CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite 200, Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

October 6, 2014

Reference No. 039611

Mr. Ross del Rosario
Remedial Project Manager
US Environmental Protection Agency
Region 5 (SR-6J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. del Rosario:

Re: Revised Figure 7
Methane Remedial Action Plan – 2014
Himco Site
Elkhart, Indiana

US EPA RECORDS CENTER REGION 5
577095

On behalf of the Himco Site Trust, Conestoga-Rovers & Associates, Inc. (CRA) has prepared this revised Figure 7 for the Methane Remedial Action Plan – 2014 (MRAP) for the Himco Site (Site) located in Elkhart, Indiana. The revised figure is being submitted in response to correspondence received from the United States Environmental Protection Agency (USEPA) dated September 30, 2014 (Attachment A). The original submittal to the US EPA is provided as Attachment B.

Figure 7 has been revised as requested. Please contact Douglas Gatrell at (734) 357-5511 if you have questions or require additional information.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Douglas M. Gatrell

Douglas M. Gatrell, PE

DMG/ds/56/Det.
Encl.

cc: Gary Toczylowski/Tom Lenz – Bayer HealthCare
Christopher Fassero – US COE
Doug Petroff – IDEM
Alan Van Norman – CRA

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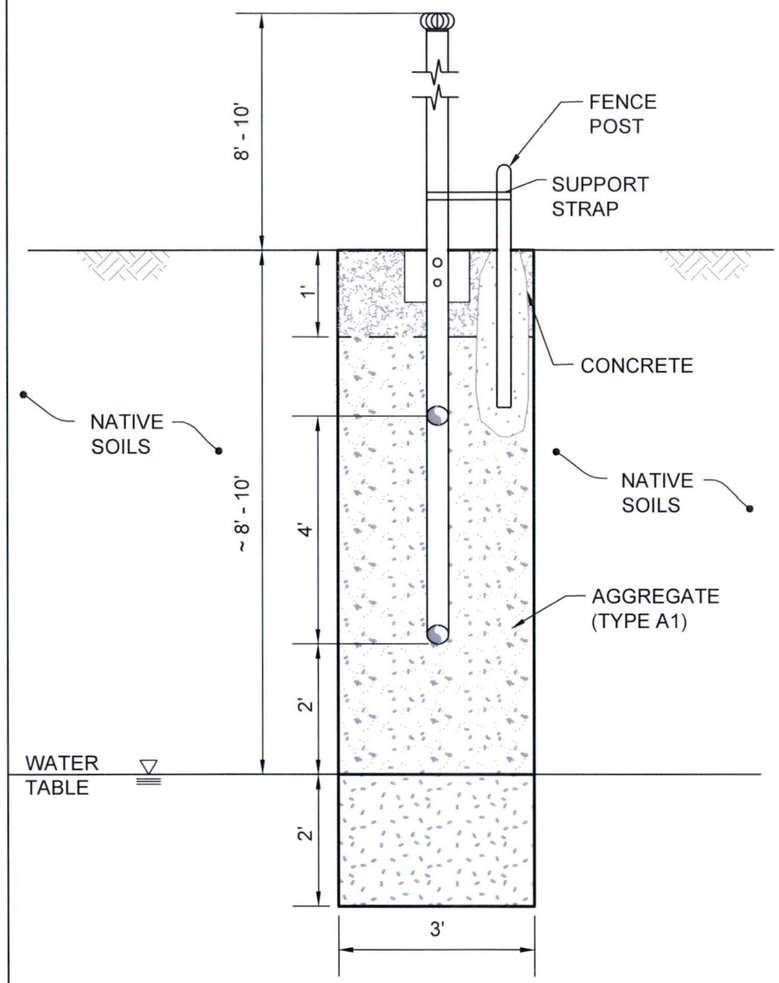
ISO 900
ENGINEERING DESIG

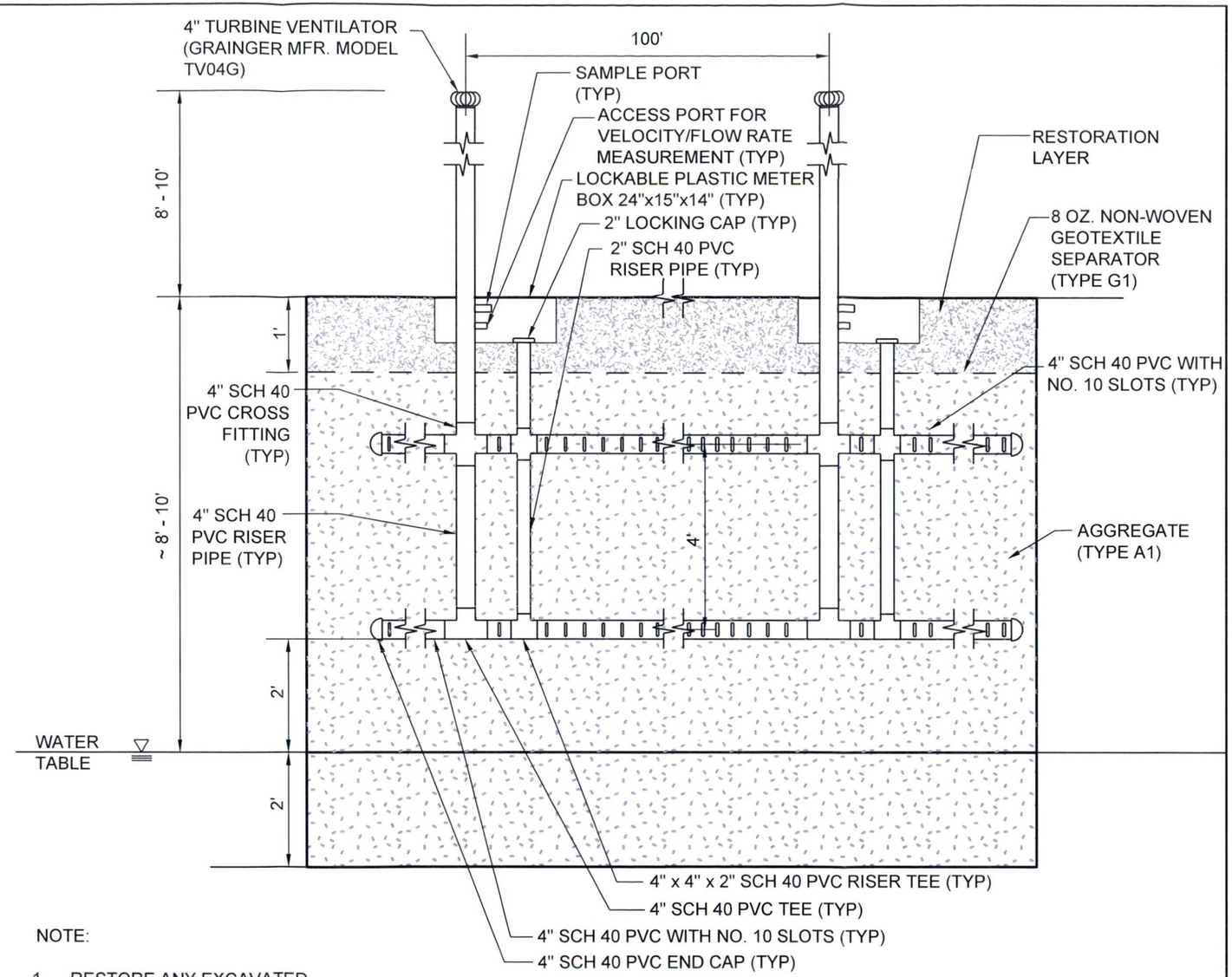


TYPICAL PASSIVE VENTILATION TRENCH (SECTION)

DETAIL 1 / -

SCALE: NONE

NOTE: 2" SCH 40 PVC RISER NOT SHOWN FOR CLARITY.



NOTE:

1. RESTORE ANY EXCAVATED ROADS TO EXISTING CONDITIONS OR BETTER.
2. FENCE POST NOT SHOWN FOR CLARITY.

TYPICAL PASSIVE VENTILATION TRENCH (PROFILE)

DETAIL 2 / -

SCALE: NONE

figure 7

PVT DETAILS
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA056)GN-DE001 OCT 1/2014

Attachment A

US EPA September 30, 2014 Letter to Bayer HealthCare, HSE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

September 30, 2014

REPLY TO THE ATTENTION OF:

Mr. Gary Toczylowski
Bayer HealthCare
Bayer Diabetes Care
555 White Plains Road
Tarrytown, New York 10591

Re: Himco Dump Superfund Site, Elkhart, Indiana
Methane Remedial Action Plan – 2014 (MRAP-2014)

Dear Mr. Toczylowski:

The United States Environmental Protection Agency (EPA), assisted by the Indiana Department of Environmental Management (IDEM) and the U.S. Army Corps of Engineers, has reviewed the subject Methane Remedial Action Plan – 2014 (MRAP-2014), dated September 19, 2014. The purpose of MRAP-2014 was to install additional sections of the passive vent trench (PVT) system at the Himco Dump Superfund Site in Elkhart, Indiana, in response to elevated methane readings during the past summer. Based on EPA's review, the proposed work described in MRAP-2014 is found to be acceptable, with the following modification:

- The optional upper (second) row of horizontal slotted pipe, as shown on Figure 7 of the document, must be included as part of the final design/construction. Given that the high methane readings that triggered the recent investigations appear to have been caused, at least in part, by high ground water, it seems prudent to require inclusion of this upper row of collector pipe. Please modify Figure 7 to denote that the upper horizontal slotted pipe will be part of final design.

Bayer can proceed with implementation of MRAP-2014 as soon as EPA's receipt of modified Figure 7.

Your cooperation on this matter is appreciated. If you have any questions, please contact me at (312) 8860-6195.

Sincerely,

R. del Rosario

Ross del Rosario
Remedial Project Manager

Doug Petroff, IDEM
Chris Fassero, COE

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Attachment B

CRA Correspondence to US EPA September 19, 2014

CONESTOGA-ROVERS
& ASSOCIATES

14496 Sheldon Road, Suite 200, Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

September 19, 2014 Reference No. 039611

Mr. Ross del Rosario
Remedial Project Manager
US Environmental Protection Agency
Region 5 (SR-6J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. del Rosario:

Re: Methane Remedial Action Plan – 2014
Himco Site
Elkhart, Indiana

On behalf of the Himco Site Trust, Conestoga-Rovers & Associates, Inc. (CRA) has prepared this Methane Remedial Action Plan – 2014 (MRAP) for the Himco Site (Site) located in Elkhart, Indiana. The methane monitoring results to date include daily (as necessary), monthly and quarterly soil gas monitoring at select soil gas probes (SGP) as presented on Figure 1. The results of the soil gas monitoring activities to date are presented in Table 1.

The purpose of this MRAP-2014 is to present the plan of action for the installation of additional sections of the passive vent trench (PVT) at the Site. This measure is being taken to address the correspondence received from the United States Environmental Protection Agency (USEPA) dated August 19, 2014 (Attachment A).

1.0 Proposed Remedial Action

CRA proposes the remedial action (RA) to be the installation of additional PVT sections on the south, east and west sides of the Site. Figure 2 presents the plan view of the additional PVT sections to be installed. Figures 3 through 6 present the eastern (north of PVT-1), southeastern (connecting PVT-10 to PVT-11), south (connecting PVT-17 and PVT-18), and western (north of PVT-21) PVT connector/extension locations, respectively.

The proposed alignment south of soil gas probe (SGP) 117S/D is based on the field investigation results completed on July 16th through 18th previously submitted to the USEPA by CRA on August 1, 2014.

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2.0 Passive Vent Trench Installation

The PVT extensions will be installed similar to Section 5.8.1 of the 100% Design Report and as illustrated on Figure 7, detail excerpts from the Record Drawings (CRA, July 2012). The PVT riser spacing will closely follow the one per 100-foot spacing, but will be slightly greater (approximately 115 feet) when connecting to existing PVT sections. The PVT riser pipes will also be installed outside the property limits of the private property for security and aesthetic purposes (reference Figure 5). These spacing modifications do not impact performance of the PVT extensions.

CRA anticipates the proposed PVT extensions to be installed in November 2014 (with sufficient notice for construction crews). The additional venting locations will be incorporated into the O&M monitoring program.

3.0 Passive Vent Trench Reporting

CRA will incorporate the additional PVT sections into the monitoring network. The monitoring of the soil gas network will continue on a monthly basis for 6 months (six events) after installation of the PVT sections. Monitoring procedures will be consistent with Section 3.1 of the Final O&M Plan (CRA, 2012). CRA will submit a data report and recommendations within 30 days of the last monitoring event.

Please contact Douglas Gatrell at (734) 357-5511 if you have questions or require additional information.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Douglas M. Gatrell

Douglas M. Gatrell, PE

DMG/ds/55/Det.
Encl.

cc: Gary Toczylowski/Tom Lenz – Bayer HealthCare
Christopher Fassero – US COE
Doug Petroff – IDEM
Alan Van Norman – CRA

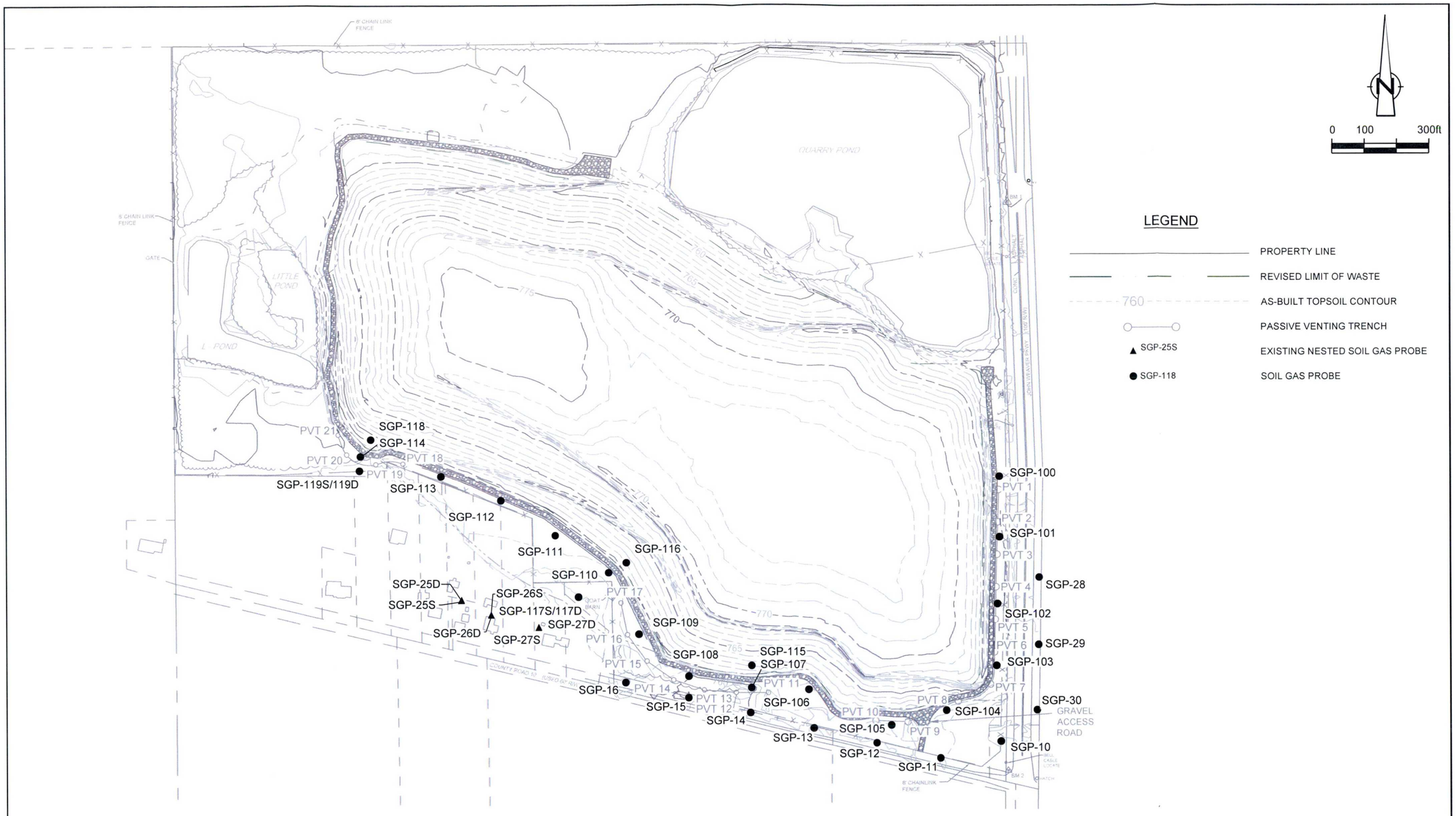


figure 1

SOIL GAS PROBE LOCATIONS
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE001 SEP 17/2014

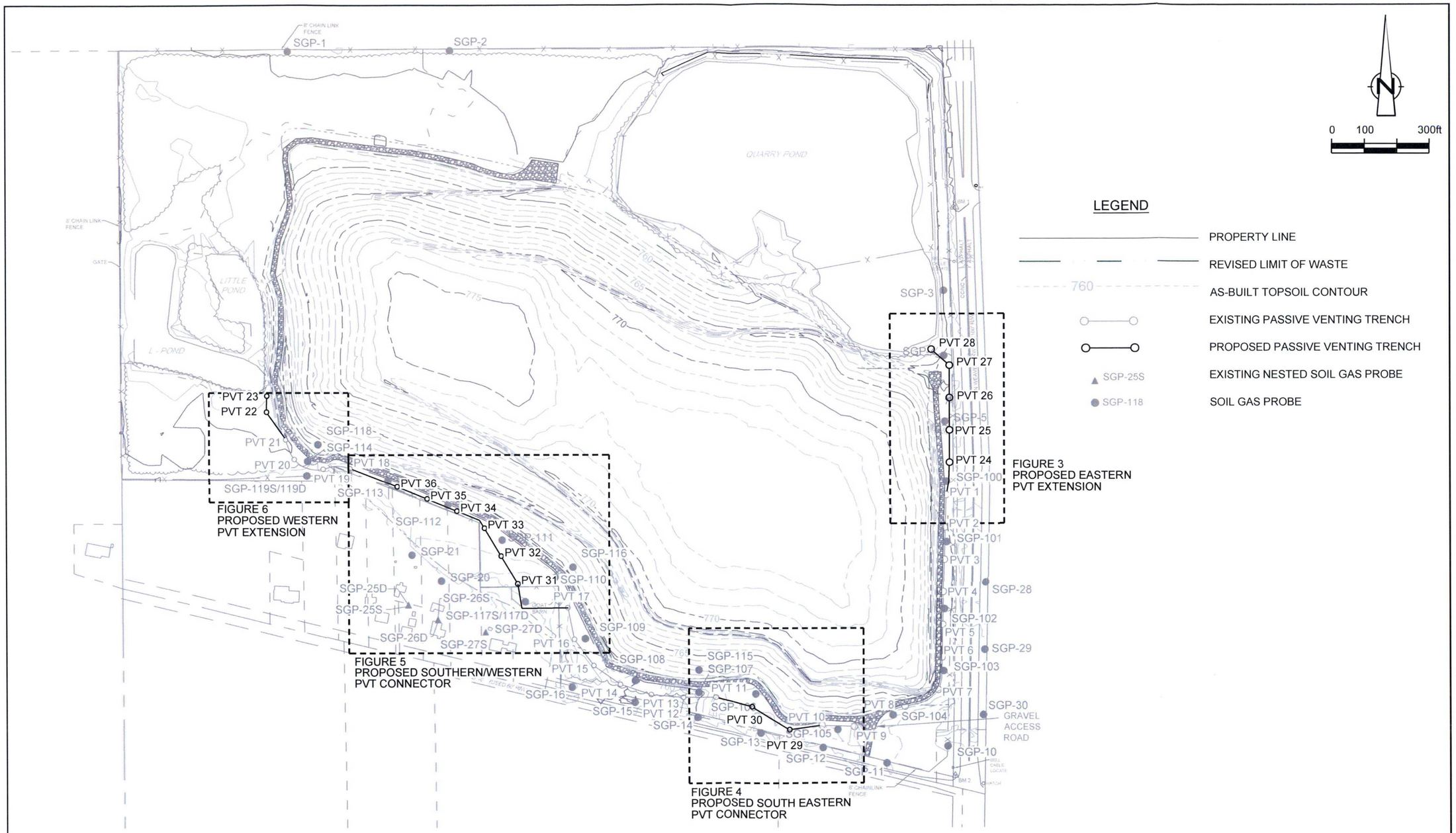


figure 2

EXISTING AND PROPOSED PVT LOCATIONS
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE002 SEP 18/2014

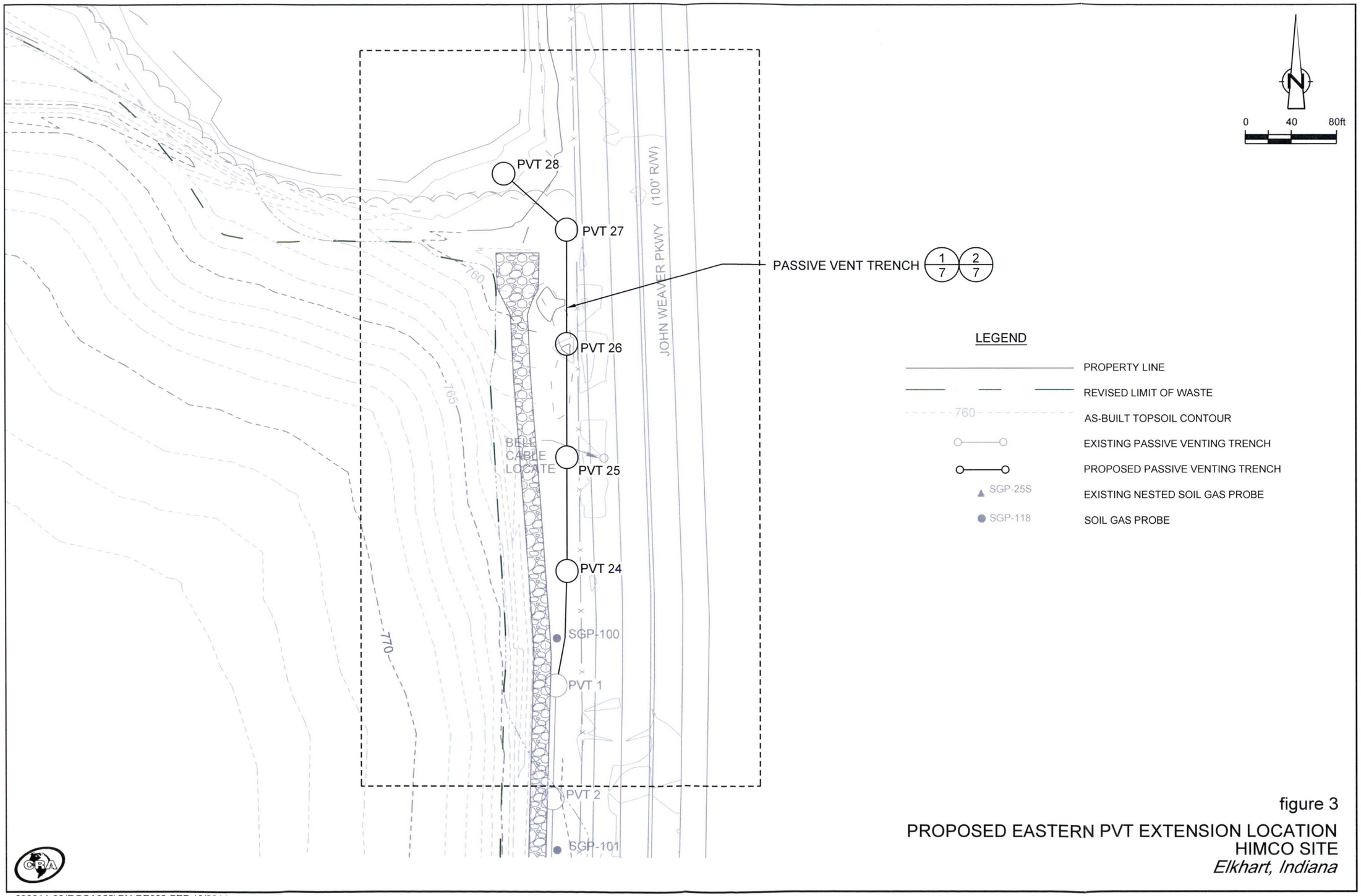


figure 3

PROPOSED EASTERN PVT EXTENSION LOCATION
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE003 SEP 18/2014

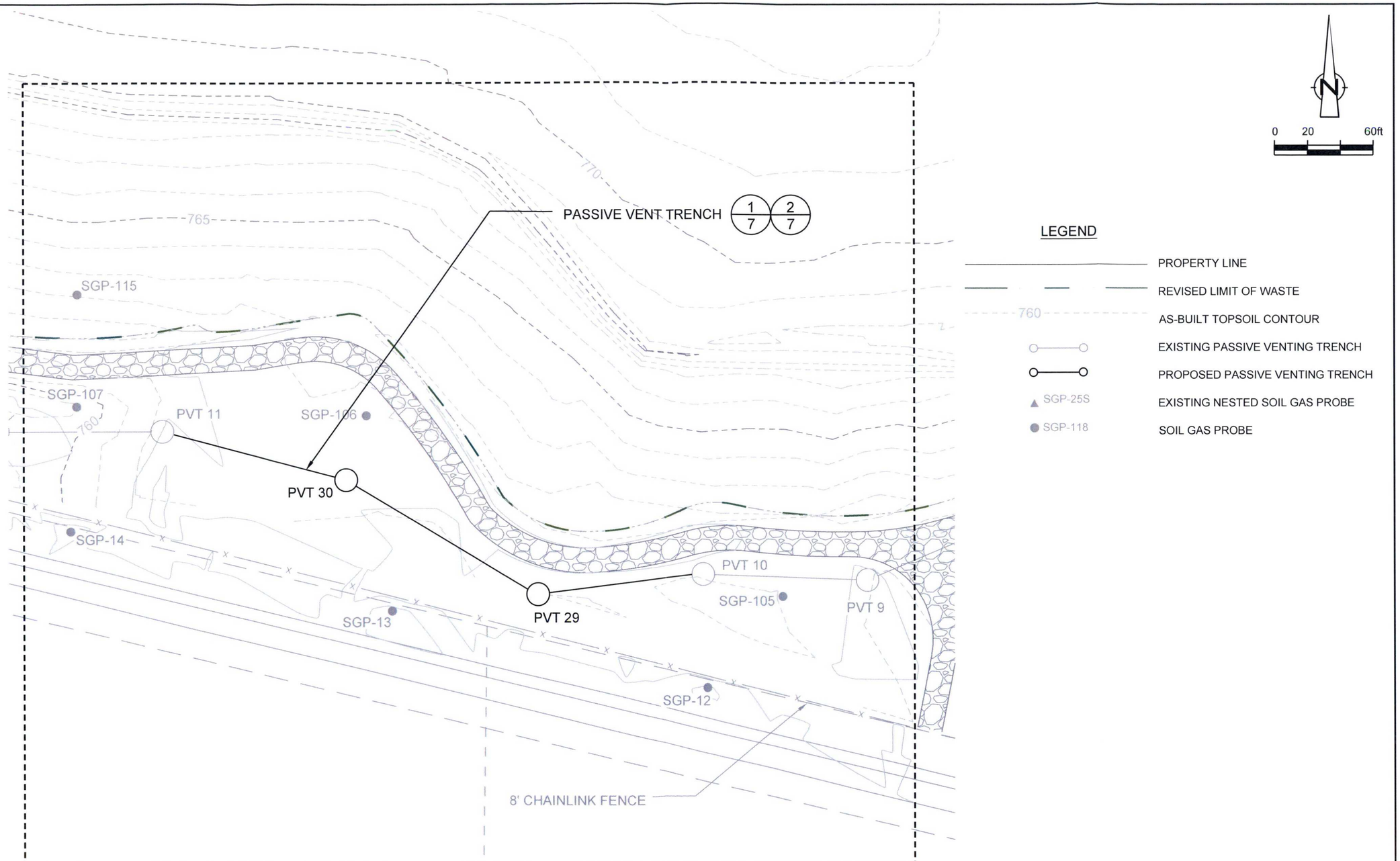


figure 4

PROPOSED SOUTHEASTERN PVT CONNECTOR LOCATION
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE004 SEP 18/2014

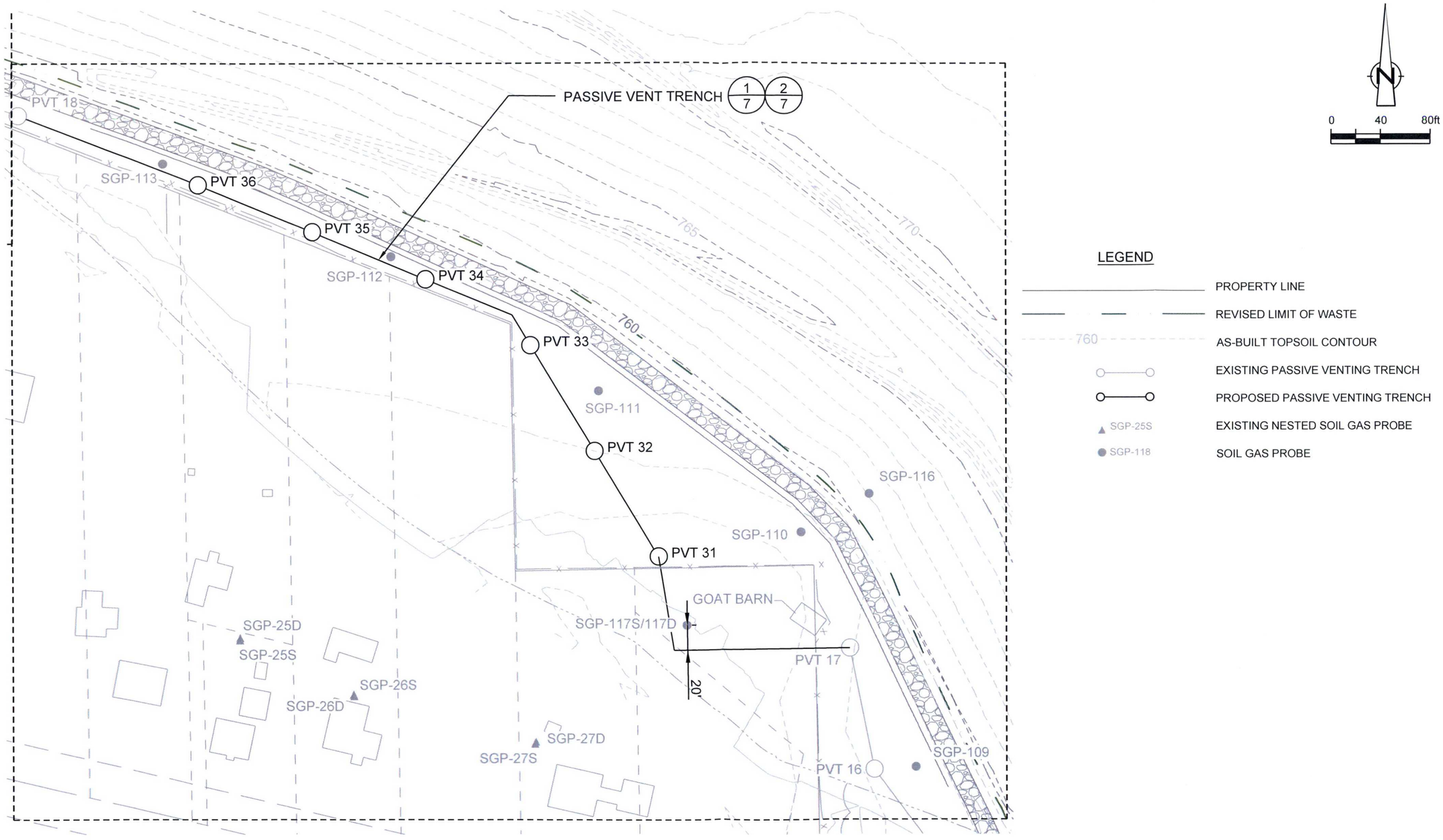


figure 5

PROPOSED SOUTH PVT CONNECTOR LOCATION
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE005 SEP 18/2014

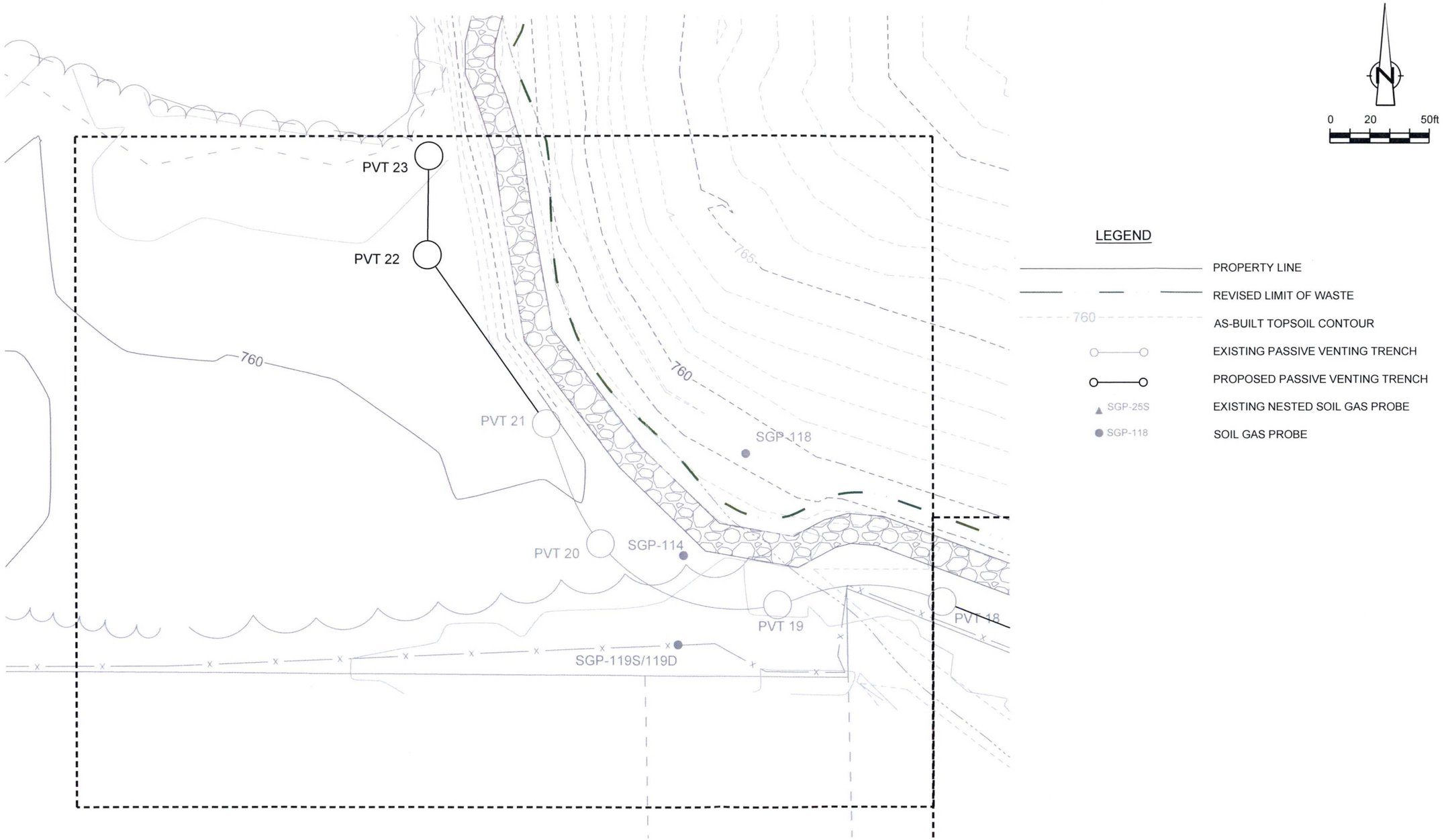
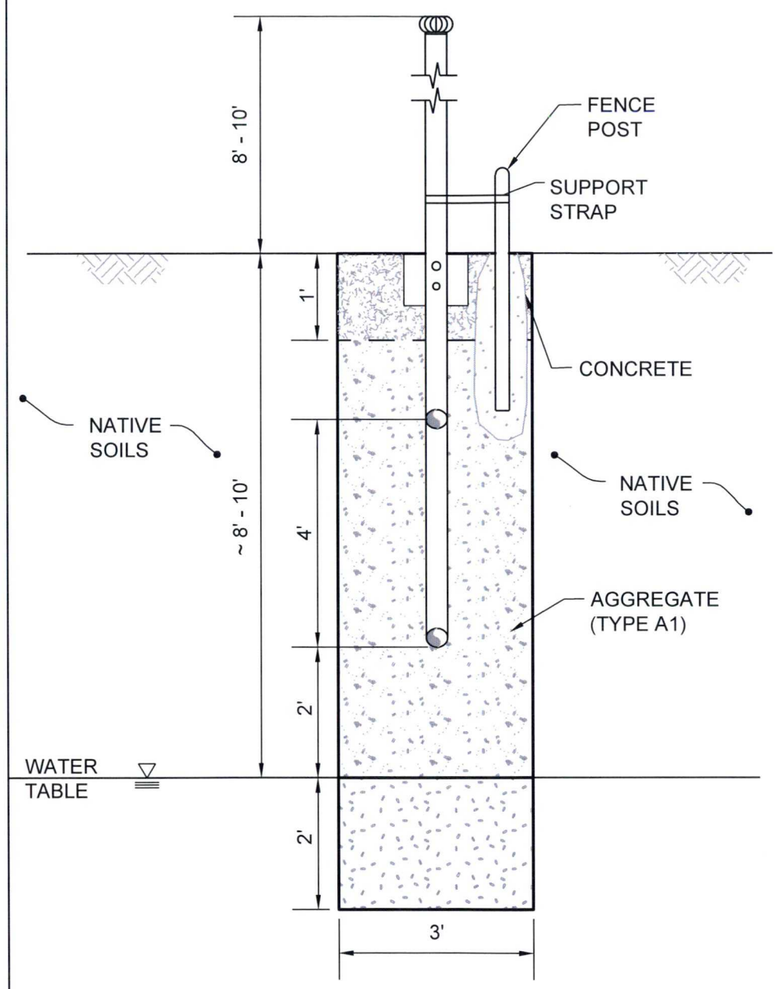


figure 6

PROPOSED WESTERN PVT EXTENSION LOCATIONS
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE006 SEP 18/2014

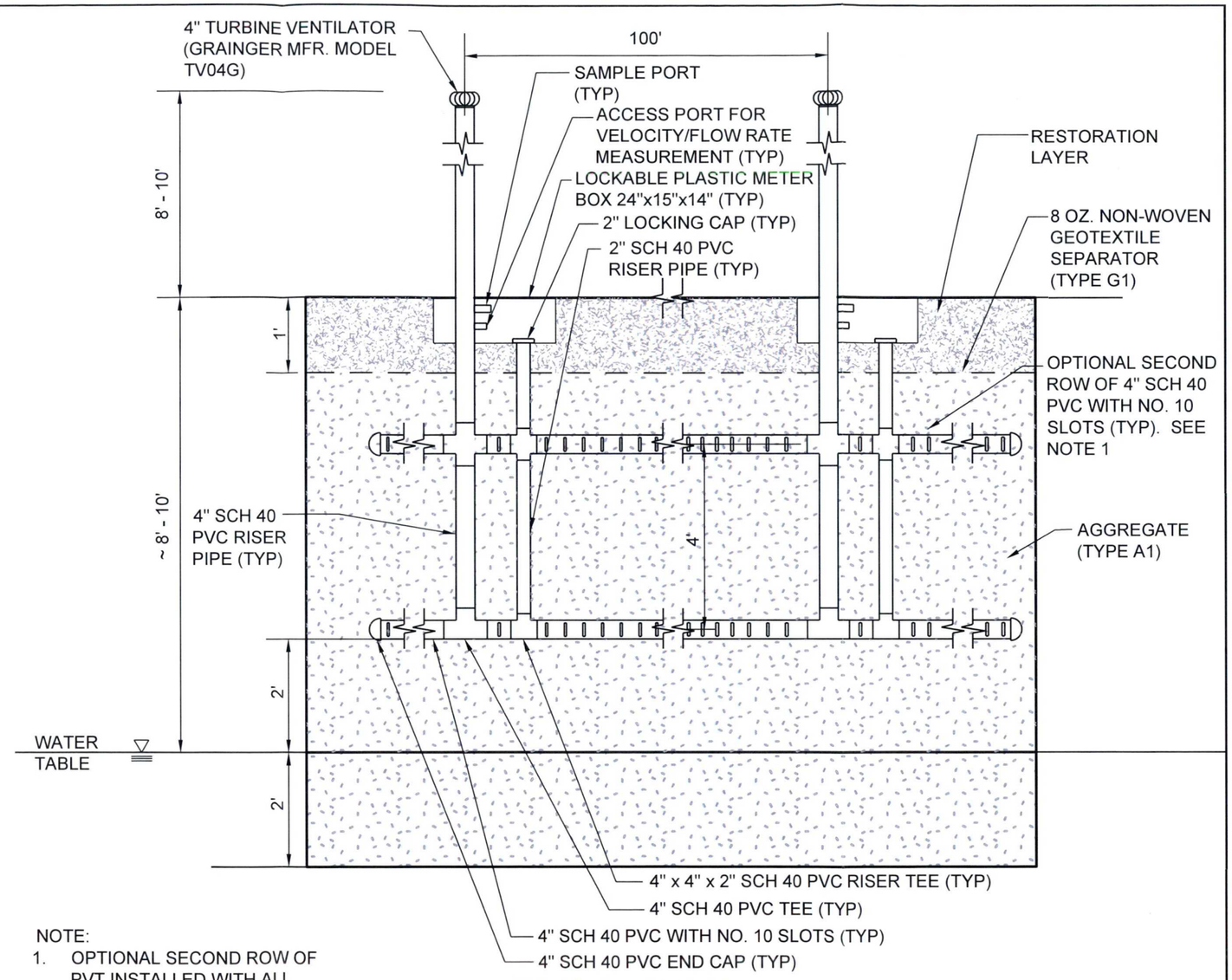


TYPICAL PASSIVE VENTILATION TRENCH (SECTION)

DETAIL 1 / -

SCALE: NONE

NOTE: 2" SCH 40 PVC RISER NOT SHOWN FOR CLARITY.



TYPICAL PASSIVE VENTILATION TRENCH (PROFILE)

DETAIL 2 / -

SCALE: NONE

NOTE:
1. OPTIONAL SECOND ROW OF PVT INSTALLED WITH ALL THE SAME FITTINGS AS THE BOTTOM ROW. REPLACE TEES WITH CROSS FITTINGS.
2. RESTORE ANY EXCAVATED ROADS TO EXISTING CONDITIONS OR BETTER.
3. FENCE POST NOT SHOWN FOR CLARITY.

figure 7

PVT DETAILS
HIMCO SITE
Elkhart, Indiana

039611-00(ROSA055)GN-DE007 SEP 18/2014

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-100	9/21/2012	0.0	0.0	6.1	16.3	0
	12/28/2012	0.0	2.1	7.4	15.4	0
	3/27/2013	0.0	3.4	6.2	18.8	0
	6/27/2013	0.0	0.3	15.1	6.8	0
	9/25/2013	0.0	0.1	6.0	16.9	0
	12/23/2013	0.0	0.5	6.3	16.1	0
	3/27/2014	0.0	2.6	9.4	9.1	0
	6/26/2014	0.0	28.8	35.9	0.0	0
	6/27/2014	0.0	22.2	38.7	0.0	0
	6/30/2014	0.05	5.9	30.4	0.0	0
	7/1/2014	0.0	11.1	31.3	0.1	0
	7/2/2014	0.0	13.3	32.3	0.1	1
	7/3/2014	0.0	4.5	28.6	0.0	0
	7/7/2014	0.0	0.2	24.6	1.2	0
	7/8/2014	0.0	0.4	25.4	0.9	0
	7/9/2014	0.00	0.0	22.1	3.7	0
	7/10/2014	0.00	0.0	17.9	6.8	0
	7/11/2014	0.01	0.0	16.0	8.2	0
	7/17/2014	-0.01	0.0	15.7	7.9	0
	7/24/2014	0.00	0.0	8.1	14.0	1
	7/31/2014	0.00	0.0	7.6	14.2	0
SGP-101	9/21/2012	0.0	0.0	4.0	17.0	0
	12/28/2012	0.0	0.1	0.2	20.2	0
	3/27/2013	0.0	0.0	0.2	21.9	0
	6/27/2013	0.0	0.0	3.1	16.9	0
	9/25/2013	0.0	0.0	2.0	18.9	0
	12/23/2013	0.0	0.0	0.7	20.6	0
	3/27/2014	0.0	0.0	0.3	20.7	0
	6/26/2014	0.0	0.0	2.2	17.5	0
	6/30/2014	0.05	0.0	1.5	19.9	0
	7/1/2014	0.0	0.0	1.4	18.9	0
	7/2/2014	0.0	0.0	1.2	18.8	1
	7/3/2014	0.0	0.0	2.0	18.5	0
SGP-102	9/21/2012	0.0	0.0	3.8	16.1	0
	12/28/2012	0.0	0.0	0.9	20.0	0
	3/27/2013	0.0	0.0	0.7	21.6	0
	6/27/2013	0.0	0.0	2.9	16.3	0
	9/25/2013	0.0	0.0	2.9	15.8	0
	12/23/2013	0.0	0.0	2.3	20.0	0
	3/27/2014	0.0	0.0	0.6	19.6	0
	6/26/2014	0.0	0.0	3.6	16.1	0
	6/30/2014	0.05	0.0	3.8	17.8	0
	7/1/2014	0.0	0.0	3.5	15.5	0
	7/2/2014	-0.01	0.0	3.5	16.1	0
	7/3/2014	0.0	0.0	3.4	17.5	0
SGP-103	9/21/2012	0.0	2.6	9.7	0.3	0
	12/28/2012	0.0	0.2	5.9	1.4	0
	3/27/2013	0.0	0.0	4.1	7.1	0
	6/27/2013	0.0	0.0	10.6	1.4	0
	9/25/2013	0.0	0.0	9.8	6.2	0
	12/23/2013	0.0	0.0	6.2	8.4	0
	3/27/2014	0.0	0.0	0.0	20.4	0
	6/26/2014	0.0	0.0	9.1	6.4	0
	6/30/2014	0.0	0.0	10.2	4.8	0
	7/1/2014	0.0	0.0	9.8	4.4	0
	7/2/2014	0.0	0.0	10.1	4.5	0
	7/3/2014	0.0	0.0	10.6	4.4	0
SGP-104	9/21/2012	0.0	0.0	8.4	12.1	0
	12/28/2012	0.0	0.2	3.4	12.6	0
	3/27/2013	0.0	0.0	2.5	18.8	0
	6/27/2013	-0.3	0.0	7.2	12.5	0
	9/25/2013	0.0	0.0	5.0	15.9	0
	12/23/2013	-0.02	0.0	1.9	19.8	0
	3/27/2014	0.0	0.0	0.6	20.4	0
	6/26/2014	0.0	0.0	5.8	13.2	0
	6/30/2014	0.0	0.0	7.2	11.6	0
	7/1/2014	0.0	0.0	6.8	10.8	0
	7/2/2014	0.0	0.0	7.3	10.1	0
	7/3/2014	0.01	0.0	7.6	10.3	0
SGP-105	9/21/2012	0.0	0.0	17.3	4.8	0
	12/28/2012	0.0	0.3	3.4	17.6	0
	3/27/2013	0.0	0.0	5.6	17.6	0
	6/27/2013	0.0	0.0	16.0	4.0	0
	9/25/2013	0.0	0.0	10.4	11.9	0
	12/23/2013	0.0	0.0	6.3	16.0	0
	3/27/2014	0.0	0.0	0.6	19.5	0
	6/26/2014	0.0	0.0	11.3	6.8	0
	6/30/2014	0.03	0.0	12.9	4.6	0
	7/1/2014	0.0	0.0	12.4	4.4	0
	7/2/2014	0.0	0.0	12.9	4.1	0
	7/3/2014	0.0	0.0	13.1	4.0	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-106	9/21/2012	0.0	0.0	13.0	10.9	0
	12/28/2012	0.0	0.7	9.8	15.4	0
	3/27/2013	0.0	3.5	15.8	11.2	0
	6/27/2013	0.0	2.5	27.0	0.1	0
	9/25/2013	0.0	0.0	8.8	13.7	0
	12/23/2013	-0.01	0.0	6.1	16.6	0
	3/27/2014	0.05	0.7	15.4	5.5	0
	6/26/2014	0.01	13.0	29.3	0.1	0
	6/27/2014	0.02	15.2	32.2	0.0	0
	6/30/2014	0.03	11.4	31.5	0.0	0
	7/1/2014	0.03	13.6	31.0	0.1	0
	7/2/2014	0.0	5.0	12.4	8.6	0
	7/3/2014	0.0	8.5	28.8	0.0	0
	7/7/2014	0.01	9.5	29.5	0.0	0
	7/8/2014	0.0	10.3	30.1	0.0	0
	7/9/2014	-0.01	4.6	28.2	0.0	0
	7/10/2014	0.00	3.9	25.4	0.0	0
	7/11/2014	0.00	0.9	24.3	1.3	0
	7/17/2014	0.00	1.1	24.2	1.4	0
	7/24/2014	0.00	0	21.0	2.8	1
	7/31/2014	0.00	0	16.5	7.5	0
SGP-107	9/21/2012	0.0	24.9	32.6	0.9	0
	9/24/2012	0.0	29.6	34.0	0.1	0
	9/25/2012	0.0	29.7	34.6	0.1	0
	9/26/2012	0.0	18.4	29.2	2.2	0
	9/27/2012	0.0	28.1	34.0	0.5	0
	9/28/2012	0.0	28.2	33.6	0.0	0
	9/28/2012 [2]	0.0	28.0	33.2	0.7	0
	10/1/2012 [3]	0.0	29.1	34.6	0.0	0
	10/1/2012 [2]	0.0	29.0	34.4	0.3	0
	10/2/2012	0.0	16.2	22.3	3.6	0
	10/3/2012	0.0	19.3	26.7	0.9	0
	10/4/2012	0.0	25.3	32.6	0.0	0
	10/5/2012	0.0	26.5	35.0	0.1	0
	10/12/2012	0.0	20.0	26.4	2.2	0
	10/19/2012	0.0	27.7	32.2	0.9	0
	12/28/2012	0.0	25.1	25.2	0.6	0
	1/3/2013	0.0	24.6	23.8	1.6	0
	1/10/2013	0.0	22.5	24.6	2.2	0
	1/17/2013	0.0	11.6	9.1	11.7	0
	2/28/2013	0.0	0.0	0.2	20.8	0
	3/27/2013	0.0	32.3	16.1	0.8	0
	4/25/2013	0.0	0.1	0.1	20.7	0
	5/29/2013	0.0	28.4	27.4	0.1	0
	6/27/2013	0.0	31.4	32.0	0.0	5
	7/25/2013	0.0	38.8	36.0	0.0	4
	8/29/2013	0.0	33.1	35.2	0.0	4
	9/25/2013	0.0	19.9	3.2	0.5	0
	11/27/2013	0.0	17.7	15.2	0.5	0
	12/17/2013	0.02	4.8	13.8	2.7	0
	12/23/2013	0.18	0.7	1.8	19.2	0
	1/29/2014	0.0	0.5	1.8	0.7	0
	2/25/2014	-0.01	0.4	1.0	4.3	0
	3/27/2014	1.38	0.2	0.3	16.2	0
	4/24/2014	0.01	7.58	13.8	11.6	5
	6/26/2014	-0.47	15.9	8.8	0.3	3
	6/27/2014	0.03	17.8	11.0	2.4	4
	6/30/2014	0.03	27.0	29.0	0.0	18
	7/1/2014	-0.6	22.3	18.4	0.9	23
	7/2/2014	-0.31	3.3	10.1	0.6	1
	7/3/2014	0.01	4.1	11.0	0.3	2
	7/7/2014	0.31	29.7	16.0	0.6	14
	7/8/2014	0.72	18.1	13.9	0.1	4
	7/9/2014	0.00	10.9	14.4	0.4	4
	7/10/2014	0.00	8.1	16.7	0.7	7
	7/11/2014	0.00	12.8	21.5	0.0	10
	7/17/2014	0.01	3.4	13.7	0.2	1
	7/24/2014	0.01	0	6.7	9.9	0
	7/31/2014	0.00	6.1	22.4	0.0	6

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-108	9/21/2012	0.0	0.0	9.8	6.7	0
	12/28/2012	1.2	8.6	3.1	2.1	0
	1/3/2013	0.0	8.4	2.7	3.3	0
	1/10/2013	0.0	7.8	2.7	6.6	0
	1/17/2013	0.0	0.5	0.0	19.8	0
	2/28/2013	0.0	0.0	0.2	21.1	0
	3/27/2013	0.0	15.7	5.9	3.6	0
	4/25/2013	0.0	7.6	3.0	11.7	0
	5/29/2013	0.0	6.6	11.5	0.0	0
	6/27/2013	0.0	0.0	8.3	5.0	0
	7/25/2013	0.0	0.2	10.4	4.5	20
	8/29/2013	0.0	0.0	11.1	4.7	1
	9/25/2013	0.0	0.0	3.5	15.4	0
	11/27/2013	0.0	0.8	1.4	19.8	0
	12/17/2013	0.05	9.7	7.3	2.3	0
	12/23/2013	-0.05	0.1	0.5	20.6	0
	1/29/2014	0.13	7.1	2.5	9.8	0
	2/25/2014	0.04	9.3	3.7	9.0	0
	3/27/2014	0.0	0.4	2.0	19.0	0
	4/24/2014	0.0	0.0	0.2	20.5	0
	6/26/2014	0.0	1.3	1.7	16.9	0
	6/30/2014	0.0	2.8	4.6	14.0	0
	7/1/2014	0.0	3.0	5.6	10.0	0
	7/2/2014	0.01	0.9	2.2	16.3	0
	7/3/2014	0.0	3.4	8.3	7.8	0
SGP-109	9/21/2012	0.0	1.3	8.4	6.3	0
	12/28/2012	1.5	8.8	5.7	0.3	0
	1/3/2013	0.0	3.4	3.4	12.1	0
	1/10/2013	0.0	5.9	5.2	4.0	0
	1/17/2013	0.0	9.2	5.4	1.1	0
	2/28/2013	0.0	12.7	5.1	1.4	0
	3/27/2013	0.0	2.3	2.6	12.9	0
	4/25/2013	0.0	0.2	0.2	16.4	0
	5/29/2013	0.0	7.4	8.5	0.7	0
	6/27/2013	0.0	11.5	9.1	0.1	0
	7/25/2013	0.0	6.1	10.8	0.3	0
	8/29/2013	0.0	8.7	10.6	0.0	0
	9/25/2013	0.0	10.6	8.1	0.6	0
	11/27/2013	0.0	9.4	7.0	0.0	0
	12/17/2013	0.03	0.9	6.6	0.2	0
	12/23/2013	-0.07	3.6	4.7	8.9	0
	1/29/2014	-0.04	9.6	4.9	0.3	0
	2/25/2014	0.04	11.0	5.6	0.0	0
	3/27/2014	0.17	4.4	2.0	14.0	0
	3/28/2014	0.18	4.4	2.0	14.0	0
	4/24/2014	0.24	9.9	5.6	0.0	0
	6/26/2014	0.09	9.5	9.4	0.2	0
	6/27/2014	0.09	11.0	10.1	0.0	0
	6/30/2014	-0.19	9.3	10.3	0.0	0
	7/1/2014	0.06	7.3	9.3	0.2	0
	7/2/2014	0.01	7.7	9.8	0.2	0
	7/3/2014	0.0	9.4	10.5	0.1	0
	7/7/2014	0.01	9.4	10.8	0.1	0
	7/8/2014	0.02	9.5	11.1	0.0	0
	7/9/2014	-0.05	9.3	11.1	0.0	1
	7/10/2014	-0.01	8.9	10.6	0.0	0
	7/11/2014	0.00	9.2	10.7	0.1	0
	7/17/2014	-0.01	8.6	11.9	0.1	1
	7/24/2014	0.03	9.3	10.5	0.1	1
	7/31/2014	0.00	8.1	10.8	0.2	0
	8/6/2014	0.04	7.3	10.7	0.1	0
	8/13/2014	-0.38	7.2	11.2	0.3	0
	8/20/2014	-0.07	8.0	10.5	0.2	0
	8/29/2014	0.02	6.2	11.4	0.1	0
	9/4/2014	-0.06	5.0	8.3	5.4	0
	9/11/2014	-0.04	6.6	10.1	2.3	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-110	9/21/2012	0.0	53.5	24.4	2.1	0
	9/24/2012	0.0	55.1	26.7	0.0	0
	9/25/2012	0.0	56.7	27.9	0.1	0
	9/26/2012	0.0	60.4	27.3	0.1	0
	9/27/2012	0.0	17.0	13.5	10.5	0
	9/28/2012	0.0	58.3	25.8	0.1	0
	9/28/2012 [2]	0.0	38.2	22.3	3.9	0
	10/1/2012 [3]	0.0	53.2	24.2	2.0	0
	10/1/2012 [2]	0.0	34.2	22.2	4.7	0
	10/2/2012	0.0	9.3	8.9	14.3	0
	10/3/2012	0.0	14.5	10.6	11.3	0
	10/4/2012	0.0	57.1	24.8	0.9	0
	10/5/2012	0.0	58.4	26.1	0.0	0
	10/12/2012	0.0	49.4	22.5	0.0	0
	10/19/2012	0.0	10.7	8.9	3.5	0
	12/28/2012	0.0	2.5	5.9	7.9	0
	1/3/2013	0.0	0.2	1.6	19.9	0
	1/10/2013	0.0	0.3	3.7	15.3	0
	1/17/2013	0.0	0.2	0.0	19.8	0
	2/28/2013	0.0	0.0	0.3	21.3	0
	3/27/2013	0.0	0.0	0.3	21.1	0
	4/25/2013	0.0	0.1	0.2	20.2	0
	5/29/2013	0.0	0.0	0.1	20.0	0
	6/27/2013	0.0	1.8	0.7	19.1	0
	7/25/2013	0.0	3.6	2.0	18.8	0
	8/29/2013	0.0	24.7	12.0	11.2	6
	9/25/2013	0.3	0.0	3.6	16.9	0
	11/27/2013	0.0	0.5	1.1	19.9	0
	12/17/2013	0.0	0.0	1.8	19.2	0
	12/23/2013	0	0.0	0.1	21.9	0
	1/29/2014	0	0.0	0.6	16.4	0
	2/25/2014	0.01	0.0	1.0	19.8	0
	3/27/2014	0.0	0.0	0.0	19.5	0
	3/28/2014	0.0	0.0	0.0	19.5	0
	4/24/2014	0.05	0.0	2.8	17.6	0
	6/26/2014	0.04	39.2	7.2	8.9	1
	6/27/2014	0.06	20.0	3.2	15.6	3
	6/30/2014	-0.77	34.0	7.2	11.0	1
	7/1/2014	0.14	26.1	6.0	11.1	0
	7/2/2014	0.05	27.6	6.5	11.8	1
	7/3/2014	0.15	22.8	5.0	0.0	0
	7/7/2014	0.14	26.3	6.8	12.8	1
	7/8/2014	0.0	0.4	0.1	20.6	0
	7/9/2014	0.00	0.0	0.1	20.1	0
	7/10/2014	0.00	0.0	0.2	19.8	0
	7/11/2014	0.00	0.0	0.1	20.2	0
	7/17/2014	0.00	0.0	0.9	17.6	2
	7/24/2014	0.00	0.4	4.2	11.7	0
	7/31/2014	0.00	0.4	5.2	10.2	0
	8/6/2014	0.00	0.0	2.4	15.8	0
SGP-111	9/21/2012	0.0	0.0	7.1	11.4	0
	12/28/2012	0.0	0.3	0.1	21.3	0
	3/27/2013	0.0	0.0	0.2	22.2	0
	6/27/2013	0.0	0.1	1.4	18.2	0
	9/25/2013	0.3	0.0	1.1	18.3	0
	12/23/2013	0	0.0	0.7	20.2	0
	3/27/2014	0.03	0.0	0.0	20.9	0
	6/26/2014	0.56	0.0	3.4	15.1	0
	6/30/2014	0.01	0.0	6.5	12.6	0
	7/1/2014	0.21	0.0	4.8	14.1	0
	7/2/2014	-0.08	0.0	5.6	14.5	0
	7/3/2014	0.0	0.0	3.6	17.5	0
SGP-112	9/21/2012	0.0	0.0	4.7	2.3	0
	12/28/2012	0.0	0.0	2.1	13.4	0
	3/27/2013	0.0	0.0	0.2	21.9	0
	6/27/2013	0.0	0.0	4.9	11.3	0
	9/25/2013	0.0	0	2.8	13.3	0
	12/23/2013	0.0	0.0	1.2	13.4	0
	3/27/2014	1.47	0.0	0.0	20.9	0
	6/26/2014	0.97	0.0	5.0	9.6	0
	6/30/2014	-0.55	0.0	4.5	12.6	0
	7/1/2014	0.08	0.0	4.4	11.5	0
	7/2/2014	0.27	0.0	3.2	15.2	0
	7/3/2014	0.12	0.0	1.3	19.1	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

Location	Date	Pressure (in H_2O)	Gas Quality/Combustible Gas Concentrations Methane % [1]	CO2 % [1]	O2 % [1]	H2S ppm
SGP-113	9/21/2012	0.0	1.4	7.6	2.0	0
	12/28/2012	0.0	0.0	3.5	9.2	0
	3/27/2013	0.0	1.9	3.5	0.7	0
	6/27/2013	0.0	3.0	5.3	5.0	0
	9/25/2013	0.0	0.0	1.1	17.8	0
	12/23/2013	0.0	0.0	1.5	17.5	0
	3/27/2014	2.12	0.0	0.0	20.9	0
	6/26/2014	0.0	0.0	5.9	4.2	0
	6/30/2014	-0.36	0.0	8.1	1.0	0
	7/1/2014	0.30	0.0	7.2	1.5	0
	7/2/2014	0.07	0.0	7.1	3.3	0
	7/3/2014	0.02	0.0	7.2	4.4	0
SGP-114	9/21/2012	0.0	24.9	29.7	0.4	0
	9/24/2012	0.0	24.8	28.5	0.0	0
	9/25/2012	0.0	25.0	29.9	0.0	8
	9/26/2012	0.0	24.1	28.8	1.1	10
	9/27/2012	0.0	23.9	29.0	1.3	10
	9/28/2012	0.0	23.5	28.2	1.3	8
	9/28/2012 [2]	0.0	0.0	0.1	20.3	0
	10/1/2012 [3]	0.0	24.5	29.4	0.0	7
	10/1/2012 [2]	0.0	24.2	28.9	0.7	8
	10/2/2012	0.0	21.4	25.1	0.8	0
	10/3/2012	0.0	17.6	20.8	3.1	0
	10/4/2012	0.0	23.2	29.1	0.0	0
	10/5/2012	0.0	23.4	29.4	0.0	0
	10/12/2012	0.0	22.9	28.7	0.1	0
	10/19/2012	0.0	32.2	29.5	0.1	0
	12/28/2012	0.0	58.5	31.0	1.1	6
	1/3/2013	0.0	58.9	30.8	3.0	5
	1/10/2013	0.0	58.9	31.9	1.0	4
	1/17/2013	0.0	62.7	29.9	0.9	0
	2/28/2013	0.0	40.1	22.3	5.4	0
	3/27/2013	0.0	53.1	30.4	0.2	4
	4/25/2013	0.0	49.6	31.3	1.8	0
	5/29/2013	0.0	38.1	33.1	0.4	10
	6/27/2013	0.0	39.8	36.0	0.0	15
	7/25/2013	0.0	40.3	37.3	0.0	12
	9/25/2013	0.1	28.5	33.5	0.2	6
	11/27/2013	0.0	0.0	0.2	20.8	0
	12/17/2013	0.0	0.0	0.2	21.6	0
	12/23/2013	0.0	0.0	0.2	20.3	0
	1/29/2014	0.01	1.2	6.1	13.9	0
	2/25/2014	0.01	0.0	1.1	19.8	0
	3/27/2014	0.0	3.9	4.9	11.1	0
	4/24/2014	0.0	0.7	6.0	11.9	0
	6/26/2014	0.0	23.0	23.6	0.2	5
	6/27/2014	0.0	24.5	25.7	0.1	3
	6/30/2014	0.06	16.6	24.7	0.0	9
	7/1/2014	0.00	24.4	21.4	0.1	6
	7/2/2014	0.00	5.3	19.0	1.3	0
	7/3/2014	0.00	0.7	14.2	5.1	0
	7/7/2014	0.00	17.6	23.5	0.1	1
	7/8/2014	-0.01	18.9	24.5	0.2	1
	7/9/2014	-0.01	3.1	15.4	4.6	0
	7/10/2014	-0.01	1.6	15.9	2.9	1
	7/11/2014	-0.01	7	20.2	0.4	1
	7/17/2014	-0.01	27.7	26.0	0.2	0
	7/24/2014	0.00	20	16.8	7.3	1
	7/31/2014	0.00	23.5	27.9	0.0	0
	8/6/2014	0.00	18.4	18.0	7.2	0
	8/13/2014	0.00	25.4	16.4	0.4	0
	8/20/2014	0.00	27.3	23.7	1.8	0
	8/29/2014	0.00	26.5	27.6	0.1	0
	9/4/2014	-0.01	38.7	26.5	2.5	0
	9/11/2014	0.00	49.3	25.3	3.7	0
SGP-115	12/28/2012	1.3	34.5	36.5	1.3	0
	1/3/2013	0.0	34.8	35.6	2.4	0
	1/10/2013	0.0	35.6	36.6	6.9	0
	1/17/2013	0.0	0.3	0.0	20.2	0
	2/28/2013	0.0	0.0	0.2	20.9	0
	3/27/2013	0.0	0.0	0.3	19.5	0
	4/25/2013	0.0	0.0	0.1	20.4	0
	5/29/2013	0.0	29.5	44.7	0.3	0
	6/27/2013	0.0	30.6	49.2	0.0	0
	7/25/2013	0.0	31.6	52.3	0.0	4
	8/29/2013	0.0	30.2	49.3	0.0	11
	9/25/2013	0.0	17.8	36.1	3.1	0
	11/27/2013	0.0	33.5	32.7	0.7	5
	12/17/2013	0.14	35.6	35.1	0.0	0
	12/23/2013	-0.39	7.1	11.3	14.0	0
	1/29/2014	0.09	37.1	29.6	0.0	0
	2/25/2014	0.18	37.6	28.4	0.0	0
	3/27/2014	0.62	35.3	26.3	1.8	0
	4/24/2014	0.25	33.2	28.0	0.0	0
	6/26/2014	0.26	37.0	34.4	0.2	0
	6/27/2014	0.27	43.2	42.0	0.0	0
	6/30/2014	0.26	32.2	37.1	0.0	0
	7/1/2014	0.51	33.7	37.5	0.1	0
	7/2/2014	-0.09	0.0	0.1	20.4	0
	7/3/2014	0.00	0.0	0.2	20.2	0
	7/7/2014	0.01	15.1	20.8	5.4	0
	7/8/2014	0.02	25.3	29.9	3.1	0
	7/9/2014	-0.06	0.0	0.2	19.8	0
	7/10/2014	0.00	0.0	0.5	15.1	0
	7/11/2014	-0.01	3.3	7.4	0.1	0
	7/17/2014	-0.01	25.6	31.8	0.0	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-116	12/28/2012	1.9	58.4	46.5	0.6	0
	1/3/2013	0.0	59.8	45.6	1.3	0
	1/10/2013	0.0	61.8	45.4	4.1	0
	1/17/2013	0.0	52.6	40.6	1.6	0
	2/28/2013	0.0	0.0	0.2	21.6	0
	3/27/2013	0.0	53.2	41.4	0.6	0
	4/25/2013	0.0	0.0	0.1	20.5	0
	5/29/2013	0.0	41.7	40.9	0.5	0
	6/27/2013	0.0	51.5	48.4	0.1	0
	7/25/2013	0.0	48.9	50.9	0.0	0
	8/29/2013	0.0	49.0	47.6	0.0	5
	9/25/2013	0.0	21.7	31.7	1.1	0
	11/27/2013	0.05	49.9	42.2	0.0	0
	12/17/2013	0.22	57.8	42.1	0.1	0
	12/23/2013	-0.50	35.6	29.4	5.4	0
	1/29/2014	0.17	57.3	39.6	0.0	1
	2/25/2014	0.44	44.6	30.4	0.0	2
	3/27/2014	0.75	44.6	30.4	4.4	0
	4/24/2014	0.44	51.4	38.4	0.0	3
	6/26/2014	0.59	50.6	49.1	0.2	6
	6/27/2014	0.46	46.0	54.2	0.0	7
	6/30/2014	0.49	46.1	47.1	0.1	12
	7/1/2014	0.75	45.9	46.8	0.2	13
	7/2/2014	-0.06	42.5	43.1	2.2	0
	7/3/2014	0.03	50.5	49.1	0.0	3
	7/7/2014	0.05	50.9	49.2	0.0	10
	7/8/2014	0.08	50.5	49.4	0.0	8
	7/9/2014	-0.04	42.5	41.7	2.3	1
	7/10/2014	-0.02	48.8	48.6	0.6	1
	7/11/2014	-0.01	49.5	47.6	0.3	1
	7/17/2014	-0.01	45.3	46.1	0.4	1
SGP-117S	12/28/2012	0.0	2.2	14.9	0.3	0
	1/3/2013	0.0	1.9	10.7	7.4	0
	1/10/2013	0.0	2.0	14.7	3.6	0
	1/17/2013	0.0	2.5	13.5	0.7	0
	2/28/2013	0.0	0.2	1.4	14.7	0
	3/27/2013	0.0	3.2	12.0	0.0	0
	4/25/2013	0.0	4.6	12.3	0.9	0
	5/29/2013	0.0	4.0	14.5	0.0	0
	6/27/2013	0.0	3.7	15.5	0.3	0
	7/25/2013	0.0	4.3	18.2	0.1	0
	8/29/2013	0.0	3.4	19.7	0.0	1
	9/25/2013	0.0	2.6	15.5	1.8	0
	11/27/2013	-0.1	3.6	17.0	0.4	0
	12/17/2013	0.0	3.4	16.5	0.6	0
	12/23/2013	-0.07	3.3	14.7	0.2	0
	1/29/2014	0.02	3.0	13.9	0.0	0
	2/25/2014	0.03	2.9	11.1	0.7	0
	3/27/2014	0.12	3.1	7.2	9.3	0
	4/24/2014	0.13	6.2	12.5	0.1	0
	4/30/2014	0.0	3.3	8.6	1.8	nm
	5/1/2014	0.02	5.1	12.3	0.0	0
	5/2/2014	0.02	4.7	12.7	0.0	0
	5/3/2014	-0.08	5.1	13.0	0.0	0
	5/4/2014	0.0	4.9	13.2	0.0	0
	5/5/2014	0.10	4.7	13.2	0.0	0
	5/6/2014	0.0	5.0	13.5	0.0	0
	5/7/2014	0.0	3.7	12.6	0.0	0
	5/8/2014	0.0	4.9	12.4	0.0	0
	5/9/2014	0.05	4.9	13.7	0.0	0
	5/12/2014	0.00	6.5	14.8	0.0	0
	5/13/2014	0.05	5.0	15.3	0.0	0
	5/14/2014	0.00	4.7	15.2	0.0	0
	5/15/2014	0.10	4.1	14.2	0.1	nm
	5/16/2014	0.00	4.9	14.0	0.1	nm
	5/19/2014	0.00	5.2	15.8	0.0	0
	5/27/2014	0.00	5.4	14.4	0.0	0
	6/4/2014	0.08	5.7	15.6	0.0	0
	6/12/2014	0.01	5.9	16.5	0.0	0
	6/19/2014	-0.04	5.6	17.7	0.0	0
	6/26/2014	0.03	4.9	16.0	0.2	0
	6/30/2014	0.10	3.9	16.3	0.1	0
	7/1/2014	0.00	5.6	18.1	0.0	0
	7/2/2014	-0.01	5.5	18.0	0.1	0
	7/3/2014	0.00	5.4	18.0	0.1	0
	7/7/2014	0.02	5.5	18.5	0.0	0
	7/17/2014	0.00	4.7	18.7	0.0	1
	7/24/2014	0.01	2.5	8.7	10.4	0
	7/31/2014	0.01	4.6	21.1	0.0	0
	8/6/2014	0.02	4.3	20.5	0.0	0
	8/13/2014	0.01	4.3	20.2	0.1	0
	8/20/2014	-0.05	4.6	19.8	0.0	0
	8/29/2014	0.01	4.1	20.2	0.0	0
	9/4/2014	-0.05	4.8	21.4	0.0	0
	9/11/2014	-0.03	4.6	16.2	4.8	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

Location	Date	Pressure (in H_2O)	Gas Quality/Combustible Gas Concentrations Methane % [1]	CO2 % [1]	O2 % [1]	H2S ppm
SGP-117D	12/28/2012	0.0	1.5	15.8	0.5	0
	1/3/2013	0.0	1.4	10.6	6.7	0
	1/10/2013	0.0	1.3	9.4	11.2	0
	1/17/2013	0.0	1.4	9.0	7.2	0
	2/28/2013	0.0	0.3	2.3	13.8	0
	3/27/2013	0.0	0.1	1.4	18.6	0
	4/25/2013	0.0	0.2	2.9	16.9	0
	5/29/2013	0.0	0.0	0.1	20.8	2
	6/27/2013	0.0	0.2	4.1	15.1	(5)
	7/25/2013	0.0	0.3	4.6	16.1	0
	8/29/2013	0.0	0.5	6.9	14.7	0
	9/25/2013	0.0	2.1	17.0	0.4	7
	11/27/2013	-0.1	2.6	18.0	0.7	0
	12/17/2013	0.0	2.4	17.0	0.9	0
	12/23/2013	-0.05	2.5	14.8	0.7	0
	1/29/2014	0.01	1.5	9.1	6.3	1
	2/25/2014	-0.01	0.1	0.1	22.5	0
	3/27/2014	0.30	0.1	0.0	20.8	0
	4/24/2014	-0.18	0.2	0.2	21.1	0
	4/30/2014	-16.1	0.0	0.9	20.7	nm
	5/1/2014	-0.09	0.1	0.1	20.9	0
	5/2/2014	-0.34	0.0	0.7	20.6	0
	5/3/2014	0.0	0.1	0.9	20.4	0
	5/4/2014	0.0	nm	nm	nm	nm
	5/5/2014	0.0	nm	nm	nm	nm
	5/6/2014	-4.25	nm	nm	nm	nm
	5/7/2014	0.00	nm	nm	nm	nm
	5/8/2014	0.00	nm	nm	nm	nm
	5/9/2014	0.00	nm	nm	nm	nm
	5/12/2014	0.05	nm	nm	nm	nm
	5/13/2014	0.00	nm	nm	nm	nm
	5/14/2014	0.00	nm	nm	nm	nm
	5/15/2014	0.09	nm	nm	nm	nm
	5/16/2014	0.00	nm	nm	nm	nm
	5/19/2014	0.00	nm	nm	nm	nm
	5/27/2014	0.00	nm	nm	nm	nm
	6/4/2014	-0.04	nm	nm	nm	nm
	6/12/2014	0.00	nm	nm	nm	nm
	6/19/2014	0.02	nm	nm	nm	nm
	6/26/2014	-4.70	nm	nm	nm	nm
	6/30/2014	0.20	nm	nm	nm	nm
	7/1/2014	-0.14	nm	nm	nm	nm
	7/2/2014	-0.14	nm	nm	nm	nm
	7/3/2014	-0.15	nm	nm	nm	nm
	7/7/2014	2.22	nm	nm	nm	nm
	7/17/2014	1.64	nm	nm	nm	nm
	7/24/2014	0.07	0.0	0.0	20.6	0
	7/31/2014	0.00	0.0	4.3	20.1	0
	8/6/2014	-0.25	0.0	0.0	20.6	0
	8/13/2014	-0.02	0.0	0.0	20.8	0
	8/20/2014	-0.20	0.0	0.1	20.2	0
	8/29/2014	-1.00	0.0	0.1	20.4	0
	9/4/2014	-0.30	0.0	0.1	20.7	0
	9/11/2014	-0.52	0.0	0.0	21.7	0
SGP-118	12/28/2012	0.0	60.0	41.4	1.2	0
	1/3/2013	0.0	61.1	41.5	1.1	0
	1/10/2013	1.9	0.3	0.0	19.7	0
	1/17/2013	0.0	0.2	0.0	21.3	0
	2/28/2013	-1.2	0.0	0.2	21.7	0
	3/27/2013	0.0	0.0	0.2	21.9	0
	4/25/2013	-1.4	0.0	0.1	20.6	0
	5/29/2013	0.0	46.4	40.0	1.7	0
	6/27/2013	1.4	52.0	47.2	0.2	7
	7/25/2013	0.9	49.5	49.6	0.0	7
	8/29/2013	0.0	48.4	49.1	0.1	2
	9/25/2013	0.0	49.7	48.6	0.1	2
	11/27/2013	0.3	55.3	44.7	0.0	7
	12/17/2013	0.3	59.4	39.3	1.3	5
	12/23/2013	-0.66	41.4	31.4	2.2	0
	1/29/2014	-0.05	12.1	9.4	14.5	0
	2/25/2014	0.55	43.8	30.2	0.0	0
	3/27/2014	0.70	60.4	36.5	0.0	0
	4/24/2014	0.60	56.9	40.5	0.0	2
	6/26/2014	0.85	50.7	49.1	0.2	11
	6/27/2014	0.66	44.6	55.5	0.0	10
	6/30/2014	0.74	44.1	45.2	0.0	9
	7/1/2014	1.12	50.1	49.9	0.2	13
	7/2/2014	0.03	43.2	46.1	0.1	3
	7/3/2014	0.17	35.7	42.9	0.0	0
	7/7/2014	0.15	50.6	49.3	0.0	2
	7/8/2014	0.22	50.1	49.8	0.0	9
	7/9/2014	-0.03	38.5	44.4	0.1	1
	7/10/2014	-0.02	24.9	36.4	0.1	1
	7/11/2014	-0.01	44.8	46.6	0.1	1
	7/17/2014	0.00	48.1	48.1	0.1	2

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

Location	Date	Pressure (in H_2O)	Gas Quality/Combustible Gas Concentrations Methane % [1]	CO2 % [1]	O2 % [1]	H2S ppm
SGP-119S	12/28/2012	0.0	4.8	7.6	15.3	0
	1/3/2013	0.0	4.0	7.2	16.0	0
	1/10/2013	0.0	2.6	6.2	16.0	0
	1/17/2013	0.0	10.4	10.5	14.5	0
	2/28/2013	0.0	6.9	7.7	17.2	0
	3/27/2013	0.0	3.0	5.4	18.8	0
	4/25/2013	0.0	8.0	10.6	14.8	0
	5/29/2013	0.0	0.0	4.2	16.9	0
	6/27/2013	0.0	0.0	6.4	14.1	0
	7/25/2013	0.0	0.0	5.9	15.6	0
	8/29/2013	0.0	0.0	3.7	16.6	0
	9/25/2013	0.0	0.0	3.8	17.8	0
	11/27/2013	0.0	0.0	3.0	18.2	0
	12/17/2013	0.0	0.0	2.5	15.9	0
	12/23/2013	0.0	0.0	2.2	18.6	0
	1/29/2014	0.02	0.0	2.3	21.0	0
	2/25/2014	0.0	0.0	1.7	19.9	0
	3/27/2014	0.0	0.0	0.5	20.7	0
	4/24/2014	0.0	0.0	1.4	19.2	0
	6/26/2014	0.0	0.0	4.6	15.2	0
	6/30/2014	0.03	0.0	3.9	17.2	0
	7/1/2014	0.00	0.0	3.6	15.4	0
	7/2/2014	0.00	0.0	4.1	16.6	0
	7/3/2014	0.00	0.0	4.3	17.1	0
SGP-119D	12/28/2012	0.0	6.8	12.4	11.5	0
	1/3/2013	0.0	5.3	4.4	11.2	0
	1/10/2013	0.0	3.8	11.2	13.0	0
	1/17/2013	0.0	15.6	15.3	10.0	0
	2/28/2013	0.0	7.8	9.2	14.1	0
	3/27/2013	0.0	4.4	8.1	17.0	0
	4/25/2013	0.0	7.4	6.5	13.0	0
	5/29/2013	0.0	0.0	5.2	16.4	0
	6/27/2013	0.0	0.0	7.7	13.2	0
	7/25/2013	0.0	0.0	8.1	14.2	0
	8/29/2013	0.0	0.0	5.1	15.5	0
	9/25/2013	0.0	0.0	5.1	16.6	0
	11/27/2013	0.0	0.0	3.4	17.6	0
	12/17/2013	0.0	0.0	3.2	15.5	0
	12/23/2013	0.0	0.0	2.7	18.4	0
	1/29/2014	0.0	0.0	2.5	20.7	0
	2/25/2014	0.01	0.0	1.9	19.8	0
	3/27/2014	0.0	0.0	0.3	20.7	0
	4/24/2014	0.0	0.0	1.4	19.1	0
	6/26/2014	0.0	0.0	4.5	15.0	0
	6/30/2014	0.0	0.0	4.5	16.6	0
	7/1/2014	0.0	0.0	4.3	15.0	0
	7/2/2014	0.0	0.0	4.5	16.4	0
	7/3/2014	0.0	0.0	4.8	16.7	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-13	9/24/2012	0.0	0.0	0.7	19.7	0
	9/25/2012	---	---	---	---	---
	9/26/2012	0.0	0.0	0.5	19.8	0
	9/27/2012	0.0	0.0	0.6	19.8	0
	9/28/2012	0.0	0.0	0.5	19.9	0
	10/1/2012	0.0	0.0	0.6	19.8	0
	10/2/2012	0.0	0.0	0.5	19.6	0
	10/3/2012	0.0	0.1	0.8	19.5	0
	10/4/2012	0.0	0.0	0.6	19.6	0
	10/5/2012	0.0	0.0	0.6	20.1	0
	10/12/2012	0.0	0.0	0.5	19.7	0
	10/19/2012	0.0	0.0	0.5	20.9	0
	12/28/2012	0.0	0.0	0.4	20.8	0
	1/3/2013	0.0	0.0	0.0	20.7	0
	1/10/2013	0.0	0.0	0.0	19.9	0
	1/17/2013	0.0	0.0	0.0	20.0	0
	2/28/2013	0.0	0.0	0.4	21.5	0
	3/27/2013	0.0	0.0	0.3	21.9	0
	4/25/2013	0.0	0.0	0.1	20.8	0
	5/29/2013	0.0	0.0	0.2	21.9	0
	6/27/2013	0.0	0.0	1.0	18.6	0
	7/25/2013	0.0	0.0	1.0	19.5	0
	8/29/2013	0.0	0.0	0.8	19.7	0
	9/25/2013	0.0	0.0	0.7	19.7	0
	11/27/2013	0.0	0.0	0.7	20.5	0
	12/17/2013	0.0	0.0	0.5	20.6	0
	12/23/2013	0.0	0.0	0.5	20.9	0
	1/29/2014	0.0	0.0	0.5	19.6	0
	2/25/2014	0.02	0.0	0.9	20.1	0
	3/27/2014	0.0	0.0	0.0	20.5	0
	4/24/2014	0.0	0.0	0.5	20.5	0
	6/26/2014	0.0	0.0	1.6	18.3	0
	6/30/2014	0.08	0.0	1.6	20.1	0
	7/1/2014	0.0	0.0	1.9	18.7	0
	7/2/2014	0.0	0.0	1.8	19.0	0
	7/3/2014	0.0	0.0	1.3	19.4	0
SGP-14	9/24/2012	0.0	0.0	0.6	19.6	0
	9/25/2012	---	---	---	---	---
	9/26/2012	0.0	0.0	0.6	19.8	0
	9/27/2012	0.0	0.0	0.6	19.9	0
	9/28/2012	0.0	0.0	0.6	20.1	0
	10/1/2012	0.0	0.0	0.7	19.9	0
	10/2/2012	0.0	0.0	0.6	19.8	0
	10/3/2012	0.0	0.0	0.6	19.9	0
	10/4/2012	0.0	0.0	0.6	19.5	0
	10/5/2012	0.0	0.0	0.5	20.3	0
	10/12/2012	0.0	0.0	0.7	20.7	0
	10/19/2012	0.0	0.0	0.5	20.4	0
	12/28/2012	0.0	0.0	0.1	20.6	0
	1/3/2013	0.0	0.0	0.4	20.6	0
	1/10/2013	0.0	0.0	0.0	20.5	0
	1/17/2013	0.0	0.0	0.0	20.4	0
	2/28/2013	0.0	0.0	0.5	21.6	0
	3/27/2013	0.0	0.0	0.2	21.9	0
	4/25/2013	0.0	0.0	0.1	20.6	0
	5/29/2013	0.0	0.0	0.2	21.8	0
	6/27/2013	0.0	0.0	0.9	18.7	0
	7/25/2013	0.0	0.0	1.4	19.3	0
	8/29/2013	0.0	0.0	1.2	19.5	0
	9/25/2013	0.0	0.0	0.7	20.1	0
	11/27/2013	0.0	0.0	0.7	20.6	0
	12/17/2013	0.0	0.0	0.6	20.6	0
	12/23/2013	0.0	0.0	0.5	21.2	0
	1/29/2014	0.0	0.0	0.5	19.7	0
	2/25/2014	0.0	0.0	0.7	20.5	0
	3/27/2014	0.0	0.0	0.1	20.7	0
	4/24/2014	0.0	0.0	0.3	20.7	0
	6/26/2014	0.0	0.0	1.6	18.3	0
	6/30/2014	0.08	0.0	1.6	20.0	0
	7/1/2014	0.00	0.0	1.9	18.6	0
	7/2/2014	0.01	0.0	1.8	18.8	0
	7/3/2014	0.00	0.0	2.0	18.7	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

Location	Date	Pressure (in H_2O)	Gas Quality/Combustible Gas Concentrations Methane % [1]	CO2 % [1]	O2 % [1]	H2S ppm
SGP-15	9/24/2012	0.0	0.0	0.3	20.0	0
	9/25/2012	---	---	---	---	---
	9/26/2012	0.0	0.0	0.0	19.9	0
	9/27/2012	0.0	0.0	0.0	20.2	0
	9/28/2012	0.0	0.0	0.6	20.1	0
	10/1/2012	0.0	0.0	0.0	20.2	0
	10/2/2012	0.0	0.0	0.0	20.1	0
	10/3/2012	0.0	0.0	0.0	19.6	0
	10/4/2012	0.0	0.0	0.9	19.2	0
	10/5/2012	0.0	0.0	0.0	19.9	0
	10/12/2012	0.0	0.0	0.0	20.1	0
	10/19/2012	0.0	0.0	0.0	19.8	0
	12/28/2012	0.0	0.0	0.3	20.5	0
	1/3/2013	0.0	0.0	0.3	20.5	0
	1/10/2013	0.0	0.0	0.4	20.4	0
	1/17/2013	0.0	0.0	0.0	20.5	0
	2/28/2013	0.0	0.0	0.2	21.6	0
	3/27/2013	0.0	0.0	0.2	21.8	0
	4/25/2013	0.0	0.0	0.1	20.7	0
	5/29/2013	0.0	0.0	0.2	21.9	0
	6/27/2013	(6)	(6)	(6)	(6)	(6)
	7/25/2013	0.0	0.0	1.7	19.1	0
	8/29/2013	0.0	0.0	1.5	19.3	0
	9/25/2013	0.0	0.0	0.6	20.5	0
	11/27/2013	0.0	0.0	1.5	19.7	0
	12/17/2013	0.0	0.0	1.1	20.2	0
	12/23/2013	0.0	0.0	0.3	20.9	0
	1/29/2014	0.0	0.0	0.2	19.8	0
	2/25/2014	0.0	0.0	0.3	20.7	0
	3/27/2014	0.0	0.0	0.1	20.8	0
	4/24/2014	0.0	0.0	0.4	20.8	0
	6/26/2014	0.0	0.0	1.8	18.4	0
	6/30/2014	0.03	0.0	1.7	19.8	0
	7/1/2014	0.00	0.0	1.9	18.6	0
	7/2/2014	0.00	0.0	1.9	18.9	0
	7/3/2014	0.00	0.0	1.9	18.7	0
SGP-16	1/17/2013	0.0	0.0	0.0	19.9	0
	2/28/2013	0.0	0.0	0.4	21.3	0
	3/27/2013	0.0	0.0	0.3	21.7	0
	4/25/2013	0.0	0.0	0.1	20.6	0
	5/29/2013	0.0	0.0	0.3	21.8	0
	6/27/2013	(6)	(6)	(6)	(6)	(6)
	7/25/2013	(6)	(6)	(6)	(6)	(6)
	8/29/2013	(6)	(6)	(6)	(6)	(6)
	9/25/2013	0.0	0.0	1.1	20.1	0
	11/27/2013	0.0	0.0	0.9	20.2	0
	12/17/2013	0.0	0.0	0.8	20.3	0
	12/23/2013	0.0	0.0	0.8	21.5	0
	1/29/2014	0.0	0.0	0.7	19.3	0
	2/25/2014	0.0	0.0	1.1	20.1	0
	3/27/2014	0.0	0.0	0.0	20.9	0
	4/24/2014	0.0	0.0	0.6	20.6	0
	6/26/2014	0.0	0.0	0.0	20.4	0
	6/30/2014	0.03	0.0	2.2	19.1	0
	7/1/2014	0.00	0.0	2.6	17.7	0
	7/2/2014	0.01	0.0	2.5	18.2	0
	7/3/2014	0.00	0.0	2.5	18.2	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-27S	9/24/2012	0.0	0.0	0.7	19.7	0
	9/25/2012	---	---	---	---	---
	9/26/2012	0.0	0.0	0.0	20.1	0
	9/27/2012	0.0	0.0	0.7	19.8	0
	9/28/2012	0.0	0.0	0.6	19.6	0
	10/1/2012	0.0	0.0	0.6	20.1	0
	10/2/2012	0.0	0.0	0.6	19.9	0
	10/3/2012	0.0	0.0	0.8	19.8	0
	10/4/2012	0.0	0.0	0.8	19.2	0
	10/5/2012	0.0	0.0	1.0	19.6	0
	10/12/2012	0.0	0.0	0.7	20.0	0
	10/19/2012	0.0	0.0	0.8	19.9	0
	12/28/2012	0.0	0.0	0.2	21.1	0
	1/3/2013	(4)	(4)	(4)	(4)	(4)
	1/10/2013	0.0	0.2	0.0	20.0	0
	1/17/2013	0.0	0.0	0.0	20.3	0
	2/28/2013	0.0	0.0	0.2	21.7	0
	3/27/2013	0.0	0.0	0.2	21.8	0
	4/25/2013	0.0	0.0	0.1	20.4	0
	5/29/2013	0.0	0.0	0.7	20.3	0
	6/27/2013	0.0	0.0	0.7	18.8	0
	7/25/2013	0.0	0.0	1.2	19.6	0
	8/29/2013	0.0	0.0	1.0	19.7	0
	9/25/2013	0.0	0.0	0.3	20.3	0
	11/27/2013	0.0	0.0	0.2	20.7	0
	12/17/2013	0.0	0.0	0.1	20.4	0
	12/23/2013	0.0	0.0	0.1	21.6	0
	1/29/2014	0.0	0.0	0.7	19.7	0
	2/25/2014	0.0	0.0	0.9	20.8	0
	3/27/2014	0.0	0.0	0.3	20.9	0
	4/24/2014	0.0	0.0	0.6	20.6	0
	4/30/2014	0.0	0.0	0.9	20.1	nm
	5/1/2014	0.0	0.0	0.9	21.0	0
	5/2/2014	-0.01	0.0	0.7	20.6	0
	5/3/2014	0.0	0.1	0.7	20.5	0
	5/4/2014	0.0	0.0	0.6	20.1	0
	5/5/2014	0.0	0.0	0.6	19.9	0
	5/6/2014	0.0	0.0	0.7	20.5	0
	5/7/2014	0.0	0.0	0.6	20.1	0
	5/8/2014	0.0	0.0	0.5	19.8	0
	5/9/2014	0.0	0.0	0.5	20.0	0
	5/12/2014	0.0	0.0	0.0	20.5	0
	5/13/2014	0.0	0.0	0.8	20.0	0
	5/14/2014	0.0	0.0	0.8	20.0	0
	5/15/2014	0.30	0.0	0.9	20.4	nm
	5/16/2014	0.0	0.0	0.9	20.0	nm
	5/19/2014	0.0	0.0	0.9	19.8	0
	5/27/2014	0.0	0.0	1.0	20.7	0
	6/4/2014	0.0	0.0	1.2	20.2	0
	6/12/2014	0.01	0.0	1.0	19.7	0
	6/19/2014	0.0	0.0	1.0	19.1	0
	6/26/2014	0.0	0.0	1.3	18.1	0
	6/30/2014	0.08	0.0	1.3	19.4	0
	7/1/2014	0.0	0.0	1.7	18.8	0
	7/2/2014	0.0	0.0	1.5	19.8	0
	7/3/2014	0.0	0.0	1.6	19.3	0
	7/7/2014	0.0	0.0	1.5	19.4	0
	7/18/2014	0.0	0.0	1.1	19.6	0
	7/24/2014	0.0	0.0	0.4	20.1	0
	7/31/2014	0.0	0.0	1.1	19.9	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-27D	9/24/2012	0.0	0.0	0.7	19.8	0
	9/25/2012	---	---	---	---	---
	9/26/2012	0.0	0.0	0.9	19.5	0
	9/27/2012	0.0	0.0	0.9	19.7	0
	9/28/2012	0.0	0.0	0.8	19.4	0
	10/1/2012	0.0	0.0	0.9	19.6	0
	10/2/2012	0.0	0.0	0.8	19.7	0
	10/3/2012	0.0	0.0	0.9	19.7	0
	10/4/2012	0.0	0.0	1.1	18.8	0
	10/5/2012	0.0	0.0	1.0	19.8	0
	10/12/2012	0.0	0.0	0.9	19.8	0
	10/19/2012	0.0	0.0	1.0	19.8	0
	12/28/2012	0.0	0.0	0.2	21.0	0
	1/3/2013	0.0	0.0	0.5	20.4	0
	1/10/2013	0.0	0.0	0.2	19.6	0
	1/17/2013	0.0	0.2	0.0	20.3	0
	2/28/2013	0.0	0.0	0.3	21.7	0
	3/27/2013	0.0	0.0	0.6	21.5	0
	4/25/2013	0.0	0.0	0.7	20.0	0
	5/29/2013	0.0	0.0	0.1	21.0	0
	6/27/2013	0.0	0.0	0.8	18.9	0
	7/25/2013	0.0	0.0	1.5	19.2	0
	8/29/2013	0.0	0.0	0.8	19.1	0
	9/25/2013	0.0	0.0	0.9	20.1	0
	11/27/2013	0.0	0.0	1.0	20.1	0
	12/17/2013	0.0	0.0	0.8	20.0	0
	12/23/2013	0.1	0.0	0.7	21.1	0
	1/29/2014	0.0	0.0	0.7	20.3	0
	2/25/2014	0.01	0.0	0.9	20.9	0
	3/27/2014	0.0	0.0	0.4	20.8	0
	4/24/2014	0.0	0.0	0.5	20.7	0
	4/30/2014	0.0	0.0	0.9	20.3	nm
	5/1/2014	0.0	0.0	0.9	21.0	0
	5/2/2014	-0.01	0.0	0.7	20.8	0
	5/3/2014	0.0	0.1	0.8	20.5	0
	5/4/2014	0.0	0.0	0.7	20.0	0
	5/5/2014	0.0	0.0	0.7	19.8	0
	5/6/2014	0.0	0.0	0.7	20.5	0
	5/7/2014	0.0	0.0	0.7	19.9	0
	5/8/2014	0.0	0.0	0.4	19.9	0
	5/9/2014	0.0	0.0	0.6	19.9	0
	5/12/2014	0.0	0.0	0.6	20.7	0
	5/13/2014	0.0	0.0	0.7	20.2	0
	5/14/2014	0.0	0.0	0.7	20.2	0
	5/15/2014	0.32	0.0	0.8	20.4	nm
	5/16/2014	0.0	0.0	0.8	20.3	nm
	5/19/2014	0.0	0.0	0.9	19.8	0
	5/27/2014	0.0	0.0	1.0	19.6	0
	6/4/2014	0.0	0.0	1.3	20.1	0
	6/12/2014	0.01	0.0	1.1	19.9	0
	6/19/2014	0.0	0.0	1.1	19.2	0
	6/26/2014	0.0	0.0	1.1	18.3	0
	6/30/2014	0.08	0.0	1.3	19.4	0
	7/1/2014	0.0	0.0	1.7	18.8	0
	7/2/2014	0.0	0.0	1.5	19.6	0
	7/3/2014	0.0	0.0	1.6	19.3	0
	7/7/2014	0.0	0.0	1.6	19.3	0
	7/18/2014	0.0	0.0	1.2	19.6	0
	7/24/2014	0.0	0.0	0.5	20.0	0
	7/31/2014	0.0	0.0	1.2	19.8	0

TABLE 1

SOIL GAS MONITORING DATA
HIMCO SITE
ELKHART, INDIANA

		Pressure	*Gas Quality/Combustible Gas Concentrations*			
Location	*Date*	*(in H_2O)*	*Methane %* [1]	*CO2 %* [1]	*O2 %* [1]	*H2S ppm*
SGP-25S	12/17/2013	0.3	0.0	1.1	19.4	0
	1/29/2014	0.0	0.0	1.6	18.6	0
	2/25/2014	0.0	0.0	1.9	19.7	0
	7/3/2014	0.0	0.0	2.1	19.1	0
	7/7/2014	0.0	0.0	1.8	19.1	0
	7/18/2014	0.0	0.0	1.3	19.3	0
	7/24/2014	0.0	0.0	0.8	19.9	0
	7/31/2014	0.0	0.0	1.3	19.7	0
SGP-25D	12/17/2013	0.0	0.0	0.1	19.9	0
	1/29/2014	0.02	0.0	1.6	18.5	0
	2/25/2014	0.0	0.0	1.8	19.8	0
	7/3/2014	0.0	0.0	2.3	18.8	0
	7/7/2014	-0.01	0.0	2.1	18.9	0
	7/18/2014	0.00	0.0	1.6	19.1	0
	7/24/2014	0.00	0.0	1.0	19.3	0
	7/31/2014	0.00	0.0	1.5	19.5	0
SGP-26S	12/17/2013	0.0	0.0	0.8	19.8	0
	1/29/2014	0.0	0.0	1.0	19.4	0
	2/25/2014	0.0	0.0	1.1	20.7	0
	7/3/2014	0.0	0.0	1.9	19.1	0
	7/7/2014	0.0	0.0	1.7	19.1	0
	7/18/2014	0.0	0.0	1.3	19.1	0
	7/24/2014	0.0	0.0	1.2	19.3	0
	7/31/2014	0.0	0.0	1.3	19.5	0
SGP-26D	12/17/2013	0.0	0.0	0.1	20.2	0
	1/29/2014	0.1	0.0	1.0	19.3	0
	2/25/2014	0.0	0.0	1.1	20.8	0
	7/3/2014	0.0	0.0	1.9	19.1	0
	7/7/2014	0.0	0.0	1.8	19.1	0
	7/18/2014	0.0	0.0	1.4	19.1	0
	7/24/2014	0.0	0.0	1.3	19.2	0
	7/31/2014	0.0	0.0	1.4	19.4	0

Notes **:**

[1] - Percent by volume

[2] - Valve opened for 30 minutes and closed prior to reading

[3] - Valves at SGP107, SGP110 and SGP114 were left open overnight on October 1, 2012

[4] - Broken valve; no monitoring at this location on this date

[5] - There was a pump error at the time of measurement

[6] - Soil gas probes were not accessible during the monitoring event

nm - not monitored or not monitored due to presence of water in vacuum tube leading to instrument pump shut off

Attachment A

US EPA August 19, 2014 Letter to Bayer HealthCare, HSE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

August 19, 2014

Gary Toczylowski
Bayer HealthCare, HSE
100 Bayer Boulevard
P.O. Box 915
Whippany, NJ 07981-0915

Re: Review – Soil Gas Probe 117S Investigation Report (August 1, 2014)
Himco Dump Superfund Site, Elkhart, Indiana

Dear Mr. Toczylowski:

The United States Environmental Protection Agency (EPA), assisted by the Indiana Department of Environmental Management (IDEM), has reviewed the findings of the Conestoga Rovers & Associates' (CRA) Soil Gas Probe 117S Investigation Report, dated August 1, 2014 (report) for the Himco Dump Superfund Site in Elkhart, Indiana (Site). The report contained a response to EPA's July 1, 2014 letter in which the Agency outlined its recommendations related to addressing methane readings exceeding the action level (5%) at various soil gas probes located at the site, including SGP-117S, following the June 26th gas probe readings. We also considered your August 5th email to EPA providing additional information related to the elevated methane levels at the site. Our findings are provided below:

- Protection of human health and environment is paramount at Superfund sites. Based on information CRA and Bayer provided and discussing the issue with IDEM and the U.S. Army Corps of Engineers (Corps), EPA has concluded that additional remedial action is necessary at the site to prevent the potential for elevated methane levels from migrating outside of the landfill waste boundaries and threaten the health of nearby residents (see attached). This finding is consistent with the report, which acknowledged the elevated methane levels represented a potential impact to human health. In reaching this conclusion, EPA also considered a similar episode where Bayer took remedial action in 2013 as a result of elevated methane readings in 2012.

- CRA suggested the recent elevated methane readings may have been partly caused by unusual weather conditions; however, EPA believes that it is important to prevent additional events which potentially threaten the health and welfare of residents living nearby, from occurring in the future. Section XV, Paragraph 53 of the Consent Decree (Civil Action 2:07-CV-304-TS) for the site authorizes the federal government, or the State, "*to direct or order such action, or seek an order from the Court, to protect human*

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health and environment or to prevent, abate, respond to, or minimize an actual or threatened release of Waste Material on, at, or from the site . . . "; and

- Upon review of the report, the Corps recommended that the gas collection system be extended to the north and made continuous to the southwest corner of the landfill to resolve future releases of elevated methane gas (see attached). EPA recommends that Bayer consider this recommendation as a possible option in a remedial action plan.

In summary, EPA does not accept Bayer's contention that no remedial action is warranted, despite the recent elevated methane readings. In accordance with the Consent Decree and approved O & M Plan, EPA requests that Bayer prepare a remedial action plan and submit it within thirty days to EPA for review and approval. We are willing to meeting with you to discuss the matter if you desire. I can be reached at 312-886-6195 to set up the meeting, or for any other matters concerning the site.

I appreciate your cooperation on this matter.

Sincerely,

Ross del Rosario
Remedial Project Manager

Enclosures

Cc: Doug Petroff, IDEM
Chris Fassero, Corps of Engineers

Himco Dump Site, Elkhart, Indiana
Soil Gas Probe 117S Investigation and Response to USEPA Letter of July 1, 2014
Comments

General Comment:

The passive gas trenches, as currently configured, do not appear to be adequate for all season control and for various hydrologic weather patterns. The system was flanked by methane levels above action level by the June 26th sampling event. The methane levels that triggered the monitoring actions were not truly anomalies in the sense that they were likely driven by natural weather patterns. The cause of the methane releases or the carbon source can be debated, but the solution is simple - extend the gas collection system to the north and make the system continuous to the southwest corner of the landfill.

Specific Comments:

Page 2, Paragraph 3:

- Add BB-6 as another grid location that exceeded methane concentrations above the action level. BB-6 had methane concentrations exceeding the action levels at all depths including the highest reading being 7.7% as measured at 7-10 feet.
- It is stated that methane was not encountered southwest of SGP-117S. The statement is incorrect. Grid locations B-3, B-4 and B-5 are southwest of SGP-117S and had methane measured at all depths. Grid locations C-3, C-4 and C-5 were stepped back to the south from B-3, B-4 and B-5 where no methane was observed.

Page 2, Paragraph 4:

- It should be noted, that the methane level in SGP-117S on July 17 when the grid study was primarily conducted was 4.7%. From May 19 to July 7, methane level in SGP-117S averaged 5.3% with only two of 11 readings being below the action level. A trend plot of the SGP-117S data indicates methane levels appear to be seasonal and are trending upward. In addition, methane levels to the northeast of SGP-117S are well above action levels as determined by the grid study. This indicates a release of methane from the landfill somewhere between SGP-110 and the west end of the middle collection trench.
- It should be noted that SGP-117S is over 100 feet from the landfill. The overall extent of the release is not defined other than the grid study area around SGP-117S.

Page 2, Bottom Paragraph: Figure 1 should be revised to include the location of passive gas collection trenches relative to the various probes. It may also be possible that the font is very faint.

Page 3, Paragraph 3: It is stated that the monitoring results indicate the reading on June 26, 2014 was an anomaly in the data set that was likely triggered by excessive precipitation coming into contact with naturally occurring organic material. The landfill will be exposed to various dry and wet cycles throughout the life of the cover. Natural weather patterns are not anomalies. On June 26 and the following 11 days, methane (above the action level) flanked the east and middle collection systems. The gas collection system must be an all season system.

Page 3, Paragraph 4 - SGP 100 Monitoring Results: It is recommended that monitoring is no longer required at SGP 100 and no further action is required. SGP 100 historically has methane levels ranging from 0 to 3.4% if the above mentioned wet cycle is ignored in the data base. SGP 100 will be subject to future methane levels above the 5% action levels as experienced during the June 26 event. The north end of the collection trench needs to be extended to avoid future releases of methane from the landfill.

Page 3, Bottom Paragraph: It is stated that the stratigraphy log for SGP – 110R had a peat layer between 8.8 and 10 feet bgs. It was stated that this layer was tested and has 89% organic content. It was further stated that the peat is a source of carbon that is an alternate source of the varying methane readings at this location. It is further noted on the following page that SGP-116 and SGP-110 stratigraphy logs illustrates a continuity of peat formation in this area. In response, the gas probes located in the landfill refuse all show elevated levels of methane as expected. The June 26, 2014 readings were SGP-115 = 37.0%, SGP-116 = 50.6% and SGP-118 = 50.7%. The stratigraphy logs for SGP-115 and SGP-118 do not have a peat layer but still have elevated methane levels. The landfill materials were placed in a wetland. Methane is generated from organic material being municipal waste or peat. Methane needs to be cutoff at the landfill perimeter. To speculate the contribution of the peat versus the landfill materials is irrelevant. It is important to note that a peat layer does not exist in the SGP-117S stratigraphy.

Page 5, Top Bullet: It is recommended that monitoring is no longer required at SGP-106 and no further action is required. SGP-106 historically has methane levels ranging from 0 to 3.5% if the above mentioned wet cycle is ignored in the data base. SGP-106 will likely be subject to future methane levels above the 5% action levels as experienced during the June 26 event. The middle collection system needs to be extended if not connected to the west collection system. This would make a continuous system extending from the southwest corner of the landfill to the northeast corner.

CONESTOGA-ROVERS & ASSOCIATES

14496 Sheldon Road, Suite #200
Plymouth, Michigan 48170
Telephone: (734) 453-5123 Fax: (734) 453-5201
www.CRAworld.com

TRANSMITTAL

DATE: October 6, 2014

REFERENCE NO.: 039611

PROJECT NAME: HIMCO Site Trust

TO: Ross del Rosario
EPA Project Manager/Coordinator
United States EPA - Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Please find enclosed:
- ☐ Draft
- ☒ Originals
- ☐ Prints
- ☐ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☒ Overnight Courier
- ☐ Same Day Courier
- ☐ Other

QUANTITY	DESCRIPTION
1	Revised Methane Remedial Action Plan – 2014 (Figure 7)

- ☒ As Requested
- ☐ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:
Please find the above referenced document as requested.

Copy to: Christopher Fassero (USACE)
Doug Petroff (IDEM)
Gary Toczylowski and
Tom Lenz (Bayer HealthCare)
Alan Van Norman (CRA)

Completed by: Douglas M. Gatrell
[Please Print]

Signed: Douglas M. Gatrell

Filing: **Correspondence File**

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