

Oil Spill Case

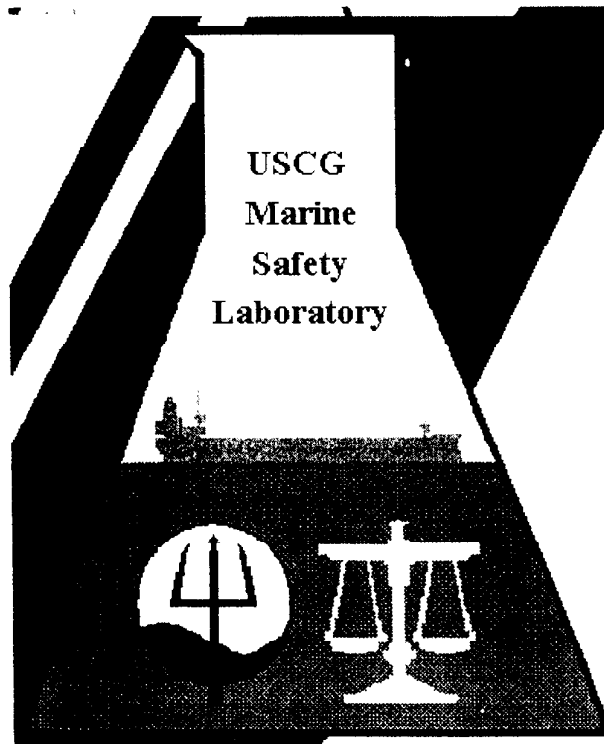
Oil Sample Analysis Report

MSO Honolulu

Case Number MC98011773

Marine Safety Laboratory

Case Number 98-301



**United States
Coast Guard**
U.S. Department
of Transportation



Manager
U.S. Coast Guard
Marine Safety Laboratory

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16400
16-Oct-98

From: Manager, Marine Safety Laboratory
To: Commanding Officer, MSO Honolulu
Subj: Oil Sample Analysis Report, MSO Honolulu
Case # MC98011773, MSL Case # 98-301

1. The laboratory analysis of this case has been completed and our report is forwarded. The technical data supporting the report (spectrograms and chromatograms) have been archived at our facility and are available upon request. We will maintain the oil samples in refrigerated storage pending final case disposition.
2. Questions concerning this report or the analytical methods used should be directed to the Supervisor of Analysis, G. E. Moffett.


G. E. MOFFETT
By Direction

Encl: (1) MSL Report 98-301

UNITED STATES COAST GUARD MARINE SAFETY LABORATORY
OIL IDENTIFICATION LABORATORY

OIL SPILL IDENTIFICATION REPORT

LABORATORY CASE NUMBER: 98-301

REQUESTOR: MARINE SAFETY OFFICE HONOLULU

UNIT CASE NUMBER: MC98011773

RECEIVED: 28SEP98 **VIA:** FEDERAL EXPRESS (# 4416905931)

NUMBER OF SAMPLES: SIXTEEN (16)

LAB NO. OF SPILLS: 99-301-1 THROUGH 16

LAB NO. OF SOURCE: 98-281-6

ANALYSIS METHODS:

GAS CHROMATOGRAPHY (GC)

GAS CHEOMATOGRAPHY-MASS SPECTROMETRY (GC-MS)

SPECIAL INSTRUCTIONS:

1. Compare samples sent to MSL on 28SEP98 to suspected source sample 98-281-6 from case 98-281.

RESULTS: (MATCH)

1. Samples 98-301-1 through 16 were specified to be representative of spilled oil. Analysis indicates:

a. Spill samples 98-301-1,2,4,8,10,11,12,13 and 16 contain similar intermediate fuel oils that have undergone varying degrees of evaporative weathering with characteristics similar to those observed in suspected source sample 98-281-6. Differences noted are consistent with weathering of spilled oil.

b. Spill samples 98-301-3, 5,9 and 15 contain various petroleum oil products including lubricating oil components with characteristics different from those observed for suspected source sample 98-281-6.

c. Spill samples 98-301-6,7 and 14 contain either insufficient petroleum oil or biogenic contamination to the extent that they are not of any value for comparison purposes with suspected source sample 98-281-6.

2. Suspected source sample 99-281-6 contains a weathered intermediate fuel oil sample as previously reported in MSL case 98-281 with characteristics similar to those observed in spilled oil samples 98-301-1,2,4,8,10,11,12,13 and 16. Differences noted are consistent with weathering of spilled oil.

CONTINUATION OF OIL SPILL IDENTIFICATION REPORT 98-301

CONCLUSIONS:

1. Source sample 98-281-6 and spilled oil samples 98-301-1,2,4,8,10,11,12,13 and 16 are derived from a common source of spilled oil. Differences noted are attributable to weathering of spilled oil.
2. Source sample 98-281-6 and spilled oil samples 98-301-3,5,9 and 15 are not derived from a common source of spilled oil. Differences noted are not attributable to weathering of spilled oil.
3. Comparison of source sample 98-281-6 with spilled oil samples 98 301 6,7 and 14 is inconclusive due insufficient petroleum oil and the presence of significant biogenic contamination in these samples.

SUPERVISOR OF ANALYSIS


GARY MOFFETT

Chemist

DATE: 16OCT98

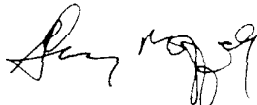
**United States Coast Guard
Marine Safety Laboratory**

**Oil Spill Identification Analyses
Cost Recovery Documentation**

Laboratory Case Number: 98-301
Requestor: MSO Honolulu
Unit Case Number: MC98011773
Number of Samples: 18
Cost Per Sample Prepared: \$20.00
Total Costs of Sample Preparation: \$360.00
Number of Analyses: 38
Cost Per Sample Prepared: \$86.00
Total Costs for Analysis: \$3,268.00
TOTAL COSTS: \$3,628.00

This documentation is provided for purposes of Phase IV - Documentation and
Cost Recovery under the National Oil and Hazardous Substances Pollution
Contingency Plan (40 CFR Part 300)

Signature:



Date: 19-Oct-98

**United States Coast Guard
Marine Safety Laboratory**

Sample Check-in Log, MSL Case Number: 98-301

Requestor: MSO Honolulu

Unit Case Number: MC98011773

Federal Project Number

Delivery Method: FEDERAL EXPRESS

Received Date: 28-Sep-98

Delivery Number: 4416905931

Priority: No Rush: No Comparison: Yes

Lab Number 98-301	Sample Descriptions from Sample Jars	Spill	Source
✓ 1 m	1 B0915-1 BIRD FEATHER FRIGATE BIRD KILAUEA LIGHTHOUSE 15 SEP 98 1451	XX	
✓ 2 m	2 B0915-2 BROWN BOOBY PLAEALA PT. Deleala Pt. 15 SEP 98 1455	XX	
✓ 3 NM	3 B0915-3 BROWN BOOBY POLIHALE 15 SEP 98 1500	XX	
✓ 4 m	4 B0915-4 BROWN BOOBY FEATHER, KILAUEA LIGHTHOUSE 15 SEP 98 1510	XX	
Oahu ✓ 5 NM	5 SOLID BLACK WITH SAND COATING TAKEN FROM MALAEKAHAMA BEACH WINWARD, OAHU 14 SEP 98 1900	XX	
✓ 6 IC	6 SAND NA PALI COAST WEST OF KALALAU 13 SEP 98 1320	XX	
✓ 7 IC	7 SAND NA PALI COAST NORTH OF KALALAU 13 SEP 98 1320	XX	
✓ 8 m	8 SOIL FROM PAOO, KAWELIKAO PT. 13 SEP 98 1320	XX	
✓ 9 NM	9 SOLID PETRO FROM KAMALA POINT 14 SEP 98 1450	XX	
✓ 10 m	10 TARRED ROCKS FROM KIPU KAI BEACH 18 SEP 98 1150	XX	

Remarks: Compare to MSL case 98-281-6

Samples checked in by:

Date: 29 SEP 98

Sample Custodian:

Date: 19 OCT 98

Supervisor of Analysis:

Date: 16 OCT 98

**United States Coast Guard
Marine Safety Laboratory**

Sample Check-in Log, MSLCaseNumber:

98-301

Lab Number	Sample Descriptions from Sample Jars	Spill	Source
98-301 ✓ 11 m	11 PETRO SOLID FROM BEACH IN FRONT OF OUT RIGGER	XX	19 SEP 98 0804
✓ 12 m	12 PETRO SOLID FROM BEACH IN FRONT OF WAILUA GOLF COURSE	XX	15 SEP 98 0851
✓ 13 m	13 PETRO SOLID FROM AHUKINI STATE BEACH	XX	20 SEP 98 0920
✓ 14 IC	14 OIL SAND FROM KEALIA BEACH	XX	15 SEP 98 0950
✓ 15 NM	15 OILED ROCKS FROM KILAUEA BEACH	XX	20 SEP 98 1128
✓ 16 m	16 BARKING SANDS BEACH END OF SOUTHERN RUN WAY TARBALLS	XX	13 SEP 98 1220
17			
18			
19			
20			

Samples checked in by:

Sample Custodian:

Supervisor of Analysis:

[Handwritten signatures]

Date: 9/17/98

Date: 10/22/98

Date: 10/30/98

U.S. Department
of Transportation

United States
Coast Guard



Commanding Officer
Marine Safety Office


433 Ala Moana Blvd.
Honolulu, HI 96813-4909
Staff Symbol: Port Ops
Phone: (808) 522-8264

16460
24 SEP 1998

From: Commanding Officer, Marine Safety Office Honolulu, HI
To: Commanding Officer, USCG Marine Safety Laboratories

Subj: REQUEST FOR OIL SAMPLE ANALYSIS

1. Request analysis of the 16 samples listed on attached Chain of Custody Record to assist in our investigation of spill case MC98011773.
2. This is a request for Normal (3-4 days) analysis.
3. Questions concerning this case should be directed to MK3 JOE T. STEWART at (808) 522-8260.
4. The spill samples were collected from 3 brown booby birds, 1 frigate bird, and various samples from oiled beaches on islands of OAHU and KAUAI.
5. The McGill sheen sampling net was not used.
6. Estimated 177 barrels spilled, cleanup is on going.
7. Weather Conditions at time of sampling: bright sun, 80 degrees, light and variable winds.
8. Spill did not involve seepage of oil through the soil.
9. There may be unknown organic matter from water fowl in the area. Water and beaches were not polluted with possible multiple unknown sources.
10. Are all samples involved in this case being sent are not being sent to the laboratory. Split with TESORO for separate analysis.
11. Identification of pollution type and check to case MC#98011128.


C. LE
By direction

UNITED STATES COAST GUARD
CHAIN OF CUSTODY RECORD

SUPERVISOR
MARINE SAFETY OFFICE
433 ALA MOANA BLVD. PIER 4
HONOLULU HAWAII 96813

SPILL	SOURCE	SAMPLE NO.	DESCRIPTION OF SAMPLES FOR CASE# MC 98011773
X		1 m	Bø915-1 Bird Feather Frigate bird KILAUEA light house
X		2 m	Bø915-2 BROWN BOOBY PALEALA PT.
X		3	Bø915-3 BROWN BOOBY, POLIHALE
X		4 m	Bø915-4 BROWN BOOBY Feather, KILAUEA light house.
X		5	Solid black Sand Coating Taken From MALAEKAIHAMA BEACH inward, Oa.
X		6	SAND NA PALE COAST WEST OF KALALAU
X		7	SAND NA PALI COAST NORTH OF KALALAU
X		8 m	Soil From PAOO, KAWELIKAO PT.
X		9	Solid PETRO From KAMALA Point.
X		10 m	TARRED Rocks From KIPU KUI Beach.
X		11 m	PETRO Solid From BEACH IN FRONT OF OUTRIGGER.
X		12 m	PETRO Solid From Beach in front of WAILUA GOLF COURSE.
X		13 m	PETRO Solid From AHUKINI STATE BEACH.
X		14	Oil SAND From Kealia Beach.
X		15	Oiled Rocks From KILAUEA Beach.
X		16 m	BARKING SANDS BEACH, END OF Southern RunWAY, TAR BALLS

<p>PERSON ASSUMING RESPONSIBILITY FOR SAMPLES</p> <p><i>Joe T. Stewart</i> JOE T. STEWART MK3, USCG</p>	<p>TIME/DATE</p> <p>14110/9-23-98</p>
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SAMPLE NUMBER	RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME	REASON FOR CHANGE OF CUSTODY
1-16	<p>JOE T. STEWART MK3 USCG</p> <p><i>Joe T. Stewart</i></p>	<p>9/24/98 1130</p>	<p>NOVA K. 20A James H. Grigg</p>	<p>9/24/98 160</p>	<p>SEND TO LAB FOR TESTING</p>

**UNITED STATES COAST GUARD
MARINE SAFETY LABORATORIES
OIL IDENTIFICATION LABORATORY**

QUALITY CONTROL SHEET

MSL CASE NUMBER: 98-301

DATE PREPARED: 30 SEP 98

A Quality Control (QC) sample was analyzed along with the samples of the case.

- The Quality Control (QC) sample is a duplicate of sample _____.
- Due to limited sample quantity in all samples of the case, reference oil D-464-CO from the MSL oil library was used for the Quality Control (QC) and Quality Control Match (QCM) samples.
- Infrared Spectroscopy was used as a screening method before final sample preparation. No QC sample was available during IR screening.

ANALYTICAL METHODS

	SAT	N/A
INFRARED SPECTROSCOPY (IR)		X
GAS CHROMATOGRAPHY (GC)	X	
FLUORESCENCE SPECTROSCOPY (FL)		X
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC-MS)	X	

The data and conclusions for the QC and QCM samples were identical: YES X NO _____

Comments: GC-MS

SUPERVISOR OF ANALYSIS: *[Signature]*
Revised 2/96

DATE: 10 OCT 98