

November 24, 2006

Mr. Nat Olowu
XCEL Energy
550 - 15th Street, Suite 700
Denver, CO 80202

**Re: ESN Project No. 0126.28; PSCC Leyden Gas Storage Facility
3rd Quarter Soil Gas Sampling Event – Resampling Update for October 16, 2006**

Dear Mr. Olowu:

Enclosed is the summary data report for the resampling event that took place October 16, 2006 as part of the quarterly (3rd quarter) soil gas monitoring event at the PSCC Leyden Gas Storage Facility. Under the data sharing agreement, copies of the reports will also be sent to the City of Arvada.

Per request of XCEL Energy, SVW-52 and SVW-53 were resampled on October 16th. During this round of sampling, the two wells recovered soil gas and there were no wells that had water saturation issues.

Each soil gas monitoring well has a valve on the outlet that remains closed (except for sampling) to prevent communication with atmosphere. Before sampling, soil gas monitoring wells are purged using infrared gas meter to measure CO₂, O₂, and CH₄ before sampling. This is measured to determine when the purge gas has stabilized and a sample can be collected. The final stable gas readings are recorded on the field log. A sample is then collected using a peristaltic pump with clean tubing and pumped into a 1-liter Tedlar gas-sampling bag after flushing the bag with the soil gas.

Soil gas samples were collected in 1-liter Tedlar gas bags. Including field QC samples (field duplicates, ambient air and trip blanks), a total of 4 samples were submitted for analysis of C₁-C₆ range hydrocarbons to ESN's laboratory, including ambient air blanks and trip blanks. A summary lab data report with the sorted sample analysis and associated quality control samples is attached. The full laboratory report and narrative is archived in our office files. Lab duplicates and trip blanks were all within acceptable range.

These two wells were selected for early resampling because during the 3rd quarter (August) sampling event, two samples had indications of gas above ambient background levels. SVW-52 has had methane in the previous two quarters this year in the 100-200ppm range. The sample from this well was analyzed twice and contained between 108 and 114ppm of methane (Table 1) in the 3rd quarter event. As in previous quarters, it contained no other natural gas components. The hydrocarbon gas is composed of was 100% methane, clearly indicating a biogenic source in the soil, as seen in this well before. The field gas meter also indicated high CO₂ and low O₂ levels, also confirming methanogenic (methane generating) bacterial activity for the source of the gases. If this had been storage gas, the gas analysis would have easily detected concentrations of ethane, propane and butane associated with this level of methane.

SVW-53 had slightly elevated methane, 20ppm, but also some heavier alkanes including ethane (C₂) and propane (C₃) and some butanes (C₄s) detected below the reporting limit (Table 1). The presence of the

heavier alkanes indicates a natural gas source based on the composition (Table 1). The percent volume calculation for each hydrocarbon component looks similar to storage gas. Similar gas composition could be expected from a residential natural gas pipeline leak, as well as just natural gas seepage from natural sources. SVW-53 is located well off the Leyden Gas Storage Facility (LGSF) perimeter along Quaker Street, southeast of the town of Leyden.

Table 1. Analysis of soil gas from SVW-52 and SVW-53, August, 2006.

Sample ID	Note	C ₁ (ppm)	C ₂ (ppm)	C ₃ (ppm)	SUM (ppm)	%C ₁	%C ₂	%C ₃
SVW52		108	0.00	0.00	107.68	100.00%	0.00%	0.00%
SVW52	Lab Duplicate	114	0.00	0.00	113.54	100.00%	0.00%	0.00%
SVW53		19.9	0.54	0.12	20.60	96.80%	2.64%	0.56%
SVW53	Lab Duplicate	19.6	0.55	0.09	20.23	96.81%	2.74%	0.45%

Even though the amounts of gas found in both SVW-52 and SVW-53 are of little concern at these very low levels, ESN recommended to XCEL/PSCC re-sampling of SVW-52 and SVW-53 to see if the conditions have changed, in particular at SVW-53 since it contained trace amounts of ethane and propane that could be a potential seep indicator (natural, LGSF, or a services line). ESN received verbal authorization to resample these locations and has scheduled the event for October 16th.

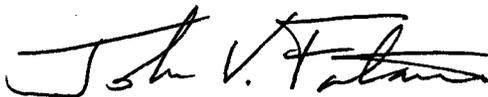
Resampling on October 16th (Table 2) found that the methane and traces of alkanes found in soil gas monitoring well SVW-53 had dropped back to background levels with methane below ambient levels, and no alkanes detected. The methane in SVW-52 had also dropped to about 44ppm and there is still no detection of heavier alkanes in that soil gas monitoring well.

Table 2. Analysis of soil gas from SVW-52 and SVW-53, October 16, 2006.

Sample ID	Note	C ₁ (ppm)	C ₂ (ppm)	C ₃ (ppm)	SUM (ppm)	%C ₁	%C ₂	%C ₃
SVW-52		44.36	0.00	0.00	44.36	100.00%	0.00%	0.00%
SVW-53		1.16	0.00	0.00	1.16	100.00%	0.00%	0.00%
SVW-52	Lab Duplicate	44.47	0.00	0.00	44.47	100.00%	0.00%	0.00%

If you have any questions regarding this report or the data included, please feel free to give us a call.

Sincerely,



John V. Fontana
Vice President

Final Data

CLIENT: PSCC - XCEL ENERGY							C ₁ -C ₆ Hydrocarbons by FID Gas Chromatography													
CLIENT PROJECT NO.: 0126.28																				
ESN PROJECT NO.: 610016																				
LIMS NO.: 610016																				
PROJECT NAME: Leyden 3rd Quarter Resample - October 2006																				
							GAS CONCENTRATIONS BY VOLUME													
							(Parts-per-Million by Volume)													
ESN ID	Client ID	Sample Date	Receive Date	Analysis Date	Data Notes*	Dilution 1 : x	Methane	Ethane	Ethene	Propane	Propene	iButane	nButane	Butene	iPentane	nPentane	Pentene	iHexane	nHexane	
trip blank101606	trip blank101606	10/16/06	10/17/06	10/17/06	TB	1	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0610016-001A	SVW-52	10/16/06	10/17/06	10/17/06		1	44.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0610016-002A	SVW-53	10/16/06	10/17/06	10/17/06		1	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0610016-003A	AMBIENT AIR	10/16/06	10/17/06	10/17/06		1	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0610016-001dup	SVW-52	10/16/06	10/17/06	10/17/06	LD	1	44.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DETECTION LIMITS:							0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
*ABBREVIATIONS							DATA FLAGS													
TB = Trip Blank							j = an estimated concentration outside the calibration range of the method													
MB = Method Blank							b = analyte also appeared in the associated method blank for this sample													
TB = Trip Blank																				
FD = Field Duplicate																				
LD = Laboratory Duplicate																				
LS = Laboratory Spike																				
D = Dilution																				