GZA GeoEnvironmental of New York

Engineers and Scientists

August 27, 2010 File No. 21.0056547.10

Ms. Francine Gallego NYSDEC Region 9 270 Michigan Avenue Buffalo, NY 14202

Re:

Additional Delineation Work Plan

1130 Niagara Street Buffalo, New York Spill #0903551

Dear Ms. Gallego:

GZA GeoEnvironmental of New York (GZA), as requested by Gerspach Properties, LLC (Gerspach) and on its behalf, prepared this work plan to outline further delineation activities to be conducted at the above referenced Site. Should the New York State Department of Environmental Conservation (NYSDEC) approval of the activities summarized within this work plan, we will provide you with at least three days notice, prior to the start of the remedial activities.

#### **BACKGROUND**

During a subsurface investigation by others in May 2009, "free product" was identified in and around soil boring SB-12. NYSDEC was contacted and Spill #0903551 was assigned to the Site. In January 2010, GZA was retained by Gerspach to collect a groundwater sample from SB-12E/MW-1 for analytical testing, and to observe for the presence of petroleum product within the well. Approximately 5 feet of non-conductive liquid, or "product", was measured in MW-1. Fingerprint analysis indicated that the petroleum product is Motor Oil and Fuel Oil #2, and has a Flashpoint greater than 176° F. Our findings were summarized in our January 2010 Monitoring Well Sampling Letter Report to Gerspach.

GZA also completed additional work that included purging the monitoring well and collecting the oil within a 55-gallon drum. GZA completed four measuring and purging events from February through April 2010. Gerspach completed subsequent purging events generally on a weekly to bi-weekly schedule. A cumulative total of oil purged from the well is included on Table 1. In general, approximately 13 gallons of oil have been removed, and 5 inches of oil was present in the well on July 6, 2010. As shown on Table 1, product recovery continues from MW-1.



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<sup>&</sup>lt;sup>1</sup> "Monitoring Well Sampling Letter Report, 1130 Niagara Street, Buffalo, New York", prepared for Gerspach by GZA dated January 2010.

#### **OBJECTIVE**

The objective of our environmental services is to further define the extent of petroleum contamination in the area of MW-1 and, on the basis of this delineation, to provide a remedial proposal.

## Task 1: Project Preparation, Coordinate and Management



GZA will initiate project activities in coordinating with an analytical lab and our subcontractors. Our subcontractor will obtain the appropriate permits and arrange for utility-locating companies to mark subsurface utilities in public rights-of-way. GZA will also inquire about utility information for excavation or intrusive point sample locations from the property owner or key site manager who will be required to approve locations and identify utilities in the vicinity of the excavation prior to the start of work. GZA will prepare a Site-specific health and safety plan for protection of its workers prior to the commencement of field activities.

GZA will inform NYSDEC of our planned start date for the delineation work at least three days prior to the scheduled start.

#### Task 2: Soil Probes and Delineation

GZA will subcontract with a drilling company to complete one day of soil probes in the vicinity of the previously identified petroleum-impacted area to determine the horizontal extent of the contamination. Additionally, one to two locations will be completed within the impacted area to evaluate vertical extent of contamination. Should the extent of contamination not be identified within the one day of soil probe activity, GZA will complete an additional day of soil probes. Proposed locations are shown on the attached Figure 1.

Soil samples will be collected continuously to the depth of the soil probe. The recovered samples will be field-screened by GZA for the presence of organic compounds using an organic vapor meter (OVM) equipped with a photoionization detector (PID). GZA personnel will observe and document the soil probe explorations and collect environmental samples.

In looking ahead to consider possible remedial action options, soil excavation and disposal will also be considered. To directly load soil from the excavation for off-site disposal, GZA will be required to obtain landfill approval prior to disposal. Therefore, we propose to collect waste characterization samples as part of the petroleum delineation work, to minimize costs associated with the collection of the samples and minimize time required to obtain the necessary approval. Typically, the landfill will require one waste characterization sample for the first 500 tons, and one sample for each additional 1,000 tons of soil. GZA will collect two composite samples from the area of potential remediation.

### Analytical Testing

The objective of completing soil probes is to further delineate the extent of contamination. This will generally be completed by making olfactory and visual observations, as well as OVM readings. GZA has budgeted to submit up to six selected soil samples to be analyzed, if needed, for volatile organic compounds (VOCs) via EPA Method 8260 STARS<sup>2</sup> list and semi-volatile organic compounds (SVOCs) via EPA Method 8270 STARS list.



Sample selection will be based upon availability of groundwater, engineering judgment, visual observations and PID screening. GZA assumes that a 7 business-day turnaround time for the analytical results will be acceptable.

The two waste characterization samples will be a composite sample from the delineation soil probes completed in the area. The landfill characterization soil sample analysis will include toxicity characteristic leaching procedure (TCLP) VOC, TCLP SVOC, TCLP Metals, PCBs, ignitability, reactivity, and corrosivity, and will be completed within a 10-business day turnaround time.

# Task 3: Data Analysis/Report Preparation

GZA will prepare a report containing observations, findings from the previous investigation work and this subsequent soil delineation activity. Our report will present the analytical data generated, and provide an opinion regarding the extent of the contamination, and an evaluation and presentation of remedial options. The findings and conclusions of GZA's Site investigation will not be scientific certainties, but rather our professional opinion concerning the significance of the data gathered during the course of the Site assessment.

### **DELINEATION ACTIVITIES SCHEDULE**

We currently anticipate performing the delineation activities in accordance with the following schedule.

Task Description	<u>Implementation</u>	<u>Duration</u>
Submittal of Work Plan	8/30/10	1 week
Soil Probes and Delineation	Week of 9/13/10	. 1-2 days
Soil Analysis	Week of 9/20/10	1 week
Evaluation of Data and Remediation		2 weeks
Alternatives		
Submit Remediation Work Plan	10/4/10	

<sup>&</sup>lt;sup>2</sup> "Spill Technology and Remediation Series, STARS Memo #1, Petroleum-Contaminated Soil Guidance Policy" prepared by NYSDEC, dated August 1992.

We trust this delineation action work plan satisfies your present needs. Should you have any questions or require additional information following your review, please do not hesitate to contact the undersigned.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Michele M. Wittman, P.G. Senior Project Manager

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Attachment Figure 1 Bart A. Klettke, P.E. Associate Principal

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**TABLES** 

Summary of Oil Recovered from MW-1 Table 1

Date	Representative	Depth to Product (ft. below TOR) <sup>1</sup>	Depth to Groundwater (ft. below TOR) <sup>1</sup>	Product Thickness (ft.)	Amount of Product Accumulated in 55- gallon Drum (inches)	Cumulative Volume of Product Purged from MW-1 (gallons)
2/25/2010	GZA	7.0	12.57	5.57	Σ	3.8
3/3/2010	GZA	7.6	10.72	3.16	WN	5.9
3/10/2010	GZA	7.1	10.30	3.18	WN	7.6
3/14/2010	Leisure Living			NM	4.4	7.6
3/22/2010	Leisure Living			NM	4.6	7.9
4/13/2010	GZA			0.21	2.0	8.6
4/15/2010	Leisure Living			0.21	WN	MN
4/20/2010	Leisure Living			0.21	WN	7.9
4/26/2010	Leisure Living			0.50	NM	7.6
4/29/2010	Leisure Living			0.33	WN	7.9
5/3/2010	Leisure Living			0.17	5.75	6.6
5/7/2010	Leisure Living			0.33	NN	NM
5/11/2010	Leisure Living	occlidation "C bosts	to board outside of volice	0.25	NM	NM
5/17/2010	Leisure Living	osea z Polyetnylene i	Used 2 Polyetriylene Baller to observe product	0.50	0.9	10.3
5/21/2010	Leisure Living		נווראוופאי.	NM	6.25	10.8
5/23/2010	Leisure Living			0.17	NM	NM
6/1/2010	Leisure Living			NM	6.5	11.2
6/9/2010	Leisure Living			0.33	NM	NM
6/10/2010	Leisure Living			NM	7.0	12.0
6/14/2010	Leisure Living			0.33	NM	NΜ
6/21/2010	Leisure Living			0.42	7.25	12.5
6/28/2010	Leisure Living			0.58	NM	NΝ
7/1/2010	Leisure Living			NM	7.5	12.9
7/6/2010	Leisure Living			0.42	NM	NM

Notes:

1). Groundwater and product were measured from the top of well riser (TOR). TOR is approximately 6-inches below ground surface.
2). Product from MW-1 was purged directly into a 55-gallon drum.





