

## Oil Spill Consultants, Inc.

7926 Old Seward Highway, Suite C2, Anchorage, Alaska 99518

Phone: 907-562-7169 Fax: 907-562-7225

November 5, 2002

Ms. Elizabeth Stergiou  
Contaminated Sites Program  
Division of Spill Prevention and Response  
Dept. of Environmental Conservation  
State of Alaska  
555 Cordova Street  
Anchorage, Alaska 99501-2617

Subject: Site Characterization Plan for Mike's Services (ADEC File: CS 100.262)

Dear Ms. Stergiou:

We have forwarded the enclosed Site Characterization Plan for Mike's Services. As noted in this plan, we will use a drilling rig and split spoon sampler to collect five samples from the soil 10 ft. below grade in the unpaved vehicle storage area at 6532 Rosewood Street.

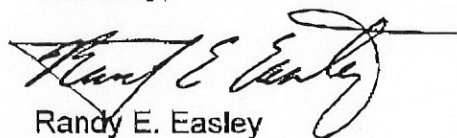
Sample collection will begin as soon as Mike's Services removes the vehicles from the sampling area and an underground utility locate is completed by local utility providers.

As a manifestation of his intent to comply with your request, Mr. Mike Bond has provided funding to pay for the following services:

- Drinking water well sampling and analyses.
- Drilling rig lease.
- Collection and analyses for five soil samples.

As stated in our October 30, 2002 letter to you, Mr. Mike Bond is searching for a site to temporarily store the vehicles that are currently located at 6532 Rosewood Street. He believes it will be possible for him to move the vehicles by mid-December 2002. Following this, we will mobilize a drilling rig and collect the requested soil samples.

Sincerely,



Randy E. Easley  
President

*Called Randy → 11/7/02  
I offered to postpone this workplan until  
Spring so Mr. Bond could use a backhoe  
since he has already passed the deadline to  
get work done and the temperatures are expected  
to freeze soon. The backhoe would be much  
cheaper than a Drilling rig to go down to 10 feet.  
Randy said it was only \$500 difference and he  
would not be able to help me Bond next year -  
so it is now or never for Randy.  
I said I would look at the workplan when I  
got back from my trip  
at the end of the  
month, since Mr Bond  
is not going to move the  
cars until mid december.  
Rms*

# **Site Characterization Plan**

for

**Mike's Services  
6532 Rosewood Street  
Anchorage, Alaska 99518**

November 5, 2002

Prepared by:  
Oil Spill Consultants, Inc.  
7926 Old Seward Highway, Suite C2  
Anchorage, Alaska 99518  
(907) 562-7169 (907) 562-7225 Fax

**SITE CHARACTERIZATION PLAN**

Mike's Services  
6532 Rosewood Street  
Anchorage, Alaska 99518

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## 1.0 FIELD SAMPLING PLAN

### 1.1 Site Description

Mike's Services is an automotive repair shop located at 6532 Rosewood Street in Anchorage, Alaska. Rosewood Street is south of Dowling Road and can be access by 68<sup>th</sup> Avenue from the Old Seward Highway. For several years, Mike's Services has stored damaged vehicles, automotive engines, and transmissions on an unpaved lot on the east side of its garage facing Rosewood Street.

On July 25, 2002, representatives from the Alaska Department of Environmental Conservation (ADEC) observed soil stains on the ground at 6532 Rosewood Street. These stains suggest that the ground may be contaminated with petroleum products that have leaked from the vehicles and automotive equipment stored on the property by Mike's Services.

### 1.2 Project Objectives

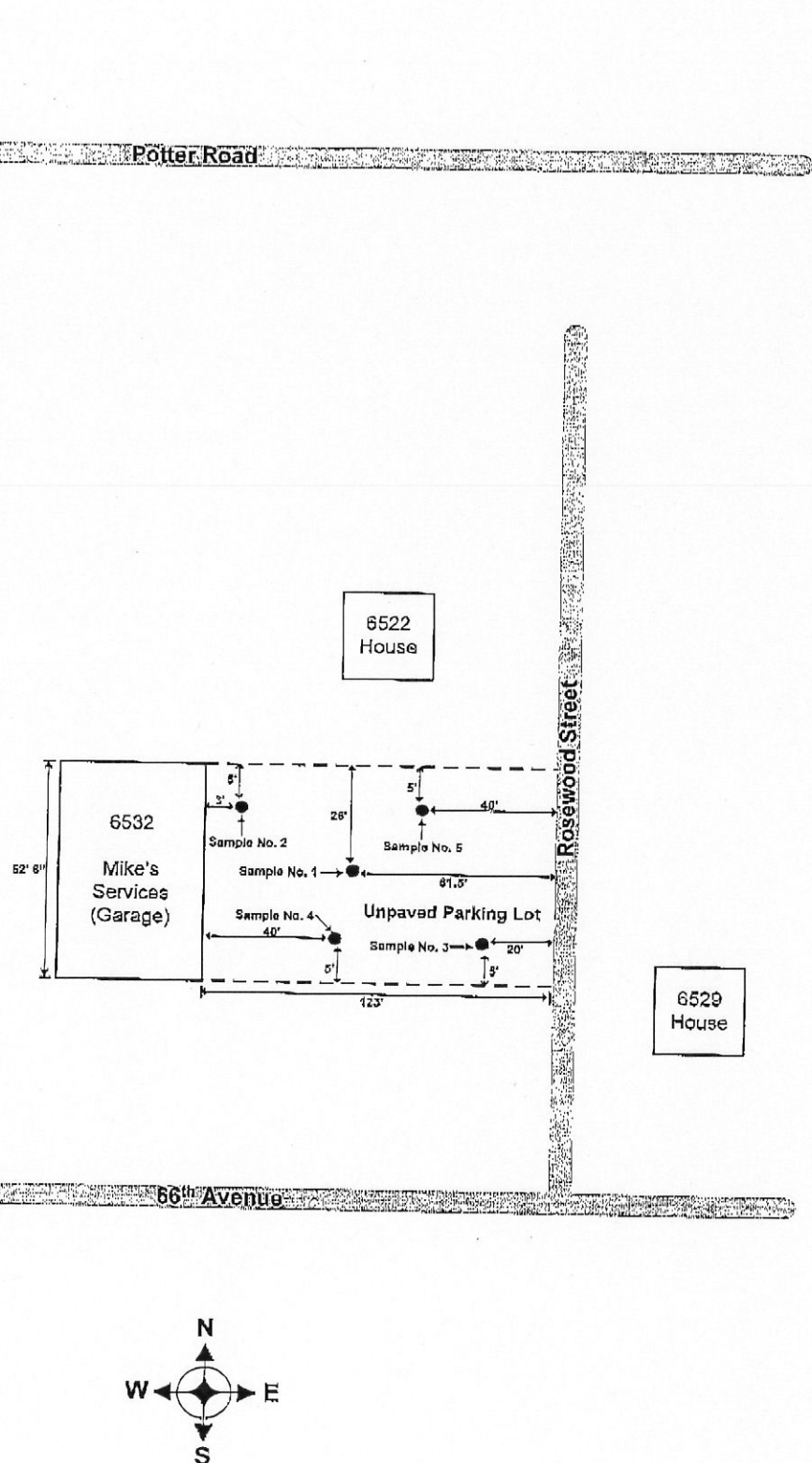
In response to concerns raised by ADEC, Mike's Services requested Oil Spill Consultants, Inc. (OSCI) to sample the soil in its vehicle storage area to determine if it contains petroleum at levels exceeding the regulatory criteria cited by the State of Alaska at 18 AAC78.341. This will be accomplished by using a drilling rig and split spoon sampler to collect five soil samples in the equipment storage yard at Mike's Services. The samples will be collected 10 feet below grade at the approximate locations shown in Figure 1. (Exact sample locations will be determined after underground utilities are marked by local utility service providers.)

### 1.3 Sample Analyses

The following samples will be collected during this project.

Sample Number	Purpose	GRO (AK101)	BTEX (SW8020)	DRO (AK102)	RRO (AK103)	Metals (SW6020)
1	Sample Point 1 - 10 ft. Deep	1	1	1	1	1
2	Sample Point 2 - 10 ft. Deep	1	1	1	1	1
3	Sample Point 3 - 10 ft. Deep	1	1	1	1	1
4	Sample Point 4 - 10 ft. Deep	1	1	1	1	1
5	Sample Point 5 - 10 ft. Deep	1	1	1	1	1
6	Duplicate for Sample No. 5	1	1	1	1	1
7	Trip Blank	1	1		2	
8	Methanol Trip Blank	1	1			

- Notes:
1. GRO = gasoline range organics.
  2. BTEX = benzene, toluene, ethyl benzene, and xylenes.
  3. DRO = diesel range organics.
  4. RRO = residual range organics.
  5. Metals = arsenic, barium, cadmium, chromium, lead, nickel, and vanadium.

**Figure 1****Soil Sample Point Location for Mike's Services**



#### **1.4 Environmental Sampler**

This site characterization plan will be implemented by Mr. Randy Easley. He holds a degree in Chemical Engineering and is recognized as a "Qualified Person for Sample Collection" by ADEC. Since 1990, he has collected approximately 12,000 soil samples for laboratory analyses.

During this project, Mr. Easley will hire Ambler Exploration to drill sampling boreholes and use a split spoon sampler to collect samples 10 ft. below grade at designated sample points. Mr. Easley and Ambler Exploration have worked together to collect soil samples under a sampling and analysis plan that was approved by ADEC and the U.S. Army Corps of Engineers for a site assessment in Whittier, Alaska.

While collecting samples at the project site, Mr. Easley will be assisted by Ms. Faye Easley and Ms. Divina Protades. Both are experienced environmental technicians. They will be primarily responsible for logging the samples on a chain-of-custody form and packaging them for transportation to C.T. & E. Environmental Services for laboratory analyses.

#### **1.5 Project Schedule**

The samples identified in this plan will be collected within five days after the vehicles and automotive parts are removed from the storage yard at Mike's Services. Based on an October 30, 2002 conversation with Mike's Services, these items will be removed by December 15, 2002. Following this, OSCI will mobilize a drilling rig to 6532 Rosewood Street for sample collection.

## 2.0 SAMPLE COLLECTION AND HANDLING

### 2.1 Sample Point Location and Numbering

Sample points will be established in the following locations at 6532 Rosewood Street:

- Sample Point 1: The center of the vehicle storage yard.
- Sample Point 2: In front of the garage door.
- Sample Point 3: Near north property boundary in vehicle storage yard.
- Sample Point 4: Near south property boundary in vehicle storage yard.
- Sample Point 5: Near east property boundary in vehicle storage yard.

Approximate sample point locations are identified in Figure 1. Since a drilling rig will be used for sample collection, the exact distance between sample points may vary depending on the presence of buried utilities, surface obstructions, and overhead utilities.

Sample points will have the following identification:

"Year-MS-Depth-Sequence-S"

Elements composing the identification format have the following meaning:

- Year. This is the year the sample was collected. For this project year = 2002.
- MS. This is the site location. For this project MS = Mike's Services.
- Depth. This is the sample point distance below the surface in feet.
- Sequence. This is the numerical order in which the sample was collected.
- S. This is the sample matrix which is soil for this project.

### 2.2 Field Screening

A portable photo-ionization detector (PID) with a 10.2 EV lamp will be used to field screen the soil cuttings that are produced when the boreholes are drilled for sample collection. This will be accomplished by holding the PID probe ½ inch over the soil. This will be accomplished by filling a sealable plastic bag one-third full with soil cuttings. Following this, we will shake the bag and place it in a heated vehicle or building for 10 minutes. Afterward, the probe will be inserted into the plastic bag to measure the concentration of organic vapor level in the head space above the soil.

At least two PID field screenings will be performed for each sample point. The results for each field screening will be recorded in OSCI's field notebook.

### 2.3 Sample Collection

A Mobile Drill Model-61 "Pacemaker" mounted on a dual axle flatbed truck chassis provided by Ambler Exploration will be used to drill boreholes and drive split spoons for sample

collection. After the drilling auger reaches the 10 ft. depth, a clean three-inch diameter spilt spoon sampler will be attached to the Pacemaker's drive rod and lowered into the hole. A 300-pound hammer will be used to force the sampler into the ground. (Ambler Exploration will bring five split spoon samplers to the project site. Each one will be decontaminated with "Alconox" soap and water, and rinsed with de-ionized water prior to being mobilized from Ambler's warehouse.)

Once the full length of the split spoon sampler has been completely driven into the ground, it will be withdrawn from the borehole and opened. Afterward, disposable plastic spoons will be used to transfer soil from the center of the tube to pre-labeled sample bottles. For the GRO/BTEX sample, about 25 grams of soil will be placed in a four-ounce bottle with a septum lid and 25 ml of methanol will be added. A separate four-ounce sample bottle will be filled with soil from the split tube for DRO and RRO analyses. Following this, an eight-ounce sample bottle will be filled with soil for metals analyses.

When the spilt spoon sample is removed from the borehole, the drilling rig crew will return the soil cuttings to the borehole and compact them in place.

## **2.4 Sample Handling**

### **2.4.1 Sample Labels**

Sample bottles for DRO, RRO, and metal samples will have a label that includes the sample identification number, date, time, site name, sampler's name and analytical methods. Since GRO/BTEX samples will be placed in pre-weighed sample bottles, we will not place a label on them. Instead, we will write the sample number, date, and analytical method on the bottle top. Following this, we will place the GRO/BTEX sample in a sealable plastic bag with the corresponding DRO, RRO, and metals sample.

### **2.4.2 Chain of Custody**

Each sample will be listed on a Chain-of-Custody (COC) Record. Information recorded will include the site name, sampler's name, sample identification number, date and time of sample collection, number of sample jars with the same sample identification number, analyses requested for each sample, and signature blocks for each individual who has custody for the samples.

### **2.4.3 Packaging**

All filled sample jars will be placed in sealable plastic bags and stored in a plastic cooler containing gel ice. When the final sample is placed in the ice chest, a custody seal will be placed on the cooler.

### **2.4.5 Transportation**

Mr. Easley will transport (by truck) the samples from the project site to C.T. & E. Environmental Services located at 200 W Potter Drive, Anchorage, Alaska 99518. Approximately, 20 minutes will be required to transport the samples to the laboratory.