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SUPPLEMENTAL DRIP PAD CLOSURE PLAN

13010 Eckel Junction Road | Perrysburg, Ohio
PM Project Number 23-3432-1-0003

Prepared for:

Ohio Environmental Protection Agency
Hazardous Waste Program, NWDO
347 N. Dunbridge Road
Bowling Green, Ohio 43402

Prepared by:

PM Environmental, Inc.
3340 Ranger Road
Lansing, Michigan 48906

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May 2019

Ms. Dawn Pleiman
Ohio Environmental Protection Agency
Hazardous Waste Program, NWDO
347 N. Dunbridge Road
Bowling Green, OH 43402

**Re: Supplemental Drip Pad Closure Plan for the
Perrysburg Land Holdings LLC Property
Located at 13010 Eckel Junction Road, Perrysburg, Ohio
PM Environmental Project No. 23-3432-1-0003**

Dear Ms. Pleiman:

On November 28, 2005, the John A. Biewer Company of Toledo (BCOT) submitted a Closure Activity Interim Report to the Ohio Environmental Protection Agency (EPA) regarding decontamination procedures that had been conducted for closure of the former concrete drip pad area at 13010 Eckel Junction Road, Perrysburg, Ohio, on June 7, 2005 and October 5, 2005. That report included the following information: interim report of the results of the closure activities to date, notice to Ohio EPA that the closure activities to date had not achieved the rinseate remediation standard contained in the Drip Pad Closure Activity Plan (the Plan), and notice to Ohio EPA that BCOT was reassessing the remediation approach and intended to provide a contingent closure approach to Ohio EPA by December 31, 2005, for agency concurrence.

The purpose of this Supplemental Drip Pad Closure Plan (the Supplemental Plan) is to notify the Ohio EPA that Perrysburg Land Holdings LLC (PLH) has purchased the property and intends to perform closure of the drip pad. This Supplemental Plan has been revised for the current closure scope of work to be performed by PLH, under supervision of PM Environmental, Inc. (PM), for Ohio EPA review and approval.

Implementation of the Supplemental Plan is contingent upon receipt of Ohio EPA concurrence and subsequent completion of all necessary arrangements for the supplemental closure activities. Please contact us via telephone at 616-328-5288 or email at rgillette@pmenv.com with any questions related to the project.

PM ENVIRONMENTAL, INC.



Jade Gillette, EP
Project Consultant



J. Adam Patton, CHMM
National Manager - Site Investigation Services

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1.0 INTRODUCTION AND BACKGROUND INFORMATION

1.1 Introduction

This Supplemental Drip Pad Closure Plan (the Supplemental Plan) has been prepared on behalf of Perrysburg Land Holdings LLC (PLH) by PM Environmental, Inc. (PM). This Supplemental Plan amends the December 22, 2005, Supplemental Drip Pad Closure Activity Plan previously approved by Ohio EPA, and addresses the concrete surfacing and associated potential arsenic, chromium, and copper concentrations in underlying soils in the drip pad area of the subject property.

1.2 Site Description

The subject property consists of one parcel containing 9.22 acres located on the north side of Eckel Junction Road in a commercial/light industrial and residential area of Perrysburg, Ohio (Figure 1). The subject property is developed with an office building (Building 1), three lumber storage buildings (Buildings 2 through 4), and an open-sided lumber storage building (Building 5) (Figure 2). The exterior of the property is used for lumber storage and vehicle parking. There are no painting, staining, or other chemical treatments of the wood as part of current operations by Tri-State Forest Products (Tri-State), who uses the property for lumber storage and distribution (Figure 2).

PM reviewed a previous Phase I ESA completed for the subject property by HazCorp dated July 1, 2015. The previous Phase I ESA documented that the subject property consisted of agricultural land until two buildings were constructed in the eastern portion of the property in 1981. Additional pole barns and an open sided lumber storage building were constructed in the early 1990s and 2000s. The property was historically used for wood pressure treating with chromated copper arsenate (CCA) until approximately 1994, and has been used as a lumber sales yard by Toledo Forest Products until 2008 and by Tri-State from 2008 to the present.

The subject property was identified by the regulatory database as a Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) site, a RCRA Transport, Storage, and Disposal Facility (TSDF), and a RCRA Non-Generator (NonGen) associated with former wood preservation operations. The subject property was identified as having numerous TSDF violations and was on the Ohio Environmental Protection Agency (EPA) Watch List.

2.0 PREVIOUS DECONTAMINATION ACTIVITIES

BCOT conducted decontamination procedures in accordance with the Drip Pad Closure Activity Plan dated November 23, 2004, for closure of the former concrete drip pad area on June 7, 2005 and October 5, 2005, and submitted an interim report to Ohio EPA on November 28, 2005. A previous Supplemental Drip Pad Closure Plan, dated December 22, 2005, was also submitted to the Ohio EPA.

The June and October 2005 decontamination procedures consisted of removal of loose material (i.e., soil and wood particles) by shoveling and/or dry vacuuming followed by pressure washing and wet vacuuming. After each decontamination procedure composite rinseate samples were collected from depressions on the drip pad using a stainless steel syringe and were tested for arsenic and chromium (SW846 6010B). Two composite samples (i.e., "North Rinseate" and "South Rinseate") were collected on June 7, 2005, and one composite sample representing the

entire drip pan area as a whole (“Rinseate”) on October 5, 2005, in accordance with the Plan. Table 1 below provides the results of each composite rinseate sample test and compares the results of each test with the results of the June 7, 2005 north sample test results and with the remediation standards contained in the Plan.

**Table 1
Results of June 7, 2005, and October 5, 2005 Rinseate Sample Tests**

Parameter	Remediation Standard (mg/L) (11/24/2004)	6/7/05 North Rinseate*		6/7/05 South Rinseate**			10/5/05 Rinseate***		
		Results (mg/L)	Ratio of Results to Standard	Results (mg/L)	Ratio of Results to Standard	Ratio of North to South	Results (mg/L)	Ratio of Results to Standard	Ratio of North to South
Arsenic	0.75	48.2	64	28.0	37	1.7	12.8	17	3.8
Chromium	20	30.4	20	11.6	7.7	2.6	5.3	3.5	5.7

* The 6/7/2005 North Rinseate sample was collected from the northern two thirds of the drip pad.

** The 6/7/2005 South Rinseate sample was collected from the southern one third of the drip pad.

*** The 10/5/2005 Rinseate sample was collected from the entire drip pad.

The June 2005 North Rinseate test results identified both arsenic and chromium concentrations exceeding the remediation standards contained in the Plan, while only arsenic concentrations in the June 2005 South Rinseate sample and the October 2005 Rinseate sample exceeded the remediation standard.

All of the rinseate samples were reportedly observed to be turbid in appearance at the time of collection although the October 2005 sample was noticeably less turbid than the June 2005 samples. The turbidity of the samples was believed to be due to soil and wood particles that were trapped in the railroad track grooves and in cracks in deteriorated portions of the upper concrete layer that were dislodged by the pressure washing process but were not completely removed by the vacuuming process. During the October 2005 decontamination procedure, an attempt was made by BCOT to more thoroughly vacuum out those particles to obtain a clear rinseate. That attempt was partially successful and resulted in contaminant concentrations from the second procedure of one fourth to one sixth of the highest concentrations obtained from the first procedure. However, the concentrations from the second procedure were still approximately four to 17 times the remediation standards contained in the Plan.

3.0 EVALUATION OF EXISTING DRIP PAD CONDITIONS

PM conducted a site reconnaissance on September 15, 2016. The drip pad is located in the western portion of Building 2 (Figure 3), which is currently used for lumber storage. The concrete in the area was observed to be in overall good condition, with general cracking observed near the former rail car lines. No significant changes to the drip pad condition were noted since Mannik and Smith’s 2005 closure activities, as the area has been used for lumber storage since that time.

Tri-State has operated the subject property for lumber sales and distribution since 1996, and intends to continue to operate the property in the same manner into the future, which is consistent with a Commercial/Industrial land use. As part of this updated Supplemental Plan, PLH is opting to remove the concrete from the entire drip pad area for offsite disposal, which is in contrast to the 2005 Supplemental Drip Pad Closure Plan completed by Mannik and Smith. The

supplemental decontamination and remediation activities will be conducted as outlined in Section 4.0 below.

4.0 PROPOSED SUPPLEMENTAL CHARACTERIZATION AND REMEDIATION PROCEDURES

PLH proposes to complete the following supplemental actions to remediate the drip pad area and address any arsenic concentrations, along with chromium and copper (other metals commonly associated with wood preservation) concentrations, of concern remaining in the former drip pad area:

1. Remove, categorize, and dispose of the fragmented upper concrete layer and any associated soil and wood particles in the areas depicted in Figure 3. Additionally, the concrete and rails (if present) in the entire drip pad area of Building 2 will be removed. It is estimated that up to approximately 3,400 square feet of four inch thick surface concrete will have to be removed for disposal.

The concrete will be characterized by collecting and compositing concrete cores from a grid basis across the drip pad area and analyzing the samples for arsenic, chromium, and copper. If the results in any of the concrete samples exceeds 20 times the Toxicity Characteristic Leaching Procedure (TCLP), then the sample will be analyzed with the TCLP to evaluate if the concrete is representative of a hazardous waste. The disposal facility for the concrete will be determined based on the results of the concrete characterization results, and disposal manifests will be included in the Closure Report.

2. Prior to removal of potential impacted soils beneath the dormer drip pad, shallow soils will be characterized to evaluate proper soil management and/or exposures using incremental sampling methodology (ISM) methods in accordance with the Interstate Technology & Regulatory Council (ITRC) Incremental Sampling Method (ISM-1).

The former drip pad will be divided into three areas (A through C; Figure 4), each of which will be subdivided into four vertical decision units (DUs) with a thickness of 1-foot each. A grid of nine soil borings will be advanced in each area using a Geoprobe drill rig and/or a stainless steel hand auger (i.e., 27 soil borings total including SB-1A through SB-9A; SB-1B through SB-9B; and SB-1C through SB-9C) will be advanced to a maximum depth of 4.0 feet below ground surface (bgs), or until the groundwater table, if present at depths shallower than 4.0 feet bgs.

It should be noted that shallow groundwater has historically been encountered at depths of 1.79 and 2.67 feet bgs in the monitoring well (PW-2) installed in the former drip pad area.

3. Up to 36 incremental soil samples will be collected from each vertical DU within areas A through C, which will be composited into three samples per DU per area (i.e., 36 potential total samples) and submitted for laboratory processing per ITRC ISM processing guidance for analysis of total arsenic, chromium, and copper.

The results of the analysis will be compared to the US EPA's Regional Screening Levels (RSLs) to facilitate soil management and disposal decisions for impacted soils, including vertical and horizontal excavation boundaries. Additionally, TCLP arsenic, chromium,

and/or copper analysis may also be completed to facilitate waste disposal at a licensed disposal facility.

4. PM will provide oversight to PLH's excavation subcontractor during removal of the soils in the former drip pad area that exceed the RSLs, based on the results of the ISM sampling outlined above.

The soil removal activities will include the excavation and direct loading of soils into dump trucks, which will be transported to a licensed disposal facility under manifest or bill of lading. Upon completion of the excavation activities, soil samples will be collected from the sidewalls and bottom of the excavation using ISM methods. The drip pad excavation will be divided into five statistical areas (e.g., north, east, south, and west sidewalls and the excavation bottom), and a grid of representative soil samples will be collected based on the final dimensions of each sidewall and bottom of the excavation. Up to six samples will be composited from the sidewalls and bottom of the excavation and submitted for laboratory processing per ITRC ISM processing guidance for analysis of total arsenic, chromium, and copper.

The results of the analysis will be compared to the US EPA's RSLs to evaluate if arsenic, chromium, and/or copper impacted soils have been adequately removed to below the Residential and/or Industrial RSLs.

5. If impacted soil remains onsite above the applicable Residential RSLs in the former drip pad area, a Restrictive Covenant (RC) will be developed in conjunction with the Ohio EPA's legal department and filed with the Wood County registrar of deeds restricting the former drip pad area of the subject property use to commercial/industrial (i.e., nonresidential).

Additionally, an evaluation will be completed to determine if groundwater exposure is a relevant exposure pathway and if any actions need to be taken to prevent exposure to groundwater at the subject property.

6. Following confirmation that the remedial standards have been met and filing of the RC (if necessary), PM will prepare and submit a Closure Report on behalf of PLH documenting the former drip pad and underlying soil removal activities with closure verification analytical results. If applicable, the report will include recommendations for any necessary additional activities to achieve regulatory compliance for the subject property.

Upon acceptance of the certification by Ohio EPA, the drip pad area at the facility will be considered clean closed and the drip pad may be partially or totally filled or resurfaced with paving materials at PLH's discretion.

Review and approval of this Supplemental Drip Pad Closure Plan is requested. Please contact our office at (800) 313.2966 if you have any questions or comments regarding this report.

REPORT PREPARED BY:



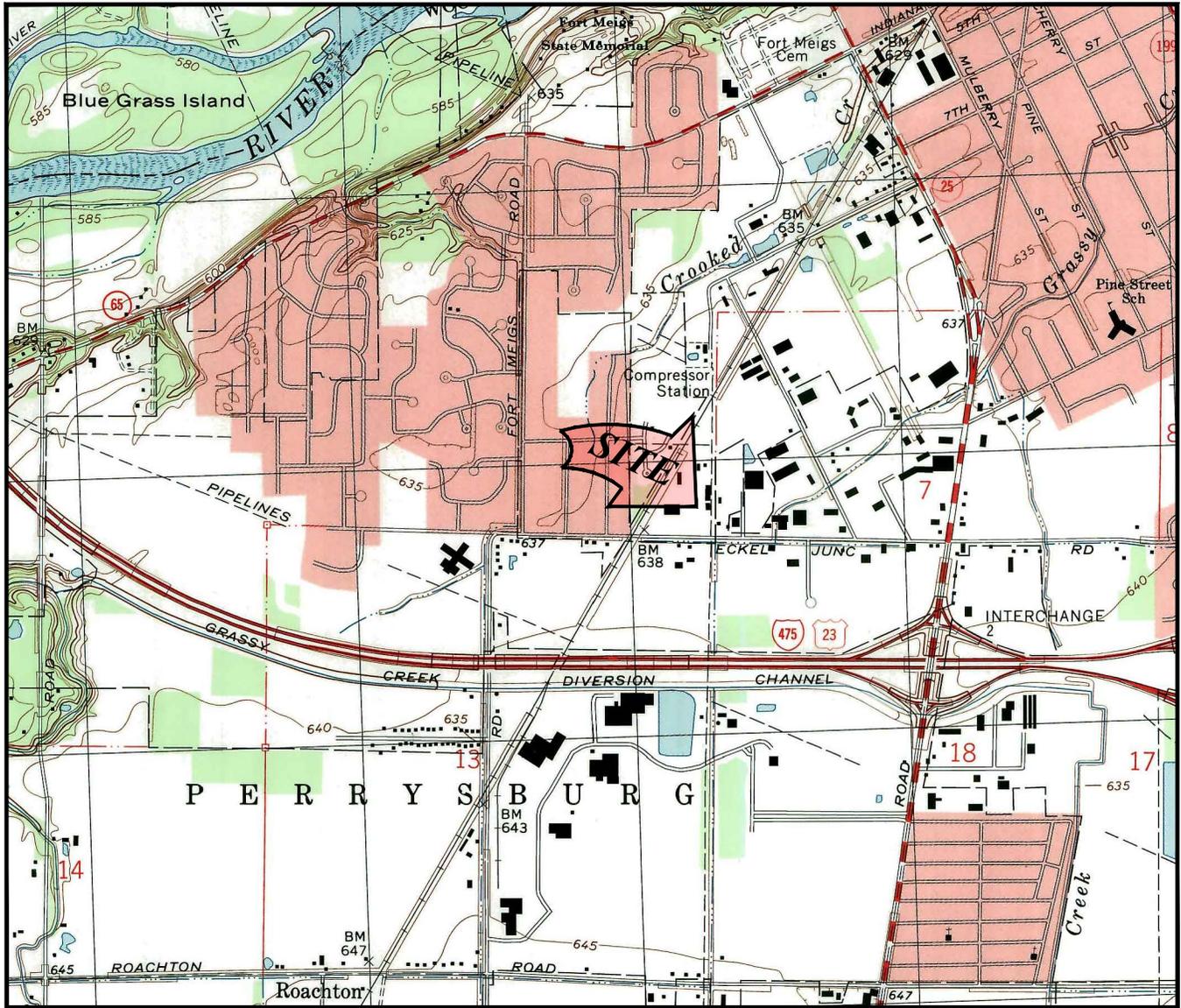
Jade Gillette, EP
Project Consultant

REPORT REVIEWED BY:



J. Adam Patton, CHMM
National Manager - Site Investigation Services

Figures



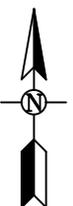
WOOD COUNTY



OHIO QUADRANGLE LOCATION



FIGURE 1
 PROPERTY VICINITY MAP
 USGS, 7.5 MINUTE SERIES
 MAUMEE, OH QUADRANGLE, 1994.



PROJ:
 PERRYSBURG LAND HOLDING LLC
 13010 ECKEL JUNCTION ROAD
 PERRYSBURG, OH

THIS IS NOT A LEGAL
 SURVEY

VERIFY SCALE
 0 2,000'

IF NOT 1" ON THIS
 SHEET, ADJUST
 SCALES ACCORDINGLY.

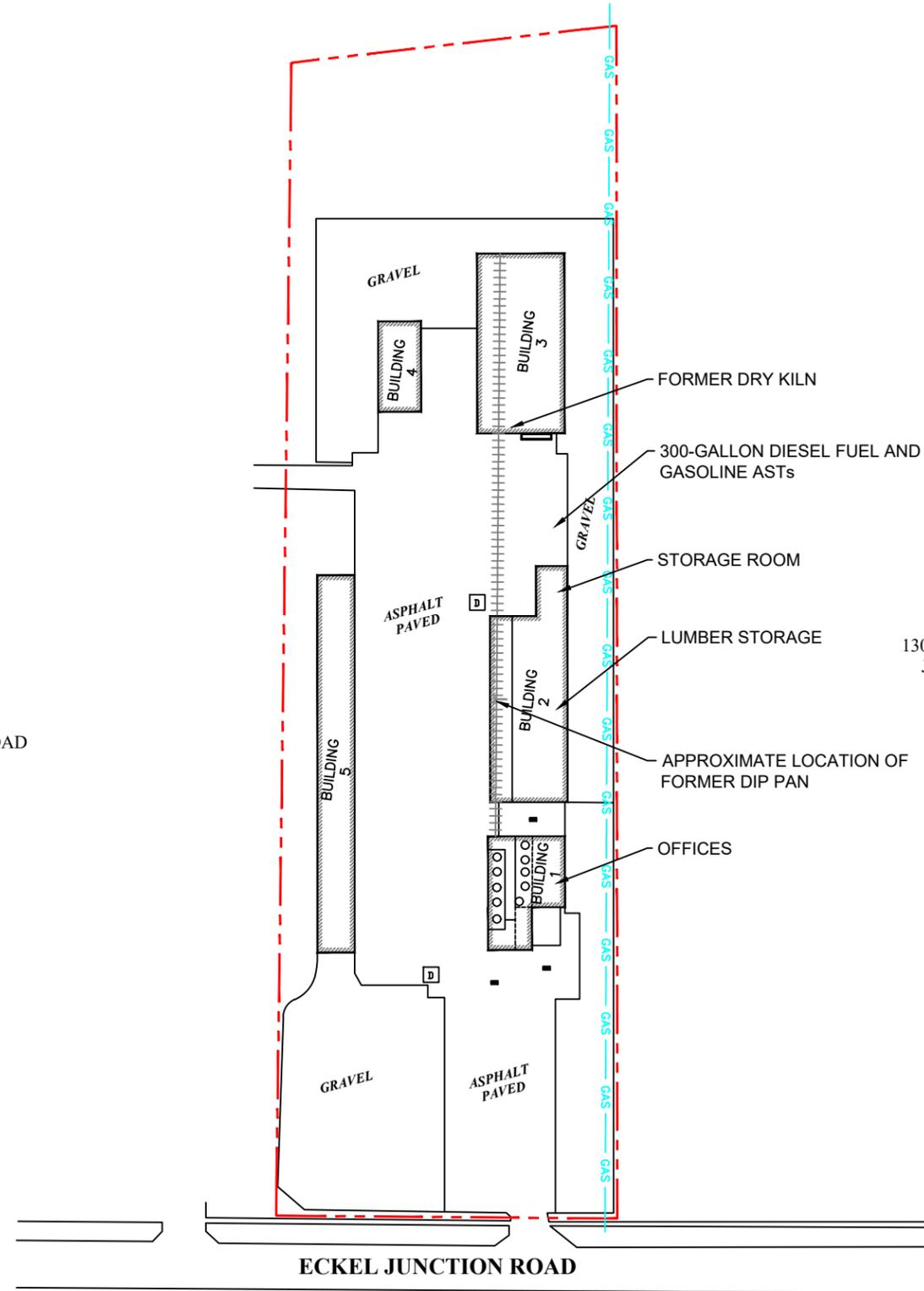
DRN BY: CS DATE: 9/19/2018

CHKD BY: RM SCALE: 1" = 2,000'

FILE NAME:
 23-3432-1-003F01R00

RESIDENTIAL

13200 ECKEL JUNCTION ROAD
SUSSMAN



13006 ECKEL JUNCTION ROAD
JOHNSTONE MACHINERY
MOVERS, INC.

LEGEND:

-  SUBJECT PROPERTY
-  16" HIGH PRESSURE GAS LINE
-  FORMER/CURRENT RAIL ROAD TRACKS
-  FORMER TANKS
-  SQUARE CATCH BASIN
-  DUMPSTER

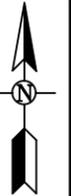
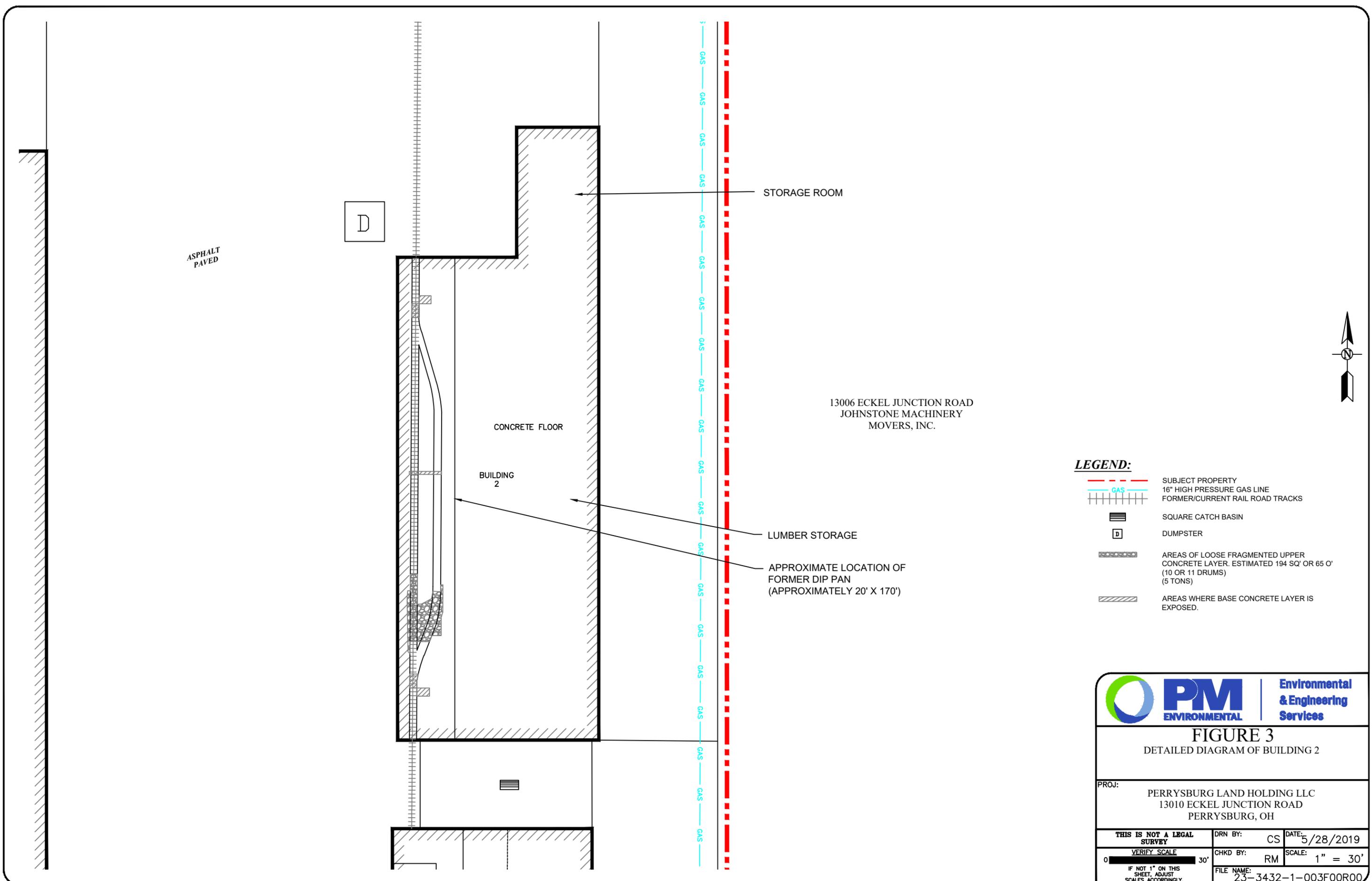


FIGURE 2
GENERALIZED DIAGRAM OF THE SUBJECT
PROPERTY AND ADJOINING PROPERTIES

PROJ: PERRYSBURG LAND HOLDING LLC
13010 ECKEL JUNCTION ROAD
PERRYSBURG, OH

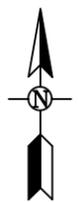
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0 _____ 140'	FILE NAME: 23-3432-1-003F00R00	
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13006 ECKEL JUNCTION ROAD
JOHNSTONE MACHINERY
MOVERS, INC.

LEGEND:

-  SUBJECT PROPERTY
-  16" HIGH PRESSURE GAS LINE
-  FORMER/CURRENT RAIL ROAD TRACKS
-  SQUARE CATCH BASIN
-  DUMPSTER
-  AREAS OF LOOSE FRAGMENTED UPPER CONCRETE LAYER. ESTIMATED 194 SQ' OR 65 0' (10 OR 11 DRUMS) (5 TONS)
-  AREAS WHERE BASE CONCRETE LAYER IS EXPOSED.



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FIGURE 3
DETAILED DIAGRAM OF BUILDING 2

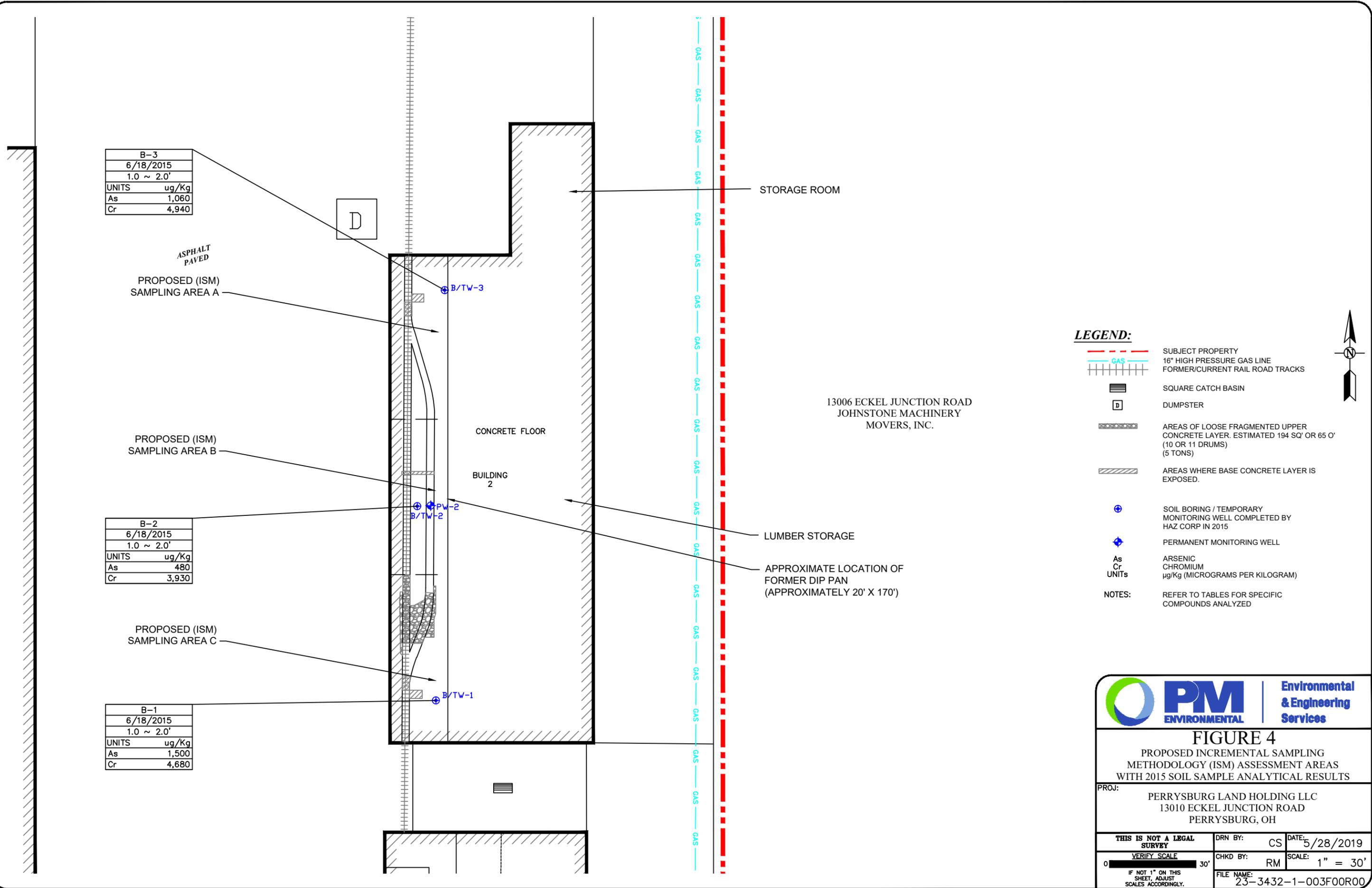
PROJ: PERRYSBURG LAND HOLDING LLC
13010 ECKEL JUNCTION ROAD
PERRYSBURG, OH

THIS IS NOT A LEGAL SURVEY	DRN BY: CS	DATE: 5/28/2019
VERIFY SCALE	CHKD BY: RM	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FILE NAME: 23-3432-1-003F00R00	

B-3	
6/18/2015	
1.0 ~ 2.0'	
UNITS	ug/Kg
As	1,060
Cr	4,940

B-2	
6/18/2015	
1.0 ~ 2.0'	
UNITS	ug/Kg
As	480
Cr	3,930

B-1	
6/18/2015	
1.0 ~ 2.0'	
UNITS	ug/Kg
As	1,500
Cr	4,680



LEGEND:

- SUBJECT PROPERTY
- 16" HIGH PRESSURE GAS LINE
- FORMER/CURRENT RAIL ROAD TRACKS
- SQUARE CATCH BASIN
- DUMPSTER
- AREAS OF LOOSE FRAGMENTED UPPER CONCRETE LAYER. ESTIMATED 194 SQ' OR 65 0' (10 OR 11 DRUMS) (5 TONS)
- AREAS WHERE BASE CONCRETE LAYER IS EXPOSED.
- SOIL BORING / TEMPORARY MONITORING WELL COMPLETED BY HAZ CORP IN 2015
- PERMANENT MONITORING WELL
- As ARSENIC
- Cr CHROMIUM
- UNITS ug/Kg (MICROGRAMS PER KILOGRAM)
- NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

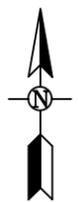


FIGURE 4
 PROPOSED INCREMENTAL SAMPLING
 METHODOLOGY (ISM) ASSESSMENT AREAS
 WITH 2015 SOIL SAMPLE ANALYTICAL RESULTS

PROJ: PERRYSBURG LAND HOLDING LLC
 13010 ECKEL JUNCTION ROAD
 PERRYSBURG, OH

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VERIFY SCALE	CHKD BY: RM	SCALE: 1" = 30'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.		
FILE NAME: 23-3432-1-003F00R00		