1R - 450

REPORTS

DATE:

1/13/2004

Larson & Associates, Inc.
Environmental Consultants

January 13, 2004

Mr. Paul Sheeley
New Mexico Oil Conservation Division – District I
1625 North French Drive
Hobbs, New Mexico 88240

Re: Pipeline Spill Investigation Report, Dynegy Midstream Services. L.P., Unit Letter H (SE/4, NE/4), Section 11, Township 23 South, Range 37 East, Lea County, New Mexico

Dear Mr. Sheeley:

Dynegy Midstream Services, L.P. (Dynegy) has retained Larson and Associates Inc. (LA) to investigate potential impacts to soil from a historic natural gas liquids spill that occurred from a pipeline leak in the southeast quarter (SE/4) of the northeast quarter (NE/4), Section 11, Township 23 South, Range 37 East, Lea County, New Mexico (Site #57). The spill did not involve a reportable quantity of gas or liquid. A Release Notification and Corrective Action form (C-141) was filed only at the request of the New Mexico Oil Conservation Division (NMOCD). The leak was repaired. Figure 1 represents a site location and topographic map. Appendix A presents a copy of the form C-141.

Current Investigation

On August 20, 2003, Site #57 was excavated to a depth of three (3) to four (4) feet below ground surface (bgs) and soil samples were collected from the bottom of the excavation. The soil samples were placed in laboratory-prepared containers, labeled, chilled in an ice chest, and delivered under chain-of-custody control to Environmental Lab of Texas I, Ltd., located in Odessa, Texas. A portion of each sample was placed in a clean glass sample jar for headspace analysis. The headspace jars were filled approximately ¾ full, and covered with a layer of aluminum foil before the cap was replaced. The headspace samples were set aside and allowed to warm up to ambient temperature before a RAE Instruments; Model 2000 photoionization detector (PID) was used to measure the concentration of organic vapors in the sample headspace. After calibrating the instrument to 100.3 ppm, the PID probe was inserted into the headspace of the sample jars (through the aluminum foil), and the concentration of organic vapors was displayed by the instrument in parts per million (ppm). No sample recorded PID readings above 100 ppm. The PID readings are provided in Table 1, below. The samples were analyzed for chlorides by EPA method 846-9253, and for total petroleum hydrocarbons (TPH) by EPA method SW-846-8015, including gasoline range (GRO) and diesel range organics (DRO). No samples were tested for BTEX since the PID readings were below 100 ppm. The NMOCD does not require BTEX analysis if a PID is below 100 ppm. Sample results are displayed in Table 1, below.

507 North Marienfeld, Suite 202 ◆ Midland, Texas 79701 ◆ Ph. (432) 687-0901 ◆ Fax (432) 687-0456

Soil from the excavation was placed adjacent to the hole, and blended to reduce the TPH level. A grab sample was obtained from the blended soil, and is presented as "Fill-1" in Table 1.

Figure 2 shows the dimensions of the Site # 57 excavation, the sample locations, and laboratory results. Appendix B presents the laboratory reports.

Table 1: Summary of Headspace and Laboratory Analyses of Soil Samples
Dynegy Midstream Services, L.P., Spill Site #57
SE/4, NE/4, Section 11, Township 23 South, Range 37 East
Lea County, New Mexico

Sample Date	Sample No.	Sample Location	Sample Depth Feet (BGS)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)	PID (ppm)
RRAL						**5000**		
8/20/2003	SS-1	Bottom N	4	<10	<10	<20	29.5	6.5
	SS-2	Bottom S	3	<10	1890	1890	53.2	29.0
	Fill-1	backfill	Spoil	44.5	2220	2264.5	118	36.3

Based on published literature (1961) and well records of the, New Mexico State Engineer, groundwater occurs at approximately 115 feet bgs. No domestic wells were observed within ½ mile of the site. The NMOCD has established soil remediation action levels (RRAL) for benzene, total BTEX (sum of benzene, toluene, ethylbenzne and xylenes) and TPH resulting from spills of natural gas liquids ("Guidelines for remediation of Leaks, Spills and Releases, August 13, 1993").

The following RRAL's have been assigned based on NMOCD criteria:

Benzene	**10 mg/kg**
Total BTEX	**50 mg/kg**
TPH	**5000 mg/kg**

Referring to Table 1, all samples obtained from Site #53 showed TPH concentrations below the RRAL. The NMOCD does not have an RRAL for chloride in soil, although it has applied the New Mexico Water Quality Control Commission groundwater standard of 250 milligrams per liter (mg/L) as an action level for soil. All soil samples collected from Site #57, showed chloride concentrations less than 250 milligrams per kilogram (mg/kg).

As TPH and chloride concentrations from all samples at Site #57 were below the RRAL, the excavation was filled with blended soil. Dynegy requests that Site # 57 be closed. Please call Mr. Dave Harris with Dynegy (505) 394-2534 or myself at (915) 687-0901 if you have any questions.

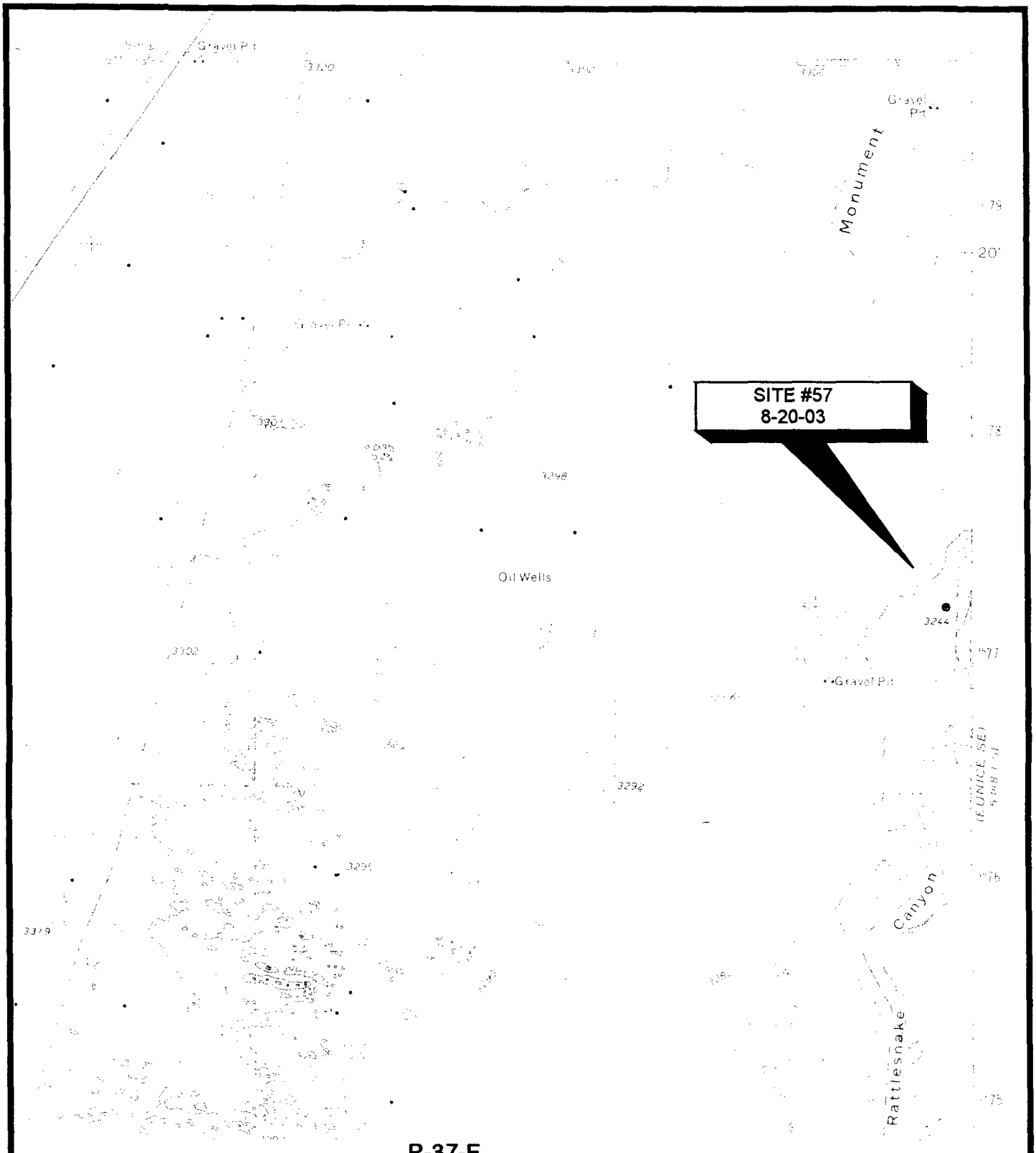
Sincerely,
Larson & Associates, Inc.

Cindy K. Crain, PG

Encl.

cc: Mr. Dave Harris - Dynegy
Mr. Cal Wrangham – Dynegy
Mr. Roger Holland- Dynegy

FIGURES



TAKEN FROM U.S.G.S.
RATTLESNAKE CANYON, N. MEX. 1979
7.5' QUADRANGLES

N

SCALE: 1"=4000'

FIGURE #1

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICES, L.P.

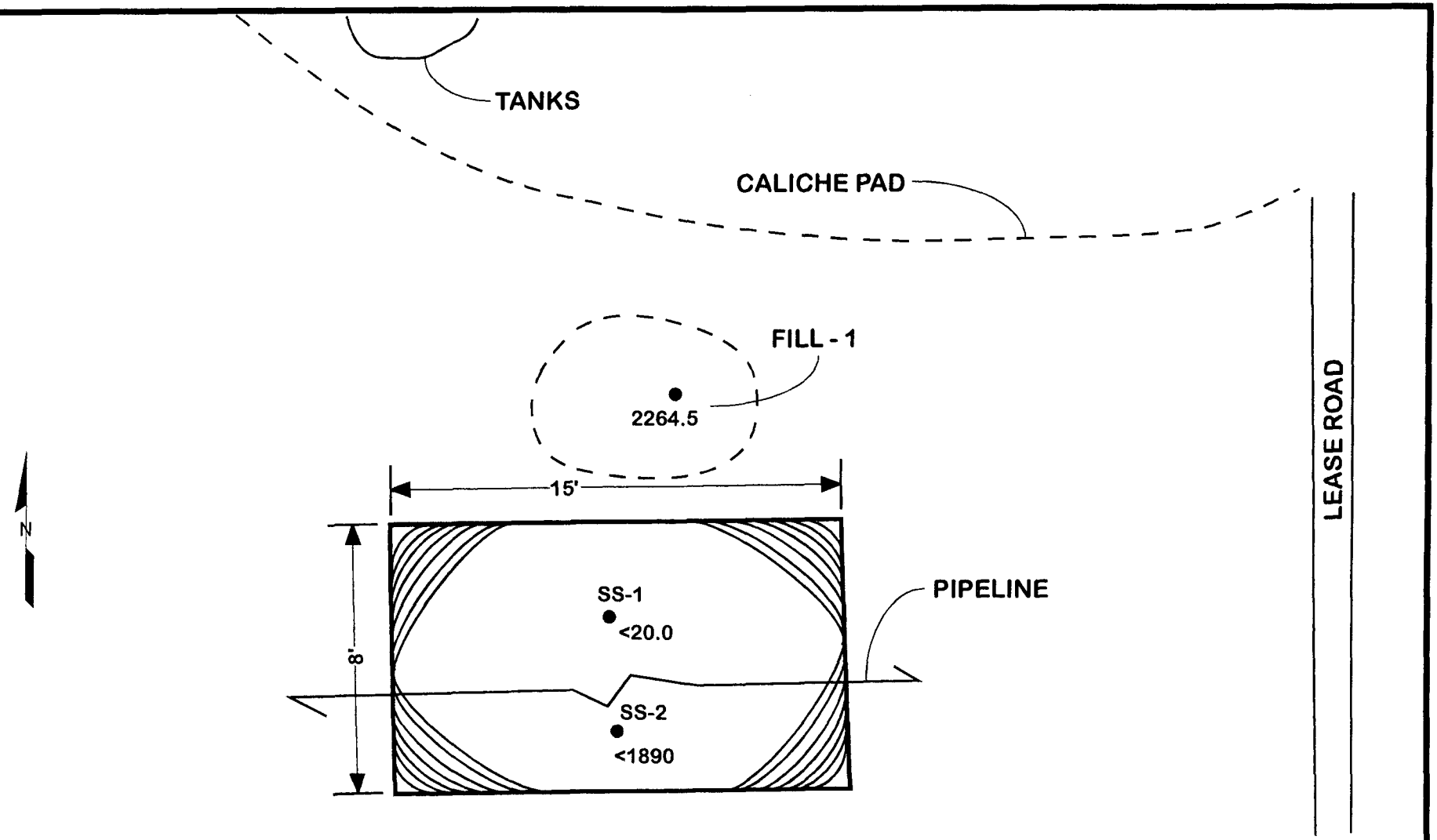
SITE #57

SE/4, NE/4, SECTION 11, T-23-S, R-37-E

TOPOGRAPHIC MAP

DATE: 10/24/03
NAME:
FILE: 0-0100-56

Larson & Associates, Inc.
Environmental Consultants



LEGEND

SS-1 ● SOIL SAMPLE LOCATION with

<20.0 TPH CONCENTRATION (Mg/Kg), 8/20/03

0 5

SCALE in FEET

FIGURE #2

LEA COUNTY, NEW MEXICO

DYNEGY MIDSTREAM SERVICES, L.P.

SITE #57

SE 1/4, NE 1/4, SECTION 11, T-23-S, R-37-E

SITE DETAIL

DATE: 8/25/03

NAME:

FILE: 0-0100-57

Larson & Associates, Inc.
Environmental Consultants

APPENDIX A

Release Notification and Corrective Action Form (C-141)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised June 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Dynegy Midstream Services, L.P.	Contact Dave Harris
Address PO Box 1909 Eunice, NM 88231	Telephone No. (505) 631-7069
Facility Name Eunice Plant Gathering System	Facility Type Gas Plant Low Pressure Gathering Lines

Surface Owner Geo W Sims	Mineral Owner	Lease No.

LA Project # 0-0100-57

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	11	23S	37E					Lea

NATURE OF RELEASE

Type of Release Natural Gas Condensate	Volume of Release ? unknown	Volume Recovered None
Source of Release Pipeline Leak	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Pipeline leak due to interior and exterior corrosion. Will excavate impacted soil.

Describe Area Affected and Cleanup Action Taken.*

Some staining along pipeline right of way. Will clean up per NMOCD guidelines and submit documentation to district office.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Cal Wrangham	Approved by District Supervisor:
Title: ES&H Advisor	Approval Date: / Expiration Date:
E-mail Address: cwwr@dynegy.com	Conditions of Approval: / Attached ☐
Date: 8/21/03 Phone: (432)688-0542	

* Attach Additional Sheets If Necessary

APPENDIX B

Laboratory Reports

ANALYTICAL REPORT

Prepared for:

JOHN STEWART
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Project: Dynegy/ #57

PO#:

Order#: G0307267

Report Date: 08/25/2003

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710
915-687-0456

Order#: G0307267
Project: 0-0100-51
Project Name: Dynegy/ #57
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0307267-01	SS-1	SOIL	8/20/03 10:30	8/20/03 16:30	4 oz glass	Ice
	Lab Testing: 8015M Chloride	**Rejected:** No		**Temp:** 2.0 C		
0307267-02	SS-2	SOIL	8/20/03 10:32	8/20/03 16:30	4 oz glass	Ice
	Lab Testing: 8015M Chloride	**Rejected:** No		**Temp:** 2.0 C		
0307267-03	Fill-1	SOIL	8/20/03 10:34	8/20/03 16:30	4 oz glass	Ice
	Lab Testing: 8015M Chloride	**Rejected:** No		**Temp:** 2.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JOHN STEWART
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307267
Project: 0-0100-51
Project Name: Dynegy/ #57
Location: None Given

Lab ID: 0307267-01
Sample ID: SS-1

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		8/21/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**<10.0**	10.0
TOTAL, C6-C35	**<10.0**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**103%**	**70**	**130**
1-Chlorooctadecane	**113%**	**70**	**130**

Lab ID: 0307267-02
Sample ID: SS-2

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		8/21/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**1,890**	10.0
TOTAL, C6-C35	**1,890**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**112%**	**70**	**130**
1-Chlorooctadecane	**130%**	**70**	**130**

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JOHN STEWART
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307267
Project: 0-0100-51
Project Name: Dynegy/ #57
Location: None Given

Lab ID: 0307267-03
Sample ID: Fill-1

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		8/21/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**44.5**	10.0
DRO, >C12-C35	**2,220**	10.0
TOTAL, C6-C35	**2,265**	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	**103%**	**70**	**130**
1-Chlorooctadecane	**118%**	**70**	**130**

Approval: Raland K Tuttle 8-25-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JOHN STEWART
LARSON AND ASSOCIATES, INC.
P.O. BOX 50685
MIDLAND, TX 79710

Order#: G0307267
Project: 0-0100-51
Project Name: Dynegy/ #57
Location: None Given

Lab ID: 0307267-01
Sample ID: SS-1

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	29.5	mg/kg	1	20	9253	8/21/03	CK

Lab ID: 0307267-02
Sample ID: SS-2

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	53.2	mg/kg	1	20	9253	8/21/03	CK

Lab ID: 0307267-03
Sample ID: Fill-1

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Chloride	118	mg/kg	1	20	9253	8/21/03	CK

Approval: Raland K Tuttle 8-25-03
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0307267

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0006596-02			<10.0		
CONTROL SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0006596-03		952	959	100.7%	
MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0307267-02	1890	952	2800	95.6%	
MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0307267-02	1890	952	2851	100.9%	1.8%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0006596-05		1000	1159	115.9%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307267

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg	0006576-01			<20.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0307267-01	29.5	417	428	95.6%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0307267-01	29.5	417	428	95.6%	0.%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Chloride-mg/kg	0006576-04		5000	5050	101.%	

CHAIN—OF—CUSTODY RECORD

LA Larson & Associates, Inc.
Environmental Consultants
Fax: 915-687-0456
915-687-0901
507 N. Marienfeld, Ste. 202 • Midland, TX 79701

CLIENT NAME: Dynes-7

SITE MANAGER: John Stewart

PROJECT NO.: 0-0100-51

PROJECT NAME: #57 (57 as per John Stewart)

PAGE 1 OF 1

LAB. PO #

DATE	TIME	WATER	SOIL	OTHER	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	PARAMETERS/METHOD NUMBER: TPH 8015M	PARAMETERS/METHOD NUMBER: Chlorides	LAB. I.D. NUMBER (LAB USE ONLY)	REMARKS (I.E., FILTERED, UNFILTERED, PRESERVED, UNPRESERVED, GRAB COMPOSITE)
6/20	10:30		✓		SS-1	1	✓	✓	030726701	3H21001
"	1032		✓		SS-2	1	✓	✓	02	
"	1034		✓		FILL-1	1	✓	✓	03	

SAMPLED BY: (Signature) John J. Stewart — DATE: 6/20 TIME:

RELINQUISHED BY: (Signature) John J. Stewart — DATE: 6/20 TIME: 4:30

RELINQUISHED BY: (Signature) — DATE: TIME:

RECEIVED BY: (Signature) — DATE: TIME:

RECEIVED BY: (Signature) — DATE: TIME:

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

COMMENTS:

TURNAROUND TIME NEEDED

WHITE – RECEIVING LAB
YELLOW – RECEIVING LAB (TO BE RETURNED TO LA AFTER RECEIPT)
PINK – PROJECT MANAGER
GOLD – QA/QC COORDINATOR

RECEIVING LABORATORY: Env. Lab of Tx
ADDRESS: 12600 W I-20 E
CITY: Odessa STATE: Tx ZIP: 79765
CONTACT: PHONE: 563-1800

RECEIVED BY: (Signature) Jeanne Mcmurrey
DATE: 06-20-03 TIME: 1630

SAMPLE CONDITION WHEN RECEIVED: 4.0 oz glass
2.0°C

LA CONTACT PERSON:

SAMPLE TYPE: