APPENDIX III

LABORATORY REPORTS

ESN PACIFIC

ETC - EnviroServices Training Center PROJECT #02-6011
Lanai Power Plant

ESN Project #F60811A

TPH ANALYSES OF SOILS BY EPA 8015-MOD.

SAMPLE NUMBER	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	TPH-DIESEL C12-C24 (mg/kg)	SURROGATE RECOVERY (%)	FLAGS
Method Blank	-	8/16/2006	8/16/2006	nd	115%	
Stock.1	8/11/2006	8/16/2006	8/16/2006	42	81%	
Stock.1 Dup	8/11/2006	8/16/2006	8/16/2006	38	72%	
Stock.2	8/11/2006	8/16/2006	8/16/2006	51	91%	
Stock.3	8/11/2006	8/16/2006	8/16/2006	32	95%	
Stock.4	8/11/2006	8/16/2006	8/16/2006	38	91%	
Stock.5	8/11/2006	8/16/2006	8/16/2006	35	85%	
02.6011.1.10	8/11/2006	8/16/2006	8/16/2006	nd	102%	
02.6011.1.20	8/11/2006	8/16/2006	8/16/2006	nd	90%	
02.6011.2.10	8/11/2006	8/16/2006	8/16/2006	nd	103%	
02.6011.2.20	8/11/2006	8/16/2006	8/16/2006	nd	100%	
02.6011.3.10	8/11/2006	8/16/2006	8/16/2006	nd	92%	
02.6011.3.20	8/11/2006	8/16/2006	8/16/2006	nd	94%	
02.6011.3.20 Dup	8/11/2006	8/16/2006	8/16/2006	nd	96%	
Reporting Limit				20		
2005 HI DOH EAL (Nuisance/Potential Leachate Concerns)				500/5000		

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-FBP/4-BFB): 65% TO 135%

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	500
Measured Conc.	508
% Recovery	101.6%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name: Stock.1
*Any hits in sample spiked for MS/MSD are subtracted before reported as measured concentration.

Spike Added	500
Measured Conc.	474
% Recovery	94.8%
Spike Added	500
Measured Conc.	471
% Recovery	94.2%
RPD	0.7%

% Recovery LIMITS: 85% TO 115%
RPD LIMIT: 20%

ANALYSES PERFORMED BY : B. Capps
DATA REVIEWED BY: K. Combs KC

Environmental Services Network

ESN PACIFIC

ETC - EnviroServicen Training Center PROJECT #02-6011
Lanai Power Plant

ESN Project #F60811A

PAH ANALYSES OF SOILS BY EPA 8100 MODIFIED

SAMPLE NUMBER	NAPHTHALENE (mg/kg)	ACENAPHTHENE (mg/kg)	FLUORANTHENE (mg/kg)	BENZO(a)PYRENE (mg/kg)	SURROGATE RECOVERY (%)	FLAGS
Method Blank	nd	nd	nd	nd	98%	
Stock.1	nd	nd	nd	nd	71%	
Stock.1 Dup	nd	nd	nd	nd	66%	
Stock.2	nd	nd	nd	nd	107%	
Stock.3	nd	nd	nd	nd	89%	
Stock.4	nd	nd	nd	nd	85%	
Stock.5	nd	nd	nd	nd	86%	
02.6011.1.10	nd	nd	nd	nd	82%	
02.6011.1.20	nd	nd	nd	nd	78%	
02.6011.2.10	nd	nd	nd	nd	73%	
02.6011.2.20	nd	nd	nd	nd	85%	
02.6011.3.10	nd	nd	nd	nd	72%	
02.6011.3.20	nd	nd	nd	nd	94%	
02.6011.3.20 Dup	nd	nd	nd	nd	88%	
PQL	1.00	1.00	1.00	1.00		
MDL	0.08	0.15	0.14	0.14		

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-FBP/4-BFB): 05% TO 135%

QA/QC DATA - LABORATORY CONTROL SPIKE ANALYSES

Spike Added	10.0	10.0	10.0	10.0
Measured Conc.	9.1	10.8	11.0	9.7
% Recovery	90.9%	108.2%	110.2%	97.2%

QA/QC DATA - MATRIX SPIKE ANALYSES

Sample Name:
*Any hits in sample spiked for MS/MSD are subtracted before reported as measured concentration.

Spike Added	10.0	10.0	10.0	10.0
Measured Conc.	10.63	10.98	11.41	10.75
% Recovery	106.3%	109.8%	114.1%	107.5%
Spike Added	10.0	10.0	10.0	10.0
Measured Conc.	9.17	9.54	9.60	9.38
% Recovery	91.7%	95.4%	96.0%	93.8%
RPD	14.8%	14.1%	17.3%	13.5%

% Recovery LIMITS: 85% TO 115%
RPD LIMIT: 20%

ANALYSES PERFORMED BY : B. Capps
DATA REVIEWED BY: K. Combs KC

Environmental Services Network

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-8872, fax (425) 957-8904

ESN Job Number: 508817-1
Client: ESN Pacific
Client Job Name: ETC-Lanai Power Plant
Client Job Number: F60811A

BTEX (8260), mg/kg		MTH BLK	LCS	Stock 1	Stock 2	Stock3	Stock 4	Stock 5	02.6011.1.10	02.6011.20	02.6011.2.10
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06
Date analyzed	Limits	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06
Moisture, %				13%	11%	9%	12%	10%	24%	31%	20%
Benzene	0.02	nd	94%	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	0.05	nd	104%	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd	--	nd	nd	nd	nd	nd	nd	nd	nd
Xylenes	0.05	nd	--	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:											
Dibromofluoromethane		96%	100%	103%	101%	100%	100%	100%	100%	101%	101%
Toluene-d8		100%	101%	99%	99%	101%	100%	99%	98%	99%	100%
4-Bromofluorobenzene		100%	102%	102%	102%	102%	103%	101%	101%	101%	102%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
"-" - not reported
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

ESN SEATTLE CHEMISTRY LABORATORY
(425) 957-9872, fax (425) 957-9904

ESN Job Number: S60817-1
Client: ESN Pacific
Client Job Name: ETC-Lanai Power Plant
Client Job Number: F60811A

BTEX (8260), mg/kg		02.6011.2.20	02.6011.3.10	02.6011.3.20	DUP 02.6011.3.20	MS	MSD	RPD
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	
Date analyzed	Limits	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	08/17/06	
Moisture, %		27%	21%	27%	27%			
Benzene	0.02	nd	nd	nd	nd	96%	94%	2%
Toluene	0.05	nd	nd	nd	nd	102%	100%	2%
Ethylbenzene	0.05	nd	nd	nd	nd	--	--	
Xylenes	0.05	nd	nd	nd	nd	--	--	
Surrogate recoveries:								
Dibromofluoromethane		100%	100%	100%	102%	103%	103%	
Toluene-d8		99%	99%	100%	101%	100%	99%	
4-Bromofluorobenzene		102%	103%	101%	101%	101%	102%	

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
"--" - not reported
C - coelution with sample peaks
M - matrix interference
J - estimated value
Results reported on dry-weight basis
Acceptable Recovery limits: 65% TO 135%
Acceptable RPD limit: 35%

CHAIN-OF-CUSTODY RECORD

CLIENT: ETC
ADDRESS: 2850 [illegible] St. #50
PHONE: 839-7222 FAX: 839-4455
EMAIL: Tim@[illegible].com
CLIENT PROJECT #: 02-6011 Project Manager: [illegible]

TAT (circle one): 24-hr. 48-hr (5-day) or Other:
DATE: 8/11/06 PAGE 1 OF 1
ESN PROJECT #: F60811A
LOCATION/PROJECT NAME: Lanai Power Plant
COLLECTOR: [illegible] DATE COLLECTED: 8/11/06

	Sample ID#	Depth	Time	Sample Type	Container Type	8021b HVOC	8021b VOC	8021b BTEX	8021b MtBE	8015 Fuel Scan	8015 TPH-Gas	8015 TPH-Diesel	8015 TPH-Oil	8081 Pest.	8082 PCB	8100 PAH	8270 PAH	1010 FlashPoint	RCRA 8 Metals	Total: Pb Cd Cr As Hg or ___	TCLP ___				Comments	# of Containers
1	Stack.1			soil	4oz jar			X				X				X										1
2	Stack.2																									1
3	Stack.3																									1
4	Stack.4																									1
5	Stack.5																									1
6	02.6011.1.10																									1
7	02.6011.1.20																									1
8	02.6011.2.10																									1
9	02.6011.2.20																									1
10	02.6011.3.10																									1
11	02.6011.3.20																									1
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										

RELINQUISHED BY:(Signature) [signature] DATE/TIME 8/11/06 RECIEVED BY (Signa DATE/TIME [signature] 8/11/06
RELINQUISHED BY:(Signature) DATE/TIME RECIEVED BY (Signa DATE/TIME

SAMPLE DISPOSAL INSTRUCTIONS: ___ ESN Dispose @ $2.00/sample or ___ Return to Client

SAMPLE RECEIPT:
TOTAL # OF CONTAINERS____
COC SEALS Y / N / NA
SEALS INTACT Y / N / NA
RECEIVED TEMP:____

LABORATORY NOTES:

APPENDIX IV

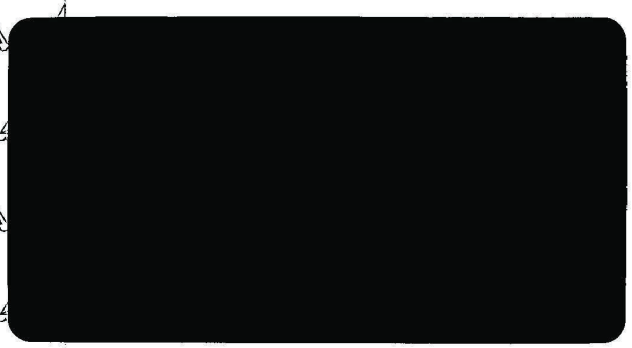
PHOTOGRAPHIC DOCUMENTATION

Photograph #1: View of former UST excavation area and soil stockpile area.

Photograph #2: View of soil stockpile.

Photograph #3: ESN personnel using direct push technology to advance soil borings.

	EnviroServices & Training Center, LLC	Project No. 02-6011 September 2006	Photographic Documentation Additional Subsurface Investigation 750 Fraser Avenue Lanai City, Lanai, Hawaii



EnviroServices & Training Center, LLC

JUL 22 2005

WORK PLAN

Additional Subsurface Investigation
Lanai Power Plant
750 Fraser Avenue
Facility ID No. 9-400773
Release ID No. 030016

Prepared For:
CASTLE & COOKE RESORTS, LLC
P.O. Box 898900
Mililani, Hawaii 96789-8900

Prepared By:
ENVIROSERVICES & TRAINING CENTER, LLC
2850 Pa'a Street, Suite 150
Honolulu, Hawaii 96819
tel: (808) 839-7222

ETC Project No. 02-6011

July 2005

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ATTACHMENTS

Figure 1: Site Location Map
Figure 2: Site Layout

1.0 GENERAL INFORMATION

1.1 Name and Address of Facility

The project site is the former Lanai Power Plant, located at 750 Fraser Avenue, Lanai City, Hawaii (Figure 1). The Hawaii Department of Health (DOH) Solid and Hazardous Waste Branch (SHWB) assigned the subject property the Facility Identification Number 9-400773 and assigned the Release Identification Number 030016.

1.2 Area Map

See Figure 1: Site Location Map

1.3 Site Map

See Figure 2: Site Layout

1.4 Site Description

The project site is located inland of the underground injection control line and is situated at an elevation of approximately 1,550 feet above mean sea level (msl). In the past, the facility and adjacent areas were used for industrial purposes. Currently, the Power Plant facility and adjacent areas are unused and generally overgrown with vegetation. The Power Plant structure is used for storage of equipment and supplies.

1.4.1 Regional and Site Geology

The island of Lanai is a shield volcano formed by eruptions at the summit and along three rift zones. The primary rift zone is a broad ridge that trends in the northwest direction and the two minor rift zones trend in the southwest and south-southeast directions. The Palawai Basin, located in the southern portion of Lanai, is the remnant of the caldera formed by the collapse of the shield summit. All lavas of Lanai are tholeiitic basalts, ranging from olivine-free tholeiites through olivine tholeiites to very olivine-rich oceanites. Lava flows range from 0.3 to 30 meters thick, averaging 6 meters, with very little evidence of erosion or weathering between successive flows. In general, pahoehoe flows predominate near vents and a'a flows are abundant on the lower slopes (MacDonald, et al., 1983).

Since Lanai lies in the rain shadow of West Maui and East Molokai, the island is very dry, with an average annual rainfall at the summit of approximately 100 centimeters per year. For this same reason, the northeast portion of the island is sheltered from wave erosion, with broad expanses of alluvium and beaches. Conversely, the southwest portion of the island is fully exposed to waves generated by southwestern storms, creating the phenomenon of high sea cliffs along the leeward portion of the island (Macdonald, et al., 1983).