

MEMORANDUM

To: Brian Cummings, Redmond

From: Joyce Koker

Cc: Dave Scherzer

Date: February 7, 2005

RE: **Properties at 27th and National**

Project Number: #9158

The purpose of this memo is to summarize Phase II Environmental Site Assessment (ESA) activities to date conducted at the referenced site, summarize proposed supplemental investigation activities and provide a scoping estimate of potential costs associated with addressing subsurface impact with respect to the proposed site demolition and redevelopment. **It should be noted that regardless of whether or not site redevelopment proceeds, the WDNR will require that the responsible party address subsurface impact detected at the site with additional site investigation and remedial action.**

Summary of Phase II ESA

On behalf of Redmond, Sigma conducted Phase II ESA activities on eight parcels located at the southeast corner of S. 27th Street and W. National Avenue. A detailed description of these activities and results are presented in the report titled, *Phase II Environmental Site Assessment; Properties at 27th Street and National Avenue; Milwaukee, Wisconsin*, dated January 18, 2005 and prepared by Sigma. A soil quality map and ground water summary table are attached for reference. A brief summary of the work is presented below.

The scope of work included advancement of ten (10) Geoprobe soil borings and three (2) hand auger borings, soil sampling and analysis, installation of three temporary groundwater monitoring wells, groundwater sampling and analysis, and preparation of the referenced report.

Results of Phase II ESA activities revealed that low level polycyclic aromatic hydrocarbons were detected in shallow soils across the subject parcels. These detections appeared to be sporadic across the parcels and not associated with any specific release area or previously identified recognized environmental condition (REC). Elevated concentrations of chlorinated volatile organic compounds (CVOCs) tetrachloroethene (PCE) and trichloroethene (TCE) were detected in soil and groundwater samples collected from borings/wells installed on and around the National Tobacco property located at 2631-2633 W. National Avenue. These detections are consistent with the historic use of the subject property as a dry cleaning facility in the late 1940s and 1950s. **Additionally, soil samples collected from the adjacent property to the west (Beep Cell) and Drop Shots Bar to the east indicates that CVOC soil impacts have migrated to those properties as well. Based on this data, it is likely that groundwater impact also extends beyond the National Tobacco property.**

Based on the VOC soil detections, a release was reported to the Wisconsin Department of Natural Resources (WDNR) on December 16, 2004 on behalf of the property owner. On December 23, 2004, the WDNR has forwarded a Responsible Party letter to the property owner's attorney stating that the property owner (Jon Prill) "...is responsible for restoring the environment at the referenced site under Section 292, Wisconsin Stats., known as the hazardous substance spills law." A copy of this letter is attached.

Proposed Site Investigation Activities

On January 18, 2005, Sigma forwarded a proposal to Ms. Kay Clabault to conduct additional site investigation activities at the referenced parcels in an attempt to define the magnitude and extent of VOC soil and ground water impact and provide valuable information towards establishing potential remedial actions in coordination with the proposed site redevelopment. Briefly, the scope of work proposed includes:

- Installation of up to 10 geoprobe soil borings in the area around GP-10 (highest impact) to define the magnitude and extent of PCE soil impact in that area.
- Installation of five ground water monitoring wells to assess shallow PCE ground water conditions in and around the affected property.
- Installation of one ground water piezometer to assess deep ground water conditions near the area of highest PCE soil impact.
- Collection of two soil samples per geoprobe, monitoring well and piezometer location and laboratory analysis of VOCs.
- Develop and sample the monitoring wells and piezometer. Ground water samples will be submitted for laboratory analysis of VOCs.
- Preparation of a site investigation report summarizing field activities and analytical results obtained during this phase if the investigation.

The total estimated cost to conduct the above activities is \$28,500.

Estimated Future Remedial Actions

Information obtained as part of the above scope of work will assist in identifying appropriate soil and ground water remedial actions for the site. At this time, we anticipate that either "hot spot" soil removal or in-situ treatment may be implemented, depending upon the disposition of the site. Costs associated with this phase would be dependent upon characterization of the soil as hazardous or non-hazardous waste as determined through testing.

Following soil removal or treatment, ground water monitoring will be required to demonstrate that concentrations are attenuating; a minimum of eight quarterly events (2 years). The following is a scoping range cost estimate of the additional work elements:

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|---------------------------------|--|
| • Additional site investigation | \$28,500 |
| • Remediation | \$50,000 - \$150,000 (depending on waste characterization) |
| • Ground water monitoring | \$25,000 |
| • Site closure activities | \$15,000 |

Total estimated scoping cost: \$118,500 - \$218,500

Remedial actions at the site would, to a certain extent, rely on existing or new impervious surfaces (pavement, buildings, etc.) to mitigate the direct contact and soil to ground water exposure pathways. Should the proposed Walgreens store be placed directly over the contaminant source area, i.e. at the corner of 27th and National, additional soil management costs may be incurred as a result of excavation associated with footings/foundations and utilities. Additionally, the potential for vapor migration into the new building would need to be evaluated.

At this point, it is unknown whether contaminated soil (source) removal would be necessary as part of remedial actions to address site impacts. This would become apparent upon completion of site investigation activities. If source removal is required, then placement of the Proposed Walgreens at the corner of 27th and National would make that activity extremely difficult and definitely increase costs associated with remedial action. Additionally, lending institutions typically require a completed site investigation and WDNR approved remedial action plan prior to lending money for this type of development.

TABLE 2
Groundwater Analytical Results
27th and National - Redmond Co.
 Milwaukee, Wisconsin
 Project Reference #9030

Parameter	Units	TW-3	TW-6	TW-10	NR 140 GW Standards
Screen Depth	feet bgs	7.5-17.5	7.5-17.5	3-13	
Sample Date		11/1/2004	11/1/2004	12/10/2004	PAL
Volatile Organic Compounds - Detections Only					
Benzene	µg/l	<0.20	<0.20	0.23A	0.5
sec-Butylbenzene	µg/l	0.32	<0.25	<0.25	
p-Isopropyltoluene	µg/l	0.21	<0.20	<0.20	
Tetrachloroethene	µg/l	<0.50	<0.50	160	0.5
Trichloroethene	µg/l	<0.20	<0.20	16	0.5
Toluene	µg/l	0.388	0.208	0.30C	200
1,2,4-Trimethylbenzene	µg/l	0.23	<0.20	<0.20	96*
1,3,5-Trimethylbenzene	µg/l	0.20	<0.20	<0.20	96*

Notes:

- µg/l = micrograms per liter
- bgs = below ground surface
- NR 140 GW Standards = Wis. Adm. Code Chapter NR 140 Table 1 Public Health Groundwater Quality Standards
- PAL = NR 140 Preventative Action Limit (2/04)
- ES = NR 140 Enforcement Standard (2/04)
- Shaded = Not analyzed or no established standard
- BOLD** = Concentrations reported above NR 140 Enforcement Standard
- BOLD** = Concentration reported above NR 140 Preventative Action Limit
- BOLD** = The trip blank associated with this sample contains 0.46 µg/l of this analyte.
- BOLD** = The trip blank associated with this sample contains 0.30 µg/l of this analyte.
- BOLD** = The trip blank associated with this sample contains 0.34 µg/l of this analyte.
- * = Represents standard for total trimethylbenzenes.