Sep. 28 2006 09:46AM P1

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By dehloptoxic at 1:16 pm, Sep 28, 2006

September 28, 2006

Mr. Barney Chan Alameda County Health Carc Services Agency Environmental Health Services 1131 Harbor Bay Parkway, Ste. 250 Alameda, California 94502-6577

RE: Soil Vapor Extraction System Start-up Report Alaska Gas 6211 San Pablo Avenue Oakland, California

Dear Mr. Chan:

Attached for your review and comment is the September 21, 2006 "Results of Startup Testing of Soil Vapor Extraction System (SVES), Alaska Gas, 6211 San Pablo Avenue, Oakland, California, Alameda County" report prepared by HerSchy Environmental, Inc. upon my behalf, for the above-referenced site.

As the legally authorized representative of the above-referenced project, I have reviewed the attached report and declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the hest of my knowledge.

Sincerely,

Mr. Pritpaul Sappal

5.q

Herschy Environmental Ind (559) 641-7340



September 21, 2006 Project A51-01

Ms. Irma Salinas Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109

# Re: Results of Startup Testing of Soil Vapor Extraction System (SVES), Alaska Gas, 6211 San Pablo Avenue, Oakland, California, Alameda County

Dear Ms. Salinas:

HerSchy Environmental, Inc. is pleased to present this report summarizing the results of the start-up testing performed on September 11, 2006 of the thermal oxidizer at the abovereferenced site. The site is located at 6211 San Pablo Avenue in Oakland, California. The thermal oxidizer began operating on August 31, with written notification sent to your office. This system operates under the Authority to Construct (ATC) permit number 10975. In compliance of the permit, the system was monitored for influent and effluent volatile organic compounds (VOCs) and air flow rates within 10 days of start-up. The following summarizes the data obtained.

The unit has maintained the proper combustion temperature of greater than 1,400 degrees Fahrenheit and a flow rate below the 300 standard cubic feet per minute (scfm) as required by permit. Continuously recording devices, as required by permit, record the combustion temperature and process flow rates. Monitoring will be performed on a monthly basis to confirm compliance, and will include monitoring using a portable organic vapor analyzer (OVA) to monitor influent and effluent concentrations. Periodically, air samples will be collected and analyzed to verify field measurements.

Table 1 summarizes the analytical results from the influent and effluent air samples collected on September 11, 2006. Air samples were collected in tedlar bags by exerting vacuum outside of the tedlar bags, causing each bag to fill with process air. Air velocity was measured at 76.5 cubic feet per minute (cfm) on September 11 by inserting a hotwire style velocity measurement device into the influent air flow. Air monitoring data sheets are provided in Appendix A.

Samples were analyzed by a certified laboratory for gasoline-range petroleum hydrocarbons (TPH-g) by EPA Method 8015M, for benzene, toluene, ethylbenzene, and xylenes (BTEX), and for methyl tertiary butyl ether (MTBE) using EPA Method 8020. Certified analytical reports are presented in Appendix B.

P.O. Box 229 Bass Lake, CA 93604-0229 Phone: 559 • 641-7320 Fax: 559 • 641-7340

Table 1Laboratory Analytical Results for Influent and Effluent AirAlaska Gas, September 11, 2006									
Sample	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
Influent	9/11/2006	3,300	54	110	19	86	230		
Effluent	9/11/2006	ND	ND	ND	ND	ND	ND		

Results in parts per million by volume (ppmV)

Table 2 summarizes the calculations for destruction efficiency and the effluent discharge over a 24-hour period for gasoline-range total petroleum hydrocarbons (TPH-g) and benzene.

	3.5.6.5	Tab	le 2: Destr	uction and Disch	narge Calcul	ations	
Hours of Operation	Influent (ppmV)	Effluent (ppmV)	Air Flow (cfm)	Destruciton Efficiency (%)	Effluent Release (lbs/day)	VOCs Removed (lbs/day)	Total VOCs Removed (lbs)
<b>TPH-g</b> 24	3,300	0-0.14	76.5	99-100%	0.00	92.86	92.86
Benzene 24	54	0-0.16	76.5	99.70%	0.00	1.52	1.52

Parts per million by volume (ppmv) VOCs as gasoline-range TPH can be converted to micrograms per liter (ug/L) by multiplying by 4.1 based on the mole weight of TPH. Benzene can similarly be converted to ug/L by multiplying ppmV of benzene by 3.2. One liter is equal to 0.03531 cubic feet. The above destruction efficiency calculations is based on weight. To calculate pounds per day (lbs/day) of VOCs, the formula is as follows:

(ug/L)(gm/1,000,000)(kg/1,000 gm)(2.2 lbs/kg) = lbs/L VOCs

Converting lbs/L to lbs/day:

(lbs/L)(1/.03531 cf)(cfm)(1440 min/day) = lbs/day VOCs

where cf = cubic feet cfm = cubic feet per minute

Given that about 93 pounds of product (TPH-g) are removed in 24 hours and 6.18 pounds of VOCs equals approximately one gallon of product, approximately 15 gallons of product are removed in a 24-hour period. During the same period, concentrations of less than 0.14 ppmV of TPH-g and 0.16 ppmV of benzene were discharged, based on non-detect levels returned at the respective detection limit. Destruction efficiency is very near 100%, with discharge of both constituents at 0.00 pounds per day.

HerSchy Environmental, Inc. requests that a Permit to Operate (PTO) be issued for this unit. HerSchy Environmental, Inc. will maintain the system in compliance with the current ATC, and the PTO when issued. If you have any questions, or require additional information, please contact this office at (559) 641-7320.

With best regards, HerSchy Environmental, Inc.

Scott Jackson Senior Project Manager Professional Geologist #7948



cc: Ms. Susan M. Torrence Mr. Pritpaul Sappal

## APPENDIX A

### FIELD AIR DATA SHEETS

GerSchy Environmental, Inc.

# AIR MONITORING DATA SHEET

PROJECT:	ALASKA	GAS	DATE:	9-11-06
PROJECT N	UMBER: <u>A</u>	51-01	TIME:	1200
HOUR MET HOUR MET HOURS OPE PERCENTA	ER, PREVIOUS: ER, CURRENT: _/2_6 ERATING: GE OPERATING:	hours hours %	CONTROL TEMP = 1 DILUTION = HIGH LUNIT =	535° 1423° = 1424°
EFFLUENT MIDPOINT INFLUENT DESTRUCTI WELLS OPE	CONCENTRATION: CONCENTRATION: CONCENTRATION: ION EFFICIENCY: N:	2.8 ppm ppm pq7 ppm %		
EQUIPMEN	TUSED: PID TS	I , VAC BOY	K	
AIR FLOW: SAMPLER:	Combined Influent Effluent (Chart) Individual Flow JOE NELSON	<u>76,5</u> cf	m m	
COMMENTS	: Took bac san	IPLES Fer	< START-UP	IN SPECTION

## APPENDIX B

### CERTIFIED ANALYTICAL RESULTS

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## CASTLE ANALYTICAL LABORATORY

Environmental Testing Services Certificate No. 2480	2333 Shuttle Drive, Atwater. CA 95301	(209) 384-2930 (209) 384-1507
HerSchy Environmental P.O. Box 229 Bass Lake, CA 93604 Attn: Scott Jackson	Client Project ID: Alaska Gas - Oakland Reference Number: 9442 Sample Description: Air Sample Prep/Analysis Method: 5030/8015M, 8020 Lab Number: 9442-1V Sample ID: Effluent	Sampled: 09-11-06 Received: 09-11-06 Analyzed: 09-12-06 Reported: 09-14-06

#### TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	PQL" (ug/L)	PQL <sup>=</sup> (ppmv)	AMOUNT (ug/L)	AMOUNT (ppmv)	
MTBE	0.50	0.14	ND	ND	
BENZENE	0.50	0.16	ND	ND	
TOLUENE	0.50	0.13	ND	ND	
ETHYL BENZENE	0.50	0.11	ND	DA	
TOTAL XYLENES	0.50	0.11	ND	ND	
GASOLINE RANGE HYDROCARBONS	50	12	ND	ND	
Dilution Eactor:	1				

Instrument ID:

VAR-GC1

\*PQL - Practical Quantitation Limit

Analytes reported as ND were not detected or below the Practical Quantitation Limit

APPROVED BY: James CI Rhilliber Laboratory Director or Clari J. Cone / Laboratory Manager

## CASTLE ANALYTICAL LABORATORY

Environmental Testing Services Certificate No. 2480	2333 Shuttle Drive, Atwater, CA 95301	(209) 384-2930 (209) 384-1507
HerSchy Environmental P.O. Box 229 Bass Lake, CA 93604 Attn: Scott Jackson	Client Project ID: Alaska Gas - Oakland Reference Number: 9442 Sample Description: Air Sample Prep/Analysis Method: 5030/8015M, 8020 Lab Number: 9442-2V Sample ID: Influent	Sampled: 09-11-06 Received: 09-11-06 Analyzed: 09-12-06 Reported: 09-14-06

#### TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	PQL* (ug/L)	PQL* (ppmv)	AMOUNT (ug/L)	AMOUNT (ppmv)	
MTBE	25	6.9	820	230	
BENZENE	25	7.8	170	54	
TOLUENE	25	6.6	420	110	
ETHYL BENZENE	25	5.7	84	19	
TOTAL XYLENES	25	5.7	380	86	
GASOLINE RANGE HYDROCARBONS	2500	610	13000	3300	
Dilution Factor:	50				

Instrument ID:

VAR-GC1

\*PQL - Practical Quantitation Limit

Analytes reported as ND were not detected or below the Practical Quantitation Limit

APPROVED BY:

James C. Phillips / Laboratory Director or Clari J. Gone / Laboratory Manager