		30	
Fenthion	13.2	49.3	19.71	0	67.1	24.2	136	0		30	
Parathion	14.0	49.3	19.71	0	71.0	5	173	0		30	
Trichloronate	10.0	49.3	19.71	0	50.7	28.5	122	0		30	
Merphos	0.00	49.3	19.71	0	0	5	90.1	0		30	S
Stirophos	13.0	49.3	19.71	0	65.9	9.46	152	0		30	
Prothiofos	14.1	49.3	19.71	0	71.8	23.7	157	0		30	
Fensulfothion	18.3	49.3	19.71	0	93.1	5	174	0		30	
Sulprofos	16.7	49.3	19.71	0	84.7	12	173	0		30	
EPN	18.8	49.3	19.71	0	95.3	13.8	157	0		30	
Guthion	17.0	49.3	19.71	0	86.2	5	177	0		30	
Coumaphos	18.9	49.3	19.71	0	95.7	5	232	0		30	
Surr: Triphenylphosphate	11.6		19.71		58.8	10.7	154		0		

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>MB-25987</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>			Prep Date: <b>9/30/2019</b>			RunNo: <b>54272</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>25987</b>	Analysis Date: <b>9/30/2019</b>						SeqNo: <b>1074954</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	40.0									
2-Methylnaphthalene	ND	40.0									
1-Methylnaphthalene	ND	40.0									
Acenaphthylene	ND	40.0									
Acenaphthene	ND	40.0									
Fluorene	ND	40.0									
Phenanthrene	ND	40.0									
Anthracene	ND	40.0									
Fluoranthene	ND	40.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	40.0									
Chrysene	ND	40.0									
Benzo(b)fluoranthene	ND	40.0									
Benzo(k)fluoranthene	ND	40.0									
Benzo(a)pyrene	ND	40.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	40.0									
Benzo(g,h,i)perylene	ND	40.0									
Surr: 2-Fluorobiphenyl	429		500.0		85.8	24.4	151				
Surr: Terphenyl-d14 (surr)	434		500.0		86.7	31.4	162				

Sample ID: <b>LCS-25987</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>9/30/2019</b>			RunNo: <b>54272</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>25987</b>					Analysis Date: <b>9/30/2019</b>			SeqNo: <b>1074955</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	957	40.0	1,000	0	95.7	63.6	135				
2-Methylnaphthalene	987	40.0	1,000	0	98.7	61.5	140				
1-Methylnaphthalene	977	40.0	1,000	0	97.7	59.6	140				
Acenaphthylene	915	40.0	1,000	0	91.5	61.2	141				
Acenaphthene	963	40.0	1,000	0	96.3	62.3	134				

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>LCS-25987</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>9/30/2019</b>			RunNo: <b>54272</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>25987</b>	Analysis Date: <b>9/30/2019</b>						SeqNo: <b>1074955</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	979	40.0	1,000	0	97.9	64.1	134				
Phenanthrene	993	40.0	1,000	0	99.3	63.2	132				
Anthracene	923	40.0	1,000	0	92.3	61.5	136				
Fluoranthene	984	40.0	1,000	0	98.4	63.1	140				
Pyrene	979	40.0	1,000	0	97.9	63.4	140				
Benz(a)anthracene	949	40.0	1,000	0	94.9	62.7	148				
Chrysene	938	40.0	1,000	0	93.8	60.5	142				
Benzo(b)fluoranthene	1,050	40.0	1,000	0	105	55.8	158				
Benzo(k)fluoranthene	957	40.0	1,000	0	95.7	64	136				
Benzo(a)pyrene	947	40.0	1,000	0	94.7	61.9	151				
Indeno(1,2,3-cd)pyrene	977	40.0	1,000	0	97.7	48.3	147				
Dibenz(a,h)anthracene	964	40.0	1,000	0	96.4	47.9	150				
Benzo(g,h,i)perylene	941	40.0	1,000	0	94.1	44.4	144				
Surr: 2-Fluorobiphenyl	379		500.0		75.9	24.4	151				
Surr: Terphenyl-d14 (surr)	367		500.0		73.5	31.4	162				

Sample ID: <b>1909450-001ADUP</b>	SampType: <b>DUP</b>	Units: <b>µg/Kg-dry</b>				Prep Date: <b>9/30/2019</b>			RunNo: <b>54272</b>		
Client ID: <b>BATCH</b>	Batch ID: <b>25987</b>	Analysis Date: <b>9/30/2019</b>							SeqNo: <b>1074957</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	39.5						0		30	
2-Methylnaphthalene	ND	39.5						0		30	
1-Methylnaphthalene	ND	39.5						0		30	
Acenaphthylene	ND	39.5						0		30	
Acenaphthene	ND	39.5						0		30	
Fluorene	ND	39.5						0		30	
Phenanthrene	ND	39.5						0		30	
Anthracene	ND	39.5						0		30	
Fluoranthene	ND	39.5						0		30	
Pyrene	ND	39.5						0		30	



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>1909450-001ADUP</b>		SampType: <b>DUP</b>		Units: <b>µg/Kg-dry</b>		Prep Date: <b>9/30/2019</b>		RunNo: <b>54272</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>25987</b>				Analysis Date: <b>9/30/2019</b>		SeqNo: <b>1074957</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	39.5						0		30	
Chrysene	ND	39.5						0		30	
Benzo(b)fluoranthene	ND	39.5						0		30	
Benzo(k)fluoranthene	ND	39.5						0		30	
Benzo(a)pyrene	ND	39.5						0		30	
Indeno(1,2,3-cd)pyrene	ND	39.5						0		30	
Dibenz(a,h)anthracene	ND	39.5						0		30	
Benzo(g,h,i)perylene	ND	39.5						0		30	
Surr: 2-Fluorobiphenyl	307		493.4		62.2	24.4	151		0		
Surr: Terphenyl-d14 (surr)	304		493.4		61.6	31.4	162		0		

Sample ID: <b>1909450-002AMS</b>		SampType: <b>MS</b>		Units: <b>µg/Kg-dry</b>		Prep Date: <b>9/30/2019</b>		RunNo: <b>54272</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>25987</b>				Analysis Date: <b>9/30/2019</b>		SeqNo: <b>1074959</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	967	41.6	1,041	0	92.9	37	127				
2-Methylnaphthalene	1,000	41.6	1,041	0	96.2	38.9	128				
1-Methylnaphthalene	987	41.6	1,041	0	94.9	36.2	129				
Acenaphthylene	947	41.6	1,041	0	91.0	39	132				
Acenaphthene	980	41.6	1,041	0	94.2	39.5	124				
Fluorene	1,020	41.6	1,041	0	97.6	38.3	128				
Phenanthrene	1,010	41.6	1,041	0	96.7	29.2	132				
Anthracene	990	41.6	1,041	0	95.1	38.8	128				
Fluoranthene	1,050	41.6	1,041	0	101	38.4	135				
Pyrene	1,030	41.6	1,041	0	98.9	37.8	134				
Benz(a)anthracene	1,000	41.6	1,041	0	96.2	39.2	143				
Chrysene	937	41.6	1,041	0	90.1	35.9	131				
Benzo(b)fluoranthene	1,070	41.6	1,041	0	103	36.3	148				
Benzo(k)fluoranthene	1,010	41.6	1,041	0	97.1	31.2	133				
Benzo(a)pyrene	1,090	41.6	1,041	0	104	35.9	144				

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>1909450-002AMS</b>		SampType: <b>MS</b>		Units: <b>µg/Kg-dry</b>		Prep Date: <b>9/30/2019</b>		RunNo: <b>54272</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>25987</b>				Analysis Date: <b>9/30/2019</b>		SeqNo: <b>1074959</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	1,000	41.6	1,041	0	96.5	25.3	131				
Dibenz(a,h)anthracene	994	41.6	1,041	0	95.5	27.4	132				
Benzo(g,h,i)perylene	955	41.6	1,041	0	91.8	20.1	128				
Surr: 2-Fluorobiphenyl	369		520.3		70.8	24.4	151				
Surr: Terphenyl-d14 (surr)	363		520.3		69.8	31.4	162				

Sample ID: <b>1909450-002AMSD</b>		SampType: <b>MSD</b>		Units: <b>µg/Kg-dry</b>		Prep Date: <b>9/30/2019</b>		RunNo: <b>54272</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>25987</b>				Analysis Date: <b>9/30/2019</b>		SeqNo: <b>1074960</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	930	41.0	1,026	0	90.7	37	127	966.6	3.82	30	
2-Methylnaphthalene	963	41.0	1,026	0	93.9	38.9	128	1,001	3.87	30	
1-Methylnaphthalene	952	41.0	1,026	0	92.8	36.2	129	987.3	3.61	30	
Acenaphthylene	914	41.0	1,026	0	89.1	39	132	946.6	3.48	30	
Acenaphthene	940	41.0	1,026	0	91.6	39.5	124	980.5	4.25	30	
Fluorene	980	41.0	1,026	0	95.5	38.3	128	1,015	3.58	30	
Phenanthrene	981	41.0	1,026	0	95.6	29.2	132	1,006	2.55	30	
Anthracene	968	41.0	1,026	0	94.3	38.8	128	990.0	2.27	30	
Fluoranthene	1,020	41.0	1,026	0	99.4	38.4	135	1,049	2.81	30	
Pyrene	1,000	41.0	1,026	0	97.6	37.8	134	1,029	2.69	30	
Benz(a)anthracene	954	41.0	1,026	0	93.0	39.2	143	1,001	4.83	30	
Chrysene	936	41.0	1,026	0	91.2	35.9	131	937.3	0.190	30	
Benzo(b)fluoranthene	1,020	41.0	1,026	0	99.7	36.3	148	1,069	4.41	30	
Benzo(k)fluoranthene	1,020	41.0	1,026	0	99.1	31.2	133	1,010	0.689	30	
Benzo(a)pyrene	1,070	41.0	1,026	0	104	35.9	144	1,087	1.46	30	
Indeno(1,2,3-cd)pyrene	979	41.0	1,026	0	95.4	25.3	131	1,005	2.63	30	
Dibenz(a,h)anthracene	961	41.0	1,026	0	93.6	27.4	132	994.2	3.41	30	
Benzo(g,h,i)perylene	929	41.0	1,026	0	90.6	20.1	128	955.1	2.73	30	
Surr: 2-Fluorobiphenyl	353		513.1		68.8	24.4	151		0		
Surr: Terphenyl-d14 (surr)	347		513.1		67.6	31.4	162		0		

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: <b>1909450-002AMSD</b>		SampType: <b>MSD</b>			Units: <b>µg/Kg-dry</b>		Prep Date: <b>9/30/2019</b>			RunNo: <b>54272</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25987</b>			Analysis Date: <b>9/30/2019</b>					SeqNo: <b>1074960</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>LCS-25995</b>		SampType: <b>LCS</b>		Units: <b>mg/Kg</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54296</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>25995</b>				Analysis Date: <b>10/1/2019</b>		SeqNo: <b>1075434</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	26.0	5.00	25.00	0	104	65	135				
Surr: Toluene-d8	1.24		1.250		99.4	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.9	65	135				

Sample ID: <b>MB-25995</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/1/2019</b>			RunNo: <b>54296</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>25995</b>				Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075435</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.28		1.250		103	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.3	65	135				

Sample ID: <b>1909462-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54296</b>			
Client ID: <b>SGC-092619-01</b>		Batch ID: <b>25995</b>				Analysis Date: <b>10/1/2019</b>		SeqNo: <b>1075414</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	6.64						0		30	
Surr: Toluene-d8	1.64		1.659		99.1	65	135		0		
Surr: 4-Bromofluorobenzene	1.67		1.659		101	65	135		0		

Sample ID: <b>1909471-007BDUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54296</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25995</b>			Analysis Date: <b>10/1/2019</b>				SeqNo: <b>1075428</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	4.91						0		30	
Surr: Toluene-d8	1.21		1.227		98.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.24		1.227		101	65	135		0		

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>1909462-002BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/1/2019</b>			RunNo: <b>54296</b>		
Client ID: <b>SGC-092619-02</b>	Batch ID: <b>25995</b>	Analysis Date: <b>10/1/2019</b>						SeqNo: <b>1075416</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	82.9	6.74	33.72	36.09	139	65	135				S
Surr: Toluene-d8	1.65		1.686		97.9	65	135				
Surr: 4-Bromofluorobenzene	1.71		1.686		102	65	135				

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: <b>1909462-002BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/1/2019</b>			RunNo: <b>54296</b>		
Client ID: <b>SGC-092619-02</b>	Batch ID: <b>25995</b>	Analysis Date: <b>10/1/2019</b>							SeqNo: <b>1075417</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	122	6.74	33.72	36.09	254	65	135	82.90	37.9	30	RS
Surr: Toluene-d8	1.66		1.686		98.4	65	135		0		
Surr: 4-Bromofluorobenzene	1.80		1.686		107	65	135		0		

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

R - High RPD indicates matrix interference. The method is in control as indicated by the Laboratory Control Sample (LCS).

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>LCS-25995</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>10/1/2019</b>			RunNo: <b>54295</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>25995</b>	Analysis Date: <b>10/1/2019</b>							SeqNo: <b>1075409</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.04	0.0200	1.000	0	104	64.3	133				
Toluene	1.01	0.0200	1.000	0	101	67	144				
Ethylbenzene	0.977	0.0250	1.000	0	97.7	74	129				
m,p-Xylene	1.95	0.0500	2.000	0	97.4	70	124				
o-Xylene	0.967	0.0250	1.000	0	96.7	68.1	139				
Surr: Dibromofluoromethane	1.44		1.250		115	56.5	129				
Surr: Toluene-d8	1.30		1.250		104	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.250		105	54.8	168				

Sample ID: <b>MB-25995</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/1/2019</b>			RunNo: <b>54295</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>25995</b>	Analysis Date: <b>10/1/2019</b>						SeqNo: <b>1075410</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.28		1.250		103	56.5	129				
Surr: Toluene-d8	1.28		1.250		102	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.21		1.250		96.9	54.8	168				

Sample ID: <b>1909462-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54295</b>		
Client ID: <b>SGC-092619-01</b>		Batch ID: <b>25995</b>					Analysis Date: <b>10/1/2019</b>			SeqNo: <b>1075389</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0265						0		30	
Toluene	ND	0.0265						0		30	
Ethylbenzene	ND	0.0332						0		30	
m,p-Xylene	ND	0.0664						0		30	



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>1909462-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54295</b>			
Client ID: <b>SGC-092619-01</b>		Batch ID: <b>25995</b>				Analysis Date: <b>10/1/2019</b>		SeqNo: <b>1075389</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

o-Xylene	ND	0.0332						0		30	
Surr: Dibromofluoromethane	1.68		1.659		101	56.5	129		0		
Surr: Toluene-d8	1.69		1.659		102	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.67		1.659		100	54.8	168		0		

Sample ID: <b>1909471-007BDUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>			RunNo: <b>54295</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25995</b>			Analysis Date: <b>10/1/2019</b>					SeqNo: <b>1075401</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Benzene	ND	0.0196						0		30	
Toluene	ND	0.0196						0		30	
Ethylbenzene	ND	0.0245						0		30	
m,p-Xylene	ND	0.0491						0		30	
o-Xylene	ND	0.0245						0		30	
Surr: Dibromofluoromethane	1.15		1.227		93.5	56.5	129		0		
Surr: Toluene-d8	1.24		1.227		101	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.23		1.227		100	54.8	168		0		

Sample ID: <b>1909471-008BMS</b>		SampType: <b>MS</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54295</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25995</b>			Analysis Date: <b>10/1/2019</b>				SeqNo: <b>1075403</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	1.24	0.0210	1.052	0	117	63.5	133				
Toluene	1.22	0.0210	1.052	0	116	63.4	132				
Ethylbenzene	1.17	0.0263	1.052	0	112	54.5	134				
m,p-Xylene	2.32	0.0526	2.104	0	110	53.1	132				
o-Xylene	1.13	0.0263	1.052	0	107	53.3	139				
Surr: Dibromofluoromethane	1.45		1.315		110	56.5	129				
Surr: Toluene-d8	1.38		1.315		105	64.5	151				
Surr: 1-Bromo-4-fluorobenzene	1.33		1.315		101	54.8	168				

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>1909471-008BMS</b>		SampType: <b>MS</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/1/2019</b>		RunNo: <b>54295</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>25995</b>			Analysis Date: <b>10/1/2019</b>				SeqNo: <b>1075403</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>1909471-008BMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/1/2019</b>			RunNo: <b>54295</b>		
Client ID: <b>BATCH</b>	Batch ID: <b>25995</b>	Analysis Date: <b>10/1/2019</b>							SeqNo: <b>1075404</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.19	0.0210	1.052	0	113	63.5	133	1.235	3.47	30	
Toluene	1.17	0.0210	1.052	0	111	63.4	132	1.222	4.26	30	
Ethylbenzene	1.13	0.0263	1.052	0	108	54.5	134	1.174	3.38	30	
m,p-Xylene	2.25	0.0526	2.104	0	107	53.1	132	2.321	2.91	30	
o-Xylene	1.11	0.0263	1.052	0	106	53.3	139	1.125	1.03	30	
Surr: Dibromofluoromethane	1.45		1.315		110	56.5	129		0		
Surr: Toluene-d8	1.37		1.315		104	64.5	151		0		
Surr: 1-Bromo-4-fluorobenzene	1.34		1.315		102	54.8	168		0		



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Sample Moisture (Percent Moisture)

Sample ID: <b>1909369-020ADUP</b>	SampType: <b>DUP</b>	Units: <b>wt%</b>			Prep Date: <b>10/2/2019</b>			RunNo: <b>54300</b>			
Client ID: <b>BATCH</b>	Batch ID: <b>R54300</b>				Analysis Date: <b>10/2/2019</b>			SeqNo: <b>1075540</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	10.6	0.500						11.20	5.55	20	

Sample ID: <b>1909466-013ADUP</b>		SampType: <b>DUP</b>		Units: <b>wt%</b>		Prep Date: <b>10/2/2019</b>			RunNo: <b>54300</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>R54300</b>					Analysis Date: <b>10/2/2019</b>			SeqNo: <b>1075560</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.7	0.500						11.79	1.16	20	

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A

Sample ID: <b>MB-26068</b>	SampType: <b>MBLK</b>	Units: <b>µg/Kg</b>			Prep Date: <b>10/7/2019</b>			RunNo: <b>54475</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>26068</b>	Analysis Date: <b>10/9/2019</b>						SeqNo: <b>1079798</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	35.0									
2,4-D	ND	30.0									
2,4-DP	ND	25.0									
2,4,5-TP (Silvex)	ND	20.0									
2,4,5-T	ND	50.0									
Dinoseb	ND	30.0									
Dalapon	ND	200									
2,4-DB	ND	25.0									
MCPP	ND	4,400									
MCPA	ND	2,800									
Picloram	ND	50.0									
Bentazon	ND	35.0									
Chloramben	ND	20.0									
Acifluorfen	ND	80.0									
3,5-Dichlorobenzoic acid	ND	40.0									
4-Nitrophenol	ND	30.0									
Dacthal (DCPA)	ND	30.0									
Surr: 2,4-Dichlorophenylacetic acid	1,250		1,000		125	15.3	163				

Sample ID: <b>LCS-26068</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>10/7/2019</b>			RunNo: <b>54475</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>26068</b>	Analysis Date: <b>10/9/2019</b>							SeqNo: <b>1079799</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	208	35.0	200.0	0	104	21.2	167				
2,4-D	223	30.0	200.0	0	111	32	176				
2,4-DP	207	25.0	200.0	0	104	25.8	171				
2,4,5-TP (Silvex)	208	20.0	200.0	0	104	23.6	164				
2,4,5-T	205	50.0	200.0	0	102	25	166				
Dinoseb	132	30.0	200.0	0	66.0	5	168				
Dalapon	1,190	200	1,000	0	119	29.2	195				

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A

Sample ID: <b>LCS-26068</b>	SampType: <b>LCS</b>	Units: <b>µg/Kg</b>				Prep Date: <b>10/7/2019</b>			RunNo: <b>54475</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>26068</b>	Analysis Date: <b>10/9/2019</b>							SeqNo: <b>1079799</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-DB	207	25.0	200.0	0	103	8.11	184				
MCPP	1050	4,400	1,000	0	105	17.3	191				
MCPA	1060	2,800	1,000	0	106	13.6	192				
Picloram	223	50.0	200.0	0	112	5	175				
Bentazon	210	35.0	200.0	0	105	21.5	170				
Chloramben	113	20.0	200.0	0	56.4	5	114				
Acifluorfen	156	80.0	200.0	0	77.9	5	168				
3,5-Dichlorobenzoic acid	215	40.0	200.0	0	108	26.2	174				
4-Nitrophenol	208	30.0	200.0	0	104	5.02	160				
Dacthal (DCPA)	214	30.0	200.0	0	107	18	168				
Surr: 2,4-Dichlorophenylacetic acid	1,070		1,000		107	15.3	163				

Sample ID: 1909462-008ADUP		SampType: DUP		Units: µg/Kg-dry		Prep Date: 10/7/2019			RunNo: 54475		
Client ID: SGC-092619-08		Batch ID: 26068					Analysis Date: 10/9/2019			SeqNo: 1079802	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	44.5	34.1						44.84	0.813	30	
2,4-D	ND	29.2						17.02	16.4	30	
2,4-DP	ND	24.4						0	0	30	
2,4,5-TP (Silvex)	ND	19.5						0	0	30	
2,4,5-T	ND	48.7						0	0	30	
Dinoseb	ND	29.2						0	0	30	
Dalapon	ND	195						0	0	30	
2,4-DB	ND	24.4						0	0	30	
MCP	ND	4,290						0	0	30	
MCPA	ND	2,730						0	0	30	
Picloram	ND	48.7						0	0	30	
Bentazon	ND	34.1						0	0	30	
Chloramben	ND	19.5						0	0	30	
Acifluorfen	ND	78.0						0	0	30	

**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A

Sample ID: <b>1909462-008ADUP</b>		SampType: <b>DUP</b>			Units: <b>µg/Kg-dry</b>		Prep Date: <b>10/7/2019</b>			RunNo: <b>54475</b>		
Client ID: <b>SGC-092619-08</b>		Batch ID: <b>26068</b>			Analysis Date: <b>10/9/2019</b>					SeqNo: <b>1079802</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

3,5-Dichlorobenzoic acid	ND	39.0						0	0	30	
4-Nitrophenol	ND	29.2						0	0	30	
Dacthal (DCPA)	ND	29.2						0	0	30	
Surr: 2,4-Dichlorophenylacetic acid	639		974.8		65.6	15.3	163		0		

Sample ID: <b>1909462-008AMS</b>		SampType: <b>MS</b>			Units: <b>µg/Kg-dry</b>		Prep Date: <b>10/7/2019</b>			RunNo: <b>54475</b>		
Client ID: <b>SGC-092619-08</b>		Batch ID: <b>26068</b>						Analysis Date: <b>10/9/2019</b>			SeqNo: <b>1079803</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dicamba	172	31.7	181.2	44.84	70.4	5	136				
2,4-D	155	27.2	181.2	17.02	76.1	5	151				
2,4-DP	138	22.7	181.2	0	76.3	5	149				
2,4,5-TP (Silvex)	140	18.1	181.2	0	77.5	5.43	140				
2,4,5-T	132	45.3	181.2	0	72.9	6.68	133				
Dinoseb	148	27.2	181.2	0	81.5	5	141				
Dalapon	792	181	906.1	0	87.4	5	179				
2,4-DB	121	22.7	181.2	0	66.7	5.57	160				
MCP	793	3,990	906.1	0	87.6	5	174				
MCPA	788	2,540	906.1	0	87.0	5	154				
Picloram	113	45.3	181.2	0	62.1	5	139				
Bentazon	154	31.7	181.2	0	85.0	5.31	146				
Chloramben	127	18.1	181.2	0	70.0	5	134				
Acifluorfen	201	72.5	181.2	0	111	5	168				
3,5-Dichlorobenzoic acid	154	36.2	181.2	0	85.1	6.99	144				
4-Nitrophenol	128	27.2	181.2	0	70.7	10.2	139				
Dacthal (DCPA)	82.2	27.2	181.2	0	45.4	5	156				
Surr: 2,4-Dichlorophenylacetic acid	693		906.1		76.5	15.3	163				



**Work Order:** 1909462  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A

Sample ID: 1909462-008AMSD		SampType: MSD		Units: µg/Kg-dry		Prep Date: 10/7/2019			RunNo: 54475		
Client ID: SGC-092619-08		Batch ID: 26068		Analysis Date: 10/9/2019						SeqNo: 1079804	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	227	33.0	188.8	44.84	96.5	5	136	172.5	27.3	30	
2,4-D	198	28.3	188.8	17.02	96.1	5	151	154.9	24.6	30	
2,4-DP	179	23.6	188.8	0	94.6	5	149	138.2	25.5	30	
2,4,5-TP (Silvex)	181	18.9	188.8	0	96.0	5.43	140	140.4	25.4	30	
2,4,5-T	171	47.2	188.8	0	90.5	6.68	133	132.1	25.6	30	
Dinoseb	195	28.3	188.8	0	103	5	141	147.7	27.7	30	
Dalapon	1,000	189	944.0	0	106	5	179	792.4	23.3	30	R
2,4-DB	165	23.6	188.8	0	87.1	5.57	160	121.0	30.5	30	R
MCPP	1070	4,150	944.0	0	114	5	174	793.5	29.9	30	
MCPA	1080	2,640	944.0	0	114	5	154	788.2	31.0	30	
Picloram	128	47.2	188.8	0	67.6	5	139	112.5	12.5	30	
Bentazon	193	33.0	188.8	0	102	5.31	146	154.0	22.5	30	R
Chloramben	152	18.9	188.8	0	80.7	5	134	126.8	18.3	30	
Acifluorfen	269	75.5	188.8	0	142	5	168	201.3	28.8	30	
3,5-Dichlorobenzoic acid	183	37.8	188.8	0	96.9	6.99	144	154.2	17.0	30	
4-Nitrophenol	165	28.3	188.8	0	87.5	10.2	139	128.2	25.2	30	R
Dacthal (DCPA)	76.2	28.3	188.8	0	40.4	5	156	82.19	7.50	30	
Surr: 2,4-Dichlorophenylacetic acid	832		944.0		88.2	15.3	163		0		

**NOTES:**

R - High RPD observed, spike recovery is within range.

Client Name: **FES**  
 Logged by: **Clare Griggs**

Work Order Number: **1909462**  
 Date Received: **9/27/2019 10:16:00 AM**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☒ No ☐ Not Required ☐  
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 7. Were all items received at a temperature of  $>0^{\circ}\text{C}$  to  $10.0^{\circ}\text{C}$  \* Yes ☒ No ☐ NA ☐  
 8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp $^{\circ}\text{C}$
Cooler	3.6
Sample	4.5

\* Note: DoD/ELAP and TNI require items to be received at  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$



3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 9/26/19 Page: 1 of 1

Project Name: Surpave Golf Course PH II

Project No: 192060.00

Collected by: S. J. Jones

Location:

Report To (PM): Syroed@efilum.net

PM Email:

Laboratory Project No (Internal): 19094102

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Comments:

VOGs (EPA 8260 / 624)	
GX/BTEX	
BTEX	
Gasoline Range Organics (GX)	
Hydrocarbon Identification (HCID)	
Diesel/Heavy Oil Range Organics (DX)	
SVOCs (EPA 8270 / 625)	
PAHs (EPA 8270 - SIM)	
PCBs (EPA 8082 / 608)	
Metals** (EPA 6020 / 200.8)	
Total (T) Dissolved (D)	
Anions (IC)***	
EDB (8011)	
Total Lead EPA 6020	
Chlorinated Hydrocarbons	
Organophosphorus Pesticides EPA 8210 SIM	

Comments

Sample Name

Sample Date

Sample Time

Sample Type (Matrix)\*

Sample 1: SGC-092619-01

Sample 2: -02

Sample 3: -03

Sample 4: -04

Sample 5: -05

Sample 6: -06

Sample 7: -07

Sample 8: -08

Sample 9:

Sample 10:

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: Scott L. Grox Date/Time: 9/26/19 @ 1500

Received: Date/Time: 9/26/19 @ 1500

Turn-around Time: ☒ Standard ☐ 3 Day ☐ 2 Day ☐ Next Day ☐ Same Day (specify)





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

# Chain of Custody Record & Laboratory Services Agreement

Date: 9/26/19 Page: 1 of 1

Laboratory Project No (Internal): 19094162

Client: Fullcrum Environmental

Project Name: Suckale Golf Course PH II

Special Remarks: edit persg 9/27/19 ceg

Address: 207 W. Boone Ave

Collected by: S. J. [Signature]

City, State, zip: Spokane, WA 99201

Location:

Telephone: 509-459-9220

Report to (PM): S. J. [Signature]

Sample Disposal: ☐ Return ☒ Disposal by lab (after 30 days)

Fax: PM Email:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)   Dissolved (D)	Anions (IC)***	EDR (801.1)	Total / Lead EPA 6020	Chlorinated Hydrocarbons	Organophosphorus Pesticides	Comments
1 SGC-02219-01	9/26/19	10:57	S	X																
2 -02		11:00		X																
3 -03		11:05		X																
4 -04		11:10		X																
5 -05		11:15																		
6 -06		11:20																		
7 -07		11:42																		
8 -08		12:01																		
9																				
10																				

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti U V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time: 9/26/19 @ 1:50 Received Date/Time: 9/26/19

Relinquished Date/Time: 9/26/19 @ 1:50 Received Date/Time: 9/26/19

www.fremontanalytical.com









**Fremont**  
*Analytical*

3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**Fulcrum Environmental**

Scott Groat  
207 W Boone Ave.  
Spokane, WA 99201

**RE: Sundance Golf Course PH II ESA**  
**Work Order Number: 2010400**

October 30, 2020

**Attention Scott Groat:**

Fremont Analytical, Inc. received 3 sample(s) on 10/23/2020 for the analyses presented in the following report.

***Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.***  
***Gasoline by NWTPH-Gx***  
***Sample Moisture (Percent Moisture)***  
***Volatile Organic Compounds by EPA Method 8260D***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing*  
*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*  
*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)



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**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA  
**Work Order:** 2010400

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**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2010400-001	SGC-102220-01	10/22/2020 11:01 AM	10/23/2020 1:43 PM
2010400-002	SGC-102220-02	10/22/2020 11:03 AM	10/23/2020 1:43 PM
2010400-003	SGC-102220-03	10/22/2020 11:08 AM	10/23/2020 1:43 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

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**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

**Qualifiers:**

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

**Acronyms:**

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Client: Fulcrum Environmental

Collection Date: 10/22/2020 11:01:00 AM

Project: Sundance Golf Course PH II ESA

Lab ID: 2010400-001

Matrix: Soil

Client Sample ID: SGC-102220-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 30176

Analyst: IH

Diesel (Fuel Oil)	ND	17.6		mg/Kg-dry	1	10/27/2020 10:54:54 PM
Heavy Oil	ND	44.1		mg/Kg-dry	1	10/27/2020 10:54:54 PM
Surr: 2-Fluorobiphenyl	118	50 - 150		%Rec	1	10/27/2020 10:54:54 PM
Surr: o-Terphenyl	94.4	50 - 150		%Rec	1	10/27/2020 10:54:54 PM

**Gasoline by NWTPH-Gx**

Batch ID: 30189

Analyst: KT

Gasoline	ND	5.59		mg/Kg-dry	1	10/28/2020 10:18:15 PM
Surr: Toluene-d8	99.4	65 - 135		%Rec	1	10/28/2020 10:18:15 PM
Surr: 4-Bromofluorobenzene	99.5	65 - 135		%Rec	1	10/28/2020 10:18:15 PM

**Volatile Organic Compounds by EPA Method 8260D**

Batch ID: 30189

Analyst: KT

Benzene	ND	0.0224		mg/Kg-dry	1	10/28/2020 10:18:15 PM
Toluene	0.0259	0.0224		mg/Kg-dry	1	10/28/2020 10:18:15 PM
Ethylbenzene	ND	0.0280		mg/Kg-dry	1	10/28/2020 10:18:15 PM
m,p-Xylene	0.0596	0.0559		mg/Kg-dry	1	10/28/2020 10:18:15 PM
o-Xylene	0.0373	0.0280		mg/Kg-dry	1	10/28/2020 10:18:15 PM
Surr: Dibromofluoromethane	97.8	85.2 - 113		%Rec	1	10/28/2020 10:18:15 PM
Surr: Toluene-d8	97.7	88.5 - 110		%Rec	1	10/28/2020 10:18:15 PM
Surr: 1-Bromo-4-fluorobenzene	98.0	88.6 - 109		%Rec	1	10/28/2020 10:18:15 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R62987

Analyst: CJ

Percent Moisture	5.24	0.500		wt%	1	10/30/2020 9:12:43 AM
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## Analytical Report

Work Order: 2010400

Date Reported: 10/30/2020

Client: Fulcrum Environmental

Collection Date: 10/22/2020 11:03:00 AM

Project: Sundance Golf Course PH II ESA

Lab ID: 2010400-002

Matrix: Soil

Client Sample ID: SGC-102220-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>				Batch ID: 30176		Analyst: IH
Diesel (Fuel Oil)	ND	19.3		mg/Kg-dry	1	10/27/2020 11:54:11 PM
Heavy Oil	ND	48.3		mg/Kg-dry	1	10/27/2020 11:54:11 PM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	10/27/2020 11:54:11 PM
Surr: o-Terphenyl	91.7	50 - 150		%Rec	1	10/27/2020 11:54:11 PM
<b><u>Gasoline by NWTPH-Gx</u></b>				Batch ID: 30189		Analyst: KT
Gasoline	ND	5.58		mg/Kg-dry	1	10/28/2020 10:48:32 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	10/28/2020 10:48:32 PM
Surr: 4-Bromofluorobenzene	99.2	65 - 135		%Rec	1	10/28/2020 10:48:32 PM
<b><u>Volatile Organic Compounds by EPA Method 8260D</u></b>				Batch ID: 30189		Analyst: KT
Benzene	ND	0.0223		mg/Kg-dry	1	10/28/2020 10:48:32 PM
Toluene	ND	0.0223		mg/Kg-dry	1	10/28/2020 10:48:32 PM
Ethylbenzene	ND	0.0279		mg/Kg-dry	1	10/28/2020 10:48:32 PM
m,p-Xylene	ND	0.0558		mg/Kg-dry	1	10/28/2020 10:48:32 PM
o-Xylene	ND	0.0279		mg/Kg-dry	1	10/28/2020 10:48:32 PM
Surr: Dibromofluoromethane	97.1	85.2 - 113		%Rec	1	10/28/2020 10:48:32 PM
Surr: Toluene-d8	97.5	88.5 - 110		%Rec	1	10/28/2020 10:48:32 PM
Surr: 1-Bromo-4-fluorobenzene	97.7	88.6 - 109		%Rec	1	10/28/2020 10:48:32 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>				Batch ID: R62987		Analyst: CJ
Percent Moisture	6.27	0.500		wt%	1	10/30/2020 9:12:43 AM



## Analytical Report

Work Order: 2010400

Date Reported: 10/30/2020

Client: Fulcrum Environmental

Collection Date: 10/22/2020 11:08:00 AM

Project: Sundance Golf Course PH II ESA

Lab ID: 2010400-003

Matrix: Soil

Client Sample ID: SGC-102220-03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b><u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u></b>				Batch ID: 30176	Analyst: IH	
Diesel (Fuel Oil)	ND	19.9		mg/Kg-dry	1	10/28/2020 12:23:49 AM
Heavy Oil	ND	49.7		mg/Kg-dry	1	10/28/2020 12:23:49 AM
Surr: 2-Fluorobiphenyl	107	50 - 150		%Rec	1	10/28/2020 12:23:49 AM
Surr: o-Terphenyl	86.5	50 - 150		%Rec	1	10/28/2020 12:23:49 AM
<b><u>Gasoline by NWTPH-Gx</u></b>				Batch ID: 30189	Analyst: KT	
Gasoline	ND	5.51		mg/Kg-dry	1	10/28/2020 11:18:48 PM
Surr: Toluene-d8	101	65 - 135		%Rec	1	10/28/2020 11:18:48 PM
Surr: 4-Bromofluorobenzene	99.0	65 - 135		%Rec	1	10/28/2020 11:18:48 PM
<b><u>Volatile Organic Compounds by EPA Method 8260D</u></b>				Batch ID: 30189	Analyst: KT	
Benzene	ND	0.0220		mg/Kg-dry	1	10/28/2020 11:18:48 PM
Toluene	ND	0.0220		mg/Kg-dry	1	10/28/2020 11:18:48 PM
Ethylbenzene	ND	0.0275		mg/Kg-dry	1	10/28/2020 11:18:48 PM
m,p-Xylene	ND	0.0551		mg/Kg-dry	1	10/28/2020 11:18:48 PM
o-Xylene	ND	0.0275		mg/Kg-dry	1	10/28/2020 11:18:48 PM
Surr: Dibromofluoromethane	96.9	85.2 - 113		%Rec	1	10/28/2020 11:18:48 PM
Surr: Toluene-d8	96.8	88.5 - 110		%Rec	1	10/28/2020 11:18:48 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	88.6 - 109		%Rec	1	10/28/2020 11:18:48 PM
<b><u>Sample Moisture (Percent Moisture)</u></b>				Batch ID: R62987	Analyst: CJ	
Percent Moisture	10.3	0.500		wt%	1	10/30/2020 9:12:43 AM



**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>MB-30176</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>10/27/2020</b>			RunNo: <b>62915</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>30176</b>					Analysis Date: <b>10/27/2020</b>			SeqNo: <b>1262822</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	ND	20.0									
Heavy Oil	ND	50.0									
Surr: 2-Fluorobiphenyl	21.7		20.00		109	50	150				
Surr: o-Terphenyl	17.6		20.00		87.8	50	150				

Sample ID: <b>LCS-30176</b>		SampType: <b>LCS</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/27/2020</b>			RunNo: <b>62915</b>		
Client ID: <b>LCSS</b>		Batch ID: <b>30176</b>			Analysis Date: <b>10/27/2020</b>					SeqNo: <b>1262823</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	453	20.0	500.0	0	90.5	65	135				
Surr: 2-Fluorobiphenyl	21.7		20.00		108	50	150				
Surr: o-Terphenyl	19.7		20.00		98.5	50	150				

Sample ID: <b>2010397-002AMS</b>		SampType: <b>MS</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/27/2020</b>			RunNo: <b>62915</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>30176</b>			Analysis Date: <b>10/27/2020</b>					SeqNo: <b>1262827</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	939	24.0	600.8	561.2	62.9	65	135				S
Surr: 2-Fluorobiphenyl	26.4		24.03		110	50	150				
Surr: o-Terphenyl	26.3		24.03		109	50	150				

**NOTES:**  
 S - Spike recovery indicates a possible matrix effect.

Sample ID: <b>2010397-002AMSD</b>		SampType: <b>MSD</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/27/2020</b>			RunNo: <b>62915</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>30176</b>			Analysis Date: <b>10/27/2020</b>					SeqNo: <b>1262828</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel (Fuel Oil)	1,590	22.7	567.6	561.2	182	65	135	938.9	51.7	30	RS
Surr: 2-Fluorobiphenyl	22.8		22.70		100	50	150		0		
Surr: o-Terphenyl	26.2		22.70		115	50	150		0		

**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>2010397-002AMSD</b>		SampType: <b>MSD</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/27/2020</b>		RunNo: <b>62915</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>30176</b>				Analysis Date: <b>10/27/2020</b>		SeqNo: <b>1262828</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**NOTES:**

S - Spike recovery indicates a possible matrix effect.  
 R - High RPD observed. The method is in control as indicated by the LCS.

Sample ID: 2010400-001ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 10/27/2020			RunNo: 62915		
Client ID: SGC-102220-01	Batch ID: 30176					Analysis Date: 10/27/2020			SeqNo: 1262833		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	18.9						0		30	
Heavy Oil	ND	47.2						0		30	
Surr: 2-Fluorobiphenyl	22.0		18.89		117	50	150		0		
Surr: o-Terphenyl	17.9		18.89		94.6	50	150		0		

**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: <b>LCS-30189</b>		SampType: <b>LCS</b>			Units: <b>mg/Kg</b>		Prep Date: <b>10/28/2020</b>			RunNo: <b>62943</b>		
Client ID: <b>LCSS</b>		Batch ID: <b>30189</b>			Analysis Date: <b>10/28/2020</b>			SeqNo: <b>1263378</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	26.8	5.00	25.00	0	107	65	135				
Surr: Toluene-d8	1.23		1.250		98.8	65	135				
Surr: 4-Bromofluorobenzene	1.30		1.250		104	65	135				

Sample ID: <b>MB-30189</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/28/2020</b>			RunNo: <b>62943</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>30189</b>				Analysis Date: <b>10/28/2020</b>			SeqNo: <b>1263379</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline	ND	5.00									
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.24		1.250		98.9	65	135				

Sample ID: <b>2010350-001BDUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/28/2020</b>			RunNo: <b>62943</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>30189</b>			Analysis Date: <b>10/28/2020</b>					SeqNo: <b>1263361</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	5.70						0		30	
Surr: Toluene-d8	1.43		1.425		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.41		1.425		99.2	65	135		0		

Sample ID: <b>2010371-001BDUP</b>		SampType: <b>DUP</b>			Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/28/2020</b>			RunNo: <b>62943</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>30189</b>			Analysis Date: <b>10/28/2020</b>					SeqNo: <b>1263363</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline	ND	4.65						0		30	
Surr: Toluene-d8	1.17		1.162		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.16		1.162		99.4	65	135		0		



**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: <b>2010371-002BMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>				Prep Date: <b>10/28/2020</b>		RunNo: <b>62943</b>			
Client ID: <b>BATCH</b>	Batch ID: <b>30189</b>					Analysis Date: <b>10/28/2020</b>		SeqNo: <b>1263365</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	28.1	4.74	23.68	5.280	96.4	65	135				
Surr: Toluene-d8	1.17		1.184		98.9	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.184		103	65	135				

**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>LCS-30189</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>10/28/2020</b>			RunNo: <b>62942</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>30189</b>	Analysis Date: <b>10/28/2020</b>							SeqNo: <b>1263356</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.971	0.0200	1.000	0	97.1	79.4	116				
Toluene	0.959	0.0200	1.000	0	95.9	80.5	115				
Ethylbenzene	0.984	0.0250	1.000	0	98.4	81.6	116				
m,p-Xylene	1.96	0.0500	2.000	0	98.2	83.2	115				
o-Xylene	0.981	0.0250	1.000	0	98.1	82.5	114				
Surr: Dibromofluoromethane	1.29		1.250		103	85.2	113				
Surr: Toluene-d8	1.25		1.250		99.9	88.5	110				
Surr: 1-Bromo-4-fluorobenzene	1.34		1.250		107	88.6	109				

Sample ID: <b>MB-30189</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>			Prep Date: <b>10/28/2020</b>			RunNo: <b>62942</b>			
Client ID: <b>MBLKS</b>	Batch ID: <b>30189</b>				Analysis Date: <b>10/28/2020</b>			SeqNo: <b>1263357</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0200									
Toluene	ND	0.0200									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.20		1.250		96.3	85.2	113				
Surr: Toluene-d8	1.22		1.250		97.9	88.5	110				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.5	88.6	109				

Sample ID: <b>2010350-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/28/2020</b>			RunNo: <b>62942</b>		
Client ID: <b>BATCH</b>		Batch ID: <b>30189</b>					Analysis Date: <b>10/28/2020</b>			SeqNo: <b>1263331</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0228						0		30	
Toluene	ND	0.0228						0		30	
Ethylbenzene	ND	0.0285						0		30	

**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2010350-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 10/28/2020			RunNo: 62942		
Client ID: BATCH		Batch ID: 30189					Analysis Date: 10/28/2020			SeqNo: 1263331	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	0.0570						0		30	
o-Xylene	ND	0.0285						0		30	
Surr: Dibromofluoromethane	1.37		1.425		96.4	85.2	113		0		
Surr: Toluene-d8	1.39		1.425		97.3	88.5	110		0		
Surr: 1-Bromo-4-fluorobenzene	1.39		1.425		97.7	88.6	109		0		

Sample ID: 2010371-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 10/28/2020			RunNo: 62942		
Client ID: BATCH		Batch ID: 30189					Analysis Date: 10/28/2020			SeqNo: 1263340	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0186						0		30	
Toluene	ND	0.0186						0		30	
Ethylbenzene	ND	0.0232						0		30	
m,p-Xylene	0.199	0.0465						0.1935	2.83	30	
o-Xylene	0.0623	0.0232						0.06240	0.138	30	
Surr: Dibromofluoromethane	1.12		1.162		96.7	85.2	113		0		
Surr: Toluene-d8	1.14		1.162		97.7	88.5	110		0		
Surr: 1-Bromo-4-fluorobenzene	1.14		1.162		97.8	88.6	109		0		

Sample ID: <b>2010350-002BMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/28/2020</b>		RunNo: <b>62942</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>30189</b>				Analysis Date: <b>10/28/2020</b>		SeqNo: <b>1263333</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.57	0.0312	1.558	0	101	74.6	126				
Toluene	1.50	0.0312	1.558	0	96.6	72.6	127				
Ethylbenzene	1.56	0.0389	1.558	0	100	77.3	126				
m,p-Xylene	3.14	0.0779	3.116	0	101	78.5	126				
o-Xylene	1.56	0.0389	1.558	0	100	79.4	123				
Surr: Dibromofluoromethane	2.01		1.947		103	85.2	113				

**Work Order:** 2010400  
**CLIENT:** Fulcrum Environmental  
**Project:** Sundance Golf Course PH II ESA

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>2010350-002BMS</b>		SampType: <b>MS</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>10/28/2020</b>		RunNo: <b>62942</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>30189</b>				Analysis Date: <b>10/28/2020</b>		SeqNo: <b>1263333</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.93		1.947		99.2	88.5	110				
Surr: 1-Bromo-4-fluorobenzene	2.03		1.947		104	88.6	109				



Client Name: **FES**  
 Logged by: **Gabrielle Coeuille**

Work Order Number: **2010400**  
 Date Received: **10/23/2020 1:43:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? FedEx

### Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐  
 4. Shipping container/cooler in good condition? Yes ☒ No ☐  
 5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 7. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐  
 8. Sample(s) in proper container(s)? Yes ☒ No ☐  
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 10. Are samples properly preserved? Yes ☒ No ☐  
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 14. Does paperwork match bottle labels? Yes ☒ No ☐  
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 16. Is it clear what analyses were requested? Yes ☒ No ☐  
 17. Were all holding times able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample 1	4.3

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Chain of Custody Record & Laboratory Services Agreement		
Date: 10/22/20	Page: 1 of 1	Laboratory Project No (Internal): 2010400
Special Remarks:		

## Chain of Custody Record & Laboratory Services Agreement

Date: 10/26/20 Page: 1 of 1

Laboratory Project No (Internal):

Special Remarks:

2010400

Client: Fulcrum Environmental

Project No: 192860-00

Address: 207 W. Boone Ave

Collected by: 2. Arnold

City, State, Zip: Spokane, WA 99201

**Location:**

Telephone: 509-459-9220

### Report To

Fax:

PM Email: [29robert@h/cun.NoA](mailto:29robert@h/cun.NoA)

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

[illegible]

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

	Ag	Al	As	B	Ba	Be	Cd	Co	Cr	Cu	Fe	Hg	K	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Sr	Tl	Ti	V	Zn
**Metals (Circle):	MTCA-5	RCRA-8	Priority Pollutants	TAL	<i>Individuals:</i>																					
***Anions (Circle):	Nitrate	Nitrite	Chloride	Sulfate	Bromide	O-Phosphate	Fluoride	Nitrate+Nitrite																		

**Turn-around Time:**

Relinquished	Date/Time
11/1	

Received

Date/Time

Refiniquished	Date/Time
1	1

Received

Date/Time

Don't know

1

COC 1.2 - 2.22.17

[www.fremontanalytical.com](http://www.fremontanalytical.com)



## **APPENDIX C**

### Site Photographs



**Photograph #1: 4/04/2019**

View from entry to former Sundance Golf Course looking south along North Nine Mile Road. The paved parking area to the golf course can be seen in the foreground.



**Photograph #2: 4/04/2019**

View from entry of the former Sundance Golf Course looking west towards the clubhouse.



**Photograph #3: 4/04/2019**

View of the covered storage area prior to removal of the Above Ground Storage Tanks (ASTs) and drums.





**Photograph #4: 4/04/2019**

View of an AST within the covered storage area prior to removal.



**Photograph #5: 9/26/2019**

View of covered storage area after all ASTs and drums were removed off-site. A non-native sand was observed to overlay native soil within the covered storage area.



**Photograph #6: 9/26/2019**

View of typical near surface sample taken from approximately 1 ft below ground surface (bgs) within the native soil below the covered storage area. Laboratory analytical identified Petroleum Containment Soil (PCS) within the eastern portion of the covered storage area.



**Photograph #7: 4/04/2019**

View of the approximate 300-gallon suspect agricultural chemical AST prior to removal.



**Photograph #8: 9/26/2019**

View of the suspect agricultural chemical AST soil sampling location following removal of the AST.



**Photograph #9: 4/04/2019**

View of storage shed prior to the removal of the agricultural chemicals.





**Photograph #10: 4/04/2019**

View of the storage shed soil sample location following removal of the chemicals and pallets.



**Photograph #11: 9/26/2019**

View of covered storage area after lean-to and associated fencing was removed to conduct remedial excavation of the PCS located within the eastern portion of the covered storage area.



**Photograph #12: 10/22/2020**

View of remedial excavation conducted within the eastern portion of the covered storage area. Site soils were excavated down to approximately 2-ft bgs and the excavation was approximately 12 ft by 20 ft in area.





**Photograph #13: 10/22/20**

View of a typical soil sample taken from the pit bottom or sidewalls of the remedial excavation conducted within eastern portion of the covered storage area.



**Photograph #14: 10/22/20**

View of sloped excavation sidewalls and associated lean-to and fence debris after confirmatory soil sampling was completed.



## **APPENDIX D**

### Waste Disposal Receipts

**WMA**  
Grain Processing Facility  
18200 W. Main Road  
Medicine Lake, WA 99022

Reprint  
Ticket# 625214  
Ph: (509) 244-0151

Customer Name ABLECLEAN ABLE CLEAN-UP Carrier ABLECLEANUP ABLE CLEANUP TECHNOLOGIE  
Ticket Date 10/22/2020 Vehicle# JOSH  
Payment Type Credit Account Container  
Manual Ticket# Driver JOSH KING  
Route Check#  
Hauling Ticket# Billing# 0000726  
Destination Grid  
Manifest 107318WA  
Profile 107318WA (LF02 Gasoline Contaminated Soils )  
Generator WA-ABLE CLEANUP TECHNOLOGIES ABLE CLEANUP TECHNOLOGIES  
PO# 20374

	Time	Scale	Operator	Inbound	Gross	
In	10/22/2020 12:52:51	Scale1	ashield2		Tare	63480 lb
Out	10/22/2020 13:04:38	Scale1	ashield2		Net	30880 lb
					Tons	32600 lb
						16.30

Comments

Product	LD%	Qty	UOM	Rate	Tax/Fee	Amount	Origin
1 Cont Soil Pet-RGC-Tons-	100	16.30	Tons	29.00	17.02	\$472.70	SPOKANE
2 EVF-P10-Environmental F	100		%	10.00		\$47.79	SPOKANE
3 SRHD1-Spokane Regional	100	16.30	Tons	0.32	0.19	\$5.22	SPOKANE

Total Tax/Fees \$17.21  
Total Ticket \$542.92

Driver's Signature

*AS for Josh*

The total amount includes fees and taxes that may not all be listed on this ticket due to technic limitation.