URS

May 26, 2005

David P. Locey
Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
Region 9
270 Michigan Avenue
Buffalo NY 14203-2999

RE: Main LaSalle Redevelopment Project
Soil Gas Survey

Dear Mr. Locey:

On behalf of the City of Buffalo (City), URS Corporation (URS) has conducted a soil gas survey at the Main LaSalle Site as required by the New York State Department of Environmental Conservation (NYSDEC). This survey was performed in the 50-foot buffer zone between the cap (over the quarry area) and the housing complex/buildings and around the former refreshment stand (Figure 1). The work was conducted in accordance with Section 9.0 of the Soils Management Plan (URS, July 2000).

A total of 31 survey points (VP-01 to VP-31) were installed in the buffer zone along the west and south sides of the housing complex and five points (VP-32 to VP-36) were installed around the former refreshment stand/transformer building. The locations of the sampling points are shown on the attached Figure 2.

At each survey location, an electric hammer drill was used to advance a 3/4-inch diameter hole to a depth of three feet. The drill bit was withdrawn and a probe from a Landtec GEM 2000 Landfill Gas Analyzer was inserted into the hole to monitor the presence of methane. The readings were recorded on the attached Soil Gas Sample Data Sheets.

As indicated on these sheets, no methane was detected in any of the probe holes. This indicates that there is no methane currently being generated by the wastes historically disposed in the landfill/quarry or the methane is being vented prior to reaching the sampling locations. In either case, based on the results, it is concluded that there is no risk posed to residents in the housing complex or to casual park users in the vicinity of the former refreshment stand from methane generated by the landfill.

URS Group, Inc.
One Penn Plaza, Suite 610
New York, NY 10119-0698
Tel: 212.736.4444
Fax: 212.629.4249

This data should satisfy the NYSDEC's request and the requirements of the SMP. Should you have any questions or require additional information, please do not hesitate to call.

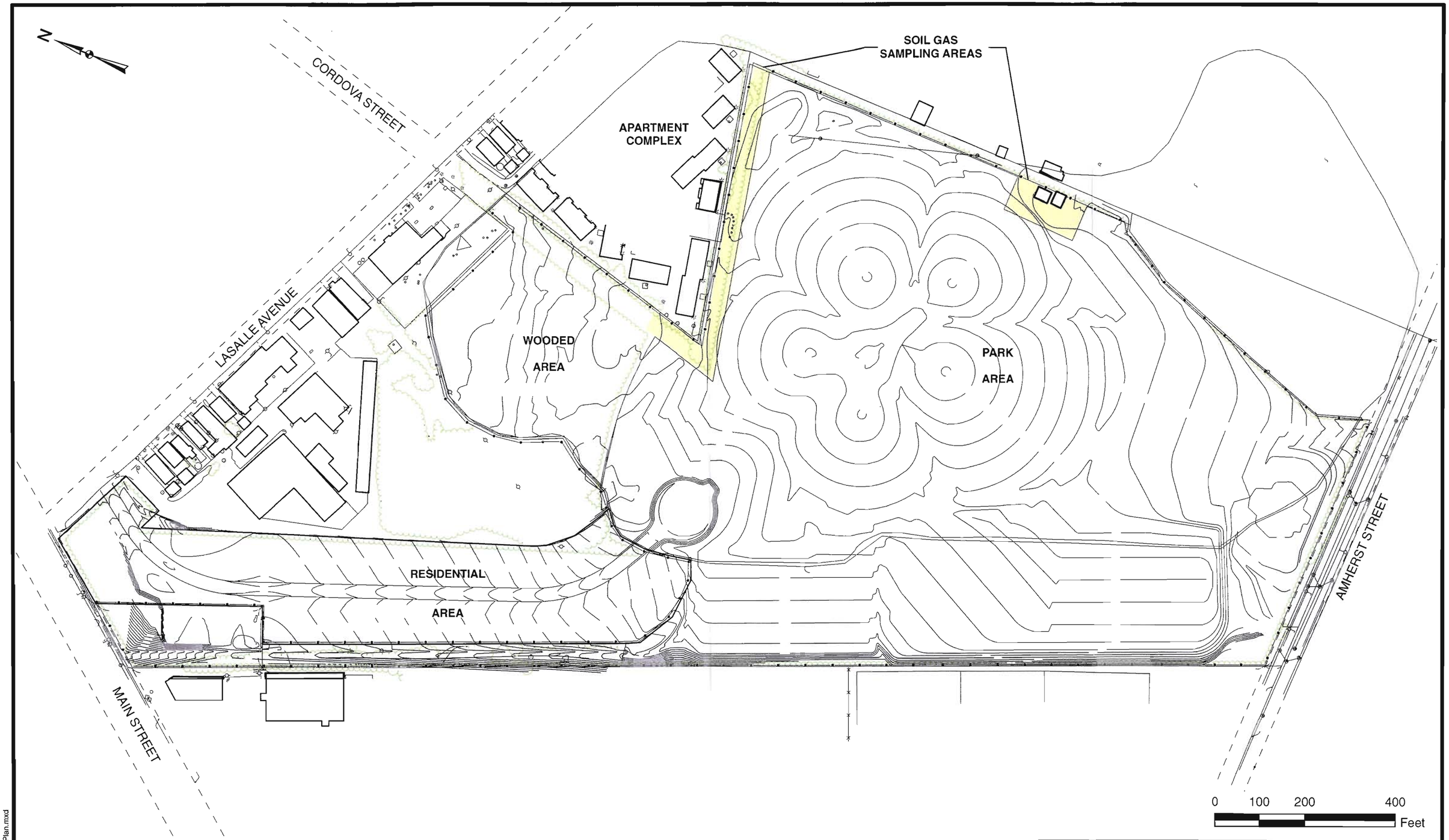
Sincerely,

URS Corporation

Robert R. Henschel, P.G.
Project Manager

attachment

cc: Sandy Nasca
File 1169166 (C-1)



C:\Temp\lasalle\FIG01_SitePlan.mxd

MAIN-LASALLE REVITALIZATION PROJECT
SITE PLAN

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FIGURE 1

N

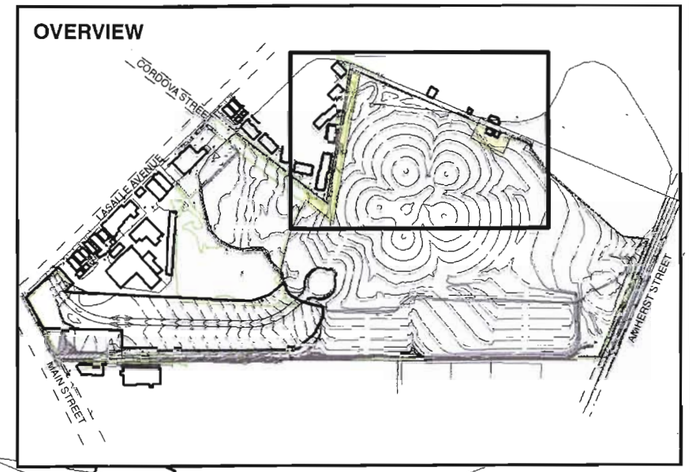
APARTMENT COMPLEX

VP-31
VP-30
VP-29
VP-28
VP-27
VP-26
VP-25
VP-24
VP-23
VP-22
VP-21
VP-20
VP-19
VP-18
VP-17
VP-16
VP-15
VP-14
VP-13
VP-12
VP-11
VP-10
VP-09
VP-08
VP-07
VP-06
VP-05
VP-04
VP-03
VP-02
VP-01
0 + 00

VP-32
VP-33
VP-34
VP-36
VP-35
0 + 00

PARK AREA

OVERVIEW



0 40 80 160
Feet

Legend

- Soil Gas Sampling Location
- Soil Gas Sampling Area

MAIN-LASALLE REVITALIZATION PROJECT
SAMPLING LOCATION PLAN

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FIGURE 2

C:\Temp\lasalle\FIG02_SurveyArea.mxd

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-01
Sampled by: Andy Brayman Sample location: N 0+89.2 / W 0+09.0
Date sampled: 05/13/05 Time: 0838

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	50	%
Soil organic matter	0	%
Fine granular material	25	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

Andrew M Brayman 5/16/05
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-02
Sampled by: Andy Brayman Sample location: N 0+67.0 / W 0+09.0
Date sampled: 05/13/05 Time: 0844

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ___ Native soil+rock x Fill ___ Rock
Soil composition:

Clay	50	%
Soil organic matter	0	%
Fine granular material	25	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

	Free water present	x	Probable connection to surface macropores
	Free product present		
	Contaminant odors		Indurated
	Poor perm. to vapors		Soil discoloration
x	Near slope or vent		

Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-03
Sampled by: Andy Brayman Sample location: N 0+42.1 / W 0+09.0
Date sampled: 05/13/05 Time: 0850

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	50	%
Soil organic matter	0	%
Fine granular material	25	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
x	Near slope or vent		

_____
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-04
Sampled by: Andy Brayman Sample location: N 0+19.5 / W 0+08.0
Date sampled: 05/13/05 Time: 0855

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	50	%
Soil organic matter	0	%
Fine granular material	25	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
x	Near slope or vent		

_____
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-05
Sampled by: Andy Brayman Sample location: S 0+02.2 / E 0+06.2
Date sampled: 05/13/05 Time: 0903

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry, course fill
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	5	%
Soil organic matter	5	%
Fine granular material	15	%
Coarse granular material	75	%
	100	%

Moisture content of sampling horizon (qualitative):

	x Dry
X Very	____ Damp
____ Slightly	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

____ Free water present	x Probable connection to surface macropores
____ Free product present	
____ Contaminant odors	____ Indurated
____ Poor perm. to vapors	____ Soil discoloration
x Near slope or vent	

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-06
Sampled by: Andy Brayman Sample location: S 0+01.8 / E 0+37.8
Date sampled: 05/13/05 Time: 0908

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry, course gravel-size fill
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ___ Native soil+rock x Fill ___ Rock
Soil composition:

Clay	0	%
Soil organic matter	0	%
Fine granular material	0	%
Coarse granular material	100	%
	100	%

Moisture content of sampling horizon (qualitative):

- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet
- [x] Very
- [ ] Slightly

Other characteristics of the sampling horizon:

- [ ] Free water present
- [ ] Free product present
- [ ] Contaminant odors
- [ ] Poor perm. to vapors
- [x] Near slope or vent
- [x] Probable connection to surface macropores
- [ ] Indurated
- [ ] Soil discoloration

Andy Brayman / 5/16/05
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-07
Sampled by: Andy Brayman Sample location: S 0+02.5 / E 0+61.5
Date sampled: 05/13/05 Time: 0912

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry, course gravel-size fill
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ___ Native soil+rock x Fill ___ Rock
Soil composition:

Clay	0	%
Soil organic matter	0	%
Fine granular material	5	%
Coarse granular material	95	%
	100	%

Moisture content of sampling horizon (qualitative):

- [ ] Very
- [ ] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- [ ] Free water present
- [ ] Free product present
- [ ] Contaminant odors
- [ ] Poor perm. to vapors
- [x] Near slope or vent
- [x] Probable connection to surface macropores
- [ ] Indurated
- [ ] Soil discoloration

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Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-08
Sampled by: Andy Brayman Sample location: S 0+03.4 / E 0+83.6
Date sampled: 05/13/05 Time: 0917

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	20	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
x	Near slope or vent		

Andrew P Brayman / 5/16/05
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-09
Sampled by: Andy Brayman Sample location: S 0+04.4 / E 1+04.7
Date sampled: 05/13/05 Time: 0922

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	20	%
	100	%

Moisture content of sampling horizon (qualitative):

- [ ] Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- [ ] Free water present
- [ ] Free product present
- [ ] Contaminant odors
- [ ] Poor perm. to vapors
- [x] Near slope or vent
- [x] Probable connection to surface macropores
- [ ] Indurated
- [ ] Soil discoloration

Ann B Roy / 5/16/05
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-10
Sampled by: Andy Brayman Sample location: S 0+04.2 / E 1+27.3
Date sampled: 05/13/05 Time: 0927

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	0	%
Fine granular material	55	%
Coarse granular material	15	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
x	Near slope or vent		

Investigator Signature/Date 5/16/05

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-11
Sampled by: Andy Brayman Sample location: S 0+05.9 / E 1+50.1
Date sampled: 05/13/05 Time: 0933

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	0	%
Fine granular material	55	%
Coarse granular material	15	%
	100	%

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- [x] Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

Andrew B Brayman 5/16/05
Investigator Signature/Date

ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-12
Sampled by: Andy Brayman Sample location: S 0+06.4 / E 1+71.7
Date sampled: 05/13/05 Time: 0937

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	20 %
Soil organic matter	0 %
Fine granular material	55 %
Coarse granular material	25 %
	100 %

Moisture content of sampling horizon (qualitative):

____ Very	x Dry
x Slightly	____ Damp
	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

____ Free water present	x Probable connection to surface macropores
____ Free product present	
____ Contaminant odors	____ Indurated
____ Poor perm. to vapors	____ Soil discoloration
____ Near slope or vent	

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-13
Sampled by: Andy Brayman Sample location: S 0+08.7 / E 1+93.5
Date sampled: 05/13/05 Time: 0942

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	20	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-14
Sampled by: Andy Brayman Sample location: S 0+06.9 / E 2+17.3
Date sampled: 05/13/05 Time: 0948

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	10	%
Soil organic matter	0	%
Fine granular material	60	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-15
Sampled by: Andy Brayman Sample location: S 0+26.5 / E 2+41.1
Date sampled: 05/13/05 Time: 0954

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	5	%
Soil organic matter	0	%
Fine granular material	55	%
Coarse granular material	40	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

	Free water present	x	Probable connection to surface macropores
	Free product present		
	Contaminant odors		Indurated
	Poor perm. to vapors		Soil discoloration
x	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-16
Sampled by: Andy Brayman Sample location: S 0+06.3 / E 2+66.5
Date sampled: 05/13/05 Time: 1001

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	10	%
Soil organic matter	0	%
Fine granular material	60	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- x Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-17
Sampled by: Andy Brayman Sample location: S 0+08.4 / E 2+89.8
Date sampled: 05/13/05 Time: 1005

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	10	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	40	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-18
Sampled by: Andy Brayman Sample location: S 0+04.5 / E 3+11.6
Date sampled: 05/13/05 Time: 1011

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock

Soil composition:		
Clay	10	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	40	%
	100	%

Moisture content of sampling horizon (qualitative):

____ Very	x Dry
x Slightly	____ Damp
	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

____ Free water present	x Probable connection to surface macropores
____ Free product present	
____ Contaminant odors	____ Indurated
____ Poor perm. to vapors	____ Soil discoloration
____ Near slope or vent	

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-19
Sampled by: Andy Brayman Sample location: S 0+04.5 / E 3+31.8
Date sampled: 05/13/05 Time: 1046

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock

Soil composition:		
Clay	20	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- [x] Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-20
Sampled by: Andy Brayman Sample location: S 0+04.7 / E 3+51.9
Date sampled: 05/13/05 Time: 1050

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-21
Sampled by: Andy Brayman Sample location: S 0+04.4 / E 3+72.1
Date sampled: 05/13/05 Time: 1055

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25 %
Soil organic matter	0 %
Fine granular material	50 %
Coarse granular material	25 %
	100 %

Moisture content of sampling horizon (qualitative):

	x Dry
____ Very	____ Damp
x Slightly	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

____ Free water present	x Probable connection to surface macropores
____ Free product present	
____ Contaminant odors	____ Indurated
____ Poor perm. to vapors	____ Soil discoloration
____ Near slope or vent	

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-22
Sampled by: Andy Brayman Sample location: S 0+04.3 / E 3+92.2
Date sampled: 05/13/05 Time: 1101

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	15	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	35	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-23
Sampled by: Andy Brayman Sample location: S 0+03.9 / E 4+13.8
Date sampled: 05/13/05 Time: 1106

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	15	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	35	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-24
Sampled by: Andy Brayman Sample location: S 0+04.6 / E 4+34.2
Date sampled: 05/13/05 Time: 1111

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	20	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- x Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-25
Sampled by: Andy Brayman Sample location: S 0+04.1 / E 4+55.9
Date sampled: 05/13/05 Time: 1116

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- [x] Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-26
Sampled by: Andy Brayman Sample location: S 0+05.3 / E 4+87.1
Date sampled: 05/13/05 Time: 1126

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- [x] Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-27
Sampled by: Andy Brayman Sample location: S 0+06.9 / E 5+07.2
Date sampled: 05/13/05 Time: 1129

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	15	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	35	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

	Free water present	x	Probable connection to surface macropores
	Free product present		
	Contaminant odors		Indurated
	Poor perm. to vapors		Soil discoloration
	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-28
Sampled by: Andy Brayman Sample location: S 0+05.5 / E 5+28.7
Date sampled: 05/13/05 Time: 1134

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	0	%
Fine granular material	60	%
Coarse granular material	10	%
	100	%

Moisture content of sampling horizon (qualitative):

	x Dry
____ Very	____ Damp
x Slightly	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- x Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-29
Sampled by: Andy Brayman Sample location: S 0+11.4 / E 5+53.5
Date sampled: 05/13/05 Time: 1138

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	20	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-30
Sampled by: Andy Brayman Sample location: S 0+13.1 / E 5+76.1
Date sampled: 05/13/05 Time: 1145

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	40 %
Soil organic matter	0 %
Fine granular material	45 %
Coarse granular material	15 %
	100 %

Moisture content of sampling horizon (qualitative):

____ Very	x Dry
x Slightly	____ Damp
	____ Moist
	____ Wet

Other characteristics of the sampling horizon:

____ Free water present	x Probable connection to surface macropores
____ Free product present	
____ Contaminant odors	____ Indurated
____ Poor perm. to vapors	____ Soil discoloration
____ Near slope or vent	

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-31
Sampled by: Andy Brayman Sample location: S 0+15.3 / E 6+22.5
Date sampled: 05/13/05 Time: 1152

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	30	%
Soil organic matter	20 (coal)	%
Fine granular material	40	%
Coarse granular material	10	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-32 (by outbuilding)
Sampled by: Andy Brayman Sample location: N 0+10.4 / E 0+05.1
Date sampled: 05/13/05 Time: 1206

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
____	Near slope or vent		

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-33 (by outbuilding)
Sampled by: Andy Brayman Sample location: N 0+05.7 / W 0+21.8
Date sampled: 05/13/05 Time: 1211

Sampling System (check one):
- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):
- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ___ Native soil+rock x Fill ___ Rock

Soil composition:

Clay	35	%
Soil organic matter	0	%
Fine granular material	45	%
Coarse granular material	20	%
	100	%

Moisture content of sampling horizon (qualitative):

x Dry
___ Very ___ Damp
x Slightly ___ Moist
___ Wet

Other characteristics of the sampling horizon:
___ Free water present x Probable connection to surface macropores
___ Free product present
___ Contaminant odors ___ Indurated
___ Poor perm. to vapors ___ Soil discoloration
x Near slope or vent

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(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-34 (by outbuilding)
Sampled by: Andy Brayman Sample location: S 0+33.3 / W 0+38.1
Date sampled: 05/13/05 Time: 1215

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	20	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	30	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

____	Free water present	x	Probable connection to surface macropores
____	Free product present		
____	Contaminant odors	____	Indurated
____	Poor perm. to vapors	____	Soil discoloration
x	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-35 (by outbuilding)
Sampled by: Andy Brayman Sample location: S 0+75.8 / W 0+59.7
Date sampled: 05/13/05 Time: 1221

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ___ Native soil+rock x Fill ___ Rock
Soil composition:

Clay	25	%
Soil organic matter	0	%
Fine granular material	50	%
Coarse granular material	25	%
	100	%

Moisture content of sampling horizon (qualitative):

		x	Dry
	Very		Damp
x	Slightly		Moist
			Wet

Other characteristics of the sampling horizon:

___	Free water present	x	Probable connection to surface macropores
___	Free product present		
___	Contaminant odors	___	Indurated
___	Poor perm. to vapors	___	Soil discoloration
x	Near slope or vent		

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ASTM SOIL GAS SAMPLE DATA SHEET

(D5314-92 "Standard Guide for Soil Gas Monitoring in the Vadose Zone")

Project number: 11169166.00000 Sample number: VP-36 (by outbuilding)
Sampled by: Andy Brayman Sample location: S 0+80.3 / W 0+05.7
Date sampled: 05/13/05 Time: 1226

Sampling System (check one):

- [x] Whole air – active approach
- [ ] Whole air – passive approach
- [ ] Sorbed contaminants – active approach
- [ ] Sorbed contaminants – passive approach
- [ ] Headspace or extraction approach
- [ ] Soil pore liquid headspace approach

Sampling Type (check one):

- [x] Direct field sample
- [ ] Field Blank
- [ ] Travel Blank
- [ ] Sample container blank
- [ ] Sample probe blank
- [ ] Sample replicate

Spiked? No with N/A cc of N/A
Potential reaction products due to spiking: Not applicable
System purge volume: N/A Volume purged: N/A Sample volume: N/A
Sorbent device: Installed N/A (AM/PM) Date N/A
Recovered N/A (AM/PM) Date N/A
Sample container type: Not applicable Sample container # N/A
Integral analyzer: RKI Eagle Gas Monitor Detector: Methane (CH_4)
Analyzer response: 00.0 (units) %
Surface conditions (pavement, wet, frost, etc.) Dry
Sample depth: 3 feet Sampling rate: N/A
Sample horizon data – visual estimates:
Vadose zone make-up: ____ Native soil+rock x Fill ____ Rock
Soil composition:

Clay	25 %
Soil organic matter	0 %
Fine granular material	50 %
Coarse granular material	25 %
	100 %

Moisture content of sampling horizon (qualitative):

- ____ Very
- [x] Slightly
- [x] Dry
- [ ] Damp
- [ ] Moist
- [ ] Wet

Other characteristics of the sampling horizon:

- ____ Free water present
- ____ Free product present
- ____ Contaminant odors
- ____ Poor perm. to vapors
- ____ Near slope or vent
- [x] Probable connection to surface macropores
- ____ Indurated
- ____ Soil discoloration

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