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Summary of SCAT Activities and Data Management

SWANSON CREEK INCIDENT

Potomac Electric Power Company

ENTRIX

POLARIS APPLIED SCIENCES, INC.

SWANSON CREEK INCIDENT

SUMMARY OF SCAT ACTIVITIES AND DATA MANAGEMENT

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October 16, 2000

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1.0 INTRODUCTION

The purpose of this report is to document and describe the methods by which shoreline oiling conditions were observed and documented, and data was managed. Field observations used to assess the degree of oiling were collected between April 13 and 24, 2000, following the pipeline break in the Swanson Creek marsh on April 7, 2000. A summary of daily SCAT survey coverage is presented in Table 1-1.

The information described in, and products derived from, this report are based solely on the observations of SCAT Teams assigned to document oiling conditions during the period of April 13 through April 24, 2000. Documented oiling conditions are considered representative for the date and time of the field survey.

Final products resulting from the SCAT program include two separate databases and oiling maps based upon:

- 1/24K digitized and georeferenced USGS topographical map; and
- 1993 digital ortho quarter quad (DOQQ) aerial photographs

This report was prepared by Fred Wehrenberg (ENTRIX, Inc.) and Alain Lamarche (Polaris Applied Science, Inc.). Mr. Wehrenberg served as the SCAT Coordinator from April 12 through April 19 and participated in the surveys. Mr. Lamarche served as the SCAT Data Manager all through the response and prepared the GIS maps.

Table 1-1.

SCAT Survey Coverage

Segment	Survey Date											
	Apr-13	Apr-14	Apr-15	Apr-16	Apr-17	Apr-18	Apr-19	Apr-20	Apr-21	Apr-22	Apr-23	Apr-24
NE-1						2611						
E-1			1453			4800						
E-2			1675	625			4592					
E-3				1390			745					
E-4				803			703			1525		
E-5			7239									
E-6			2500									
E-7			4491									
E-8			5025									
E-9			1893									
E-10			4420									
E-11			4484									
E-12				14700								
E-13					3254							
E-14					9423							
E-15					3000							
NW-3						2831						
NW-2						1717						
NW-1						1741						
W-1										7016		
W-2				3546								
W-3					1847							
W-4		5300			853	295						
W-5	860	3840										
W-6			3230					1312				
W-7		4985			1340							5177
W-8		2209	6808								5319	
W-9		4167					2527					
W-10		3081						3444				
W-11			3473									3019
W-12												1135
W-13								3090				1307
W-14								726				
W-15				3195								
W-16						2147						
W-17						3068						
W-18						6790						
W-19					807							
W-20					9000				3019			
Intake					1000							

Numbers represent length of shoreline survey in meters (measured from USGS Topographic Map)

2.0 SHORELINE CLEANUP ASSESSMENT TEAM (SCAT) PROCEDURE

Oiling Characteristics were assessed using the Shoreline Cleanup Assessment Team (SCAT) Procedure. The SCAT procedure was developed during the *Exxon Valdez* oil spill, and has been refined over the past decade. The SCAT procedure is accepted as the benchmark for documenting shoreline oiling characteristics using standardized terminology and procedures.

2.1. Methodology

The Swanson Creek Incident SCAT program was established on April 13, and continued through April 24, 2000. The goals of the program were to:

- document the location, amount and character of oil on the shoreline;
- provide the Planning and Operations Sections with accurate shoreline oiling information to aid in the decision-making process; and
- formulate recommendations for appropriate cleanup methods, priorities and constraints.

2.2. SCAT Team Members

Numerous individuals participated on the SCAT Teams during the course of the response. Though an effort was made at maintaining consistency among team members, conflicting schedules among personnel did not always allow for full time participation. In addition, assignments were made to ensure that representative experience levels were spread among each team. SCAT Team participants included representatives from the following organizations:

- Maryland Department of Natural Resources (MDNR);
- Maryland Department of the Environment (MDE);
- National Oceanic and Atmospheric Association (NOAA);
- U.S. Fish and Wildlife Service (USFWS);
- U.S. Coast Guard (USCG);
- PEPCO;
- ENTRIX, Inc. (representing PEPCO);
- Polaris Applied Sciences (representing PEPCO); and
- Gallagher Marine Systems, Inc. (representing PEPCO).

Additional field observations were conducted by the U.S. Environmental Protection Agency (EPA), MDE, and MDNR outside of the SCAT Teams, however, these observations were inconsistent with the SCAT procedure and are not directly comparable.

2.3. Shoreline Segments

Operational divisions extending from the vicinity of Swanson Creek, south to the mouth of the river near Chesapeake Bay were created on the east (E-1 through E-15) and west (W-1 through W-20) sides of the Patuxent River. Segments to the north of the Swanson Creek area were designated as northwest (NW-1 through NW-3) and northeast (NE-1). The areas surveyed by SCAT Teams are shown on Figure 2-1.

These operational divisions were used for shoreline segments during the SCAT surveys. The segments were further subdivided based on the uniformity of shoreline sediments or substrate, and oiling conditions. Segments and subdivisions were assigned an alpha-numeric code referencing the operational division (e.g., W-5) and sequence of subdivision surveyed (e.g., a, b, c, etc.). In some of the more heavily impacted segments, multiple surveys were conducted. Subdivision boundaries between first, second and third surveys were not consistent.

2.4. Field Data Collection

Oiling characteristics were entered on a standardized Shoreline Oiling Summary (SOS) form, accompanied with a map indicating segment and subdivision boundaries. Numerous renditions of the SOS form have been developed over the years, however, the forms typically contain similar data fields allowing for use of the standard terms and definitions. In fact it is not uncommon for the form to evolve during a particular incident. This evolution was evident during the response to the Swanson Creek Incident.

Three different SOS forms were used by SCAT teams in the course of the response. During the first few days of the response, observations were recorded on the standard SOS forms. On April 16th, these were replaced by the simplified SOS form which utilized Environmental Sensitivity Index (ESI) categories rather than sediment types in describing the characteristics of the shoreline. The simplified SOS form was modified on April 17th to provide space for inclusion of an additional subdivision (zone) on each page. In addition, the distribution column was left blank to allow field teams to more accurately indicate the percent cover for each oil thickness versus using the distribution range (i.e., Patchy 11-50%). This version of the form was utilized through the end of the field surveys on April 24, 2000. The three forms used during the response are presented in Appendix A.

Critical data fields on the SOS forms include width, distribution and thickness. These data are used in determining the oil categories (see Section 3.1). Where critical data were missing or deficient, the data gaps were filled during the QA/QC process as described in Section 4.0.

Figure 2-1.

Area Surveyed by SCAT Teams Between April 13, and April 24, 2000

In completing the data fields on the forms, SCAT field teams assigned a width to the "oiled area". The distribution (percent cover) was assigned to each oil thickness within the oiled area. It was fairly typical to have more than one distribution and thickness within the oiled area. Applicable oil characters (e.g., tar balls) were also specified. Shoreline types were indicated using the following ESI categories:

1. Seawalls, piers, and manmade structures
2. Exposed, fine sand beaches
3. Sheltered, fine sand beaches
4. Coarse sand beached
5. Exposed tidal flats
6. Rip rap
7. Supratidal marshes, partially protected by elevation
8. Freshwater marshes
9. Sheltered tidal flats
10. Fringing, intertidal marshes
11. Extensive intertidal marshes

The subdivision lengths indicated on the forms (based on the field team's visual estimate) were used initially, but were eventually disregarded as the Geographic Information System (GIS) became operational and these lengths could be more accurately measured from the map.

The locations of segment and subdivision boundaries were indicated on 1/24K USGS topographical maps. Survey teams used one or all of the following methods to locate their observations:

- United States Geological Service (USGS) topographical maps.
- One meter resolution aerial photographs; and
- Geographical Positioning System (GPS).

2.5. Aerial Video Surveys

Aerial video surveys were conducted throughout the response to provide a visual record of shoreline conditions. On June 19, 2000, after the majority of the Phase 1 cleanup had been completed, a final aerial survey was conducted to document the shoreline.

Following completion of the SCAT field surveys, it was noted that data gaps existed in several location. To fill the gaps in shoreline coverage, aerial video tapes were reviewed. Based on this review, shoreline oiling information was reconstructed and the data were entered into the database. Data sheets used during the review indicated the applicable video tapes and described observations

and assumptions. Copies of the video review data sheets are presented in Appendix B.

Aerial video tapes were also used to determine worst case oiling conditions in segments where shoreline impact was greater prior to SCAT surveys. Documentation of these segments (E-2, E-3, E-4 and E-5) was based primarily on the April 10 video tape.

Review of the database also indicated that ESI codes were missing from several portions of the shoreline. In conjunction with a review of aerial photographs, missing ESI codes were also ascertained by reviewing aerial video tapes.

3.0 DATA MANAGEMENT

To ensure standardization and manage the large volume of the information collected by the SCAT team members, the data noted on SOS forms were entered in a dedicated SCAT data management system. This database provided for the storage, retrieval and manipulation of information, such as the calculation of oiling categories. The systems internal knowledge-base facility was used to compute the oiling category, according to the recognized method outlined in Section 3.1. Following this initial data entry, all data was later imported in a spreadsheet program (Microsoft Excel), in order to simplify the construction of various summary tables. This spreadsheet version became the official data source.

The locations of each shoreline segment and subdivision was also entered into a Geographical Information System (GIS), which used georeferenced 1/24K scale, USGS rasterized, topographical maps as basemaps. This system was used to display the degree of oiling as color-coded lines along the shoreline, and to measure the lengths of each subdivision.

3.1. Determination of Oiling Categories

The determination of surface oil categorization followed the standard SCAT method by taking into account the following observations, made on site by the survey team members:

- Width of the oiled area;
- Oil distribution (the estimated percent cover of observed oil); and
- Average oil thickness.

These observations are combined by using two matrices in order to evaluate surface oiling category. The first matrix is used to assess the "initial oil cover" (Table 3-1).

Table 3-1.
Initial Surface Oil Cover Matrix

Oil Distribution		Width of oiled area			
		Wide >6m	Medium >3-6m	Narrow >0.5-3m	Very Narrow <0.5m
Continuous	91-100%	Heavy	Heavy	Moderate	Light
Broken	51-90%	Heavy	Heavy	Moderate	Light
Patchy	11-50%	Moderate	Moderate	Light	Very Light
Sporadic	1-10%	Light	Light	Very Light	Very Light
Trace	<1%	Very Light	Very Light	Very Light	Very Light

The matrix combines the reported width of the "oiled area" with the distribution (percent cover) to determine the "initial oil category". The initial oil category is then compared to the average thickness using the Surface Oil Categorization Matrix (Table 3-2) to determine the final category, or "degree" of oiling.

Table 3-2.

Surface Oil Categorization Matrix

Average Thickness	Initial Categorization of Surface Oil			
	Heavy	**Moderate**	**Light**	**Very Light**
Pooled > 1cm	Heavy	Heavy	Moderate	Light
Cover >0.1-1.0 cm	Heavy	Heavy	Moderate	Light
Coat >0.01-0.1 cm	Moderate	Moderate	Light	Very Light
Stain-Film<0.01 cm	Light	Light	Very Light	Very Light

3.2. Mapping

Shoreline oiling categories were displayed on the USGS topographical map. Categories were indicated by color-coded lines along the shoreline to represent heavy, moderate, light, and very light oiling. This initial map (produced during the response effort) was later revised to reflect changed identified by the quality control review described in Section 4.0.

4.0 Quality Control (QC) Review

The QC review was conducted in three steps between July 10, and August 9, 2000. The first step included a comparison of database entries with the raw data (SCAT SOS forms, maps and notes). Corrections to the database were made as required to accurately represent the data collected in the field. In conducting this review, several inconsistencies and deficiencies were noted. To address these, the following principles and assumptions were used:

- When thickness, distribution or width values were reported as categories (e.g., Patchy 11%-50%), the middle of the range was used (i.e., 35%);
- A value of 1 meter was used for the width of the oiled band when this data field was missing (this value corresponds to the median of all reported widths); and
- A value of 5% was used for the distribution when this data field was missing (this value corresponds to the median of all reported distributions).

Where ESI codes were missing, they were determined by reviewing previous/subsequent surveys, aerial photos and aerial videos.

The second step in the QC process consisted of a review of field data (in particular, the field maps) against the existing USGS topographical map prepared by the GIS during the response. Where applicable, segment and subdivision boundaries were adjusted. After verifying segments and subdivision boundaries, the GIS map was revised. The length of each subdivision was then measured directly from the GIS and the length column was revised in the USGS topographical version of the database.

Finally, the shoreline and segment/subdivision boundaries from the USGS topographical map were overlaid onto the DOQQ aerial photographs for comparison. Using the field data and June 19th aerial video, segment/subdivision boundaries were adjusted and the shoreline oiling categories were re-digitized to reflect differences in the shoreline between the USGS topographical map and the DOQQ aerial photographs. The length of each subdivision was measured from the GIS and the length column was revised in the DOQQ aerial photograph version of the database.

4.1. Estimation of Maximum Observed Oiling Categories

Estimation of maximum observed oiling categories for each portion of the shoreline was completed in two steps.

The first step consisted in calculating a summary of overall oiling category for each subdivision surveyed. When multiple distributions and thickness' (oil bands) were indicated on the forms for an individual subdivision, the following calculations were made:

- The oil distribution (percent cover) was evaluated as the sum total of oil distribution of each of the reported oil thickness';

- The overall oil thickness was calculated from a combination of each oil thickness observation weighted by their respective distribution using the following formula:

$$\sum_{i=1}^{n} Di * Ti / \sum_{i=1}^{n} Di$$

Where:

n = Total number of oil bands reported in the subdivision

Di = Distribution reported for oil band i;

Ti = Oil thickness reported for oil band i.

Oiling category using the method outlined in Section 3.1 was then re-assessed using the subdivision summary values. The results of these calculations are presented in the *SCATSummary* sheet of the database (see Section 5.1).

In the second step, the maximum oiling category was assessed for each portion of the shoreline. This was done by comparing oiling categories assessed for each survey. Due to continued mobility of the oil and on-going cleanup efforts, several of the more heavily impacted segments were surveyed on multiple occasions. Since the location of subdivision boundaries often changed from one survey to the next, new subdivisions often had to be created. The oiling category data used for each of these new subdivisions corresponded either 1) to the survey where oiling category was highest or, 2) when oiling categories were equal between surveys, to the situation where oil thickness was reported as highest. When oil thickness and oiling categories were equal for the same portion of the shoreline between two surveys, data from the later survey was generally used.

Where applicable, the subdivisions were renamed in order to show the survey number from which oiling characteristics data was used. For example, W-11Ec_1 would indicate that this portion of shoreline was located in operational division (segment) W-11, and used data from the first survey of subdivision Ec. Similarly, a subdivision coded W-9El_2 would indicate that the data comes from the second survey of subdivision El, located in segment W-9. Those subdivisions followed by "_v" were reconstructed by review of aerial video tapes as described in Section 2.5.

5.0 Data Summary

The use of two maps (USGS topographical map and DOQQ aerial photographs) resulted in two separate data sets. The USGS topographical map is based on a 1953 aerial photograph (updated in 1974). The DOQQ aerial photographs are constructed from 1993 aerial photographs and are therefore considered to provide a more accurate representation of the shoreline. The associated databases are identical with the exception of the subdivision length column.

5.1. Database

Two separate databases are provided in the compact disk (CD) in the pocket at the back of this report. The file *SCAT_Topo.xls* provides lengths measured from the USGS topographical map, while the file *SCAT_DOQQ.xls* provides lengths measured from the 1993 DOQQ aerial photographs. The *SCAT_Topo.xls* file contains three sheets. Each of the sheets is organized by the date the survey was performed.

The first sheet, entitled *SCATdata*, contains all field observations from the SCAT surveys, including multiple distributions and thickness' (represented in the *Oil Band* column). In the second sheet, entitled *SCATSummary*, multiple "oil bands" were combined by using the sum of the distribution and the average thickness using the formula described in Section 4.1 to calculate the overall oiling category for each subdivision surveyed.

Those segments which were surveyed on more than one occasion (see Table 1-1) were evaluated to determine the "worst case" or maximum oiling conditions. Subdivisions from different survey dates were chosen based on the higher category. In some instances, only a portion of the subdivision was used due to overlapping boundaries. As described in Section 4.1, unique subdivision designations were assigned to indicate whether the data are based on the first or second survey. These data are presented in the third sheet, entitled *MaxOilCat* (shown in Appendix C and D). The *SCAT_DOQQ.xls* file contains only the third sheet.

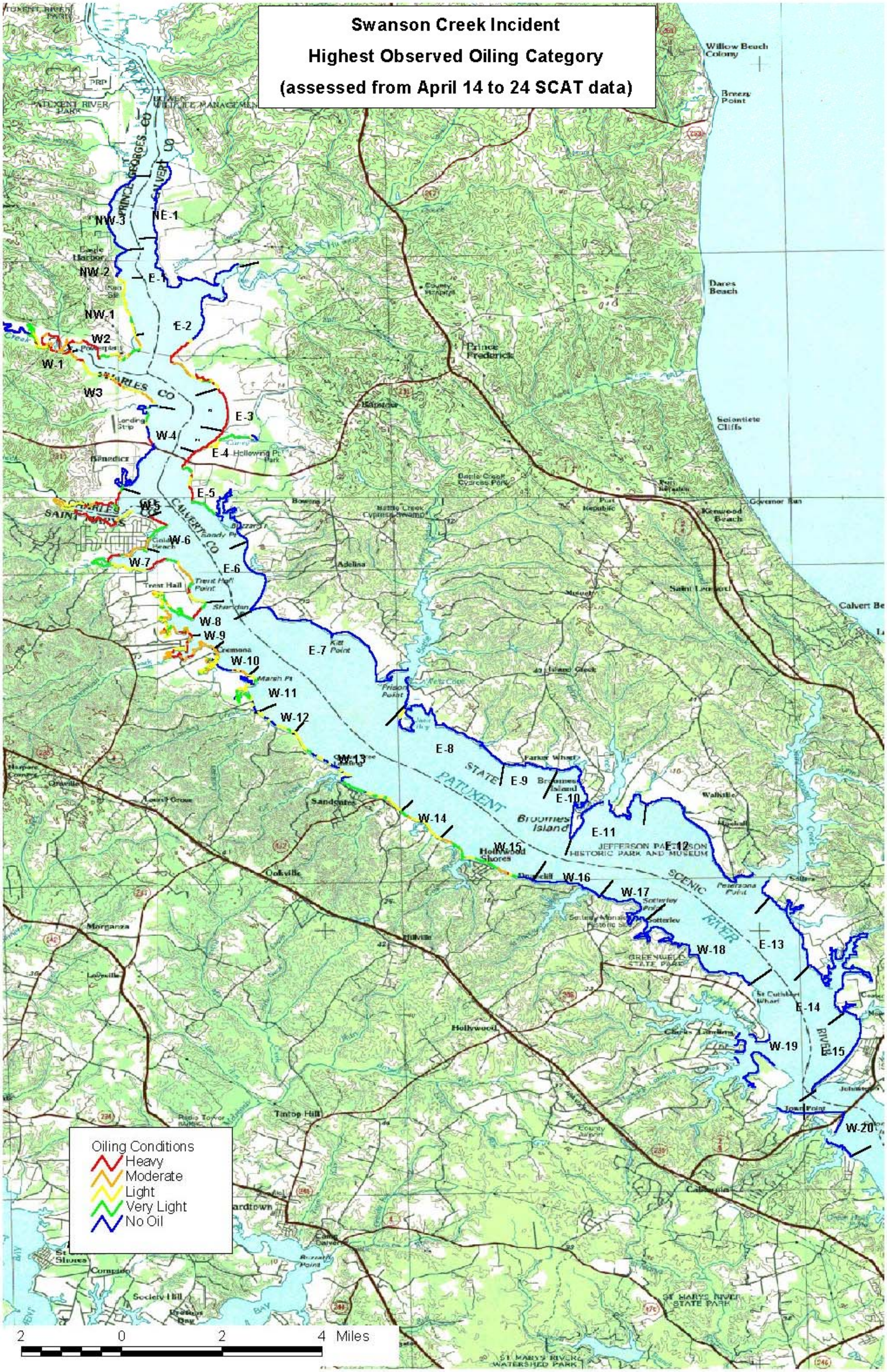
5.2. Shoreline Oiling Map

Shoreline oiling on the USGS topographical map is presented in Figure 5-1. The DOQQ aerial photographs are provided in the pockets at the back of this report. Oiling categories displayed on each of the maps are based on the data from the *MaxOilCat* sheet in the respective databases.

5.3. Additional Data Sources

As stated in Section 1.0, the databases and maps presented herein are based on SCAT Team observations. Though other observations and sources of data are likely to exist, they have not been included in the evaluation of shoreline oiling conditions at this time. Should these data be evaluated (following completion of this report) and the results warrant revisions to the database or map, an addendum to this report will be prepared.

Figure 5-1.
Maximum Shoreline Oiling: USGS Topographical Map
(next page)


Swanson Creek Incident
Highest Observed Oiling Category
(assessed from April 14 to 24 SCAT data)
Oiling Conditions
Heavy
Moderate
Light
Very Light
No Oil
NW-3
NE-1
NW-2
E-1
NW-1
E-2
W2
W-1
W3
E-3
W-4
E-4
E-5
W-5
W-6
W-7
E-6
W-8
W-9
E-7
W-10
W-11
W-12
E-8
W-13
E-9
E-10
W-14
E-11
E-12
W-15
W-16
W-17
E-13
W-18
E-14
W-19
E-15
W-20
2 0 2 4 Miles

SCI TOPO map

(based upon 1993 digital ortho quarter quad aerial photographs [?])

(next page)

 CHESAPEAKE
QUEEN ANNES CO
TALBOT CO
ANNE ARUNDEL CO
CALVERT CO
TALBOT CO
DORCHESTER CO
PRINCE GEORGES CO
CHARLES CO
ST MARYS CO
SAINT MARYS CO
Herring Bay
North Beach
Chesapeake Beach
Waldorf
St Charles
La Plata
Prince Frederick
Calvert Beach
Long Beach
Broomes Island
PATUXENT
STATE
SCENIC
RIVER
JEFFERSON PATTERSON HISTORIC PARK AND MUSEUM
WICOMICO
CHAPTICO BAY
Cobb Neck
Cobb Island
Colonial Beach
POTOMAC
RIVER
Medleys Neck
Lexington Park
MARYLAND
VIRGINIA
WESTMORELAND CO
ST CLEMENTS STATE PARK
CEDARVILLE NATURAL RESOURCES MANAGEMENT AREA
MERKLE WILDLIFE MANAGEMENT AREA
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APPENDIX A

SHORELINE OILING SUMMARY (SOS) FORMS

A-1.

Standard SCAT SOS Form (used April 13-15, 2000)

SHORELINE OILING SUMMARY FORM

Page ___ of ___

1 GEN

Segment ID: _____	Survey Date: _____	Survey Time: _____ to _____ PST PDT	Tide Level _____ to _____
Surveyed from: Foot / Boat / Helicopter		Weather: Sun / Clouds / Fog / Rain / Snow	

2 TEAM

Team Number: _____	OPS / RP: _____ for _____
OG: _____	STATE: _____ for _____
ECO: _____	FEDERAL: _____ for _____
ARCH: _____	LAND MANAGER: _____ for _____

3 SHORE

Overall Classification for UITZ-Select One	Sediment Beach:	Sediment Flat:
Bedrock: Cliff_____ Platform_____	Boulder-Cobble_____ Sand_____	Boulder-Cobble _____ Sand_____
Manmade: Permeable___ Impermeable___	Pebble-Cobble_____	Pebbel-Cobble_____
Marsh / Wetlands _____	Sand-Grevel_____	Sand-Gravel_____
Secondary Shore Type:	Backshore Type:	

4 LAND

Predominant Substrate: Artificial (permeable Y/N)___% Rock___% Rock & Sediment___% Sediment___% Organic/Fines___%	
Slope: Low____% Medium____% High____% Vertical____%	Wave Exposure: Low / Medium / High
Total Estimated Segment Length: _____m	Total estimated Length Surveyed: _____m
Access Restrictions:	

5 OIL

Oil Category Lengths		Total Pavement: _____sq.m by _____cm
Wide: _____m	Very Narrow: _____m	Patties/Tarballs _____ bags Oiled Debris? Yes No
Medium: _____m	No Oil _____ m	Debris Amount: Logs _____ Vegetation _____
Narrow: _____m	Unsurveyed _____m	Trash _____ Other _____

6 SURFACE OIL

LOC	AREA LENGTH m	AREA WIDTH m	DIST	SURFACE OIL THICKNESS PO	CV	CT	ST	FL	SURFACE OIL CHARACTER FR	MS	TB	TC	SR	AP	NO	DB	ZONE SU	UI	MI	LI	SHORE SLOPE VHML	SURFACE SEDIMENT TYPE

Distribution (DIST): C=100-91%; B=90-51%; P=50-11%; S=10-1%; T=<1% Photo Roll # _____ Frames ___to___

7 SUBSURFACE

PIT NO.	PIT ZONE SU	UI	MI	LI	PIT DEPTH cm	OILED ZONE cm-cm	CLEAN BELOW (Y/N)	SUBSURFACE OIL CHARACTER AP	OP	PP	OR	TR	NO	WATER LEVEL cm	SHEEN COLOR	SURFACE-SUBSURFACE SEDIMENTS

Sheen Color: B= Brown; R=Rainbow; S=Silver; N=None

8 OG COMMENTS

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A-2.

Simplified SCAT SOS Form (used April 16, 2000)

"SHORT" SHORELINE OILING SUMMARY (SOS) FORM — for _____ Spill Page ____ of ____

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): standard/daylight	Tide Height
Segment ID:			
Operations Division:		hrs to hrs	rising / falling

Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____ | Sun / Clouds / Fog / Rain / Snow / Windy / Calm

2 SURVEY TEAM # _____

name	organization	contact phone number

3 SEGMENT *Total Segment Length* _____ *m* *Segment Length Surveyed* _____ *m*

Start GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min

End GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min.

Differential GPS Yes / No

4A SHORELINE TYPE *select only one primary (P) oiled shoreline type and any secondary (S)*

BEDROCK : ____	***MAN-MADE SOLID :*** ____	***SEDIMENT BEACH :***	Sand ___	***SEDIMENT FLATS :***	Mud Flats ___		
cliff/vertical ____ sloping ____ platform ____		Pebble-Cobble ___	Boulder ___	Sand Flats ___	Sand-Gravel ___		
Winter Only: Ice Foot ____ Snow ____		Mixed Sand-Gravel ___	***MARSH :*** ___	Peb-Cob ___	Boulder ___		

4B COASTAL CHARACTER *backshore character — select only one primary (P) and any secondary (S)*

CLIFF or HILL : ____ est. height _____ m		Beach ___	Delta ___	Tidal inlet ___	Marsh/Wetland ___		
slope: gentle (<5 deg)___ medium___ steep (>30 deg)___		Barrier beach ___	Dune ___	Channel ___	other _____		

5 OPERATIONAL FEATURES

direct backshore access Y / N — debris Y / N oiled? Y / N debris amount: _____ bags OR _____ trucks

alongshore access from next segment Y / N — suitable backshore staging Y / N

access restrictions _____

6 ZONE ID _____ *Description of Oil Conditions in Supra / Upper / Mid / Lower Intertidal Zone (circle one)*

Oil Band		Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil	
					Penetration	*Burial*
Width	Length	< 1%	Film	Fresh Liquid	< 1 cm	*Clean Layer :*
		1 - 10%	Stain	Mousse	1 - 5 cm	
m x	m	11 - 50%	Coat	Tarballs	5 - 10 cm	_____ cm
SEDIMENT TYPE(S) :		51 - 90%	Cover	Tar Patties	> 10 cm	*Oiled Layer :*
		91 - 100%	Pooled	Asphalt Pavement		
		_____ %	_____ cm	_____ other	_____ cm	_____ cm

7 ZONE ID_____ *Description of Oil Conditions in Supra / Upper / Mid / Lower Intertidal Zone (circle one)*

Oil Band		Surface Oil Distribution	Surface Oil Thickness	Surface Oil Type	Subsurface Oil	
					Penetration	*Burial*
Width	Length	< 1%	Film	Fresh Liquid	< 1 cm	*Clean Layer :*
		1 - 10%	Stain	Mousse	1 - 5 cm	
m x	m	11 - 50%	Coat	Tarballs	5 - 10 cm	_____ cm
SEDIMENT TYPE(S):		51 - 90%	Cover	Tar Patties	> 10 cm	*Oiled Layer :*
		91 - 100%	Pooled	Asphalt Pavement		
		_____ %	_____ cm	_____ other	_____ cm	_____ cm

8 COMMENTS *(cleanup recommendations—ecological/recreational/cultural/economic issues & constraints—wildlife obs.)*

(for ALL sub-segments record: sub-segment ID, length, length surveyed,and GPS start/end fixes)

Sketch Yes/No **Photos** Yes/No (Roll # _____ Frames_____) **Video Tape** Yes/No (tape #_____) ver. 05/00

A-3.

Modified SCAT SOS Form (used April 17-24, 2000)

"SHORT" SHORELINE OILING SUMMARY (SOS) FORM - for _____ **Spill** ____ **of** ____

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): standard/daylight	Tide Height
Segment ID:			
Operations Division:		hrs to hrs	rising / falling

Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____ | Sun / Clouds / Fog / Rain / Snow / Windy / Calm

2 SURVEY TEAM # ____ | ***name*** | ***organization*** | ***contact phone number***

3 Zone ID _____ ***Description of Oil Condition in Supra/Upper/Mid/Lower Intertidal Zone (circle one)***

Oil Band	Surface Oil distribution	Surface Oil Thickness	Surface Oil type	Subsurface Oil: Penetration	Subsurface Oil: Burial
Width Length		Film	Fresh Liquid	<1cm	***Clean Layer:***
		Stain	Mousse	1-5cm	
mx m		Coat	Tar balls	5-10cm	_____ cm
Sediment Type(s)		Cover	SR	>10cm	***Oiled Layer:***
		Pooled	Asphalt Pavement		
		_____ cm	_____ Other	_____ cm	_____ cm

Lat Begin: Lon Begin:

Lat end: Lon end:

4 Zone ID _____ ***Description of Oil Condition in Supra/Upper/Mid/Lower Intertidal Zone (circle one)***

Oil Band	Surface Oil distribution	Surface Oil Thickness	Surface Oil type	Subsurface Oil: Penetration	Subsurface Oil: Burial
Width Length		Film	Fresh Liquid	<1cm	***Clean Layer:***
		Stain	Mousse	1-5cm	
mx m		Coat	Tar balls	5-10cm	_____ cm
Sediment Type(s)		Cover	SR	>10cm	***Oiled Layer:***
		Pooled	Asphalt Pavement		
		_____ cm	_____ Other	_____ cm	_____ cm

Lat Begin: Lon Begin:

Lat end: Lon end:

5 Zone ID _____ ***Description of Oil Condition in Supra/Upper/Mid/Lower Intertidal Zone (circle one)***

Oil Band	Surface Oil distribution	Surface Oil Thickness	Surface Oil type	Subsurface Oil: Penetration	Subsurface Oil: Burial
Width Length		Film	Fresh Liquid	<1cm	***Clean Layer:***
		Stain	Mousse	1-5cm	
mx m		Coat	Tar balls	5-10cm	_____ cm
Sediment Type(s)		Cover	SR	>10cm	***Oiled Layer:***
		Pooled	Asphalt Pavement		
		_____ cm	_____ Other	_____ cm	_____ cm

Lat Begin: Lon Begin:

Lat end: Lon end:

6 COMMENTS ***(cleanup recommendations - ecological/recreational/cultural/economic issues & constraints - wildlife obs.)***

Sketch Yes/No **Photos** Yes/No (Roll # _____ Frames_____) **Video Tape** Yes/No (tape #_____) ver. 03/00

APPENDIX B

VIDEO REVIEW DATA SHEETS

SEGMENT/SUBDIVISION GAP

From: E-2d

To: E-2e

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
3	4/10/00	02:09.20.19	02:10.32.10

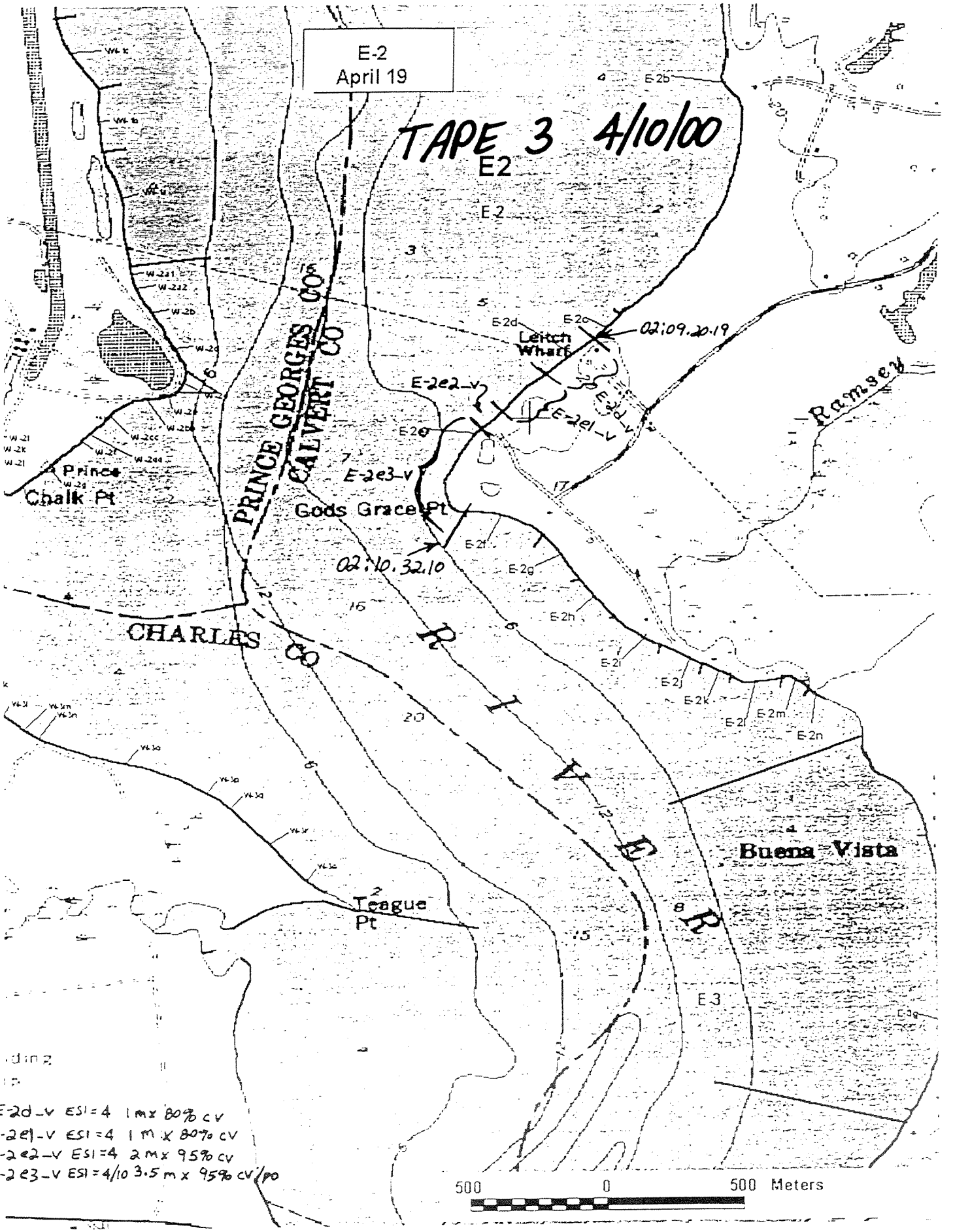
DESCRIPTION

SCAT surveys of Segment E-2 were conducted on April 15-16 and April 19. Though there are no gaps in the E-2d and E-2e subdivisions, a review of the 4/10 video tape shows more oil than was documented by the SCAT surveys. To show changes in the width of the oil band, E-2e was split into three subdivisions designated E-2e1_v, E-2e2_v, and E-2e3_v.

The shoreline type is almost entirely sand. The small fringing wetland area at the southern end does not appear to have been impacted by the oil. While the oil band width is greater in some areas during the April 19 SCAT survey, the oil character consisted primarily of tar balls. On the 4/10 video tape, band width is estimated at 1-meter along the northern area and increases to approximately 3.5 meters at God's Grace Point. The distribution and thickness is fairly consistent, ranging from 80 to 95%. The oil appears to have been recently deposited and the thickness is estimated as a "cover" (0.5 cm), with the possibility of some "pooled" (>1 cm) oil on the point.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-2	E-2d_v	4	4/10/00 (Video)	204	1	80%	0.5	FR	Heavy
E-2	E-2e1_v	4	4/10/00 (Video)	186	1	80%	0.5	FR	Heavy
E-2	E-2e2_v	4	4/10/00 (Video)	70	2	95%	0.5	FR	Heavy
E-2	E-2e3_v	4-10	4/10/00 (Video)	391	3.5	95%	1.1	FR	Heavy



E-2d_v ESI=4 1m x 80% cv
E-2e1_v ESI=4 1m x 80% cv
E-2e2_v ESI=4 2m x 95% cv
E-2e3_v ESI=4/10 3.5m x 95% cv/po

SEGMENT/SUBDIVISION GAP

From: E-2n

To: E-3a

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
3	4/10/00	02:11.46.10	02:12.27.19
6 & 7	4/12/00	13:45.14.21	13:45.21.11
9 & 10	4/13/00	15:44.50.25	15:44.55.16
13 & 14	4/16/00	02:42:29.10	02:42:41.07
16 & 17	4/20/00	13:34:48.00	13:34:54.13

DESCRIPTION

Oil appears to be present on the 4/10, 4/12 and 4/13 video tapes. The 4/10 tape was chosen as representative of the worst case oiling. Based on shoreline geomorphology, three subdivisions (E-2o to E-2q) were created in the gap between E-2n and E-3a. Eight additional subdivisions (E-2r to E-2y) were created within the confines of Ramsey Creek. Finally, subdivision E-2n, which was surveyed on April 19, was split to form a new subdivision (E-2n_v) between the mouth of Ramsey Creek and the unnamed creek to the south.

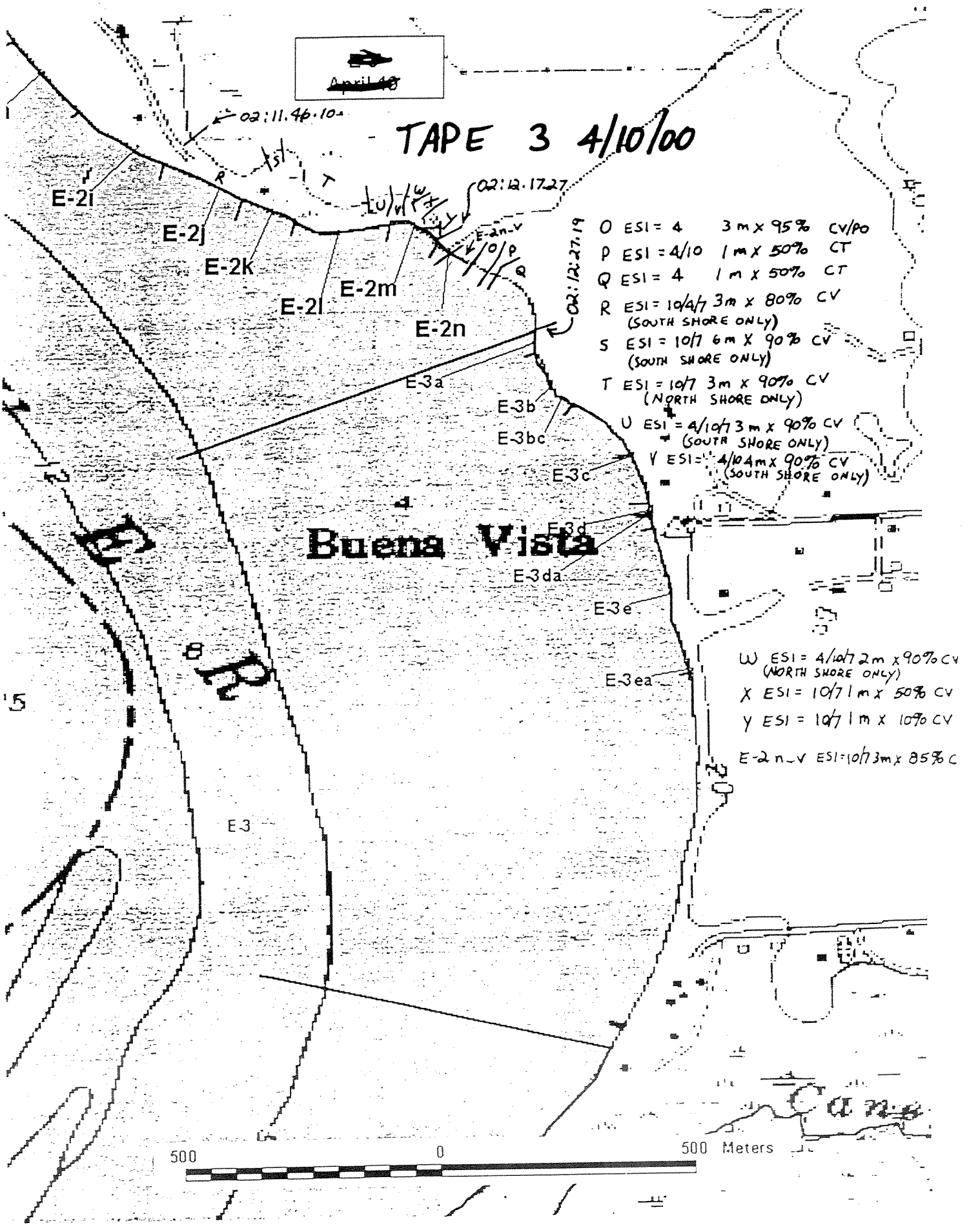
Subdivision E-2o begins at the sand beach south of the unnamed creek mouth. Additional subdivisions E-2p and E-2q are established along a short stretch of fringe marsh (in the upper intertidal zone), and sand beach to the south respectively. Oil distribution is approximately 95% at the northern end (E-2o), and 50% in the middle and southern portions (E-2p and q). The width and thickness follow a similar pattern, tapering from a 3 meter "cover" (0.5 cm) to a 1 meter "coat" (0.05 cm).

Most of the oil in Ramsey Creek appears to be free-floating on the 4/10 video tape, making it difficult to determine the extent of actual shoreline impact. It is likely that the band width of stranded oil would be less than the width of the free-floating slick. Nevertheless, the results presented below are estimates based on the location and relative size of the slicks viewed on the 4/10 video tape. The slick appears to meander through Ramsey Creek limiting the impact to one bank or the other, rather than both sides of the creek simultaneously. These observations are noted on the accompanying map.

In general, oil distribution in the upper reaches of the creek (E-2s to E-2w) is between 80 and 90%. The width typically ranges from 2 to 6 meters. Near the mouth of Ramsey Creek (E-2x to E-2n_v), the distribution and width are somewhat less. The thickness is estimated as a "cover" (0.5 cm), though the thickness of the free-floating slick would almost certainly be considerably less.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-2	E-2o_v	4	4/10/00 (Video)	3	3	95%	0.5	FR	Heavy
E-2	E-2p_v	4-10	4/10/00 (Video)	33	1	50%	0.05	FR	Light
E-2	E-2q_v	4	4/10/00 (Video)	131	1	50%	0.05	FR	Light
E-2	E-2r_v	10-4-7	4/10/00 (Video)	236	3	80%	0.5	FR	Heavy
E-2	E-2s_v	10-7	4/10/00 (Video)	30	6	90%	0.5	FR	Heavy
E-2	E-2t_v	10-7	4/10/00 (Video)	183	3	90%	0.5	FR	Heavy
E-2	E-2u_v	4-10-7	4/10/00 (Video)	38	3	90%	0.5	FR	Heavy
E-2	E-2v_v	4-10	4/10/00 (Video)	23	4	90%	0.5	FR	Heavy
E-2	E-2w_v	4-10-7	4/10/00 (Video)	18	2	90%	0.5	FR	Heavy
E-2	E-2x_v	10-7	4/10/00 (Video)	26	1	50%	0.5	FR	Moderate
E-2	E-2y_v	10-7	4/10/00 (Video)	38	1	10%	0.5	FR	Light
E-2	E-2n_v	10-7	4/10/00 (Video)	66	3	85%	0.5	FR	Heavy


TAPE 3 4/10/00
02:11.46.10
02:12.17.27
02:12:27.19
E-2i
E-2j
E-2k
E-2l
E-2m
E-2n
E-2n-V
E-3a
E-3b
E-3bc
E-3c
E-3d
E-3da
E-3e
E-3ea
E-3
Buena Vista
O ESI = 4 3m x 95% CV/PO
P ESI = 4/10 1m x 50% CT
Q ESI = 4 1m x 50% CT
R ESI = 10/4/7 3m x 80% CV (SOUTH SHORE ONLY)
S ESI = 10/7 6m x 90% CV (SOUTH SHORE ONLY)
T ESI = 10/7 3m x 90% CV (NORTH SHORE ONLY)
U ESI = 4/10/7 3m x 90% CV (SOUTH SHORE ONLY)
V ESI = 4/10 4m x 90% CV (SOUTH SHORE ONLY)
W ESI = 4/10/7 2m x 90% CV (NORTH SHORE ONLY)
X ESI = 10/7 1m x 50% CV
Y ESI = 10/7 1m x 10% CV
E-2n-V ESI = 10/7 3m x 85% C
500 0 500 Meters

VIDEO REVIEW

From: E-3a

To: E-3j

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
3	4/10/00	02:12.29.05	02:14.18.06
4	4/11/00	13:55.18.28	13:55.46.25

DESCRIPTION

SCAT surveys of Segment E-3 were conducted on April 16 and April 19. Though there are no gaps in the E-3 subdivisions, a review of the 4/10 video tape shows more oil than was documented by the SCAT surveys. To the extent possible, subdivision designations were maintained and further split to document changes in the shoreline as well as the width of the oil band.

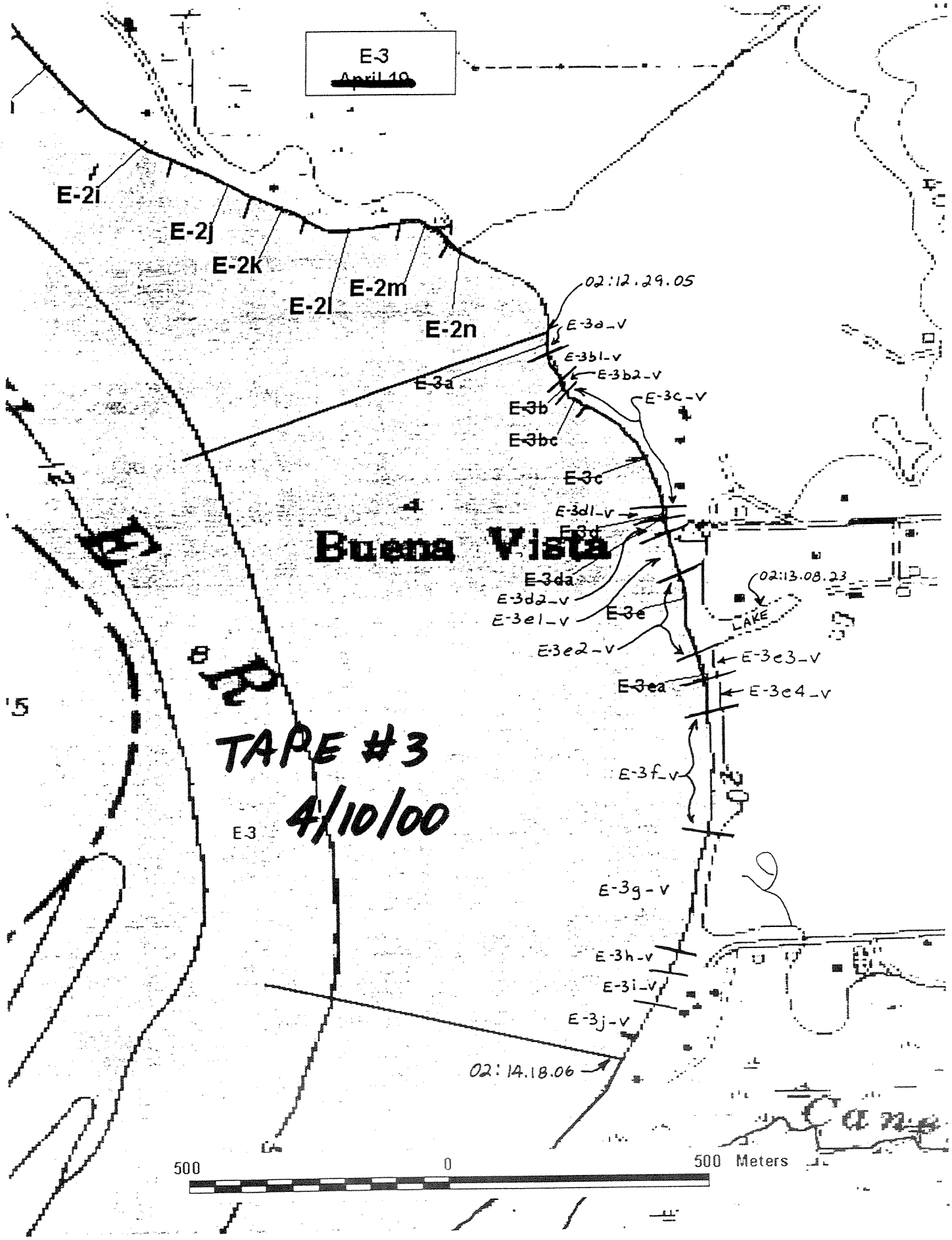
The majority of the oil observed in the 4/10 video tape was free-floating in the nearshore area, making it difficult to determine the extent of actual shoreline impact. It is likely that the band width of stranded oil would be less than the width of the free-floating slick. Nevertheless, the results presented below are estimates based on the location and relative size of the slicks and estimated width of the intertidal zone viewed on the 4/10 video tape.

The deposition and short-term fate of the oil in this area was influenced by the predominantly sand shoreline. As the slick moved along shore the oil was held against the shoreline, however, by the following day (see tape #4; 13:55.18.28 to 13:55.46.25) the slick moved away from this area allowing only a small percentage to remain stranded (except for a 200 meter area in E-3i_v, where oil was constrained along the shoreline by a boom; see tape # 4 at 13:55.42.24).

The shoreline type primarily sand. A small fringing wetland area is located near the northern end of the segment. Seawalls and rip-rap are also present in the middle portion of the segment. Estimated band widths vary from 1-meter, on seawalls, to 3-meters on the relatively flat sand beaches, particularly toward the southern end of the segment. Distribution and thickness are fairly uniform due to the presence of the nearshore slick. Distribution ranged from 80 to 100% (except in E-3a-v where distribution was estimated at 50%). Thickness was estimated to consist of "cover" (0.5 cm), to "pooled" (>1 cm).

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-3	E-3a_v	4	4/10/00 (Video)	52	1	50%	0.5	FR	Moderate
E-3	E-3b1_v	10-7	4/10/00 (Video)	88	1	90%	0.5	FR	Heavy
E-3	E-3b2_v	10-7	4/10/00 (Video)	35	2	100%	1.1	FR	Heavy
E-3	E-3c_v	1	4/10/00 (Video)	254	1	80%	1.1	FR	Heavy
E-3	E-3d1_v	1	4/10/00 (Video)	22	1	90%	1.1	FR	Heavy
E-3	E-3d2_v	6	4/10/00 (Video)	62	1.5	100%	1.1	FR	Heavy
E-3	E-3e1_v	6	4/10/00 (Video)	81	1.5	90%	1.1	FR	Heavy
E-3	E-3e2_v	4	4/10/00 (Video)	126	2	100%	1.1	FR	Heavy
E-3	E-3e3_v	4-6	4/10/00 (Video)	67	2	100%	1.1	FR	Heavy
E-3	E-3e4_v	6	4/10/00 (Video)	51	1.5	100%	1.1	FR	Heavy
E-3	E-3f_v	4	4/10/00 (Video)	268	3	100%	1.1	FR	Heavy
E-3	E-3g_v	4	4/10/00 (Video)	182	3	80%	1.1	FR	Heavy
E-3	E-3h_v	4	4/10/00 (Video)	29	3	100%	1.1	FR	Heavy
E-3	E-3i_v	4	4/10/00 (Video)	77	3	100%	1.1	FR	Heavy
E-3	E-3j_v	4	4/10/00 (Video)	144	3	100%	1.1	FR	Heavy


E-3
April 19
E-2i
E-2j
E-2k
E-2l
E-2m
E-2n
02:12.29.05
E-3a_v
E-3b1_v
E-3b2_v
E-3c_v
E-3a
E-3b
E-3bc
E-3c
E-3d1_v
E-3d
Buena Vista
E-3da
E-3d2_v
E-3e1_v
E-3e
02:13.08.23
LAKE
E-3e2_v
E-3e3_v
E-3ea
E-3e4_v
E-3f_v
TAPE #3
4/10/00
E-3
E-3g_v
E-3h_v
E-3i_v
E-3j_v
02:14.18.06
500
0
500 Meters

VIDEO REVIEW

From: E-4a

To: E-4d

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
3	4/10/00	02:14.18.06	02:15.51.00
4	4/11/00	13:55.46.25	13:56.06.21

DESCRIPTION

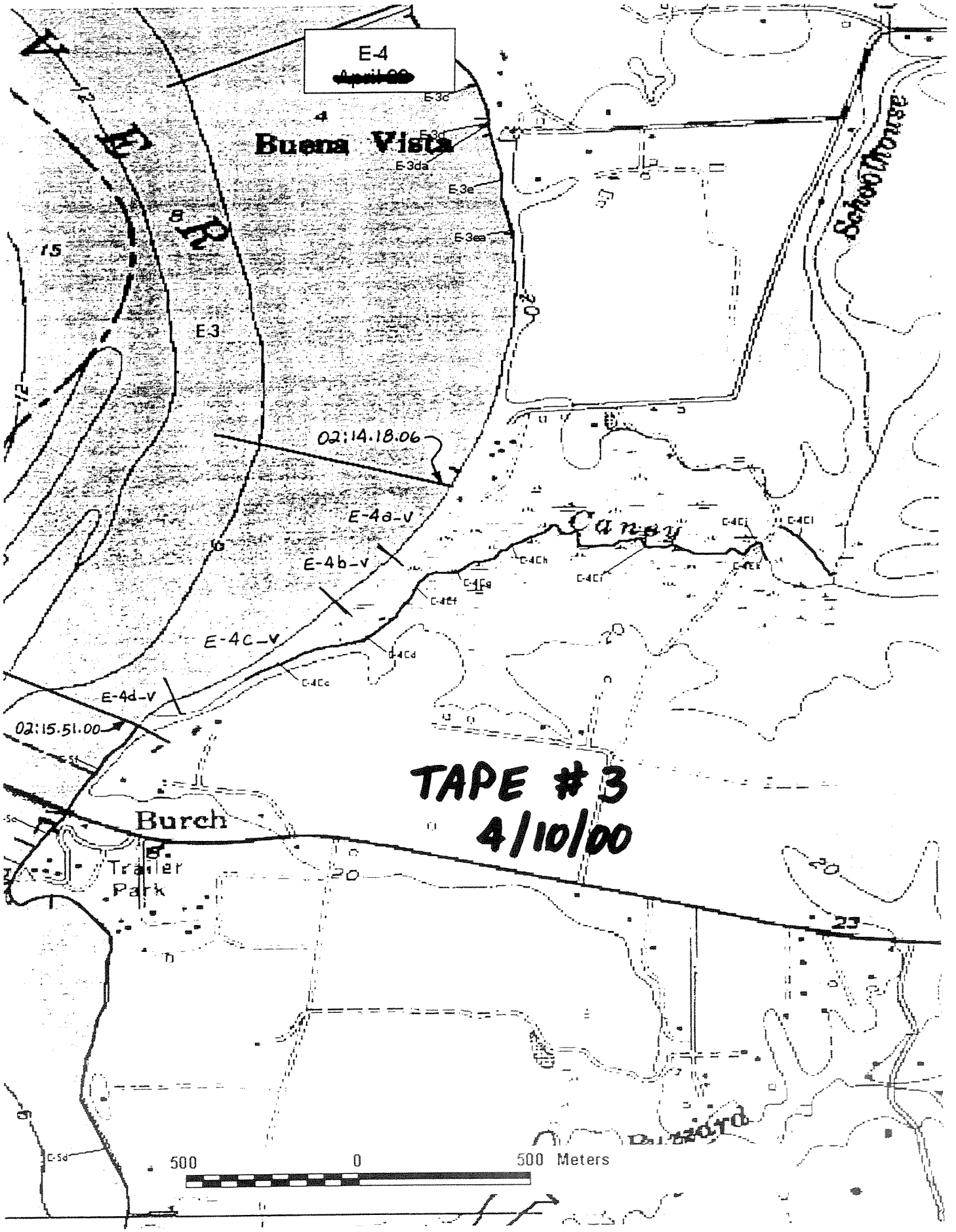
SCAT surveys of Segment E-4 were conducted on April 16, April 19 and April 22. SCAT Team efforts on April 19 and 22 focussed on Caney Creek. Though there are no gaps in the E-4 subdivisions, a review of the 4/10 video tape shows more oil than was documented by the SCAT surveys. During the video review, subdivision designations established during the April 16 SCAT survey were maintained. Insufficient footage did not allow for a video review of Caney Creek.

A significant portion of the oil observed in the 4/10 video tape was free-floating in the nearshore area. The main body of the slick begins to break up near the middle of subdivision E-4c_v, but patches are present again at the mouth of Caney Creek. Some free-floating oil can be seen along the northeast shoreline of Caney Creek behind E-4c_v. The presence of the slick concentrated the oil along the shoreline, however, by the following day (see tape #4; 13:55.46.25 to 13:56.06.21) the slick moved away from this area allowing only a small percentage to remain stranded. The results presented below are estimates based on the location and relative size of the slicks, and width of the intertidal zone viewed on the 4/10 video tape.

The shoreline type is entirely sand. Some fringing wetlands are present in the upper intertidal zone, but they are not impacted on the 4/10 video tape. Because the shoreline is relatively flat, band widths were estimated at 3- to 4-meters. Distribution ranges from 75% (E-4d_v) to 100% in areas where the slick is present along shore. Thickness was estimated as "cover" (0.5 cm) at the southern end (E-4d_v), to "pooled" (>1 cm) in the remainder of the segment.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-4	E-4a_v	4	4/10/00 (Video)	247	4	100%	1.1	FR	Heavy
E-4	E-4b_v	4	4/10/00 (Video)	204	4	90%	1.1	FR	Heavy
E-4	E-4c_v	4	4/10/00 (Video)	476	3	100%	1.1	FR	Heavy
E-4	E-4d_v	4	4/10/00 (Video)	68	3.5	75%	0.5	FR	Heavy


E-4
~~April 00~~
Buena Vista
E-3c
E-3d
E-3da
E-3e
E-3ea
E-3
02:14.18.06
E-4a-v
E-4b-v
E-4c-v
E-4d-v
02:15.51.00
Canby
School House
Burch
Trailer Park
TAPE #3
4/10/00
500
0
500 Meters

VIDEO REVIEW

From: E-5f

To: E-5d6

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
3	4/10/00	02:15.51.00	02:19.03.26
4	4/11/00	13:56.06.21	13:56.54.27

DESCRIPTION

The SCAT survey of Segment E-5 was conducted on April 15. Though there are no gaps in the E-5 subdivisions, a review of the 4/10 video tape shows more oil than was documented by the SCAT survey. During the video review, subdivision designations established during the April 15 SCAT survey were maintained with the exception of "d", which was further split into six subdivisions to document changes in the shoreline as well as the width of the oil band.

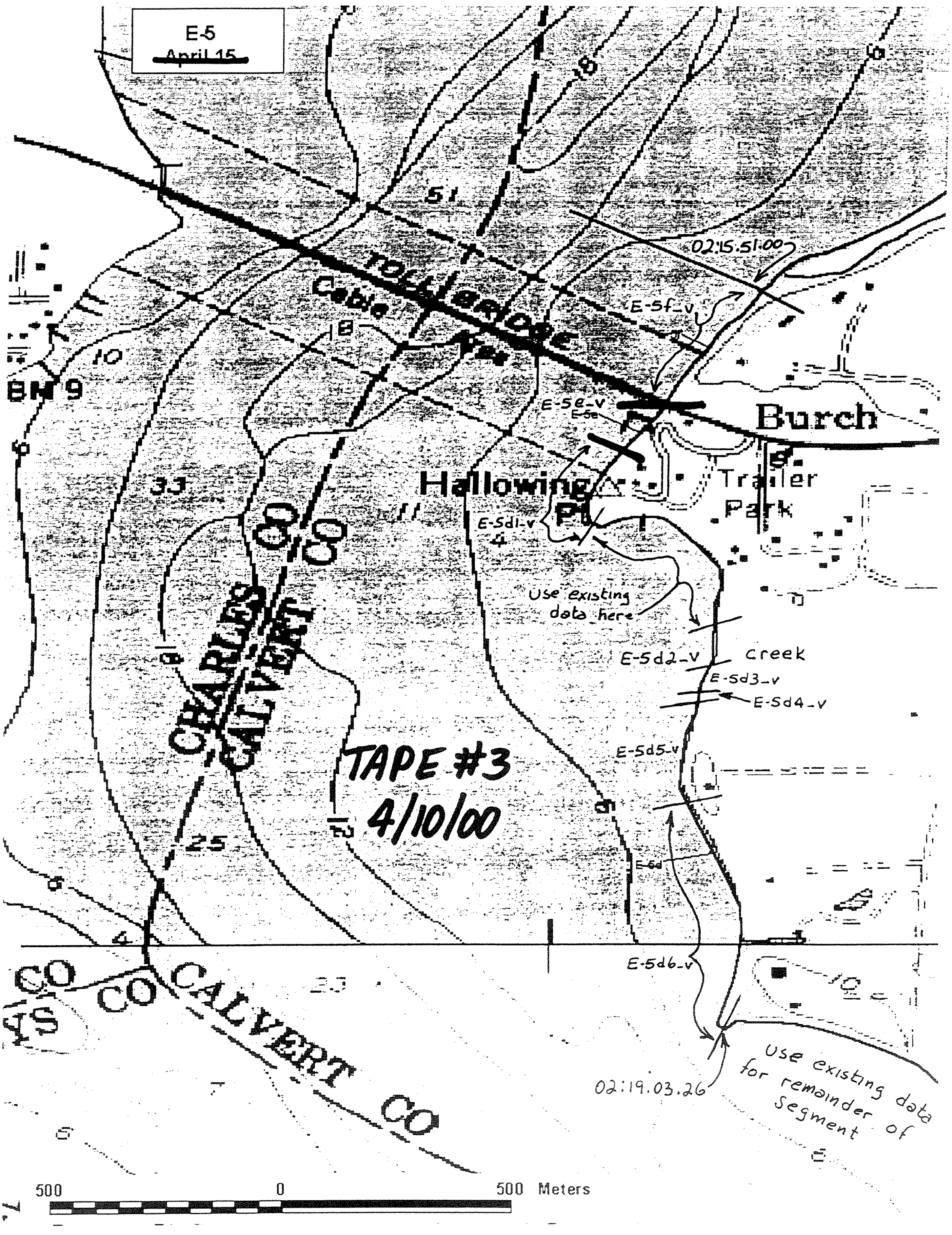
Oil observed in the northern portion of the segment was free-floating in the nearshore area. South of Hallowing Point the nearshore slick diminishes, and oil is clearly stranded along the shoreline. By the following day (see tape #4; 13:56.06.21to 13:56.54.27) tides and currents had re-distributed the oil allowing only a small percentage to remain stranded. The deposition and short-term fate of the oil in this area was influenced by the sand shoreline. The results presented below are estimates based on the location and relative size of the slicks, and width of the intertidal zone viewed on the 4/10 video tape.

The shoreline type is primarily sand, though seawalls and rip-rap shorelines are also present. Fringing wetlands are noted in the vicinity of a small creek mouth in subdivision E-5d2_v. No oil was observed on the 4/10 video tape between subdivisions E-5d1_v and E-5 d2_v, or south of subdivision E-5d6_v. It is therefore recommended that oil categories determined during the April 15 SCAT survey be maintained for these areas.

Band width ranged from 0.5-meter, on seawalls, to 4-meters in the vicinity of the Hallowing Point Marina. Distribution is very uniform over the entire segment and is estimated at 50 to 51%. Thickness ranges from "coat" (0.05 cm) to "cover" (0.5 cm). When combined with the thickness range, the use of the 50-51% distribution substantially alters the categories from "heavy" to "moderate" to "light".

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-5	E-5f_v	1-4	4/10/00 (Video)	309	1	51%	0.5	FR	Heavy
E-5	E-5e_v	4	4/10/00 (Video)	135	4	51%	0.5	FR	Heavy
E-5	E-5d1_v	4	4/10/00 (Video)	149	3	51%	0.5	FR	Heavy
E-5	E-5d2_v	4-10	4/10/00 (Video)	138	1	50%	0.5	FR	Moderate
E-5	E-5d3_v	4-6	4/10/00 (Video)	64	1.5	51%	0.5	FR	Heavy
E-5	E-5d4_v	6-1	4/10/00 (Video)	29	1	50%	0.5	FR	Moderate
E-5	E-5d5_v	1	4/10/00 (Video)	307	0.5	50%	0.05	FR	Light
E-5	E-5d6_v	4	4/10/00 (Video)	472	1.5	51%	0.5	FR	Heavy


E-5
April 15
TOLL BRIDGE
Cable Area
BM 9
Burch
Hallowing Pt
Trailer Park
CHARLES
CALVERT
CO
CO
CALVERT CO
TAPE #3
4/10/00
02:15:51:00
E-5f_v
E-5e_v
E-5d1_v
Use existing data here
creek
E-5d2_v
E-5d3_v
E-5d4_v
E-5d5_v
E-5d6_v
02:19.03.26
Use existing data for remainder of Segment
500
0
500 Meters

SEGMENT/SUBDIVISION GAP

From: E-7b

To: E-8

APPLICABLE VIDEO TAPES

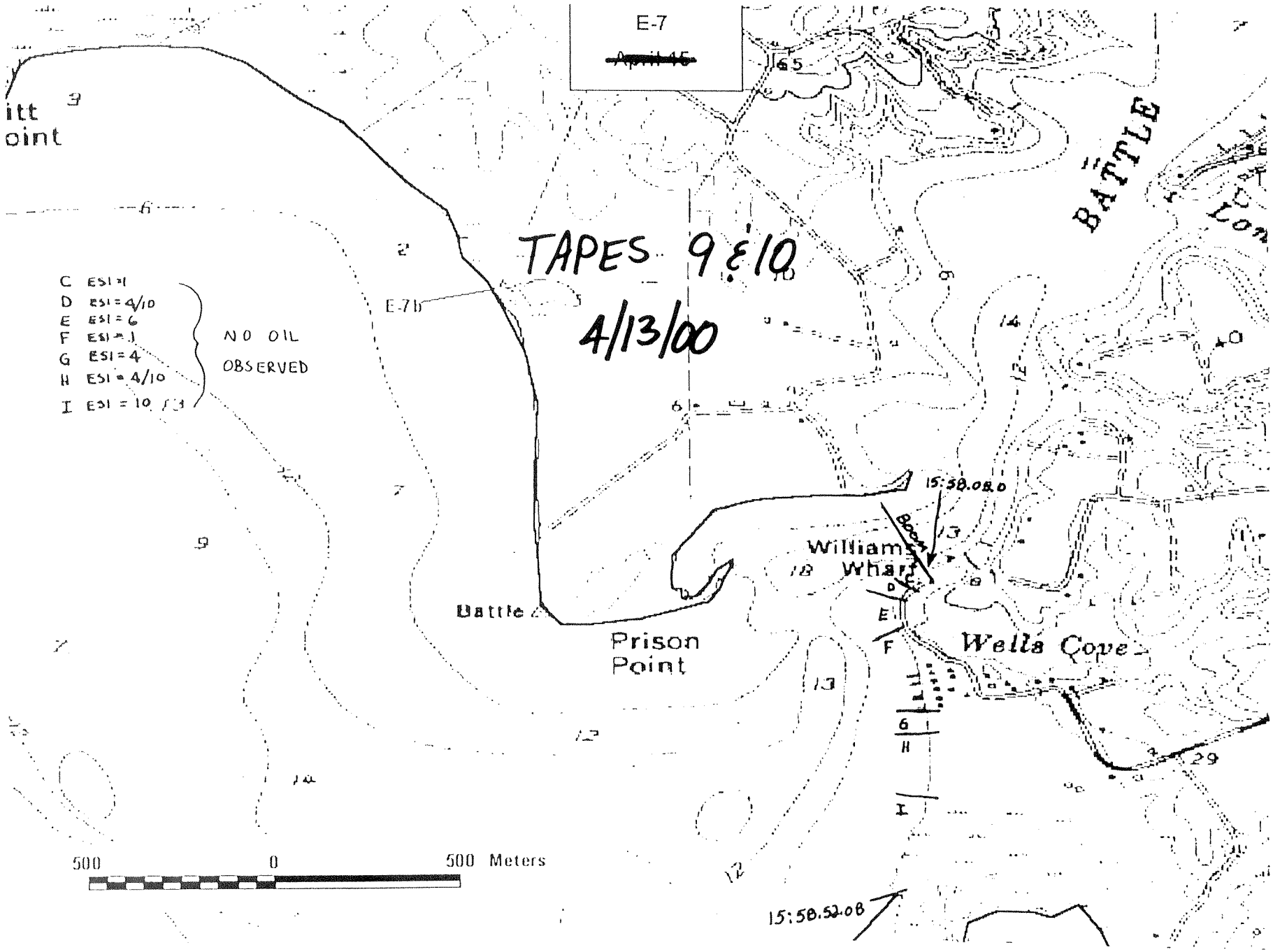
Tape No.	Date	Counter Start	Counter End
9 & 10	4/13/00	15:58.05.00	15:58.52.08
13 & 14	4/16/00	03:00:45.14	03:01:41.10

DESCRIPTION

The 4/13 tape was selected for review because it provided a better view of the shoreline. Based on shoreline geomorphology, seven subdivisions (E-7c through E-7i) were established. Subdivision E-7c begins at the where the boom connects to the shoreline at the south side of Battle Creek. Additional subdivisions through E-7i proceed south to the boundary with Segment E-8. No oil observed in review of either video.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-7	E-7c_v	1	4/13/00 (Video)	30	0	0%	0.00	NO	No Oil
E-7	E-7d_v	4-10	4/13/00 (Video)	69	0	0%	0.00	NO	No Oil
E-7	E-7e_v	6	4/13/00 (Video)	134	0	0%	0.00	NO	No Oil
E-7	E-7f_v	1	4/13/00 (Video)	179	0	0%	0.00	NO	No Oil
E-7	E-7g_v	4	4/13/00 (Video)	46	0	0%	0.00	NO	No Oil
E-7	E-7h_v	4-10	4/13/00 (Video)	274	0	0%	0.00	NO	No Oil
E-7	E-7i_v	10	4/13/00 (Video)	197	0	0%	0.00	NO	No Oil


E-7
April 15
TAPES 9 & 10
4/13/00
C ESI = 1
D ESI = 4/10
E ESI = 6
F ESI = 1
G ESI = 4
H ESI = 4/10
I ESI = 10
NO OIL OBSERVED
E-7b
15:58.08.0
Boom
Williams Wharf
Battle
Prison Point
Wells Cove
15:58.52.0B
500 0 500 Meters

SEGMENT/SUBDIVISION GAP

From: E-7

To: E-8A

APPLICABLE VIDEO TAPES

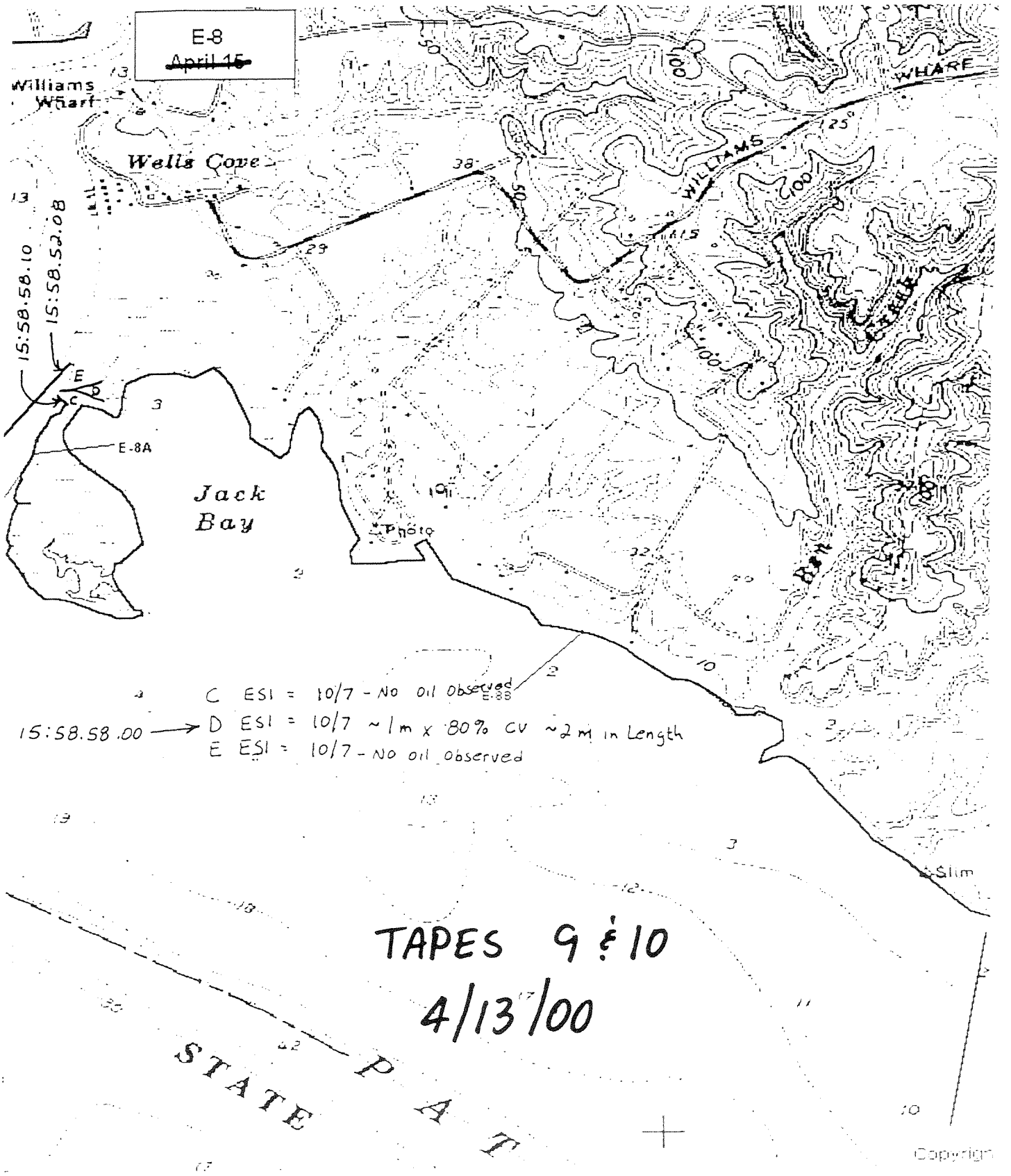
Tape No.	Date	Counter Start	Counter End
9 & 10	4/13/00	15:58.52.08	15:58.58.10
13 & 14	4/16/00	03:01:14.10	03:01:48.13

DESCRIPTION

Three subdivisions (E-8C through E-8E) were established to fill the small gap between the end of E-7 and beginning of E-8A. The geomorphology of the three subdivisions is fairly uniform, consisting of sand in the lower intertidal with fringe marsh in the upper intertidal. An extensive marsh is also present in the supratidal. The three separate subdivisions were created to delineate a two meter long area (designated E-8D) which appears to be oiled on the 4/13 video (at counter 15:58.58.00). The area that appears oiled is approximately one meter in width. A "cover" thickness (0.5 cm) was assigned due to the broken distribution (80%) and shiny appearance. No oil was observed in either E-8C or E-8E, or during review of the 4/16 video.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-8	E-8C_v	10-7	4/13/00 (Video)	20	0	0%	0.00	NO	No Oil
E-8	E-8D_v	10-7	4/13/00 (Video)	2	1	80%	0.5	FR	Heavy
E-8	E-8E_v	10-7	4/13/00 (Video)	161	0	0%	0.00	NO	No Oil



TAPES 9 & 10

4/13/00

500 0 500 Meters

SEGMENT/SUBDIVISION GAP

From: W-1FF

To: W-2v

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
8	4/12/00	14:55.59.02	14:55.16.04
11 & 12	4/14/00	03:00:25.29	03:00:25.29
15	4/16/00	02:18:52.00	02:18:52.00

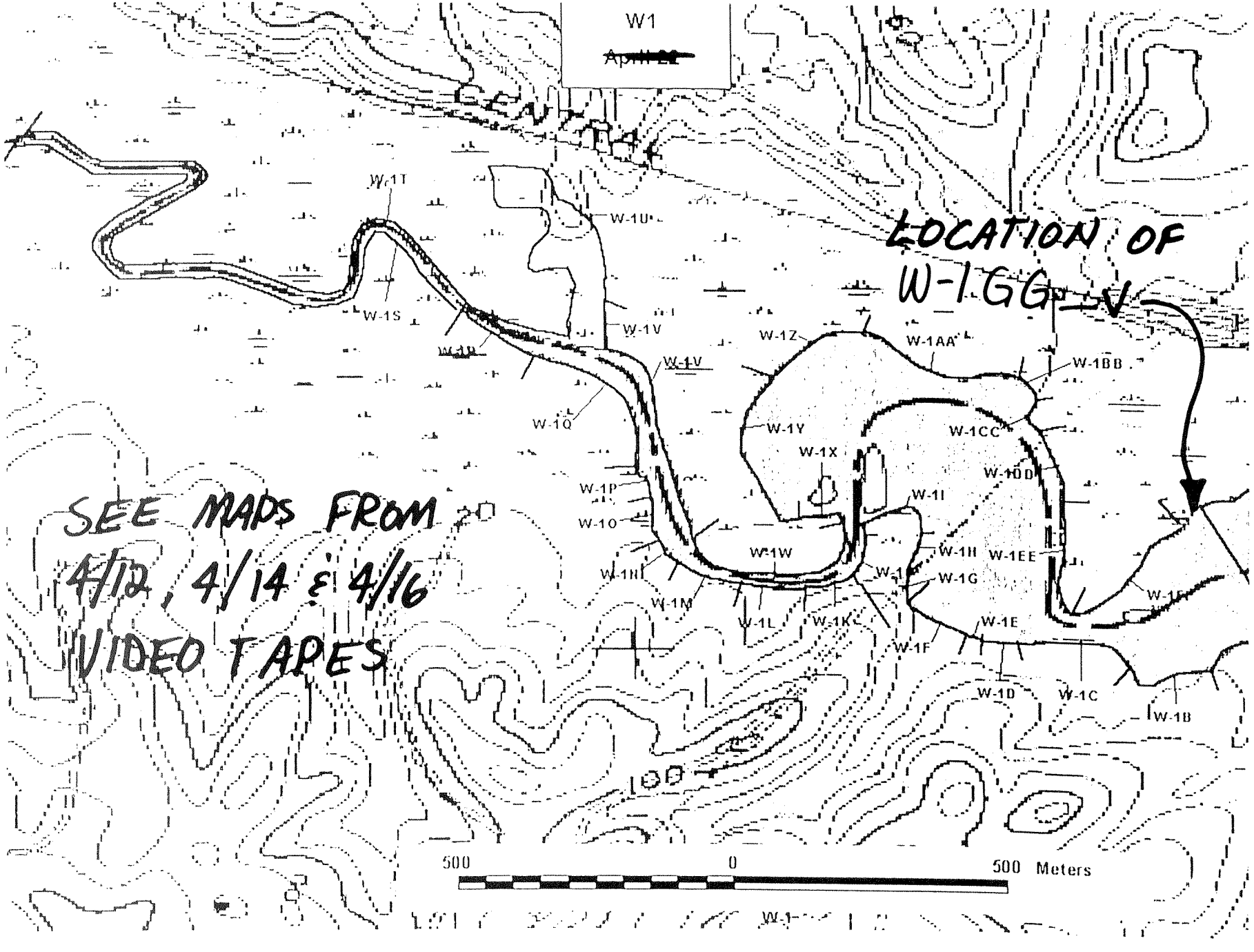
DESCRIPTION

Subdivision W-1GG was created in the small gap between W-1FF and W-2v in Swanson Creek. The subdivision encompasses a small inlet into the marsh immediately adjacent to the pipeline break. Following the release, oil was intentionally channeled through the marsh to a number of small inlets such as W-1GG, in an attempt to allow oil to flush from the marsh using natural tidal action.

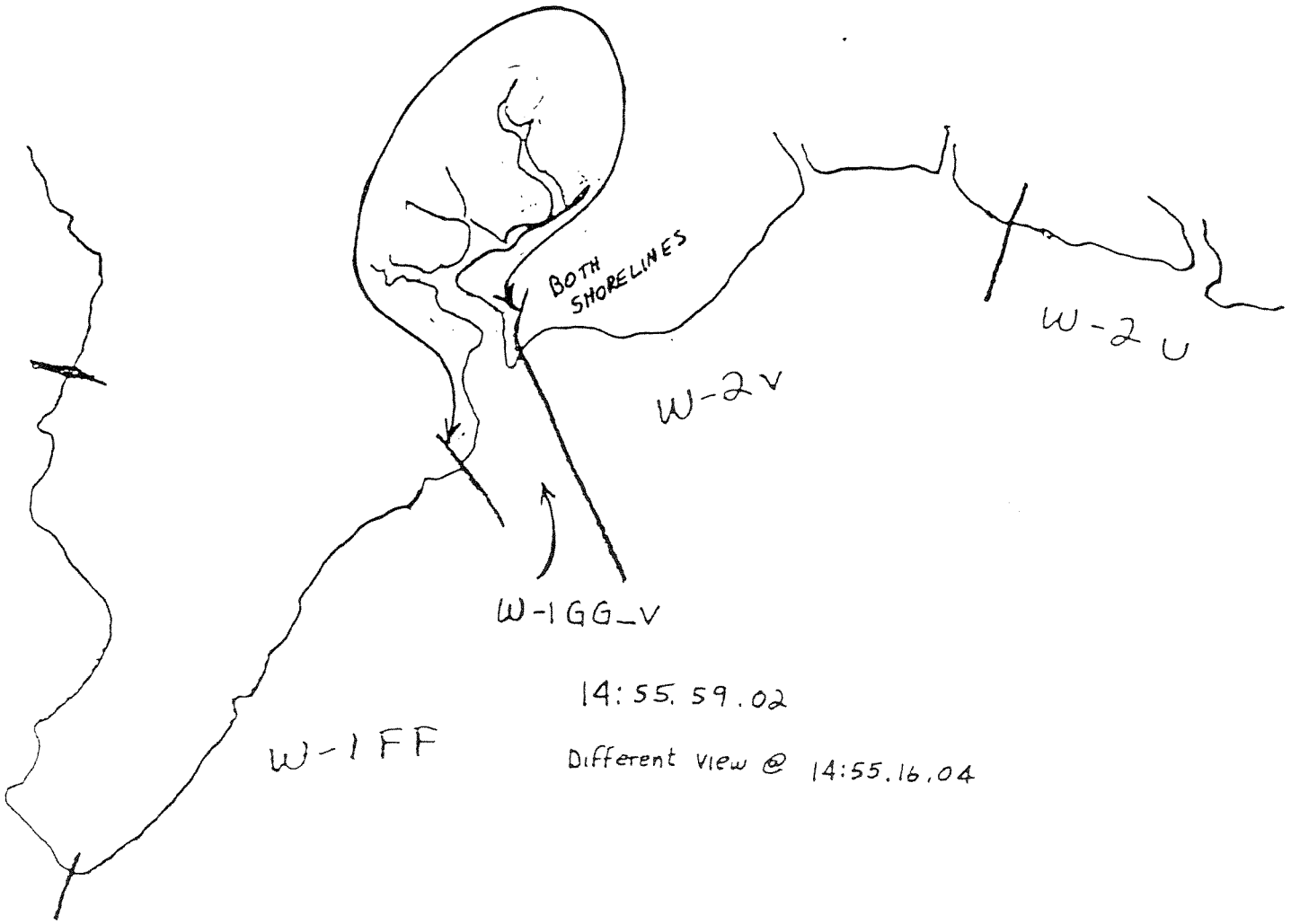
Oil is apparent in both the 4/12 and 4/14 video tapes, however, more area is visible in the 4/12 tape. Band width is limited by the relatively steep slope of the banks and is estimated at 2 meters. It should be noted that oil is present on both banks of the inlet. The distribution is approximately 80%, with the majority of the oil stranded in the upper intertidal zone on the marsh vegetation. Thickness is estimated as a "coat" (0.05 cm).

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
W-1	W-1GG_v	7	4/12/00 (Video)	192	2	80%	0.05	FR	Moderate


W1
W-1T
W-1U
W-1S
W-1V
W-1R
W-1Q
W-1P
W-1O
W-1N
W-1M
W-1L
W-1K
W-1J
W-1I
W-1H
W-1G
W-1F
W-1E
W-1D
W-1C
W-1B
W-1W
W-1X
W-1Y
W-1Z
W-1AA
W-1BB
W-1CC
W-1DD
W-1EE
LOCATION OF
W-1GG-V
SEE MAPS FROM
4/12, 4/14 & 4/16
VIDEO TAPES
500
0
500 Meters

TAPE 8 4/12/00



14:55.59.02

Different view @ 14:55.16.04

W-1GG_V ESI=7 2m x 80% CT

SEGMENT/SUBDIVISION GAP

From: W-1A

To: W-3h

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End
8	4/12/00	14:51.13.22	14:51.38.05
11 & 12	4/14/00	02:54:31.24	02:55:03.05
	6/19/00	16:09:26	16:10:20

DESCRIPTION

The southern shore of Swanson Creek (between W-3h and W-1A) was left unsurveyed due to access constraints created by the placement of several containment booms. Review of the three aerial video tapes identified above yielded little useful information to identify and quantify the extent of shoreline oiling. On the 4/12 and 4/14 video tapes, poor lighting conditions (relative to camera angle) makes the existence of oil indistinguishable from the shadows of the tree canopy. In the absence of quality video footage focussed on this particular shoreline, an analysis of available information was performed to determine the most probable, worst case oiling conditions.

The subject shoreline is in close proximity to the source of the spill. Free-floating oil remained mobile in Swanson Creek for several weeks following the release. Numerous containment and absorbent booms were deployed within Swanson Creek restricting the movement of oil. The attached maps show the boom configurations as viewed on the 4/12 and 4/14 video tapes. There were no discernable accumulations of oil constrained by the booms along the subject shoreline in either of the video tapes.

Eight subdivisions (W-3AA through W-3HH) were created based on the shoreline geomorphology as viewed on the 6/19 video tape. The shoreline is fairly uniform, consisting mainly of sand beaches in the lower to middle intertidal zone, and fringe marsh in the middle to upper intertidal zone. A substantial percentage of the fringe marsh in the beach face (middle intertidal zone) is erosional and only sparsely vegetated. Several small pockets of more extensive marsh (designated BB, DD, and GG) are also present.

Because the shore slope is a major factor influencing the potential for the width component of oil deposition, the entire intertidal zone is used as the maximum band width for worst case oiling. The slope of the intertidal zone appears steeper in the southern portion (AA through EE), generally one to two meters. Less gradient is noted between the point at FF to the point at W-1A where the intertidal zone is estimated at three to four meters in width.

In determining the distribution and thickness of the oil, a review of oiling on adjacent segments was conducted. The orientation of the shoreline in relation to the source was also considered. The following justifications were used in this analysis:

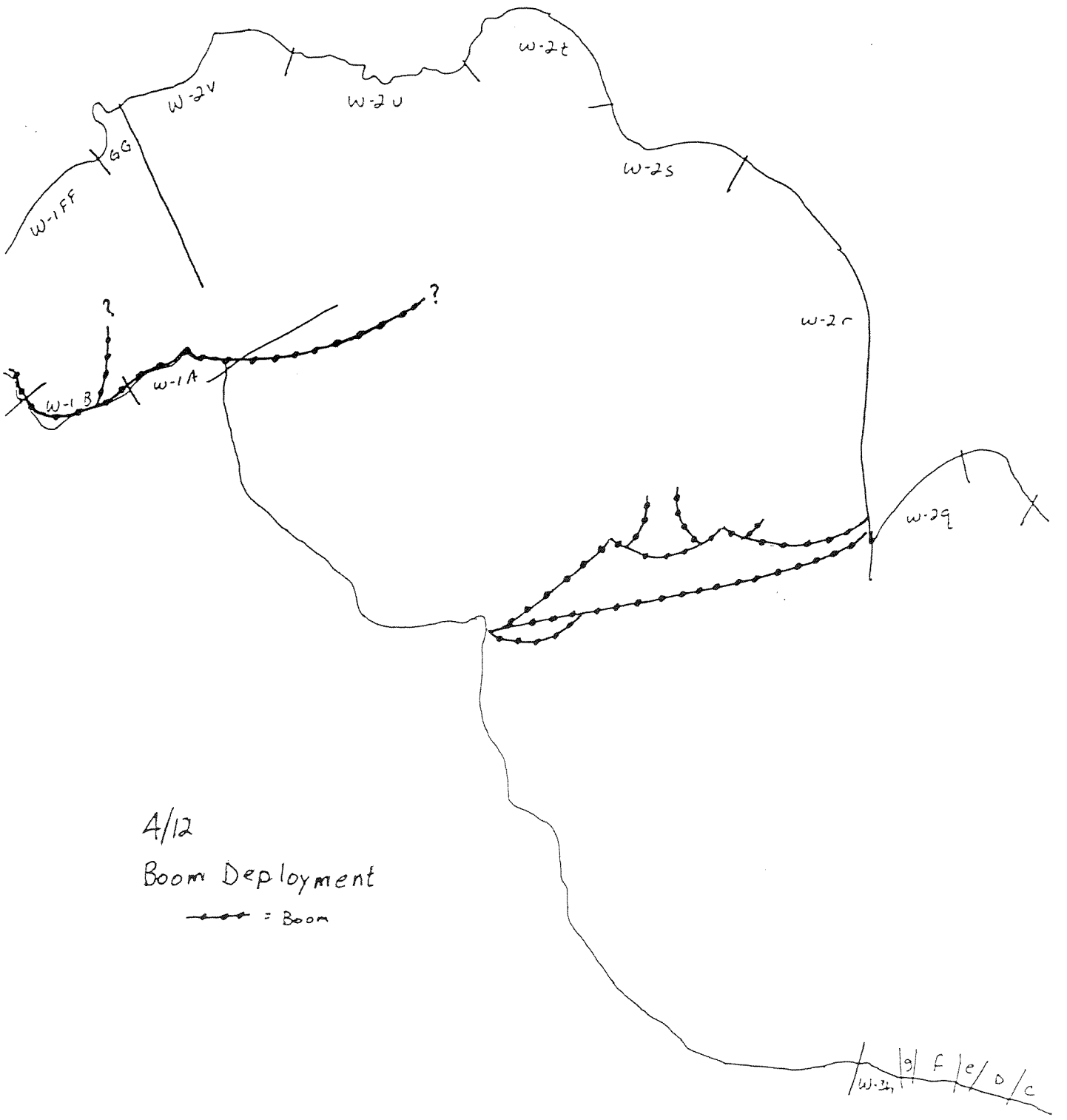
- W-3AA through W-3EE were assigned a "patchy" distribution (default 35%) and "coat" thickness (default 0.05 cm) due to their location between booms, proximity to the source and orientation of the shoreline. In addition, observations indicate that the trajectory of the slick more closely followed the northern shoreline of Swanson Creek.

- A "broken" distribution (default 65%) and "cover" thickness (default 0.5 cm) were assigned to the point where subdivisions W-3FF and W-3GG are located. These criteria were selected primarily because the orientation of the shoreline provides more of a direct line from the source, and thus a higher probability for impact. In addition, the configuration of the booms as noted on the 4/12 video tape, would tend to direct oil toward the point during an ebb tide.

- W-3HH was assigned a "patchy" distribution (default 35%) and "coat" thickness (default 0.05 cm) because of the orientation and partial protection afforded by the booms deployed in the vicinity of the point at W-1A.

RESULTS

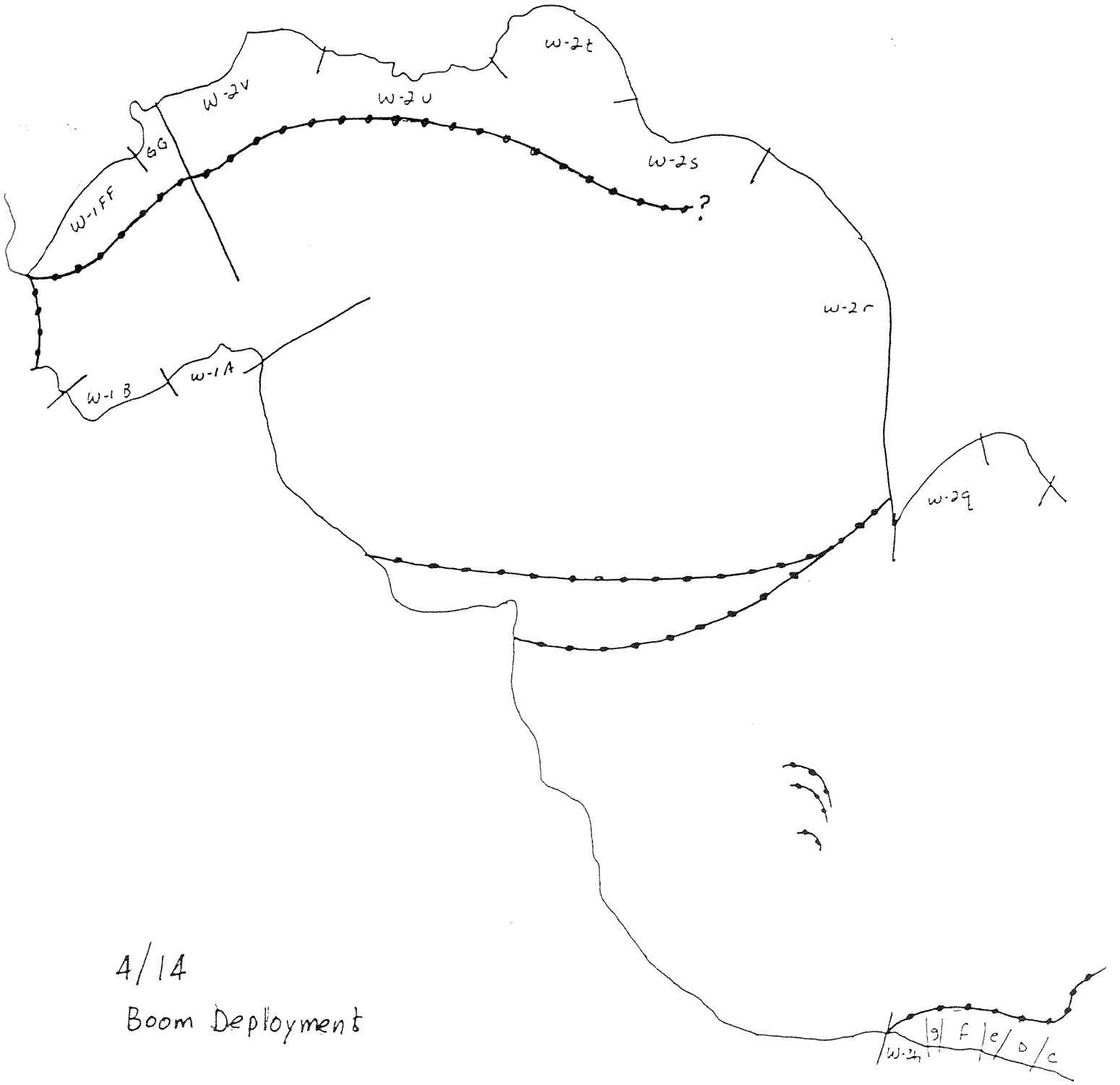
Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
W-3	W-3AA_v	4-10	4/12/00 (Video)	407	2	35%	0.05	FR	Light
W-3	W-3BB_v	10	4/12/00 (Video)	22	1	35%	0.05	FR	Light
W-3	W-3CC_v	4-10	4/12/00 (Video)	80	1	35%	0.05	FR	Light
W-3	W-3DD_v	10	4/12/00 (Video)	32	1	35%	0.05	FR	Light
W-3	W-3EE_v	4-10	4/12/00 (Video)	201	3	35%	0.05	FR	Light
W-3	W-3FF_v	4-10	4/12/00 (Video)	77	3	65%	0.5	FR	Heavy
W-3	W-3GG_v	10	4/12/00 (Video)	76	3	65%	0.5	FR	Heavy
W-3	W-3GG_v	4-10	4/12/00 (Video)	295	4	35%	0.05	FR	Moderate



4/12

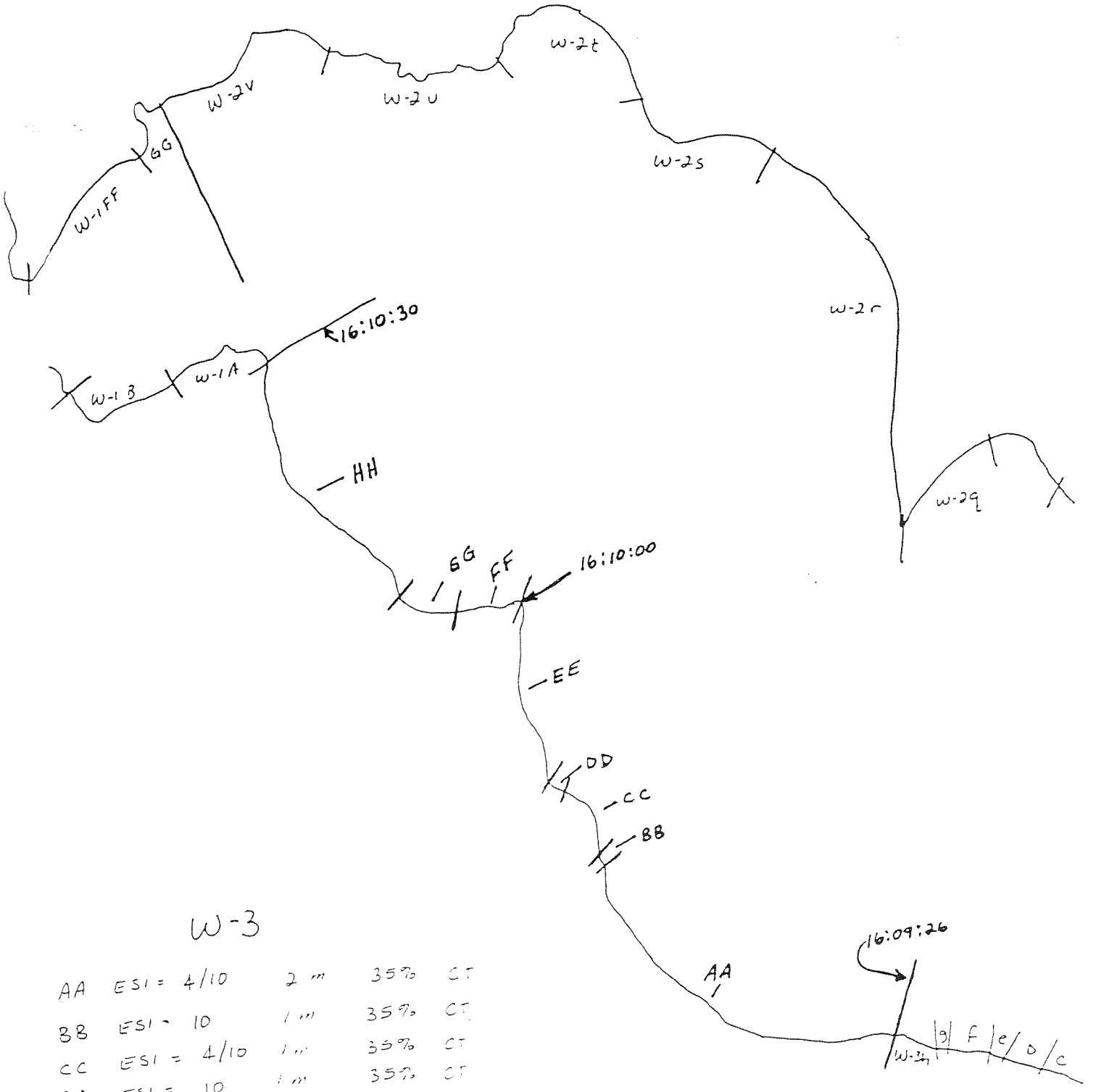
Boom Deployment

= Boom



4/14

Boom Deployment



W-3

AA	ESI = 4/10	2 m	35%	CT
BB	ESI = 10	1 m	35%	CT
CC	ESI = 4/10	1 m	35%	CT
DD	ESI = 10	1 m	35%	CT
EE	ESI = 4/10	3 m	35%	CT
FF	ESI = 4/10	3 m	65%	CV
GG	ESI = 10	3 m	65%	CV
HH	ESI = 4/10	4 m	35%	CT

6/19/00 Video

SEGMENT/SUBDIVISION GAP

From: W-14D

To: W-15

APPLICABLE VIDEO TAPES

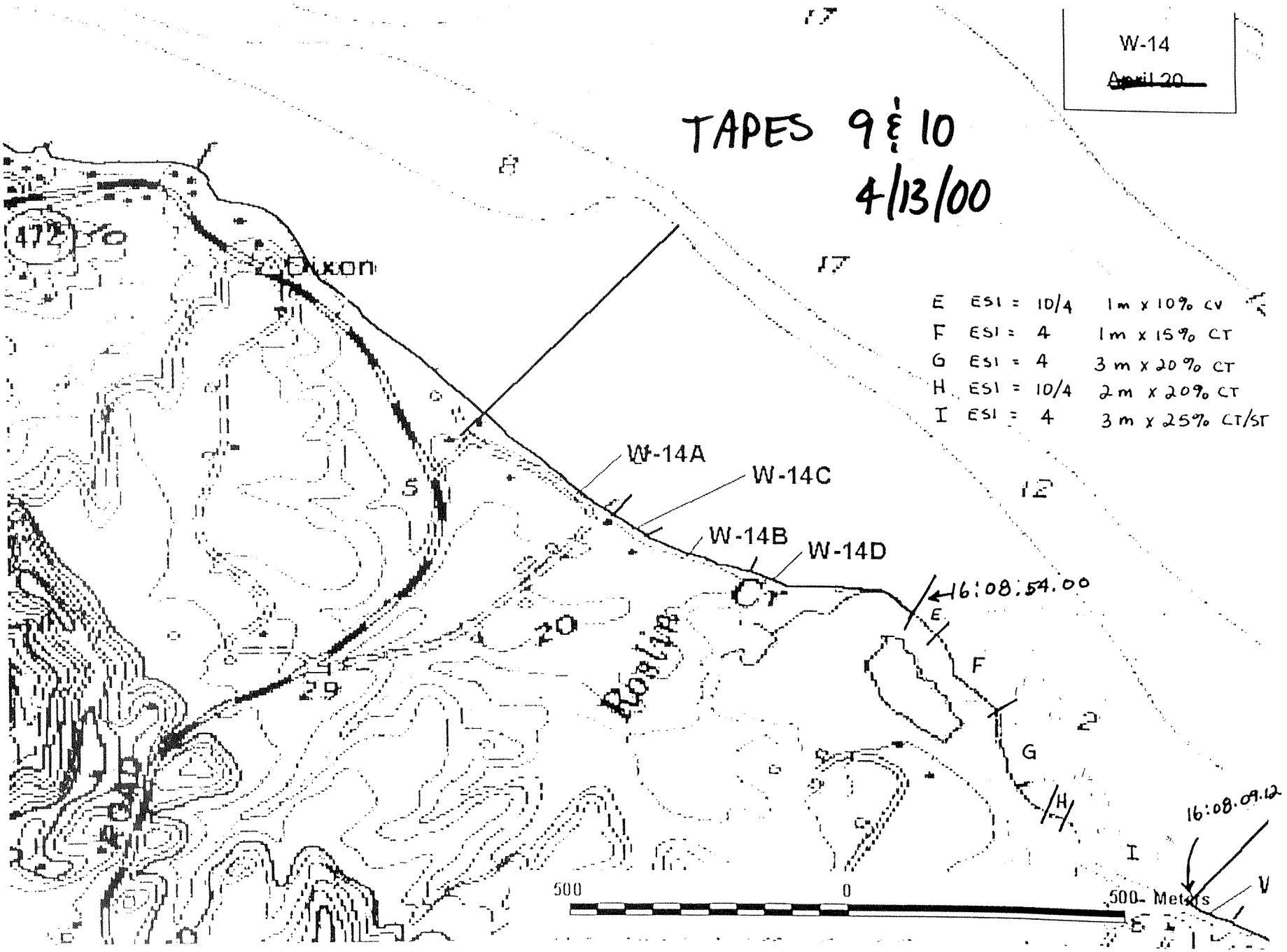
Tape No.	Date	Counter Start	Counter End
9 & 10	4/13/00	16:08.54.00	16:08.08.12
15	4/16/00	03:53:04.10	03:52:18.22
16 & 17	4/20/00	13:50:41.20	13:49:55.00

DESCRIPTION

The 4/13 tape was selected because no oil was observed in either the 4/16 or 4/20 tapes. Based on shoreline geomorphology, four subdivisions (W-14E through W-14H) were formed. Subdivision W-14E begins at the entrance to the small lagoon (located southeast of Roslin Creek). Additional subdivisions proceed throughW-14I which ends at the boundary with Segment W-15. Oil is apparent from the discoloration of shoreline sediments, primarily sand. The presence of a boom along shore in the 4/13 video and garbage bags staged along the beach in the subsequent videos support this conclusion. Oil distribution ranges from 10% to 25%, and widths vary from one to three meters. Thickness is estimated as "coat" (0.05 cm) except in Subdivision W-14E where oil appears stranded in the fringe marsh vegetation.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
W-14	W-14E_v	10-4	4/13/00 (Video)	58	1	10%	0.5	FR	Light
W-14	W-14F_v	4	4/13/00 (Video)	194	1	15%	0.05	SR	Light
W-14	W-14G_v	4	4/13/00 (Video)	201	3	20%	0.05	SR	Light
W-14	W-14H_v	10-4	4/13/00 (Video)	23	2	20%	0.05	SR	Light
W-14	W-14I_v	4	4/13/00 (Video)	221	3	25%	0.05	SR	Light


W-14
April 20
TAPES 9 & 10
4/13/00
Dixon
W-14A
W-14C
W-14B
W-14D
Ct
Road
E ESI = 10/4 1m x 10% CV
F ESI = 4 1m x 15% CT
G ESI = 4 3m x 20% CT
H ESI = 10/4 2m x 20% CT
I ESI = 4 3m x 25% CT/ST
16:08:54.00
16:08:09.12
E
F
G
H
I
500
0
500 Meters

SEGMENT/SUBDIVISION GAP

From: W-15s

To: W-16

APPLICABLE VIDEO TAPES

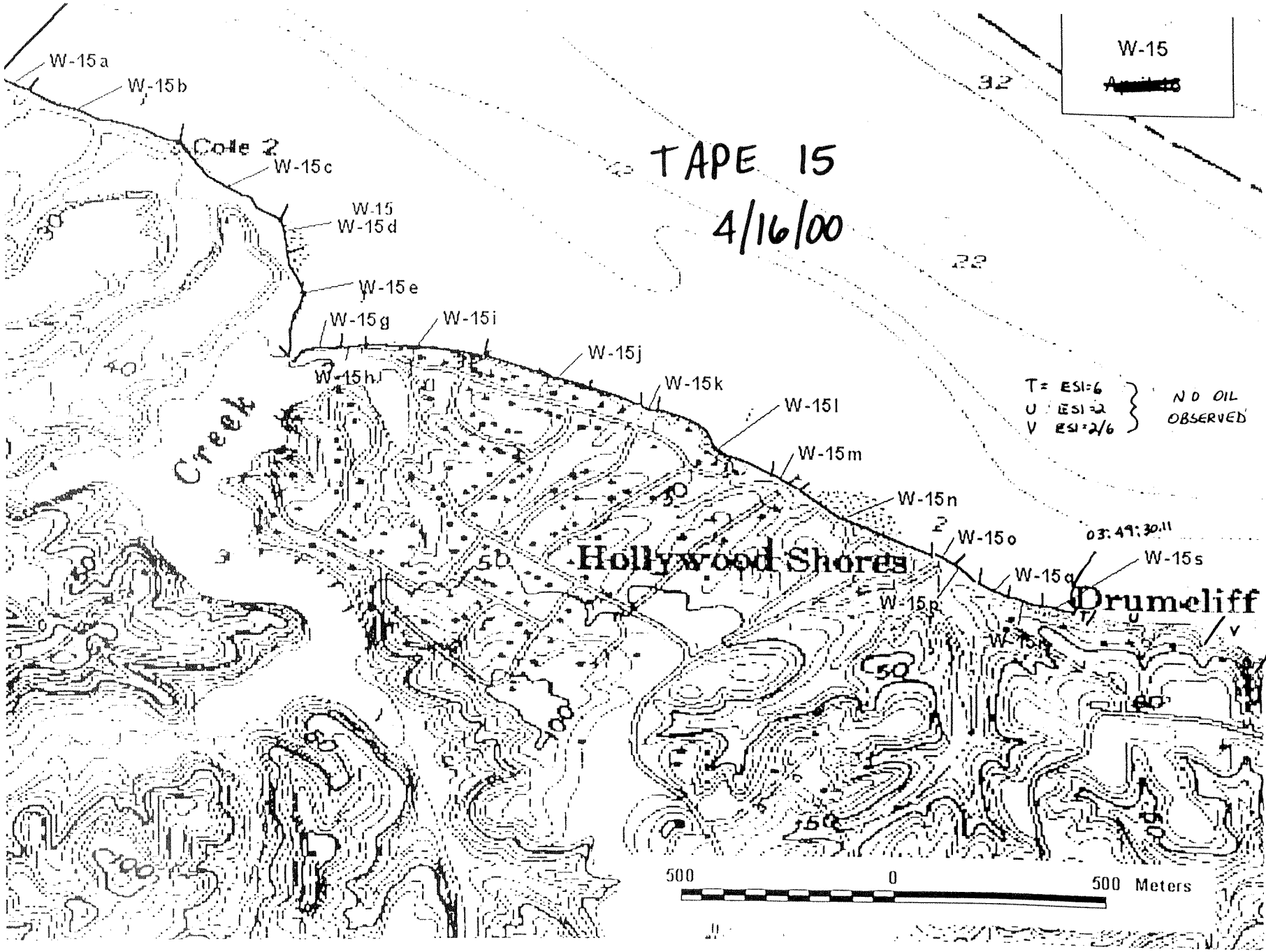
Tape No.	Date	Counter Start	Counter End
15	4/16/00	03:49:30.11	03:48:45.28

DESCRIPTION

Only the 4/16 tape provides coverage of this area. Based on shoreline geomorphology, three subdivisions W-15t through W-15v) were created. Subdivision W-15t begins at the pier (end of W-15s) and proceeds to the end of the rip-rap where the sand beach and subdivision W-15u begin. Subdivision W-15v comprises the cliff and boulder rubble area at the end of the segment. No oil was observed during the video tape review.

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category
E-2	W-15t_v	6	4/16/00 (Video)	33	0	0%	0.00	NO	No Oil
E-2	W-15u_v	2	4/16/00 (Video)	174	0	0%	0.00	NO	No Oil
E-2	W-15v_v	2-6	4/16/00 (Video)	176	0	0%	0.00	NO	No Oil


W-15
TAPE 15
4/16/00
W-15a
W-15b
Cole 2
W-15c
W-15
W-15d
W-15e
W-15g
W-15i
W-15j
W-15h
W-15k
W-15l
W-15m
W-15n
W-15o
W-15p
W-15q
W-15s
Creek
Hollywood Shores
Drumcliff
T= ESI=6
U ESI=2
V ESI=2/6
NO OIL OBSERVED
03:49:30.11
03:48:45.28
500 0 500 Meters

SEGMENT/SUBDIVISION GAP

From: W-18

To: W-19b

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End

DESCRIPTION

There was no known video tape coverage of the gap between W-18 and W-19b, however it should be noted that no oil was observed south of W-15 by SCAT Teams or operational personnel. Therefore, it is recommended that this section of shoreline remain designated as "unsurveyed".

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category

SEGMENT/SUBDIVISION GAP

From: W-19a

To: W-20F

APPLICABLE VIDEO TAPES

Tape No.	Date	Counter Start	Counter End

DESCRIPTION

There was no known video tape coverage of the gap between W-19a and W-20F, however it should be noted that no oil was observed south of W-15 by SCAT Teams or operational personnel. Therefore, it is recommended that this section of shoreline remain designated as "unsurveyed".

RESULTS

Segment	Subdivision	ESI	Date	Length (m)	Width (m)	Distribution (% Cover)	Thickness (cm)	Oil Character	Oil Category

APPENDIX C

SCAT_TOPO.XLS/MAXOILCAT

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
E-2	E-2d_v	4	3	Apr 10	204	1.00	80.00	0.500	FR	Heavy
E-2	E-2e1_v	4	3	Apr 10	186	1.00	80.00	0.500	FR	Heavy
E-2	E-2e2_v	4	3	Apr 10	70	2.00	95.00	0.500	FR	Heavy
E-2	E-2e3_v	4-10	3	Apr 10	391	3.50	95.00	1.100	FR	Heavy
E-2	E-2n_v	10-7	3	Apr 10	66	3.00	85.00	0.500	FR	Heavy
E-2	E-2o_v	4	3	Apr 10	37	3.00	95.00	0.500	FR	Heavy
E-2	E-2p_v	4-10	3	Apr 10	33	1.00	50.00	0.050	FR	Light
E-2	E-2q_v	4	3	Apr 10	131	1.00	50.00	0.050	FR	Light
E-2	E-2r_v	10-4-7	3	Apr 10	236	3.00	80.00	0.500	FR	Heavy
E-2	E-2s_v	10-7	3	Apr 10	30	6.00	90.00	0.500	FR	Heavy
E-2	E-2t_v	10-7	3	Apr 10	183	3.00	90.00	0.500	FR	Heavy
E-2	E-2u_v	4-10-7	3	Apr 10	38	3.00	90.00	0.500	FR	Heavy
E-2	E-2v_v	4-10	3	Apr 10	23	4.00	90.00	0.500	FR	Heavy
E-2	E-2w_v	4-10-7	3	Apr 10	18	2.00	90.00	0.500	FR	Heavy
E-2	E-2x_v	10-7	3	Apr 10	26	1.00	50.00	0.500	FR	Moderate
E-2	E-2y_v	10-7	3	Apr 10	38	1.00	10.00	0.500	FR	Light
E-3	E-3a_v	4	3	Apr 10	52	1.00	50	0.50	FR	Moderate
E-3	E-3b1_v	10-7	3	Apr 10	88	1.00	90	0.50	FR	Heavy
E-3	E-3b2_v	10-7	3	Apr 10	35	2.00	100	1.10	FR	Heavy
E-3	E-3c_v	1	3	Apr 10	254	1.00	80	1.10	FR	Heavy
E-3	E-3d1_v	1	3	Apr 10	22	1.00	90	1.10	FR	Heavy
E-3	E-3d2_v	6	3	Apr 10	62	1.50	100	1.10	FR	Heavy
E-3	E-3e1_v	6	3	Apr 10	81	1.50	90	1.10	FR	Heavy
E-3	E-3e2_v	4	3	Apr 10	126	2.00	100	1.10	FR	Heavy
E-3	E-3e3_v	4-6	3	Apr 10	67	2.00	100	1.10	FR	Heavy
E-3	E-3e4_v	6	3	Apr 10	51	1.50	100	1.10	FR	Heavy
E-3	E-3f_v	4	3	Apr 10	268	3.00	100	1.10	FR	Heavy
E-3	E-3g_v	4	3	Apr 10	182	3.00	80	1.10	FR	Heavy
E-3	E-3h_v	4	3	Apr 10	29	3.00	100	1.10	FR	Heavy
E-3	E-3i_v	4	3	Apr 10	77	3.00	100	1.10	FR	Heavy
E-3	E-3j_v	4	3	Apr 10	144	3.00	100	1.10	FR	Heavy
E-4	E-4a_v	4	3	Apr 10	247	4.00	100	1.10	FR	Heavy
E-4	E-4b_v	4	3	Apr 10	204	4.00	90	1.10	FR	Heavy
E-4	E-4c_v	4	3	Apr 10	476	3.00	100	1.10	FR	Heavy
E-4	E-4d_v	4	3	Apr 10	68	3.50	75	0.50	FR	Heavy
E-5	E-5d1_v	4	3	Apr 10	149	3.00	51	0.50	FR	Heavy
E-5	E-5d2_v	4-10	3	Apr 10	138	1.00	50	0.50	FR	Moderate
E-5	E-5d3_v	4-6	3	Apr 10	64	1.50	51	0.50	FR	Heavy
E-5	E-5d4_v	6-1	3	Apr 10	29	1.00	50	0.50	FR	Moderate
E-5	E-5d5_v	1	3	Apr 10	307	0.50	50	0.05	FR	Light
E-5	E-5d6_v	4	3	Apr 10	472	1.50	51	0.50	FR	Heavy
E-5	E-5e_v	4	3	Apr 10	135	4.00	51	0.50	FR	Heavy
E-5	E-5f_v	1-4	3	Apr 10	309	1.00	51	0.50	FR	Heavy
W-1	W-1GG_v	7	3	Apr 12	492	2.00	80.00	0.050	FR	Moderate
W-3	W-3AA_v	4-10	3	Apr 12	407	2.00	35.00	0.050	FR	Light
W-3	W-3BB_v	10	3	Apr 12	22	1.00	35.00	0.050	FR	Light
W-3	W-3CC_v	4-10	3	Apr 12	80	1.00	35.00	0.050	FR	Light
W-3	W-3DD_v	10	3	Apr 12	32	1.00	35.00	0.050	FR	Light
W-3	W-3EE_v	4-10	3	Apr 12	201	3.00	35.00	0.050	FR	Light
W-3	W-3FF_v	4-10	3	Apr 12	77	3.00	65.00	0.500	FR	Heavy
W-3	W-3GG_v	10	3	Apr 12	76	3.00	65.00	0.500	FR	Heavy
W-3	W-3HH_v	4-10	3	Apr 12	295	4.00	35.00	0.050	FR	Moderate
E-7	E-7c_v	1	3	Apr 13	30	0.00	0.00	0.000	NO	No Oil
E-7	E-7d_v	4-10	3	Apr 13	69	0.00	0.00	0.000	NO	No Oil
E-7	E-7e_v	6	3	Apr 13	134	0.00	0.00	0.000	NO	No Oil
E-7	E-7f_v	1	3	Apr 13	179	0.00	0.00	0.000	NO	No Oil
E-7	E-7g_v	4	3	Apr 13	46	0.00	0.00	0.000	NO	No Oil
E-7	E-7h_v	4-10	3	Apr 13	274	0.00	0.00	0.000	NO	No Oil
E-7	E-7i_v	10	3	Apr 13	197	0.00	0.00	0.000	NO	No Oil
E-8	E-8C_v	10-7	3	Apr 13	20	0.00	0.00	0.000	NO	No Oil
E-8	E-8D_v	10-7	3	Apr 13	2	1.00	80.00	0.500	FR	Heavy
E-8	E-8E_v	10-7	3	Apr 13	161	0.00	0.00	0.000	NO	No Oil
W-14	W-14E-v	10-4	3	Apr 13	58	1.00	10.00	0.500	FR	Light
W-14	W-14F-v	4	3	Apr 13	194	1.00	15.00	0.050	SR	Light
W-14	W-14G-v	4	3	Apr 13	201	3.00	20.00	0.050	SR	Light
W-14	W-14H-v	10-4	3	Apr 13	23	2.00	20.00	0.050	SR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-14	W-14I-v	4	3	Apr 13	221	3.00	25.00	0.050	SR	Light
W-5	W-5L	10	1	Apr 13	253	6.00	55.00	0.264	FR	Heavy
W-5	W-5M	10-3	1	Apr 13	56	4.00	45.50	0.115	FR	Heavy
W-5	W-5N	3-1	1	Apr 13	51	3.00	40.00	0.050	FR	Light
W-5	W-5O	6-3	1	Apr 13	89	2.50	30.00	0.200	FR	Moderate
W-5	W-5P	1	1	Apr 13	55	0.50	70.00	0.050	FR	Light
W-5	W-5Q	3-10	1	Apr 13	45	3.00	50.00	0.050	FR	Light
W-5	W-5R	3-10	1	Apr 13	46	2.50	30.00	0.050	FR	Light
W-5	W-5S	3-10	1	Apr 13	89	3.00	50.00	0.050	FR	Light
W-5	W-5T	3-6	1	Apr 13	143	3.00	40.00	0.050	FR	Light
W-10	W-10A_1	6	1	Apr 14	365	1.00	35.00	0.500	FR	Moderate
W-10	W-10B_1	7	1	Apr 14	160	1.00	5.00	0.500	FR	Light
W-10	W-10C_1	6	1	Apr 14	56	1.00	5.00	0.500	FR	Light
W-10	W-10G_1	7	1	Apr 14	100	1.00	35.00	0.500	FR	Moderate
W-10	W-10I_1	10-4	1	Apr 14	16	2.00	35.00	0.500	FR	Moderate
W-10	W-10J_1	7	1	Apr 14	175	1.00	5.00	0.500	FR	Light
W-10	W-10L_1	7	1	Apr 14	191	1.00	5.00	0.500	FR	Light
W-10	W-10N_1	7	1	Apr 14	48	1.00	5.00	0.500	FR	Light
W-10	W-10O_1	7	1	Apr 14	507	1.00	5.00	0.500	FR	Light
W-4	W-4a_1	4-10	1	Apr 14	220	1.00	0.00	0.000		No Oil
W-4	W-4b_1	4-10	1	Apr 14	95	1.00	5.00	0.050	SR	Very Light
W-4	W-4Ca_1	4-10	1	Apr 14	719	1.00	0.00	0.000		No Oil
W-4	W-4Cb_1	4-10	1	Apr 14	332	1.00	0.00	0.000		No Oil
W-4	W-4e_1	4-10	1	Apr 14	1506	1.00	0.00	0.000		No Oil
W-4	W-4f_1	4-10	1	Apr 14	2512	1.00	0.00	0.000		No Oil
W-4	W-4g_1	4-10	1	Apr 14	89	1.00	5.00	0.050	SR	Very Light
W-5	W-5a	10	1	Apr 14	258	1.50	5.00	0.010	FR	Very Light
W-5	W-5aa	10	1	Apr 14	82	2.50	95.00	1.500	FR	Heavy
W-5	W-5b	10	1	Apr 14	454	1.50	65.00	0.500	FR	Heavy
W-5	W-5bb	10	1	Apr 14	103	3.50	35.00	1.500	FR	Heavy
W-5	W-5c	10	1	Apr 14	130	1.50	95.00	0.500	FR	Heavy
W-5	W-5cc	10	1	Apr 14	70	3.00	95.00	1.500	FR	Heavy
W-5	W-5d	10	1	Apr 14	258	1.50	35.00	0.500	FR	Moderate
W-5	W-5dd	10	1	Apr 14	377	1.00	95.00	1.500	FR	Heavy
W-5	W-5e	10	1	Apr 14	95	1.50	95.00	1.500	SR	Heavy
W-5	W-5ee	10	1	Apr 14	99	3.00	5.00	0.010	SR	Very Light
W-5	W-5f	10	1	Apr 14	591	1.50	5.00	0.500	FR	Light
W-5	W-5g	10	1	Apr 14	636	1.50	35.00	0.500	FR	Moderate
W-5	W-5h	10	1	Apr 14	359	1.50	5.00	0.500	FR	Light
W-5	W-5i	10	1	Apr 14	378	1.50	65.00	1.500	FR	Heavy
W-5	W-5j	10	1	Apr 14	566	1.50	65.00	0.500	FR	Heavy
W-5	W-5k	10	1	Apr 14	386	1.50	95.00	1.500	FR	Heavy
W-7	W-7a_1	6-1	1	Apr 14	57	1.50	65.00	0.500	SR	Heavy
W-7	W-7b_1	6-1	1	Apr 14	46	1.50	35.00	0.050	SR	Light
W-7	W-7c_1	6-1-10	1	Apr 14	17	1.50	5.00	0.050	SR	Very Light
W-7	W-7h_1	10-7	1	Apr 14	122	1.50	95.00	1.500	FR	Heavy
W-7	W-7j_1	10-4-7	1	Apr 14	848	1.50	35.00	0.050	FR	Light
W-7	W-7k_1	6	1	Apr 14	31	1.50	5.00	0.050	SR	Very Light
W-7	W-7l_1	10	2	Apr 14	607	3.50	80.00	0.644	AP;FR	Heavy
W-7	W-7m_1	4	1	Apr 14	282	1.50	5.00	0.050	SR	Very Light
W-7	W-7n_1	4-7-10	1	Apr 14	37	1.50	65.00	0.050	SR	Moderate
W-7	W-7o_1	4	1	Apr 14	144	1.50	5.00	0.500	SR	Light
W-7	W-7p_1	7-10	1	Apr 14	680	1.50	65.00	0.050	SR	Moderate
W-7	W-7q_1	4	1	Apr 14	131	1.50	5.00	0.050	SR	Very Light
W-8	W-8Fa_1	10	1	Apr 14	89	0.25	35.00	0.050	SR	Very Light
W-8	W-8Fc_1	10	1	Apr 14	67	0.25	35.00	0.050	SR	Very Light
W-8	W-8Fd_1	10	1	Apr 14	64	1.50	35.00	1.500	SR/AP	Moderate
W-8	W-8Ff_1	10	1	Apr 14	47	1.50	35.00	0.050	SR/AP	Light
W-8	W-8Ff_1	10	1	Apr 14	45	1.50	35.00	0.050	SR/AP	Light
W-8	W-8Ga_1	4-10	1	Apr 14	57	1.50	35.00	0.500	SR/AP	Moderate
W-8	W-8Gb_1	4-10	1	Apr 14	21	0.25	35.00	0.500	SR/AP	Light
W-8	W-8Gc_1	4-10	1	Apr 14	50	1.50	35.00	0.500	SR/AP	Moderate
W-8	W-8Gd_1	4-10	1	Apr 14	11	1.50	65.00	1.500	SR/AP	Heavy
W-8	W-8Ge_1	4-10	1	Apr 14	21	1.50	35.00	0.500	SR	Moderate
W-8	W-8Gf_1	4-10	1	Apr 14	133	0.25	0.50	0.010		Very Light
W-8	W-8Gg_1	4-10	1	Apr 14	42	1.50	35.00	1.500	SR/AP	Moderate

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-8	W-8Gh_1	4-10	1	Apr 14	17	1.50	65.00	1.500	SR/AP	Heavy
W-8	W-8Gi_1	4-10	1	Apr 14	256	1.50	65.00	1.500	SR/AP	Heavy
W-8	W-8Gj_1	4-10	1	Apr 14	242	1.50	35.00	1.500	SR/AP	Moderate
W-8	W-8Gk_1	4-10	1	Apr 14	26	0.25	35.00	0.500	SR	Light
W-8	W-8H_1	10	1	Apr 14	196	1.50	35.00	0.500	SR/AP	Moderate
W-9	W-9A_1	4-10	1	Apr 14	103	3.50	35.00	0.500	SR	Heavy
W-9	W-9A1_1	6	1	Apr 14	87	1.00	5.00	0.500	FR	Light
W-9	W-9D_1	4-10	1	Apr 14	184	1.50	5.00	0.500	FR	Light
W-9	W-9E_1a	4-10	1	Apr 14	811	1.00	35.00	0.500	FR	Moderate
W-9	W-9E_1b	4-10	1	Apr 14	53	1.00	35.00	0.500	FR	Moderate
W-9	W-9E_1c	4-10	1	Apr 14	98	1.00	35.00	0.500	FR	Moderate
W-9	W-9E_1d	4-10	1	Apr 14	636	1.00	35.00	0.500	FR	Moderate
W-9	W-9F_1	6	1	Apr 14	303	1.00	35.00	0.500	FR	Moderate
W-9	W-9G_1	6	1	Apr 14	87	1.00	35.00	0.500	FR	Moderate
E-10	E-10A	9-10	1	Apr 15	331	0.00	0.00	0.000		No Oil
E-10	E-10B	1-6	1	Apr 15	382	0.00	0.00	0.000		No Oil
E-10	E-10C	1	1	Apr 15	428	0.00	0.00	0.000		No Oil
E-10	E-10D	3	1	Apr 15	1012	0.00	0.00	0.000		No Oil
E-10	E-10E	9-10	1	Apr 15	207	0.00	0.00	0.000		No Oil
E-10	E-10F	3	1	Apr 15	81	0.00	0.00	0.000		No Oil
E-10	E-10G	1	1	Apr 15	814	0.00	0.00	0.000		No Oil
E-10	E-10I	9-10	1	Apr 15	447	0.00	0.00	0.000		No Oil
E-11	E-11A	7-10	1	Apr 15	162	0.00	0.00	0.000		No Oil
E-11	E-11B	3	1	Apr 15	50	0.00	0.00	0.000		No Oil
E-11	E-11C	7-10	1	Apr 15	184	0.00	0.00	0.000		No Oil
E-11	E-11D	3	1	Apr 15	176	0.00	0.00	0.000		No Oil
E-11	E-11F	3	1	Apr 15	104	0.00	0.00	0.000		No Oil
E-11	E-11G	7-10	1	Apr 15	1681	0.00	0.00	0.000		No Oil
E-11	E-11H	1	1	Apr 15	332	0.00	0.00	0.000		No Oil
E-11	E-11I	3	1	Apr 15	54	0.00	0.00	0.000		No Oil
E-11	E-11J	1	1	Apr 15	120	0.00	0.00	0.000		No Oil
E-11	E-11L	1	1	Apr 15	139	0.00	0.00	0.000		No Oil
E-11	E-11M	3-4	1	Apr 15	309	0.00	0.00	0.000		No Oil
E-11	E-11N	6	1	Apr 15	240	0.00	0.00	0.000		No Oil
E-11	E-11O	7-10	1	Apr 15	335	0.00	0.00	0.000		No Oil
E-11	E-11P	2	1	Apr 15	145	0.00	0.00	0.000		No Oil
E-11	E-11Q	7-10	1	Apr 15	408	0.00	0.00	0.000		No Oil
E-2	E-2c_1	4-10	1	Apr 15	121	2.00	0.50	0.500	FR	Light
E-2	E-2d_1	4-10	1	Apr 15	196	3.00	5.00	0.500	FR	Light
E-2	E-2e_1	4-10	1	Apr 15	629	3.00	35.00	0.500	FR	Moderate
E-5	E-5a	6	1	Apr 15	3225	0.00	0.00	0.000		No Oil
E-5	E-5b	6	1	Apr 15	888	0.00	0.00	0.000		No Oil
E-5	E-5c	10	1	Apr 15	414	0.00	0.00	0.000		No Oil
E-5	E-5d_1	10	1	Apr 15	345	1.00	10	0.00	SR	Very Light
E-5	E-5d_2	10	1	Apr 15	706	1.00	10	0.00	SR	Very Light
E-6	E-6a	4	1	Apr 15	2606	0.00	0.00	0.000		No Oil
E-7	E-7a	4	1	Apr 15	2520	0.00	0.00	0.000		No Oil
E-7	E-7b	11	1	Apr 15	3731	0.00	0.00	0.000		No Oil
E-8	E-8A	11	1	Apr 15	365	1.50	8.00	2.000	TB	Light
E-8	E-8B	7-10	1	Apr 15	5644	0.00	0.00	0.000		No Oil
E-9	E-9A	2	1	Apr 15	66	0.00	0.00	0.000		No Oil
E-9	E-9B	6	1	Apr 15	182	0.00	0.00	0.000		No Oil
E-9	E-9D	9-10	1	Apr 15	228	0.00	0.00	0.000		No Oil
E-9	E-9E	1	1	Apr 15	442	0.00	0.00	0.000		No Oil
E-9	E-9F	2	1	Apr 15	561	0.00	0.00	0.000		No Oil
W-11	W-11a_1	11-7	1	Apr 15	274	3.00	40.00	0.050	FR	Light
W-11	W-11b_1	11-7	1	Apr 15	179	1.00	5.00	0.010	FR	Very Light
W-11	W-11C_1	11-7	1	Apr 15	869	0.00	0.00	0.000		No Oil
W-11	W-11Ea_1	11-10-4	1	Apr 15	143	1.00	10.00	0.050		Very Light
W-11	W-11Eb_1	11-10-4	1	Apr 15	250	1.00	10.00	0.050		Very Light
W-11	W-11Ec_1	11-10-4	1	Apr 15	111	1.00	10.00	0.050		Very Light
W-6	W-6a_1	1-6-10	1	Apr 15	364	2.00	40.00	0.500	FR	Moderate
W-6	W-6b_1	4-10	1	Apr 15	554	2.50	30.00	0.010	FR	Very Light
W-6	W-6c_1	1-4	1	Apr 15	511	2.50	75.00	1.500	FR	Heavy
W-8	W-8Aa_1	11	1	Apr 15	212	1.50	60.00	0.500	FR	Heavy
W-8	W-8Ab_1	10	1	Apr 15	331	1.50	40.00	0.050	FR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-8	W-8Ac_1	2	1	Apr 15	228	1.50	15.00	0.050	FR	Light
W-8	W-8Ba_1	2	1	Apr 15	228	0.25	0.50	0.010	FR	Very Light
W-8	W-8Bb_1	11	1	Apr 15	385	1.50	60.00	0.500	FR	Heavy
W-8	W-8Ca_1	10	1	Apr 15	375	0.25	5.00	0.010	FR	Very Light
W-8	W-8Cb_1	10	1	Apr 15	374	0.25	5.00	0.010	FR	Very Light
W-8	W-8Dc_1	10	1	Apr 15	93	1.50	35.00	0.050	FR	Light
W-8	W-8De_1	10	1	Apr 15	165	1.50	30.00	0.050	FR	Light
W-8	W-8Ed_1	11	1	Apr 15	297	1.50	45.00	0.500	FR	Moderate
W-8	W-8Fg_1	1	1	Apr 15	42	1.50	15.00	0.010	FR; AP	Very Light
W-8	W-8Fh_1	1	1	Apr 15	183	1.50	40.00	1.000	FR; AP	Moderate
E-12	E-12a	10	0	Apr 16	432	0.00	0.00	0.000		No Oil
E-12	E-12b	4	0	Apr 16	688	0.00	0.00	0.000		No Oil
E-12	E-12c	6	0	Apr 16	2207	0.00	0.00	0.000		No Oil
E-12	E-12d	10	0	Apr 16	232	0.00	0.00	0.000		No Oil
E-12	E-12e	6	0	Apr 16	282	0.00	0.00	0.000		No Oil
E-12	E-12f	4	0	Apr 16	103	0.00	0.00	0.000		No Oil
E-12	E-12g	6	0	Apr 16	96	0.00	0.00	0.000		No Oil
E-12	E-12h	10	0	Apr 16	90	0.00	0.00	0.000		No Oil
E-12	E-12i	10-6	0	Apr 16	94	0.00	0.00	0.000		No Oil
E-12	E-12j	4-7	0	Apr 16	442	0.00	0.00	0.000		No Oil
E-12	E-12k	4-10	0	Apr 16	685	0.00	0.00	0.000		No Oil
E-2	E-2f_1	4	1	Apr 16	333	8.00	2.00	0.500	TB	Moderate
E-2	E-2h_1	4	1	Apr 16	226	6.00	2.00	0.500	TB	Moderate
E-2	E-2i_1	4	1	Apr 16	146	0.50	5.00	0.500	TB	Light
E-2	E-2j_1	6	1	Apr 16	122	2.00	45.00	0.500	TB	Moderate
E-2	E-2k_1	1	1	Apr 16	34	1.00	7.00	0.500	TB	Light
W-15	W-15a	2	1	Apr 16	81	1.00	10.00	0.500	TB	Light
W-15	W-15b	2	1	Apr 16	290	3.00	15.00	0.500	AP	Moderate
W-15	W-15c	2	1	Apr 16	261	2.00	0.50	0.050	TB	Very Light
W-15	W-15d	2	1	Apr 16	66	2.00	15.00	0.500	TB	Moderate
W-15	W-15e	2	1	Apr 16	257	2.00	0.50	0.050	TB	Very Light
W-15	W-15g	6	1	Apr 16	105	2.00	0.05	0.050	TB	Very Light
W-15	W-15h	6	1	Apr 16	42	2.00	50.00	0.500	FR	Moderate
W-15	W-15i	6	1	Apr 16	210	1.00	10.00	0.500	TB	Light
W-15	W-15j	6	1	Apr 16	308	1.00	0.50	0.050	TB	Very Light
W-15	W-15k	6	1	Apr 16	31	1.50	10.00	0.500	TB	Light
W-15	W-15l	6	1	Apr 16	283	1.00	0.50	0.050	TB	Very Light
W-15	W-15m	2	1	Apr 16	56	1.00	0.50	0.050	TB	Very Light
W-15	W-15n	2	1	Apr 16	285	1.00	15.00	0.500	TB	Moderate
W-15	W-15o	2	1	Apr 16	41	2.00	90.00	1.500	FR	Heavy
W-15	W-15p	2	1	Apr 16	53	2.00	0.50	0.500	TB	Light
W-15	W-15q	6	1	Apr 16	58	1.00	0.50	0.050	TB	Very Light
W-15	W-15r	2	1	Apr 16	72	1.00	0.50	0.050	TB	Very Light
W-15	W-15s	6	1	Apr 16	48	1.00	0.50	0.050	TB	Very Light
W-15	W-15t_v	6	3	Apr 16	33	0.00	0.00	0.000	NO	No Oil
W-15	W-15u_v	2	3	Apr 16	174	0.00	0.00	0.000	NO	No Oil
W-15	W-15v_v	2-6	3	Apr 16	176	0.00	0.00	0.000	NO	No Oil
W-2	W-2a1	4	1	Apr 16	53	1.00	5.00	0.500	TB	Light
W-2	W-2a2	10	1	Apr 16	50	1.50	20.00	0.050	FR	Light
W-2	W-2b	4	1	Apr 16	163	2.50	65.00	0.050	FR	Moderate
W-2	W-2bb	10-6	1	Apr 16	76	0.50	35.00	0.050	FR	Very Light
W-2	W-2c	4-6-10	1	Apr 16	130	2.00	35.00	0.500	FR	Moderate
W-2	W-2cc	10	1	Apr 16	132	0.50	35.00	0.050	FR	Very Light
W-2	W-2d	4-10	1	Apr 16	103	3.00	35.00	0.050	FR	Light
W-2	W-2dd	4	1	Apr 16	56	1.00	0.50	0.010	FR	Very Light
W-2	W-2e	1-6	1	Apr 16	43	0.50	5.00	0.050	TB	Very Light
W-2	W-2f	10	1	Apr 16	82	0.50	65.00	0.500	FR	Moderate
W-2	W-2g	4-10	1	Apr 16	103	4.00	5.00	0.050	FR	Light
W-2	W-2h	10	1	Apr 16	110	0.50	35.00	0.050	FR	Very Light
W-2	W-2i	4-10	1	Apr 16	111	2.00	35.00	0.050	FR	Light
W-2	W-2j	10	1	Apr 16	67	1.00	65.00	0.050	TB	Moderate
W-2	W-2k	4	1	Apr 16	24	1.00	65.00	0.050	TB	Moderate
W-2	W-2l	6	1	Apr 16	36	0.50	5.00	0.500	TB	Light
W-2	W-2m	6	1	Apr 16	76	0.50	5.00	0.500	TB	Light
W-2	W-2n	4-10	1	Apr 16	178	1.00	5.00	0.500	TB	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-2	W-2o	10	1	Apr 16	90	0.50	5.00	0.001	TB	Very Light
W-2	W-2p	10	1	Apr 16	113	0.50	0.50	0.001	TB	Very Light
W-2	W-2q	10	1	Apr 16	142	0.50	65.00	0.001	TB	Very Light
W-2	W-2r	10	1	Apr 16	488	1.00	95.00	0.500	FR	Heavy
W-2	W-2s	10	1	Apr 16	186	1.00	65.00	0.500	FR	Heavy
W-2	W-2t	8-11	1	Apr 16	192	1.50	95.00	0.500	FR	Heavy
W-2	W-2u	11	1	Apr 16	211	2.50	35.00	0.500	FR	Moderate
W-2	W-2v	11	1	Apr 16	199	3.50	95.00	0.500	FR	Heavy
E-13	E-13a	6	1	Apr 17	146	1.00	0.00	0.000		No Oil
E-13	E-13b	4	1	Apr 17	112	1.00	0.00	0.000		No Oil
E-13	E-13c	6-1	1	Apr 17	370	1.00	0.00	0.000		No Oil
E-13	E-13d	4-6-9	1	Apr 17	203	1.00	0.00	0.000		No Oil
E-13	E-13e	4-6-10	1	Apr 17	1444	1.00	0.00	0.000		No Oil
E-13	E-13g	6	1	Apr 17	500	1.00	0.00	0.000		No Oil
E-13	E-13h	4-10	1	Apr 17	719	1.00	0.00	0.000		No Oil
E-13	E-13i	6	1	Apr 17	100	1.00	0.00	0.000		No Oil
E-13	E-13j	4-7	1	Apr 17	564	1.00	0.00	0.000		No Oil
E-14	E-14a	4	1	Apr 17	355	1.00	0.00	0.000		No Oil
E-14	E-14b	1	1	Apr 17	385	1.00	0.00	0.000		No Oil
E-14	E-14c	4	1	Apr 17	277	1.00	0.00	0.000		No Oil
E-14	E-14d	1-10	1	Apr 17	314	1.00	0.00	0.000		No Oil
E-14	E-14e	10-7	1	Apr 17	724	1.00	0.00	0.000		No Oil
E-14	E-14f	6	1	Apr 17	100	1.00	0.00	0.000		No Oil
E-14	E-14g	10-7-4	1	Apr 17	557	1.00	0.00	0.000		No Oil
E-14	E-14h	6	1	Apr 17	382	1.00	0.00	0.000		No Oil
E-14	E-14i	10-1	1	Apr 17	335	1.00	0.00	0.000		No Oil
E-14	E-14j	1-10-8	1	Apr 17	169	1.00	0.00	0.000		No Oil
E-14	E-14k	10-1	1	Apr 17	2248	1.00	0.00	0.000		No Oil
E-14	E-14l	1-6	1	Apr 17	145	1.00	0.00	0.000		No Oil
E-14	E-14m	4-10	1	Apr 17	720	1.00	0.00	0.000		No Oil
E-14	E-14n	1-6-4	1	Apr 17	2764	1.00	0.00	0.000		No Oil
E-14	E-14o	6-1	1	Apr 17	743	1.00	0.00	0.000		No Oil
E-14	E-14p	10-7-6-1	1	Apr 17	1140	1.00	0.00	0.000		No Oil
E-15	E-15a	4	1	Apr 17	3278	1.00	0.00	0.000		No Oil
W-19	W-19a	4	1	Apr 17	233	1.00	0.00	0.000		No Oil
W-19	W-19b	4-10-1-6	1	Apr 17	714	1.00	0.00	0.000		No Oil
W-19	W-19c	4	1	Apr 17	25	1.00	0.00	0.000		No Oil
W-19	W-19d	1	1	Apr 17	22	1.00	0.00	0.000		No Oil
W-19	W-19e	4	1	Apr 17	20	1.00	0.00	0.000		No Oil
W-19	W-19f		1	Apr 17	1128	0.00	0.00	0.000		No Oil
W-19	W-19g		1	Apr 17	1229	0.00	0.00	0.000		No Oil
W-19	W-19h		1	Apr 17	275	0.00	0.00	0.000		No Oil
W-19	W-19i		1	Apr 17	977	0.00	0.00	0.000		No Oil
W-19	W-19j		1	Apr 17	172	0.00	0.00	0.000		No Oil
W-19	W-19k		1	Apr 17	169	0.00	0.00	0.000		No Oil
W-3	W-3a	10-4	1	Apr 17	94	2.50	10.00	0.500	TB	Light
W-3	W-3b	10-4	1	Apr 17	51	3.00	25.00	0.140	TB	Moderate
W-3	W-3c	10-4	1	Apr 17	60	4.00	60.00	0.200	TB	Heavy
W-3	W-3d	4	1	Apr 17	41	0.50	4.00	0.388	TB	Light
W-3	W-3e	10-4	1	Apr 17	20	5.00	50.00	0.320	SR	Heavy
W-3	W-3f	4	1	Apr 17	47	0.50	25.00	0.140	TB	Light
W-3	W-3g	10-4	1	Apr 17	10	4.00	32.00	0.281	SR;FR	Heavy
W-3	W-3h	4	1	Apr 17	42	0.50	2.00	0.050	SR	Very Light
W-3	W-3i	4	1	Apr 17	51	0.50	3.00	0.125	TB	Light
W-3	W-3j	4	1	Apr 17	121	1.00	35.00	0.114	TB	Moderate
W-3	W-3k	4	1	Apr 17	63	1.00	17.00	0.235	TB;SR	Moderate
W-3	W-3l	10	1	Apr 17	132	2.00	85.00	0.182	TB;SR	Heavy
W-3	W-3m	4	1	Apr 17	27	0.50	5.00	0.500	TB	Light
W-3	W-3n	4-10	1	Apr 17	57	3.00	35.00	0.500	TB	Moderate
W-3	W-3o	4	1	Apr 17	451	0.50	22.50	0.500	TB;SR	Light
W-3	W-3p	4-10	1	Apr 17	114	1.00	30.00	0.200	TB;DB;FR	Moderate
W-3	W-3q	4	1	Apr 17	31	3.00	1.00	0.500	TB	Light
W-3	W-3r	10	1	Apr 17	261	1.00	72.00	0.035	TB;FR	Moderate
W-3	W-3s	10-4	1	Apr 17	137	1.00	10.00	0.275	DB	Light
W-4	W-4c_2	10	2	Apr 17	371	0.50	30.00	0.001	SR	Very Light
W-4	W-4d_2	10-4	2	Apr 17	97	1.00	15.00	0.050	FR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
E-1	E-1a_2	10	2	Apr 18	4648	1.00	0.00	0.000		No Oil
NE-1	NE-1a	10	1	Apr 18	2577	1.00	0.00	0.000		No Oil
NW-1	NW-1a	4-10	1	Apr 18	422	2.00	73.00	0.005	TB;SR	Light
NW-1	NW-1b	4	1	Apr 18	230	2.00	1.00	0.010	SR	Very Light
NW-1	NW-1c	4-10	1	Apr 18	280	1.00	51.50	0.006	TB;SR	Light
NW-1	NW-1d	4-10	1	Apr 18	441	1.00	29.00	0.090	TB;SR	Light
NW-1	NW-1e	4-10	1	Apr 18	619	1.00	51.00	0.001	SR	Light
NW-2	NW-2a	4-10	1	Apr 18	1187	0.00	0.00	0.000		No Oil
NW-3	NW-3a	4-10	1	Apr 18	2856	0.00	0.00	0.000		No Oil
W-16	W-16		1	Apr 18	1956	0.00	0.00	0.000		No Oil
W-17	W-17		1	Apr 18	2938	0.00	0.00	0.000		No Oil
W-18	W-18		1	Apr 18	6542	0.00	0.00	0.000		No Oil
W-4	W-4e_2	4-10	1	Apr 18	272	4.00	60.00	0.200	SR	Heavy
E-2	E-2a_2	6-4-7	2	Apr 19	892	0.00	0.00	0.000		No Oil
E-2	E-2b_2	4	2	Apr 19	1743	0.00	0.00	0.000		No Oil
E-2	E-2g_2	4	2	Apr 19	87	1.50	2.00	0.500	TB	Light
E-2	E-2k_2	11	2	Apr 19	63	1.50	50.00	0.010	SR	Very Light
E-2	E-2l_2	11	2	Apr 19	156	1.50	10.00	0.010	SR	Very Light
E-2	E-2m_2	10	2	Apr 19	85	1.50	11.00	0.010	SR	Very Light
E-4	E-4Ea_1	10	1	Apr 19	138	0.50	30	0.02	TB	Very Light
E-4	E-4Eb_1	10	1	Apr 19	101	2.00	47.5	0.37	TB;SR	Moderate
W-9	W-9Ba_2	10-4	2	Apr 19	56	4.00	100.00	0.140	FR;TB	Heavy
W-9	W-9Bb_2	10-4	2	Apr 19	36	1.00	80.00	0.163	FR;TB	Heavy
W-9	W-9Bc_2	10	2	Apr 19	114	1.00	60.00	0.050	FR	Moderate
W-9	W-9Bd_2	10	2	Apr 19	104	3.00	80.00	0.163	FR;TB	Heavy
W-9	W-9C_2	10-6	2	Apr 19	65	1.00	100.00	0.030		Moderate
W-9	W-9Da_2	4-10	2	Apr 19	139	3.00	70.00	0.114	FR;TB	Heavy
W-9	W-9Db_2	4	2	Apr 19	80	2.00	100.00	0.400	SR	Heavy
W-9	W-9Dc_2	10	2	Apr 19	135	1.00	15.00	0.050	FR;TB	Light
W-9	W-9De_2	10	2	Apr 19	197	2.00	10.00	0.500	TB	Light
W-9	W-9Df_2	10	2	Apr 19	90	4.00	85.00	0.235	TB;SR	Heavy
W-9	W-9Ef_2	10	2	Apr 19	191	3.50	50.00	0.500	TB	Heavy
W-9	W-9Eh_2	11	2	Apr 19	146	5.00	40.00	1.500	AP	Heavy
W-9	W-9Ej_2	10	2	Apr 19	65	1.00	72.00	0.204	TB;SR	Heavy
W-9	W-9Ek_2	10	2	Apr 19	81	1.00	80.00	0.153		Heavy
W-9	W-9El_2	10	2	Apr 19	211	4.00	100.00	0.410	SR	Heavy
W-10	W-10D1_2	10-4	2	Apr 20	33	0.50	50.00	0.402	SR	Light
W-10	W-10D2_2	10-4	2	Apr 20	85	0.00	0.00	0.000		No Oil
W-10	W-10D3_2	10	2	Apr 20	30	0.50	12.50	0.140	SR	Light
W-10	W-10E1_2	10	2	Apr 20	59	0.30	0.50	0.050		Very Light
W-10	W-10E2_2	10	2	Apr 20	44	0.30	15.00	0.023	TB	Very Light
W-10	W-10F1_2	7	2	Apr 20	56	4.00	65.00	0.085		Moderate
W-10	W-10G1_2	10-4	2	Apr 20	29	1.00	16.00	0.078	TB	Light
W-10	W-10G3_2	7	2	Apr 20	9	3.00	65.00	0.085	FR;TB	Moderate
W-10	W-10H1_2	4	2	Apr 20	48	0.00	0.00	0.000		No Oil
W-10	W-10H2_2	10-4	2	Apr 20	31	1.00	70.00	0.114	FR;TB	Heavy
W-10	W-10I1_2	10	2	Apr 20	49	10.00	75.00	0.207	FR;TB	Heavy
W-10	W-10I2_2	10-4	2	Apr 20	43	2.00	40.00	0.163	FR;TB	Moderate
W-10	W-10K1_2	10-2	2	Apr 20	83	2.00	40.00	0.050		Light
W-10	W-10K2_2	4	2	Apr 20	68	1.00	0.50	0.050	TB	Very Light
W-10	W-10L1_2	10	2	Apr 20	58	3.00	5.00	0.500	FR	Light
W-10	W-10M1_2	7	2	Apr 20	166	1.00	5.00	0.050		Very Light
W-10	W-10N1_2	4-7	2	Apr 20	13	2.00	20.00	0.050		Light
W-10	W-10N2_2	4	2	Apr 20	32	0.00	0.00	0.000	No	No Oil
W-10	W-10O1_2	10-4	2	Apr 20	15	2.00	10.00	0.050		Very Light
W-10	W-10O2_2	7	2	Apr 20	30	1.00	25.00	0.140	TB	Moderate
W-10	W-10O3_2	4-10	2	Apr 20	194	1.00	20.00	0.163	TB;FR	Moderate
W-10	W-10P1_2	4	2	Apr 20	511	0.00	0.00	0.000	No	No Oil
W-10	W-10Q1_2	8	2	Apr 20	57	3.00	41.00	0.305	FR;SR	Moderate
W-10	W-10Q2_2	8	2	Apr 20	67	4.00	90.00	0.894	FR	Heavy
W-10	W-10Q3_2	8	2	Apr 20	118	4.00	10.00	0.050		Light
W-10	W-10Q4_2	8	2	Apr 20	27	6.00	90.00	0.350	FR;SR	Heavy
W-10	W-10Q5_2	8	2	Apr 20	199	3.50	5.00	0.275	FR	Moderate
W-13	W-13A	6	1	Apr 20	275	1.00	0.50	0.500	TB	Light
W-13	W-13B	10	1	Apr 20	297	1.00	0.50	0.500	TB	Light
W-13	W-13C	1	1	Apr 20	85	0.25	0.50	0.010	SR	Very Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-13	W-13D	1-2	1	Apr 20	118	0.50	2.00	0.275	TB	Light
W-13	W-13E	10-4	1	Apr 20	55	1.00	1.50	0.187	TB;SR	Light
W-13	W-13F	1	1	Apr 20	160	0.25	0.50	0.050	SR	Very Light
W-13	W-13G	4	1	Apr 20	227	1.00	1.50	0.187	TB;SR	Light
W-13	W-13H	6	1	Apr 20	19	0.50	0.50	0.010		Very Light
W-13	W-13I	4	1	Apr 20	13	0.00	0.00	0.000	TB	No Oil
W-13	W-13J	1	1	Apr 20	651	0.25	0.50	0.010	SR	Very Light
W-13	W-13K	4	1	Apr 20	340	0.00	0.00	0.000	No	No Oil
W-13	W-13L	4	1	Apr 20	204	1.00	1.00	0.275	TB	Light
W-13	W-13M	10	1	Apr 20	59	1.00	1.00	0.275	SR	Light
W-13	W-13N	4	1	Apr 20	22	0.00	0.00	0.000	No	No Oil
W-13	W-13O	1	1	Apr 20	121	1.00	3.00	0.187	TB	Light
W-13	W-13P	1	1	Apr 20	258	0.00	0.00	0.000	No	No Oil
W-14	W-14A	1-4	1	Apr 20	269	2.00	1.50	0.020	TB;SR	Very Light
W-14	W-14B	1-4	1	Apr 20	162	1.00	6.00	0.425	TB;SR	Light
W-14	W-14C	6	1	Apr 20	52	3.00	41.00	0.415	TB;SR	Moderate
W-14	W-14D	10	1	Apr 20	242	0.50	30.00	0.200	TB	Light
W-6	W-6A1_2	1-6-10	2	Apr 20	14	1.50	100.00	0.353		Heavy
W-6	W-6B3_2	1-4-10	2	Apr 20	12	0.20	30.00	0.010		Very Light
W-20	W-20A	4	2	Apr 21	555	0.00	0.00	0.000		No Oil
W-20	W-20B	10	2	Apr 21	74	0.00	0.00	0.000		No Oil
W-20	W-20C	4	2	Apr 21	299	0.00	0.00	0.000		No Oil
W-20	W-20D	10	2	Apr 21	114	0.00	0.00	0.000		No Oil
W-20	W-20E	1	2	Apr 21	2102	0.00	0.00	0.000		No Oil
W-20	W-20F	4	2	Apr 21	311	0.00	0.00	0.000		No Oil
E-4	E-4Ec_2	10	2	Apr 22	241	1.00	16.00	0.050	SR;TB	Light
E-4	E-4Ed_2	10	2	Apr 22	229	1.00	16.00	0.050	TB	Light
E-4	E-4Ee_2	10	2	Apr 22	177	1.00	22.00	0.058	TB;SR	Light
E-4	E-4Ef_2	10	2	Apr 22	117	1.00	8.00	0.071	TB;SR	Very Light
E-4	E-4Eg_2	10	2	Apr 22	9	0.50	95.00	0.553	TB;SR	Moderate
E-4	E-4Eh_2	10	2	Apr 22	310	1.00	8.00	0.071	SR	Very Light
E-4	E-4Ei_2	10	2	Apr 22	510	1.00	1.50	0.004	SR	Very Light
E-4	E-4Ej_2	10	2	Apr 22	25	3.00	18.00	0.032	TB;SR	Light
E-4	E-4Ek_2	10	2	Apr 22	47	1.00	2.50	0.112	TB;SR	Light
E-4	E-4El_2	10	2	Apr 22	183	0.00	0.00	0.000		No Oil
W-1	W-1A	4	1	Apr 22	121	1.00	70.00	0.114	FR	Heavy
W-1	W-1AA	7	1	Apr 22	248	7.50	80.00	0.163	FR;SR	Heavy
W-1	W-1B	10	1	Apr 22	147	7.50	100.00	0.230	SR	Heavy
W-1	W-1BB	11	1	Apr 22	46	50.00	95.00	0.411	FR;SR	Heavy
W-1	W-1C	10-4	1	Apr 22	177	0.50	100.00	0.255	FR;SR	Moderate
W-1	W-1CC	10	1	Apr 22	71	5.00	65.00	0.465	FR	Heavy
W-1	W-1D	10	1	Apr 22	54	5.00	90.00	0.411	FR;SR	Heavy
W-1	W-1DD	11	1	Apr 22	131	200.00	100.00	0.510	FR;SR	Heavy
W-1	W-1E	4-10	1	Apr 22	26	1.00	40.00	0.030		Light
W-1	W-1EE	7	1	Apr 22	205	5.50	100.00	0.510	FR	Heavy
W-1	W-1F	11	1	Apr 22	102	7.50	90.00	0.411	FR;SR	Heavy
W-1	W-1FF	7	1	Apr 22	235	2.00	80.00	0.050	FR	Moderate
W-1	W-1G	10-3	1	Apr 22	56	3.00	100.00	1.100	FR	Heavy
W-1	W-1H	11	1	Apr 22	74	10.00	70.00	0.114	FR;SR	Heavy
W-1	W-1I	7	1	Apr 22	150	1.50	60.00	0.050		Moderate
W-1	W-1J	11	1	Apr 22	78	10.00	30.00	0.350	FR	Heavy
W-1	W-1K	4	1	Apr 22	73	0.50	0.50	0.050		Very Light
W-1	W-1L	10	1	Apr 22	96	3.00	20.00	0.163	FR	Moderate
W-1	W-1M	4	1	Apr 22	96	1.00	0.50	0.010		Very Light
W-1	W-1N	10	1	Apr 22	51	3.00	37.50	0.387	FR;SR	Moderate
W-1	W-1O	4	1	Apr 22	82	2.00	30.00	0.050	FR	Light
W-1	W-1P	7	1	Apr 22	67	4.00	60.00	0.101	SR	Heavy
W-1	W-1Q	7	1	Apr 22	278	1.00	15.00	0.010		Very Light
W-1	W-1R	7	1	Apr 22	134	1.00	5.00	0.010		Very Light
W-1	W-1S	7	1	Apr 22	1200	0.00	0.00	0.000		No Oil
W-1	W-1T	7	1	Apr 22	1360	0.00	0.00	0.000		No Oil
W-1	W-1U	7	1	Apr 22	803	1.50	0.50	0.050	SR	Very Light
W-1	W-1V	7	1	Apr 22	479	3.00	3.00	0.125	FR;SR	Light
W-1	W-1W	7	1	Apr 22	317	1.00	30.00	0.017		Light
W-1	W-1X	7	1	Apr 22	76	3.00	60.00	0.034		Moderate
W-1	W-1Y	7	1	Apr 22	316	6.50	80.00	0.625	FR;SR	Heavy

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-1	W-1Z	11	1	Apr 22	163	16.00	90.00	0.100	FR;TB	Moderate
W-8	W-8C01_2	10	2	Apr 23	56	1.00	7.50	0.042	TB;SR	Very Light
W-8	W-8C02_2	10	2	Apr 23	92	1.00	28.00	0.075	TB;SR	Light
W-8	W-8C03_2	10	2	Apr 23	113	3.00	11.00	0.073	TB	Light
W-8	W-8C04_2	10	2	Apr 23	199	2.00	2.50	0.112	TB;SR	Light
W-8	W-8C05_2	10	2	Apr 23	96	0.50	1.00	0.006		Very Light
W-8	W-8C06_2	5-10	2	Apr 23	69	1.00	85.00	0.233	TB;SR	Heavy
W-8	W-8C07_2	10	2	Apr 23	346	7.50	100.00	0.041	TB;SR	Moderate
W-8	W-8C08_2	4-10	2	Apr 23	49	3.00	86.50	C 119		Heavy
W-8	W-8C09_2	10	2	Apr 23	71	0.50	48.00	0.136		Light
W-8	W-8C10_2	4	2	Apr 23	53	1.00	3.50	0.089	TB;SR	Very Light
W-8	W-8C11_2	10	2	Apr 23	26	1.00	1.50	0.200	TB;SR	Light
W-8	W-8C13_2	11	2	Apr 23	103	1.00	20.00	0.153	TB;SR	Moderate
W-8	W-8C14_2	4-11	2	Apr 23	178	0.50	15.00	0.187	TB;SR	Light
W-8	W-8C16_2	1-6-4	2	Apr 23	73	1.25	7.00	0.179		Light
W-8	W-8C17_2	4-10	2	Apr 23	55	1.00	1.00	0.030	SR	Very Light
W-8	W-8D01_2	10	2	Apr 23	116	2.00	1.50	0.187	TB;SR	Light
W-8	W-8D02_2	11	2	Apr 23	131	0.50	11.00	0.034	TB	Very Light
W-8	W-8D03_2	10	2	Apr 23	75	0.50	1.50	0.187		Light
W-8	W-8D04_2	10	2	Apr 23	102	2.00	7.00	0.167	TB;SR	Light
W-8	W-8D05_2	10	2	Apr 23	217	0.75	6.00	0.255		Light
W-8	W-8D06_2	5-10	2	Apr 23	45	0.50	0.50	0.010		Very Light
W-8	W-8D07_2	10	2	Apr 23	131	1.50	1.50	0.187	TB;SR	Light
W-8	W-8D08_2	10	2	Apr 23	95	1.50	35.00	0.224	TB;SR	Moderate
W-8	W-8D09_2	5-10	2	Apr 23	162	0.50	2.00	0.265	TB;SR	Light
W-8	W-8D11_2	10	2	Apr 23	297	0.75	1.00	0.030		Very Light
W-8	W-8D12_2	10	2	Apr 23	85	1.00	25.00	0.140	TB;SR	Moderate
W-8	W-8D13_2	10	2	Apr 23	136	0.50	0.50	0.010	SR	Very Light
W-8	W-8E01_2	10	2	Apr 23	304	0.50	11.00	0.091	TB;SR	Very Light
W-8	W-8E03_2	10	2	Apr 23	43	1.00	19.50	0.179	TB;SR	Moderate
W-11	W-11G_2	7	2	Apr 24	106	1.00	0.50	0.050		Very Light
W-11	W-11H_2	7	2	Apr 24	562	0.50	0.50	0.500	TB	Light
W-11	W-11I_2	4-10	2	Apr 24	34	0.75	10.00	0.275	TB	Light
W-11	W-11J_2	4-10	2	Apr 24	30	2.00	22.00	0.091	SR	Light
W-11	W-11L_2	7	2	Apr 24	130	0.50	0.05	0.050		Very Light
W-11	W-11M_2	7-10	2	Apr 24	112	0.00	0.00	0.000		No Oil
W-11	W-11N_2	10-4	2	Apr 24	44	1.00	3.00	0.200	TB	Light
W-11	W-11O_2	10	2	Apr 24	312	1.00	0.10	0.050	TB	Very Light
W-11	W-11Q_2	10-4-5	2	Apr 24	76	1.00	0.05	0.500	TB	Light
W-11	W-11R_2	1-6	2	Apr 24	146	1.00	0.05	0.050		Very Light
W-11	W-11T_2	6-1	2	Apr 24	206	1.00	1.00	0.275	TB	Light
W-11	W-11U_2	4	2	Apr 24	75	0.00	0.00	0.000		No Oil
W-11	W-11V_2	5-10	2	Apr 24	119	1.25	2.00	0.140	TB;SR	Light
W-11	W-11W_2	1	2	Apr 24	106	0.00	0.00	0.000	No	No Oil
W-11	W-11X_2	4	2	Apr 24	52	0.00	0.00	0.000	No	No Oil
W-11	W-11Y_2	2	2	Apr 24	54	0.00	0.00	0.000	No	No Oil
W-12	W-12A	6	1	Apr 24	70	0.50	1.00	0.275	TB;SR	Light
W-12	W-12B	10	1	Apr 24	95	1.00	1.00	0.030	SR	Very Light
W-12	W-12C	1-6	1	Apr 24	305	0.50	1.50	0.187	TB;SR	Light
W-12	W-12D	4	1	Apr 24	203	0.00	0.00	0.000		No Oil
W-12	W-12E	10	1	Apr 24	110	2.00	1.50	0.187	TB;SR	Light
W-12	W-12F	2	1	Apr 24	109	0.25	0.00	0.000		No Oil
W-12	W-12G	1-6	1	Apr 24	253	0.50	1.00	0.275	TB;SR	Light
W-13	W-13Q	6	2	Apr 24	90	1.00	1.50	0.187	TB;SR	Light
W-13	W-13R	4	1	Apr 24	97	0.00	0.00	0.000		No Oil
W-13	W-13S	6	1	Apr 24	87	1.00	1.50	0.187	TB;SR	Light
W-13	W-13T	1	1	Apr 24	68	0.25	1.50	0.187	TB	Light
W-13	W-13U	6	1	Apr 24	75	0.50	1.00	0.275	TB	Light
W-13	W-13V	4	1	Apr 24	142	0.00	0.00	0.000		No Oil
W-13	W-13W	10	1	Apr 24	156	1.00	1.00	0.030	SR	Very Light
W-13	W-13X	4	1	Apr 24	506	0.50	2.00	0.275	TB;SR	Light
W-13	W-13Y	10	1	Apr 24	204	1.00	1.00	0.275	TB;SR	Light
W-7	W-7B_2	1	2	Apr 24	46	3.00	0.50	0.010	SR	Very Light
W-7	W-7C_2	1	2	Apr 24	21	3.00	10.00	0.010		Very Light
W-7	W-7D_2	10	2	Apr 24	698	5.00	6.00	0.168	TB	Moderate
W-7	W-7E_2	6	2	Apr 24	16	1.00	20.00	0.050	TB	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-7	W-7F_2	10	2	Apr 24	43	1.00	1.00	0.050	TB	Very Light
W-7	W-7G_2	10	2	Apr 24	211	4.00	43.00	1.399		Heavy
W-7	W-7H_2	7	2	Apr 24	148	5.00	50.50	0.510		Heavy
W-7	W-7I_2	7	2	Apr 24	990	0.50	5.50	0.014	TB	Very Light
W-7	W-7J_2	10	2	Apr 24	289	5.00	3.00	0.017	TB;MS	Light
W-7	W-7N_2	6	2	Apr 24	28	2.00	2.00	0.755		Light

APPENDIX D

SCAT_DOQQ.XLS/MAXOILCAT

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
E-2	E-2d_v	4	3	Apr 10	204	1.00	80.00	0.5	FR	Heavy
E-2	E-2e1_v	4	3	Apr 10	186	1.00	80.00	0.5	FR	Heavy
E-2	E-2e2_v	4	3	Apr 10	70	2.00	95.00	0.5	FR	Heavy
E-2	E-2e3_v	4-10	3	Apr 10	391	3.50	95.00	1.1	FR	Heavy
E-2	E-2n_v	10-7	3	Apr 10	66	3.00	85.00	0.5	FR	Heavy
E-2	E-2o_v	4	3	Apr 10	37	3.00	95.00	0.5	FR	Heavy
E-2	E-2p_v	4-10	3	Apr 10	33	1.00	50.00	0.05	FR	Light
E-2	E-2q_v	4	3	Apr 10	131	1.00	50.00	0.05	FR	Light
E-2	E-2r_v	10-4-7	3	Apr 10	236	3.00	80.00	0.5	FR	Heavy
E-2	E-2s_v	10-7	3	Apr 10	30	6.00	90.00	0.5	FR	Heavy
E-2	E-2t_v	10-7	3	Apr 10	183	3.00	90.00	0.5	FR	Heavy
E-2	E-2u_v	4-10-7	3	Apr 10	38	3.00	90.00	0.5	FR	Heavy
E-2	E-2v_v	4-10	3	Apr 10	23	4.00	90.00	0.5	FR	Heavy
E-2	E-2w_v	4-10-7	3	Apr 10	18	2.00	90.00	0.5	FR	Heavy
E-2	E-2x_v	10-7	3	Apr 10	26	1.00	50.00	0.5	FR	Moderate
E-2	E-2y_v	10-7	3	Apr 10	38	1.00	10.00	0.5	FR	Light
E-3	E-3a_v	4	3	Apr 10	52	1.00	50.00	0.5	FR	Moderate
E-3	E-3b1_v	10-7	3	Apr 10	88	1.00	90.00	0.5	FR	Heavy
E-3	E-3b2_v	10-7	3	Apr 10	35	2.00	100.00	1.1	FR	Heavy
E-3	E-3c_v	1	3	Apr 10	254	1.00	80.00	1.1	FR	Heavy
E-3	E-3d1_v	1	3	Apr 10	22	1.00	90.00	1.1	FR	Heavy
E-3	E-3d2_v	6	3	Apr 10	62	1.50	100.00	1.1	FR	Heavy
E-3	E-3e1_v	6	3	Apr 10	81	1.50	90.00	1.1	FR	Heavy
E-3	E-3e2_v	4	3	Apr 10	126	2.00	100.00	1.1	FR	Heavy
E-3	E-3e3_v	4-6	3	Apr 10	67	2.00	100.00	1.1	FR	Heavy
E-3	E-3e4_v	6	3	Apr 10	51	1.50	100.00	1.1	FR	Heavy
E-3	E-3f_v	4	3	Apr 10	268	3.00	100.00	1.1	FR	Heavy
E-3	E-3g_v	4	3	Apr 10	182	3.00	80.00	1.1	FR	Heavy
E-3	E-3h_v	4	3	Apr 10	29	3.00	100.00	1.1	FR	Heavy
E-3	E-3i_v	4	3	Apr 10	77	3.00	100.00	1.1	FR	Heavy
E-3	E-3j_v	4	3	Apr 10	144	3.00	100.00	1.1	FR	Heavy
E-4	E-4a_v	4	3	Apr 10	247	4.00	100.00	1.1	FR	Heavy
E-4	E-4b_v	4	3	Apr 10	204	4.00	90.00	1.1	FR	Heavy
E-4	E-4c_v	4	3	Apr 10	476	3.00	100.00	1.1	FR	Heavy
E-4	E-4d_v	4	3	Apr 10	68	3.50	75.00	0.5	FR	Heavy
E-5	E-5d1_v	4	3	Apr 10	149	3.00	51.00	0.5	FR	Heavy
E-5	E-5d2_v	4-10	3	Apr 10	138	1.00	50.00	0.5	FR	Moderate
E-5	E-5d3_v	4-6	3	Apr 10	64	1.50	51.00	0.5	FR	Heavy
E-5	E-5d4_v	6-1	3	Apr 10	29	1.00	50.00	0.5	FR	Moderate
E-5	E-5d5_v	1	3	Apr 10	307	0.50	50.00	0.05	FR	Light
E-5	E-5d6_v	4	3	Apr 10	472	1.50	51.00	0.5	FR	Heavy
E-5	E-5e_v	4	3	Apr 10	135	4.00	51.00	0.5	FR	Heavy
E-5	E-5f_v	1-4	3	Apr 10	309	1.00	51.00	0.5	FR	Heavy
W-1	W-1GG_v	7	3	Apr 12	492	2.00	80.00	0.05	FR	Moderate
W-3	W-3AA_v	4-10	3	Apr 12	407	2.00	35.00	0.05	FR	Light
W-3	W-3BB_v	10	3	Apr 12	22	1.00	35.00	0.05	FR	Light
W-3	W-3CC_v	4-10	3	Apr 12	80	1.00	35.00	0.05	FR	Light
W-3	W-3DD_v	10	3	Apr 12	32	1.00	35.00	0.05	FR	Light
W-3	W-3EE_v	4-10	3	Apr 12	201	3.00	35.00	0.05	FR	Light
W-3	W-3FF_v	4-10	3	Apr 12	77	3.00	65.00	0.5	FR	Heavy
W-3	W-3GG_v	10	3	Apr 12	76	3.00	65.00	0.5	FR	Heavy
W-3	W-3HH_v	4-10	3	Apr 12	295	4.00	35.00	0.05	FR	Moderate
E-7	E-7c_v	1	3	Apr 13	30	0.00	0.00	0	NO	No Oil
E-7	E-7d_v	4-10	3	Apr 13	69	0.00	0.00	0	NO	No Oil
E-7	E-7e_v	6	3	Apr 13	134	0.00	0.00	0	NO	No Oil
E-7	E-7f_v	1	3	Apr 13	179	0.00	0.00	0	NO	No Oil
E-7	E-7g_v	4	3	Apr 13	46	0.00	0.00	0	NO	No Oil
E-7	E-7h_v	4-10	3	Apr 13	274	0.00	0.00	0	NO	No Oil
E-7	E-7i_v	10	3	Apr 13	197	0.00	0.00	0	NO	No Oil
E-8	E-8C_v	10-7	3	Apr 13	20	0.00	0.00	0	NO	No Oil
E-8	E-8D_v	10-7	3	Apr 13	2	1.00	80.00	0.5	FR	Heavy
E-8	E-8E_v	10-7	3	Apr 13	161	0.00	0.00	0	NO	No Oil
W-14	W-14E-v	10-4	3	Apr 13	58	1.00	10.00	0.5	FR	Light
W-14	W-14F-v	4	3	Apr 13	194	1.00	15.00	0.05	SR	Light
W-14	W-14G-v	4	3	Apr 13	201	3.00	20.00	0.05	SR	Light
W-14	W-14H-v	10-4	3	Apr 13	23	2.00	20.00	0.05	SR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-14	W-14I-v	4	3	Apr 13	221	3.00	25.00	0.05	SR	Light
W-5	W-5L	10	1	Apr 13	234	6.00	55.00	0.26363	FR	Heavy
W-5	W-5M	10-3	1	Apr 13	69	4.00	45.50	0.11538	FR	Heavy
W-5	W-5N	3-1	1	Apr 13	36	3.00	40.00	0.05	FR	Light
W-5	W-5O	6-3	1	Apr 13	111	2.50	30.00	0.2	FR	Moderate
W-5	W-5P	1	1	Apr 13	70	0.50	70.00	0.05	FR	Light
W-5	W-5Q	3-10	1	Apr 13	49	3.00	50.00	0.05	FR	Light
W-5	W-5R	3-10	1	Apr 13	49	2.50	30.00	0.05	FR	Light
W-5	W-5S	3-10	1	Apr 13	84	3.00	50.00	0.05	FR	Light
W-5	W-5T	3-6	1	Apr 13	148	3.00	40.00	0.05	FR	Light
W-10	W-10A_1	6	1	Apr 14	324	1.00	35.00	0.5	FR	Moderate
W-10	W-10B_1	7	1	Apr 14	251	1.00	5.00	0.5	FR	Light
W-10	W-10C_1	6	1	Apr 14	43	1.00	5.00	0.5	FR	Light
W-10	W-10G_1	7	1	Apr 14	118	1.00	35.00	0.5	FR	Moderate
W-10	W-10I_1	10-4	1	Apr 14	12	2.00	35.00	0.5	FR	Moderate
W-10	W-10J_1	7	1	Apr 14	174	1.00	5.00	0.5	FR	Light
W-10	W-10L_1	7	1	Apr 14	243	1.00	5.00	0.5	FR	Light
W-10	W-10N_1	7	1	Apr 14	57	1.00	5.00	0.5	FR	Light
W-10	W-10O_1	7	1	Apr 14	414	1.00	5.00	0.5	FR	Light
W-4	W-4a_1	4-10	1	Apr 14	225	1.00	0.00	0		No Oil
W-4	W-4b_1	4-10	1	Apr 14	98	1.00	5.00	0.05	SR	Very Light
W-4	W-4Ca_1	4-10	1	Apr 14	754	1.00	0.00	0		No Oil
W-4	W-4Cb_1	4-10	1	Apr 14	327	1.00	0.00	0		No Oil
W-4	W-4e_1	4-10	1	Apr 14	1630	1.00	0.00	0		No Oil
W-4	W-4f_1	4-10	1	Apr 14	2798	1.00	0.00	0		No Oil
W-4	W-4g_1	4-10	1	Apr 14	79	1.00	5.00	0.05	SR	Very Light
W-5	W-5a	10	1	Apr 14	230	1.50	5.00	0.01	FR	Very Light
W-5	W-5aa	10	1	Apr 14	55	2.50	95.00	1.5	FR	Heavy
W-5	W-5b	10	1	Apr 14	578	1.50	65.00	0.5	FR	Heavy
W-5	W-5bb	10	1	Apr 14	100	3.50	35.00	1.5	FR	Heavy
W-5	W-5c	10	1	Apr 14	95	1.50	95.00	0.5	FR	Heavy
W-5	W-5cc	10	1	Apr 14	73	3.00	95.00	1.5	FR	Heavy
W-5	W-5d	10	1	Apr 14	294	1.50	35.00	0.5	FR	Moderate
W-5	W-5dd	10	1	Apr 14	421	1.00	95.00	1.5	FR	Heavy
W-5	W-5e	10	1	Apr 14	145	1.50	95.00	1.5	SR	Heavy
W-5	W-5ee	10	1	Apr 14	112	3.00	5.00	0.01	SR	Very Light
W-5	W-5f	10	1	Apr 14	684	1.50	5.00	0.5	FR	Light
W-5	W-5g	10	1	Apr 14	699	1.50	35.00	0.5	FR	Moderate
W-5	W-5h	10	1	Apr 14	403	1.50	5.00	0.5	FR	Light
W-5	W-5i	10	1	Apr 14	436	1.50	65.00	1.5	FR	Heavy
W-5	W-5j	10	1	Apr 14	634	1.50	65.00	0.5	FR	Heavy
W-5	W-5k	10	1	Apr 14	420	1.50	95.00	1.5	FR	Heavy
W-7	W-7a_1	6-1	1	Apr 14	46	1.50	65.00	0.5	SR	Heavy
W-7	W-7b_1	6-1	1	Apr 14	49	1.50	35.00	0.05	SR	Light
W-7	W-7c_1	6-1-10	1	Apr 14	16	1.50	5.00	0.05	SR	Very Light
W-7	W-7h_1	10-7	1	Apr 14	137	1.50	95.00	1.5	FR	Heavy
W-7	W-7j_1	10-4-7	1	Apr 14	849	1.50	35.00	0.05	FR	Light
W-7	W-7k_1	6	1	Apr 14	45	1.50	5.00	0.05	SR	Very Light
W-7	W-7l_1	2-10	2	Apr 14	623	3.50	80.00	0.6437	AP;FR	Heavy
W-7	W-7m_1	4	1	Apr 14	285	1.50	5.00	0.05	SR	Very Light
W-7	W-7n_1	4-7-10	1	Apr 14	29	1.50	65.00	0.05	SR	Moderate
W-7	W-7o_1	4	1	Apr 14	146	1.50	5.00	0.5	SR	Light
W-7	W-7p_1	7-10	1	Apr 14	652	1.50	65.00	0.05	SR	Moderate
W-7	W-7q_1	4	1	Apr 14	130	1.50	5.00	0.05	SR	Very Light
W-8	W-8Fa_1	10	1	Apr 14	91	0.25	35.00	0.05	SR	Very Light
W-8	W-8Fd_1	10	1	Apr 14	61	1.50	35.00	1.5	SR/AP	Moderate
W-8	W-8Ff_1a	10	1	Apr 14	54	1.50	35.00	0.05	SR/AP	Light
W-8	W-8Ff_1b	10	1	Apr 14	85	1.50	35.00	0.05	SR/AP	Light
W-8	W-8Ga_1	4-10	1	Apr 14	61	1.50	35.00	0.5	SR/AP	Moderate
W-8	W-8Gb_1	4-10	1	Apr 14	26	0.25	35.00	0.5	SR/AP	Light
W-8	W-8Gc_1	4-10	1	Apr 14	59	1.50	35.00	0.5	SR/AP	Moderate
W-8	W-8Gd_1	4-10	1	Apr 14	19	1.50	65.00	1.5	SR/AP	Heavy
W-8	W-8Ge_1	4-10	1	Apr 14	23	1.50	35.00	0.5	SR	Moderate
W-8	W-8Gf_1	4-10	1	Apr 14	46	0.25	0.50	0.01		Very Light
W-8	W-8Gg_1	4-10	1	Apr 14	92	1.50	35.00	1.5	SR/AP	Moderate
W-8	W-8Gh_1	4-10	1	Apr 14	18	1.50	65.00	1.5	SR/AP	Heavy

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-8	W-8Gi_1	4-10	1	Apr 14	277	1.50	65.00	1.5	SR/AP	Heavy
W-8	W-8Gj_1	4-10	1	Apr 14	247	1.50	35.00	1.5	SR/AP	Moderate
W-8	W-8Gk_1	4-10	1	Apr 14	25	0.25	35.00	0.5	SR	Light
W-8	W-8H_1	10	1	Apr 14	184	1.50	35.00	0.5	SR/AP	Moderate
W-9	W-9A_1	4-10	1	Apr 14	84	3.50	35.00	0.5	SR	Heavy
W-9	W-9D_1	4-10	1	Apr 14	91	1.50	5.00	0.5	FR	Light
W-9	W-9E_1a	4-10	1	Apr 14	853	1.00	35.00	0.5	FR	Moderate
W-9	W-9E_1b	4-10	1	Apr 14	50	1.00	35.00	0.5	FR	Moderate
W-9	W-9E_1c	4-10	1	Apr 14	104	1.00	35.00	0.5	FR	Moderate
W-9	W-9E_1d	4-10	1	Apr 14	581	1.00	35.00	0.5	FR	Moderate
W-9	W-9F_1	6	1	Apr 14	341	1.00	35.00	0.5	FR	Moderate
W-9	W-9G_1	6	1	Apr 14	106	1.00	35.00	0.5	FR	Moderate
E-10	E-10A	9-10	1	Apr 15	309	0.00	0.00	0		No Oil
E-10	E-10B	1-6	1	Apr 15	397	0.00	0.00	0		No Oil
E-10	E-10C	1	1	Apr 15	484	0.00	0.00	0		No Oil
E-10	E-10D	3	1	Apr 15	757	0.00	0.00	0		No Oil
E-10	E-10E	9-10	1	Apr 15	225	0.00	0.00	0		No Oil
E-10	E-10F	3	1	Apr 15	114	0.00	0.00	0		No Oil
E-10	E-10G	1	1	Apr 15	843	0.00	0.00	0		No Oil
E-10	E-10I	9-10	1	Apr 15	485	0.00	0.00	0		No Oil
E-11	E-11A	7-10	1	Apr 15	170	0.00	0.00	0		No Oil
E-11	E-11B	3	1	Apr 15	70	0.00	0.00	0		No Oil
E-11	E-11C	7-10	1	Apr 15	175	0.00	0.00	0		No Oil
E-11	E-11D	3	1	Apr 15	299	0.00	0.00	0		No Oil
E-11	E-11F	3	1	Apr 15	123	0.00	0.00	0		No Oil
E-11	E-11G	7-10	1	Apr 15	1699	0.00	0.00	0		No Oil
E-11	E-11H	1	1	Apr 15	346	0.00	0.00	0		No Oil
E-11	E-11I	3	1	Apr 15	55	0.00	0.00	0		No Oil
E-11	E-11J	1	1	Apr 15	129	0.00	0.00	0		No Oil
E-11	E-11L	1	1	Apr 15	140	0.00	0.00	0		No Oil
E-11	E-11M	3-4	1	Apr 15	559	0.00	0.00	0		No Oil
E-11	E-11N	6	1	Apr 15	143	0.00	0.00	0		No Oil
E-11	E-11O	7-10	1	Apr 15	216	0.00	0.00	0		No Oil
E-11	E-11P	2	1	Apr 15	149	0.00	0.00	0		No Oil
E-11	E-11Q	7-10	1	Apr 15	359	0.00	0.00	0		No Oil
E-2	E-2c_1	4-10	1	Apr 15	128	2.00	0.50	0.5	FR	Light
E-2	E-2d_1	4-10	1	Apr 15	203	3.00	5.00	0.5	FR	Light
E-2	E-2e_1	4-10	1	Apr 15	649	3.00	35.00	0.5	FR	Moderate
E-5	E-5aa	6	1	Apr 15	3226	0.00	0.00	0		No Oil
E-5	E-5ab	6	1	Apr 15	129	0.00	0.00	0		No Oil
E-5	E-5b	6	1	Apr 15	901	0.00	0.00	0		No Oil
E-5	E-5c	10	1	Apr 15	410	0.00	0.00	0		No Oil
E-5	E-5d_1	10	1	Apr 15	345	1.00	10.00	0.001	SR	Very Light
E-5	E-5d_2	10	1	Apr 15	706	1.00	10.00	0.001	SR	Very Light
E-6	E-6a	4	1	Apr 15	2593	0.00	0.00	0		No Oil
E-7	E-7a	4	1	Apr 15	2428	0.00	0.00	0		No Oil
E-7	E-7b	11	1	Apr 15	3397	0.00	0.00	0		No Oil
E-8	E-8A	11	1	Apr 15	432	1.50	8.00	2	TB	Light
E-8	E-8Ba		1	Apr 15	5803	0.00	0.00	0		No Oil
E-8	E-8Bb		1	Apr 15	894	0.00	0.00	0		No Oil
E-9	E-9A	2	1	Apr 15	70	0.00	0.00	0		No Oil
E-9	E-9B	6	1	Apr 15	196	0.00	0.00	0		No Oil
E-9	E-9D	9-10	1	Apr 15	241	0.00	0.00	0		No Oil
E-9	E-9E	1	1	Apr 15	503	0.00	0.00	0		No Oil
E-9	E-9F	2	1	Apr 15	559	0.00	0.00	0		No Oil
W-11	W-11a_1	11-7	1	Apr 15	273	3.00	40.00	0.05	FR	Light
W-11	W-11b_1	11-7	1	Apr 15	120	1.00	5.00	0.01	FR	Very Light
W-11	W-11C_1	11-7	1	Apr 15	964	0.00	0.00	0		No Oil
W-11	W-11Ea_1	11-10-4	1	Apr 15	166	1.00	10.00	0.05		Very Light
W-11	W-11Eb_1	11-10-4	1	Apr 15	289	1.00	10.00	0.05		Very Light
W-11	W-11Ec_1	11-10-4	1	Apr 15	141	1.00	10.00	0.05		Very Light
W-6	W-6a_1	1-6-10	1	Apr 15	382	2.00	40.00	0.5	FR	Moderate
W-6	W-6b_1	4-10	1	Apr 15	550	2.50	30.00	0.01	FR	Very Light
W-6	W-6c_1	1-4	1	Apr 15	1048	2.50	75.00	1.5	FR	Heavy
W-8	W-8Aa_1	11	1	Apr 15	224	1.50	60.00	0.5	FR	Heavy
W-8	W-8Ab_1	10	1	Apr 15	347	1.50	40.00	0.05	FR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-8	W-8Ac_1	2	1	Apr 15	194	1.50	15.00	0.05	FR	Light
W-8	W-8Ba_1	2	1	Apr 15	229	0.25	0.50	0.01	FR	Very Light
W-8	W-8Bb_1	11	1	Apr 15	367	1.50	60.00	0.5	FR	Heavy
W-8	W-8Ca_1	10	1	Apr 15	406	0.25	5.00	0.01	FR	Very Light
W-8	W-8Cb_1	10	1	Apr 15	457	0.25	5.00	0.01	FR	Very Light
W-8	W-8Dc_1	10	1	Apr 15	85	1.50	35.00	0.05	FR	Light
W-8	W-8De_1	10	1	Apr 15	266	1.50	30.00	0.05	FR	Light
W-8	W-8Ed_1	11	1	Apr 15	288	1.50	45.00	0.5	FR	Moderate
W-8	W-8Fg_1	1	1	Apr 15	51	1.50	15.00	0.01	FR; AP	Very Light
W-8	W-8Fh_1	1	1	Apr 15	169	1.50	40.00	1	FR; AP	Moderate
E-12	E-12a	10	0	Apr 16	428	0.00	0.00	0		No Oil
E-12	E-12b	4	0	Apr 16	746	0.00	0.00	0		No Oil
E-12	E-12c	6	0	Apr 16	2326	0.00	0.00	0		No Oil
E-12	E-12d	10	0	Apr 16	241	0.00	0.00	0		No Oil
E-12	E-12e	6	0	Apr 16	280	0.00	0.00	0		No Oil
E-12	E-12f	4	0	Apr 16	96	0.00	0.00	0		No Oil
E-12	E-12g	6	0	Apr 16	80	0.00	0.00	0		No Oil
E-12	E-12h	10	0	Apr 16	90	0.00	0.00	0		No Oil
E-12	E-12i	10-6	0	Apr 16	111	0.00	0.00	0		No Oil
E-12	E-12j	4-7	0	Apr 16	466	0.00	0.00	0		No Oil
E-12	E-12k	4-10	0	Apr 16	798	0.00	0.00	0		No Oil
E-2	E-2f_1	4	1	Apr 16	342	8.00	2.00	0.5	TB	Moderate
E-2	E-2h_1	4	1	Apr 16	218	6.00	2.00	0.5	TB	Moderate
E-2	E-2i_1	4	1	Apr 16	263	0.50	5.00	0.5	TB	Light
E-2	E-2k_1	1	1	Apr 16	35	1.00	7.00	0.5	TB	Light
W-15	W-15a	2	1	Apr 16	70	1.00	10.00	0.5	TB	Light
W-15	W-15b	2	1	Apr 16	293	3.00	15.00	0.5	AP	Moderate
W-15	W-15c	2	1	Apr 16	258	2.00	0.50	0.05	TB	Very Light
W-15	W-15d	2	1	Apr 16	77	2.00	15.00	0.5	TB	Moderate
W-15	W-15e	2	1	Apr 16	240	2.00	0.50	0.05	TB	Very Light
W-15	W-15g	6	1	Apr 16	116	2.00	0.05	0.05	TB	Very Light
W-15	W-15h	6	1	Apr 16	43	2.00	50.00	0.5	FR	Moderate
W-15	W-15i	6	1	Apr 16	223	1.00	10.00	0.5	TB	Light
W-15	W-15j	6	1	Apr 16	315	1.00	0.50	0.05	TB	Very Light
W-15	W-15k	6	1	Apr 16	32	1.50	10.00	0.5	TB	Light
W-15	W-15l	6	1	Apr 16	273	1.00	0.50	0.05	TB	Very Light
W-15	W-15m	2	1	Apr 16	71	1.00	0.50	0.05	TB	Very Light
W-15	W-15n	2	1	Apr 16	314	1.00	15.00	0.5	TB	Moderate
W-15	W-15o	2	1	Apr 16	51	2.00	90.00	1.5	FR	Heavy
W-15	W-15p	2	1	Apr 16	61	2.00	0.50	0.5	TB	Light
W-15	W-15q	6	1	Apr 16	70	1.00	0.50	0.05	TB	Very Light
W-15	W-15r	2	1	Apr 16	71	1.00	0.50	0.05	TB	Very Light
W-15	W-15s	6	1	Apr 16	54	1.00	0.50	0.05	TB	Very Light
W-15	W-15t_v	6	3	Apr 16	33	0.00	0.00	0	NO	No Oil
W-15	W-15u_v	2	3	Apr 16	174	0.00	0.00	0	NO	No Oil
W-15	W-15v_v	2-6	3	Apr 16	176	0.00	0.00	0	NO	No Oil
W-2	W-2a1	4	1	Apr 16	56	1.00	5.00	0.5	TB	Light
W-2	W-2a2	10	1	Apr 16	47	1.50	20.00	0.05	FR	Light
W-2	W-2b	4	1	Apr 16	167	2.50	65.00	0.05	FR	Moderate
W-2	W-2bb	10-6	1	Apr 16	83	0.50	35.00	0.05	FR	Very Light
W-2	W-2c	4-6-10	1	Apr 16	126	2.00	35.00	0.5	FR	Moderate
W-2	W-2cc	10	1	Apr 16	141	0.50	35.00	0.05	FR	Very Light
W-2	W-2d	4-10	1	Apr 16	107	3.00	35.00	0.05	FR	Light
W-2	W-2dd	4	1	Apr 16	54	1.00	0.50	0.01	FR	Very Light
W-2	W-2e	1-6	1	Apr 16	28	0.50	5.00	0.05	TB	Very Light
W-2	W-2f	10	1	Apr 16	90	0.50	65.00	0.5	FR	Moderate
W-2	W-2g	4-10	1	Apr 16	100	4.00	5.00	0.05	FR	Light
W-2	W-2h	10	1	Apr 16	108	0.50	35.00	0.05	FR	Very Light
W-2	W-2i	4-10	1	Apr 16	106	2.00	35.00	0.05	FR	Light
W-2	W-2j	10	1	Apr 16	66	1.00	65.00	0.05	TB	Moderate
W-2	W-2k	4	1	Apr 16	17	1.00	65.00	0.05	TB	Moderate
W-2	W-2l	6	1	Apr 16	64	0.50	5.00	0.5	TB	Light
W-2	W-2m	6	1	Apr 16	91	0.50	5.00	0.5	TB	Light
W-2	W-2n	4-10	1	Apr 16	191	1.00	5.00	0.5	TB	Light
W-2	W-2o	10	1	Apr 16	79	0.50	5.00	0.001	TB	Very Light
W-2	W-2p	10	1	Apr 16	95	0.50	0.50	0.001	TB	Very Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-2	W-2q	10	1	Apr 16	135	0.50	65.00	0.001	TB	Very Light
W-2	W-2r	10	1	Apr 16	470	1.00	95.00	0.5	FR	Heavy
W-2	W-2s	10	1	Apr 16	179	1.00	65.00	0.5	FR	Heavy
W-2	W-2t	8-11	1	Apr 16	240	1.50	95.00	0.5	FR	Heavy
W-2	W-2u	11	1	Apr 16	229	2.50	35.00	0.5	FR	Moderate
W-2	W-2v	11	1	Apr 16	234	3.50	95.00	0.5	FR	Heavy
E-13	E-13a	6	1	Apr 17	162	1.00	0.00	0		No Oil
E-13	E-13b	4	1	Apr 17	109	1.00	0.00	0		No Oil
E-13	E-13c	6-1	1	Apr 17	596	1.00	0.00	0		No Oil
E-13	E-13d	4-6-9	1	Apr 17	202	1.00	0.00	0		No Oil
E-13	E-13e	4-6-10	1	Apr 17	1844	1.00	0.00	0		No Oil
E-13	E-13g	6	1	Apr 17	450	1.00	0.00	0		No Oil
E-13	E-13h	4-10	1	Apr 17	786	1.00	0.00	0		No Oil
E-13	E-13i	6	1	Apr 17	90	1.00	0.00	0		No Oil
E-13	E-13j	4-7	1	Apr 17	591	1.00	0.00	0		No Oil
E-14	E-14a	4	1	Apr 17	368	1.00	0.00	0		No Oil
E-14	E-14b	1	1	Apr 17	415	1.00	0.00	0		No Oil
E-14	E-14c	4	1	Apr 17	287	1.00	0.00	0		No Oil
E-14	E-14d	1-10	1	Apr 17	254	1.00	0.00	0		No Oil
E-14	E-14e	10-7	1	Apr 17	825	1.00	0.00	0		No Oil
E-14	E-14f	6	1	Apr 17	94	1.00	0.00	0		No Oil
E-14	E-14g	10-7-4	1	Apr 17	580	1.00	0.00	0		No Oil
E-14	E-14h	6	1	Apr 17	442	1.00	0.00	0		No Oil
E-14	E-14i	10-1	1	Apr 17	413	1.00	0.00	0		No Oil
E-14	E-14j	1-10-8	1	Apr 17	135	1.00	0.00	0		No Oil
E-14	E-14ka	10-1	1	Apr 17	1344	1.00	0.00	0		No Oil
E-14	E-14kb	10-1	1	Apr 17	1071	1.00	0.00	0		No Oil
E-14	E-14l	1-6	1	Apr 17	171	1.00	0.00	0		No Oil
E-14	E-14m	4-10	1	Apr 17	840	1.00	0.00	0		No Oil
E-14	E-14n	1-6-4	1	Apr 17	3002	1.00	0.00	0		No Oil
E-14	E-14o	6-1	1	Apr 17	820	1.00	0.00	0		No Oil
E-14	E-14p	10-7-6-1	1	Apr 17	1595	1.00	0.00	0		No Oil
E-15	E-15a	4	1	Apr 17	522	1.00	0.00	0		No Oil
E-15	E-15b	4	1	Apr 17	2806	1.00	0.00	0		No Oil
W-19	W-19a	4	1	Apr 17	248	1.00	0.00	0		No Oil
W-19	W-19b	4-10-1-6	1	Apr 17	673	1.00	0.00	0		No Oil
W-19	W-19c	4	1	Apr 17	36	1.00	0.00	0		No Oil
W-19	W-19d	1	1	Apr 17	26	1.00	0.00	0		No Oil
W-19	W-19e	4	1	Apr 17	30	1.00	0.00	0		No Oil
W-19	W-19f		1	Apr 17	1143	0.00	0.00	0		No Oil
W-19	W-19g		1	Apr 17	1308	0.00	0.00	0		No Oil
W-19	W-19h		1	Apr 17	259	0.00	0.00	0		No Oil
W-19	W-19i		1	Apr 17	989	0.00	0.00	0		No Oil
W-19	W-19j		1	Apr 17	172	0.00	0.00	0		No Oil
W-19	W-19k		1	Apr 17	171	0.00	0.00	0		No Oil
W-3	W-3a	10-4	1	Apr 17	94	2.50	10.00	0.5	TB	Light
W-3	W-3b	10-4	1	Apr 17	64	3.00	25.00	0.14	TB	Moderate
W-3	W-3c	10-4	1	Apr 17	59	4.00	60.00	0.2	TB	Heavy
W-3	W-3d	4	1	Apr 17	43	0.50	4.00	0.3875	TB	Light
W-3	W-3e	10-4	1	Apr 17	18	5.00	50.00	0.32	SR	Heavy
W-3	W-3f	4	1	Apr 17	45	0.50	25.00	0.14	TB	Light
W-3	W-3g	10-4	1	Apr 17	15	4.00	32.00	0.28125	SR;FR	Heavy
W-3	W-3h	4	1	Apr 17	45	0.50	2.00	0.05	SR	Very Light
W-3	W-3i	4	1	Apr 17	53	0.50	3.00	0.125	TB	Light
W-3	W-3j	4	1	Apr 17	121	1.00	35.00	0.11428	TB	Moderate
W-3	W-3k	4	1	Apr 17	59	1.00	17.00	0.23529	TB;SR	Moderate
W-3	W-3l	10	1	Apr 17	134	2.00	85.00	0.18235	TB;SR	Heavy
W-3	W-3m	4	1	Apr 17	33	0.50	5.00	0.5	TB	Light
W-3	W-3n	4-10	1	Apr 17	58	1.00	35.00	0.5	TB	Moderate
W-3	W-3o	4	1	Apr 17	450	0.50	22.50	0.5	TB;SR	Light
W-3	W-3p	4-10	1	Apr 17	114	1.00	30.00	0.2	TB;DB;FR	Moderate
W-3	W-3q	4	1	Apr 17	34	3.00	1.00	0.5	TB	Light
W-3	W-3r	10	1	Apr 17	263	1.00	72.00	0.03472	TB;FR	Moderate
W-3	W-3s	10-4	1	Apr 17	148	1.00	10.00	0.275	DB	Light
W-4	W-4c_2	10	1	Apr 17	376	0.50	30.00	0.001	SR	Very Light
W-4	W-4d_2	10-4	1	Apr 17	111	1.00	15.00	0.05	FR	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
E-1	E-1a_2	10	2	Apr 18	5005	1.00	0.00	0		No Oil
NE-1	NE-1a	10	1	Apr 18	2652	1.00	0.00	0		No Oil
NW-1	NW-1a	4-10	1	Apr 18	424	2.00	73.00	0.005	TB;SR	Light
NW-1	NW-1b	4	1	Apr 18	236	2.00	1.00	0.01	SR	Very Light
NW-1	NW-1c	4-10	1	Apr 18	278	1.00	51.50	0.0064	TB;SR	Light
NW-1	NW-1d	4-10	1	Apr 18	456	1.00	29.00	0.08965	TB;SR	Light
NW-1	NW-1e	4-10	1	Apr 18	620	1.00	51.00	0.00117	SR	Light
NW-2	NW-2a	4-10	1	Apr 18	1413	0.00	0.00	0		No Oil
NW-3	NW-3a	4-10	1	Apr 18	2883	0.00	0.00	0		No Oil
W-16	W-16a		1	Apr 18	1541	0.00	0.00	0		No Oil
W-16	W-16b		1	Apr 18	496	0.00	0.00	0		No Oil
W-17	W-17		1	Apr 18	3087	0.00	0.00	0		No Oil
W-18	W-18		1	Apr 18	7223	0.00	0.00	0		No Oil
W-4	W-4e_2	4-10	2	Apr 18	272	4.00	60.00	0.2	SR	Heavy
E-2	E-2a_2	6-4-7	2	Apr 19	1162	0.00	0.00	0		No Oil
E-2	E-2b_2	4	2	Apr 19	1593	0.00	0.00	0		No Oil
E-2	E-2g_2	4	2	Apr 19	99	1.50	2.00	0.5	TB	Light
E-2	E-2k_2	11	2	Apr 19	63	1.50	50.00	0.01	SR	Very Light
E-2	E-2l_2	11	2	Apr 19	150	1.50	10.00	0.01	SR	Very Light
E-2	E-2m_2	10	2	Apr 19	134	1.50	11.00	0.01	SR	Very Light
E-4	E-4Ea_1	10	1	Apr 19	103	0.50	30.00	0.02	TB	Very Light
E-4	E-4Eb_1	10	1	Apr 19	90	2.00	47.50	0.37	TB;SR	Moderate
W-9	W-9Ba_2	10-4	2	Apr 19	61	4.00	100.00	0.14	FR;TB	Heavy
W-9	W-9Bb_2	10-4	2	Apr 19	39	1.00	80.00	0.1625	FR;TB	Heavy
W-9	W-9Bc_2	10	2	Apr 19	110	1.00	60.00	0.05	FR	Moderate
W-9	W-9Bd_2	10	2	Apr 19	127	3.00	80.00	0.1625	FR;TB	Heavy
W-9	W-9C_2	10-6	2	Apr 19	64	1.00	100.00	0.03		Moderate
W-9	W-9Da_2	4-10	2	Apr 19	61	3.00	70.00	0.11428	FR;TB	Heavy
W-9	W-9Db_2	4	2	Apr 19	114	2.00	100.00	0.4002	SR	Heavy
W-9	W-9Dc_2	10	2	Apr 19	115	1.00	15.00	0.05	FR;TB	Light
W-9	W-9De_2	10	2	Apr 19	214	2.00	10.00	0.5	TB	Light
W-9	W-9Df_2	10	2	Apr 19	88	4.00	85.00	0.23529	TB;SR	Heavy
W-9	W-9Ef_2	10	2	Apr 19	189	3.50	50.00	0.5	TB	Heavy
W-9	W-9Eh_2	11	2	Apr 19	148	5.00	40.00	1.5	AP	Heavy
W-9	W-9Ej_2	10	2	Apr 19	67	1.00	72.00	0.20416	TB;SR	Heavy
W-9	W-9Ek_2	10	2	Apr 19	100	1.00	80.00	0.1525		Heavy
W-9	W-9El_2	10	2	Apr 19	207	4.00	100.00	0.41	SR	Heavy
W-10	W-10D1_2	10-4	2	Apr 20	40	0.50	50.00	0.402	SR	Light
W-10	W-10D2_2	10-4	2	Apr 20	89	0.00	0.00	0		No Oil
W-10	W-10D3_2	10	2	Apr 20	42	0.50	12.50	0.14	SR	Light
W-10	W-10E1_2	10	2	Apr 20	43	0.30	0.50	0.05		Very Light
W-10	W-10E2_2	10	2	Apr 20	42	0.30	15.00	0.02333	TB	Very Light
W-10	W-10F1_2	7	2	Apr 20	65	4.00	65.00	0.08461		Moderate
W-10	W-10G1_2	10-4	2	Apr 20	18	1.00	16.00	0.07812	TB	Light
W-10	W-10G3_2	7	2	Apr 20	11	3.00	65.00	0.08461	FR;TB	Moderate
W-10	W-10H1_2	4	2	Apr 20	51	0.00	0.00	0		No Oil
W-10	W-10H2_2	10-4	2	Apr 20	72	1.00	70.00	0.11428	FR;TB	Heavy
W-10	W-10K1_2	10-2	2	Apr 20	78	2.00	40.00	0.05		Light
W-10	W-10K2_2	4	2	Apr 20	54	1.00	0.50	0.05	TB	Very Light
W-10	W-10L1_2	10	2	Apr 20	60	3.00	5.00	0.5	FR	Light
W-10	W-10M1_2	7	2	Apr 20	289	1.00	5.00	0.05		Very Light
W-10	W-10N1_2	4-7	2	Apr 20	15	2.00	20.00	0.05		Light
W-10	W-10N2_2	4	2	Apr 20	32	0.00	0.00	0	No	No Oil
W-10	W-10O1_2	10-4	2	Apr 20	16	2.00	10.00	0.05		Very Light
W-10	W-10O2_2	7	2	Apr 20	21	1.00	25.00	0.14	TB	Moderate
W-10	W-10O3_2	4-10	2	Apr 20	186	1.00	20.00	0.1625	TB;FR	Moderate
W-10	W-10P1_2	4	2	Apr 20	509	0.00	0.00	0	No	No Oil
W-10	W-10Q1_2	8	2	Apr 20	56	3.00	41.00	0.30487	FR;SR	Moderate
W-10	W-10Q2_2	8	2	Apr 20	75	4.00	90.00	0.89444	FR	Heavy
W-10	W-10Q3_2	8	2	Apr 20	136	4.00	10.00	0.05		Light
W-10	W-10Q4_2	8	2	Apr 20	25	6.00	90.00	0.35	FR;SR	Heavy
W-10	W-10Q5_2	8	2	Apr 20	213	3.50	5.00	0.275	FR	Moderate
W-13	W-13A	6	1	Apr 20	288	1.00	0.50	0.5	TB	Light
W-13	W-13B	10	1	Apr 20	321	1.00	0.50	0.5	TB	Light
W-13	W-13C	1	1	Apr 20	87	0.25	0.50	0.01	SR	Very Light
W-13	W-13D	1-2	1	Apr 20	119	0.50	2.00	0.275	TB	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-13	W-13E	10-4	1	Apr 20	60	1.00	1.50	0.18666	TB;SR	Light
W-13	W-13F	1	1	Apr 20	120	0.25	0.50	0.05	SR	Very Light
W-13	W-13G	4	1	Apr 20	193	1.00	1.50	0.18666	TB;SR	Light
W-13	W-13H	6	1	Apr 20	27	0.50	0.50	0.01		Very Light
W-13	W-13I	4	1	Apr 20	19	0.00	0.00	0	TB	No Oil
W-13	W-13J	1	1	Apr 20	674	0.25	0.50	0.01	SR	Very Light
W-13	W-13Ka	4	1	Apr 20	261	0.00	0.00	0	No	No Oil
W-13	W-13Kb	4	1	Apr 20	79	0.00	0.00	0	No	No Oil
W-13	W-13L	4	1	Apr 20	201	1.00	1.00	0.275	TB	Light
W-13	W-13M	10	1	Apr 20	53	1.00	1.00	0.275	SR	Light
W-13	W-13N	4	1	Apr 20	24	0.00	0.00	0	No	No Oil
W-13	W-13O	1	1	Apr 20	128	1.00	3.00	0.18666	TB	Light
W-13	W-13P	1	1	Apr 20	266	0.00	0.00	0	No	No Oil
W-14	W-14A	1-4	1	Apr 20	271	2.00	1.50	0.02033	TB;SR	Very Light
W-14	W-14B	1-4	1	Apr 20	156	1.00	6.00	0.425	TB;SR	Light
W-14	W-14C	6	1	Apr 20	54	3.00	41.00	0.41463	TB;SR	Moderate
W-14	W-14D	10	1	Apr 20	231	0.50	30.00	0.2	TB	Light
W-6	W-6A1_2	1-6-10	2	Apr 20	22	1.50	100.00	0.353		Heavy
W-6	W-6B3_2	1-4-10	2	Apr 20	17	0.20	30.00	0.01		Very Light
W-20	W-20A	4	2	Apr 21	571	0.00	0.00	0		No Oil
W-20	W-20B	10	2	Apr 21	87	0.00	0.00	0		No Oil
W-20	W-20C	4	2	Apr 21	278	0.00	0.00	0		No Oil
W-20	W-20D	10	2	Apr 21	125	0.00	0.00	0		No Oil
W-20	W-20E	1	2	Apr 21	2081	0.00	0.00	0		No Oil
W-20	W-20F	4	2	Apr 21	313	0.00	0.00	0		No Oil
E-4	E-4Ec_2	10	2	Apr 22	253	1.00	16.00	0.05031	SR;TB	Light
E-4	E-4Ed_2	10	2	Apr 22	241	1.00	16.00	0.05031	TB	Light
E-4	E-4Ee_2	10	2	Apr 22	123	1.00	22.00	0.0575	TB;SR	Light
E-4	E-4Ef_2	10	2	Apr 22	134	1.00	8.00	0.07062	TB;SR	Very Light
E-4	E-4Eg_2	10	2	Apr 22	17	0.50	95.00	0.55263	TB;SR	Moderate
E-4	E-4Eh_2	10	2	Apr 22	394	1.00	8.00	0.07062	SR	Very Light
E-4	E-4Ei_2	10	2	Apr 22	683	1.00	1.50	0.004	SR	Very Light
E-4	E-4Ej_2	10	2	Apr 22	20	3.00	18.00	0.03194	TB;SR	Light
E-4	E-4Ek_2	10	2	Apr 22	41	1.00	2.50	0.1124	TB;SR	Light
E-4	E-4El_2	10	2	Apr 22	173	0.00	0.00	0		No Oil
W-1	W-1A	4	1	Apr 22	131	1.00	70.00	0.11428	FR	Heavy
W-1	W-1AA	7	1	Apr 22	275	7.50	80.00	0.1625	FR;SR	Heavy
W-1	W-1B	10	1	Apr 22	147	7.50	100.00	0.23	SR	Heavy
W-1	W-1BB	11	1	Apr 22	68	50.00	95.00	0.41052	FR;SR	Heavy
W-1	W-1C	10-4	1	Apr 22	195	0.50	100.00	0.25505	FR;SR	Moderate
W-1	W-1CC	10	1	Apr 22	71	5.00	65.00	0.46538	FR	Heavy
W-1	W-1D	10	1	Apr 22	69	5.00	90.00	0.41111	FR;SR	Heavy
W-1	W-1DD	11	1	Apr 22	176	200.00	100.00	0.51	FR;SR	Heavy
W-1	W-1E	4-10	1	Apr 22	19	1.00	40.00	0.03		Light
W-1	W-1EE	7	1	Apr 22	260	5.50	100.00	0.51	FR	Heavy
W-1	W-1F	11	1	Apr 22	100	7.50	90.00	0.41111	FR;SR	Heavy
W-1	W-1FF	7	1	Apr 22	317	2.00	80.00	0.05	FR	Moderate
W-1	W-1G	10-3	1	Apr 22	52	3.00	100.00	1.1	FR	Heavy
W-1	W-1H	11	1	Apr 22	95	10.00	70.00	0.11428	FR;SR	Heavy
W-1	W-1I	7	1	Apr 22	135	1.50	60.00	0.05		Moderate
W-1	W-1J	11	1	Apr 22	85	10.00	30.00	0.35	FR	Heavy
W-1	W-1K	4	1	Apr 22	73	0.50	0.50	0.05		Very Light
W-1	W-1L	10	1	Apr 22	98	3.00	20.00	0.1625	FR	Moderate
W-1	W-1M	4	1	Apr 22	103	1.00	0.50	0.01		Very Light
W-1	W-1N	10	1	Apr 22	33	3.00	37.50	0.38666	FR;SR	Moderate
W-1	W-1O	4	1	Apr 22	89	2.00	30.00	0.05	FR	Light
W-1	W-1P	7	1	Apr 22	71	4.00	60.00	0.1005	SR	Heavy
W-1	W-1Q	7	1	Apr 22	306	1.00	15.00	0.01		Very Light
W-1	W-1R	7	1	Apr 22	136	1.00	5.00	0.01		Very Light
W-1	W-1S	7	1	Apr 22	1289	0.00	0.00	0		No Oil
W-1	W-1T	7	1	Apr 22	1408	0.00	0.00	0		No Oil
W-1	W-1U	7	1	Apr 22	902	1.50	0.50	0.05	SR	Very Light
W-1	W-1V	7	1	Apr 22	525	3.00	3.00	0.125	FR;SR	Light
W-1	W-1W	7	1	Apr 22	328	1.00	30.00	0.01733		Light
W-1	W-1X	7	1	Apr 22	133	3.00	60.00	0.03366		Moderate
W-1	W-1Y	7	1	Apr 22	281	6.50	80.00	0.625	FR;SR	Heavy

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-1	W-1Z	11	1	Apr 22	216	16.00	90.00	0.1	FR;TB	Moderate
W-8	W-8C01_2	10	2	Apr 23	119	1.00	7.50	0.042	TB;SR	Very Light
W-8	W-8C02_2	10	2	Apr 23	98	1.00	28.00	0.07517	TB;SR	Light
W-8	W-8C03_2	10	2	Apr 23	109	3.00	11.00	0.07272	TB	Light
W-8	W-8C04_2	10	2	Apr 23	237	2.00	2.50	0.1124	TB;SR	Light
W-8	W-8C05_2	10	2	Apr 23	89	0.50	1.00	0.0055		Very Light
W-8	W-8C06_2	5-10	2	Apr 23	67	1.00	85.00	0.23305	TB;SR	Heavy
W-8	W-8C07_2	10	2	Apr 23	414	7.50	100.00	0.0411	TB;SR	Moderate
W-8	W-8C08_2	4-10	2	Apr 23	55	3.00	86.50	0.11919		Heavy
W-8	W-8C09_2	10	2	Apr 23	71	0.50	48.00	0.13604		Light
W-8	W-8C10_2	4	2	Apr 23	40	1.00	3.50	0.08885	TB;SR	Very Light
W-8	W-8C11_2	10	2	Apr 23	21	1.00	1.50	0.2	TB;SR	Light
W-8	W-8C13_2	11	2	Apr 23	81	1.00	20.00	0.1525	TB;SR	Moderate
W-8	W-8C14_2	4-11	2	Apr 23	179	0.50	15.00	0.18666	TB;SR	Light
W-8	W-8C16_2	1-6-4	2	Apr 23	87	1.25	7.00	0.17857		Light
W-8	W-8C17_2	4-10	2	Apr 23	54	1.00	1.00	0.03	SR	Very Light
W-8	W-8D01_2	10	2	Apr 23	134	2.00	1.50	0.18666	TB;SR	Light
W-8	W-8D02_2	11	2	Apr 23	223	0.50	11.00	0.03409	TB	Very Light
W-8	W-8D03_2	10	2	Apr 23	67	0.50	1.50	0.18666		Light
W-8	W-8D04_2	10	2	Apr 23	98	2.00	7.00	0.16714	TB;SR	Light
W-8	W-8D05_2	10	2	Apr 23	198	0.75	6.00	0.255		Light
W-8	W-8D06_2	5-10	2	Apr 23	50	0.50	0.50	0.01		Very Light
W-8	W-8D07_2	10	2	Apr 23	156	1.50	1.50	0.18666	TB;SR	Light
W-8	W-8D08_2	10	2	Apr 23	131	1.50	35.00	0.22428	TB;SR	Moderate
W-8	W-8D09_2	5-10	2	Apr 23	241	0.50	2.00	0.265	TB;SR	Light
W-8	W-8D11_2	10	2	Apr 23	289	0.75	1.00	0.03		Very Light
W-8	W-8D12_2	10	2	Apr 23	99	1.00	25.00	0.14	TB;SR	Moderate
W-8	W-8D13_2	10	2	Apr 23	143	0.50	0.50	0.01	SR	Very Light
W-8	W-8E01_2	10	2	Apr 23	251	0.50	11.00	0.0909	TB;SR	Very Light
W-8	W-8E03_2	10	2	Apr 23	46	1.00	19.50	0.17948	TB;SR	Moderate
W-11	W-11G_2	7	2	Apr 24	83	1.00	0.50	0.05		Very Light
W-11	W-11H_2	7	2	Apr 24	599	0.50	0.50	0.5	TB	Light
W-11	W-11I_2	4-10	2	Apr 24	52	0.75	10.00	0.275	TB	Light
W-11	W-11J_2	4-10	2	Apr 24	26	2.00	22.00	0.0909	SR	Light
W-11	W-11L_2	7	2	Apr 24	119	0.50	0.05	0.05		Very Light
W-11	W-11M_2	7-10	2	Apr 24	164	0.00	0.00	0		No Oil
W-11	W-11N_2	10-4	2	Apr 24	79	1.00	3.00	0.2	TB	Light
W-11	W-11O_2	10	2	Apr 24	295	1.00	0.10	0.05	TB	Very Light
W-11	W-11Q_2	10-4-5	2	Apr 24	83	1.00	0.05	0.5	TB	Light
W-11	W-11R_2	1-6	2	Apr 24	145	1.00	0.05	0.05		Very Light
W-11	W-11T_2	6-1	2	Apr 24	204	1.00	1.00	0.275	TB	Light
W-11	W-11U_2	4	2	Apr 24	62	0.00	0.00	0		No Oil
W-11	W-11V_2	5-10	2	Apr 24	135	1.25	2.00	0.14025	TB;SR	Light
W-11	W-11W_2	1	2	Apr 24	126	0.00	0.00	0	No	No Oil
W-11	W-11X_2	4	2	Apr 24	57	0.00	0.00	0	No	No Oil
W-11	W-11Y_2	2	2	Apr 24	50	0.00	0.00	0	No	No Oil
W-12	W-12A	6	1	Apr 24	89	0.50	1.00	0.275	TB;SR	Light
W-12	W-12B	10	1	Apr 24	103	1.00	1.00	0.03	SR	Very Light
W-12	W-12C	1-6	1	Apr 24	312	0.50	1.50	0.18666	TB;SR	Light
W-12	W-12D	4	1	Apr 24	226	0.00	0.00	0		No Oil
W-12	W-12E	10	1	Apr 24	148	2.00	1.50	0.18666	TB;SR	Light
W-12	W-12F	2	1	Apr 24	123	0.25	0.00	0		No Oil
W-12	W-12G	1-6	1	Apr 24	277	0.50	1.00	0.275	TB;SR	Light
W-13	W-13Q	6	2	Apr 24	106	1.00	1.50	0.18666	TB;SR	Light
W-13	W-13R	4	1	Apr 24	83	0.00	0.00	0		No Oil
W-13	W-13S	6	1	Apr 24	90	1.00	1.50	0.18666	TB;SR	Light
W-13	W-13T	1	1	Apr 24	66	0.25	1.50	0.18666	TB	Light
W-13	W-13U	6	1	Apr 24	100	0.50	1.00	0.275	TB	Light
W-13	W-13V	4	1	Apr 24	142	0.00	0.00	0		No Oil
W-13	W-13W	10	1	Apr 24	152	1.00	1.00	0.03	SR	Very Light
W-13	W-13X	4	1	Apr 24	585	0.50	2.00	0.275	TB;SR	Light
W-13	W-13Y	10	1	Apr 24	185	1.00	1.00	0.275	TB;SR	Light
W-7	W-7B_2	1	2	Apr 24	43	3.00	0.50	0.01	SR	Very Light
W-7	W-7C_2	1	2	Apr 24	33	3.00	10.00	0.01		Very Light
W-7	W-7D_2	10	2	Apr 24	771	5.00	6.00	0.1675	TB	Moderate
W-7	W-7E_2	6	2	Apr 24	14	1.00	20.00	0.05	TB	Light

Segment ID	Subdivision ID	ESI	Survey	Survey Date	Length (m)	Width (m)	Distribution (%)	thickness (cm)	Oil Character	Oiling category
W-7	W-7F_2	10	2	Apr 24	37	1.00	1.00	0.05	TB	Very Light
W-7	W-7G_2	10	2	Apr 24	230	4.00	43.00	1.39884		Heavy
W-7	W-7H_2	7	2	Apr 24	137	5.00	50.50	0.5099		Heavy
W-7	W-7I_2	7	2	Apr 24	1041	0.50	5.50	0.01363	TB	Very Light
W-7	W-7J_2	10	2	Apr 24	336	5.00	3.00	0.01666	TB;MS	Light
W-7	W-7N_2	6	2	Apr 24	25	2.00	2.00	0.755		Light

Description of CD File content:

This CD contains data gathered by SCAT survey teams in the course of the Swanson Creek Incident. For further detail, please consult the *SCAT Activities and Data Management* Report.

SCAT_Topo.xls:

Spreadsheet containing all original SCAT observations and assessment (oiling category). Subdivision lengths have been calculated from USGS Topographic maps. The spreadsheet contains the 3 following sheets:

1. SCATDATA: contains all observations for each oil band observed on every portion of the shoreline surveyed.

2. SCATSummary: contains a summary of oiling condition for each subdivision surveyed.

3. MAXOILCAT: contains the maximum oiling conditions observed along each surveyed portion of the shoreline.

SCAT_DOQQ.xls.

Spreadsheet containing one single folder with the maximum oiling conditions observed along each surveyed portion of the shoreline. Lengths of shoreline have been measured from 1m resolution digital orthophoto.

MaxOilTopo.jpg:

Image based on a 1/100K USGS topographic map showing a map of the maximum observed oiling categories. The map is designed to be printed in 11x17 format.

SCI_DOQQ_Maps.zip

Compressed file set containing a number of ArcView projects (files with .APR extensions) and all files necessary to print maps, including shape files of maximum oiling conditions, boundaries of subdivisions, boundaries of segments and a copy of all digital orthophoto quandrangles used as basemaps. The four following ArcView projects are incorporated here:

1. MAXOILCAT_TOP: contains a layout which covers the upper part of the survey area.

2. MAXOILCAT_MIDTOP: contains a layout which covers the upper-middle part of the survey area.

3. MAXOILCAT_MIDBOT: contains a layout which covers the lower-middle part of the survey area.

4. MAXOILCAT_BOTTOM: contains a layout which covers the lower (bottom) part of the survey area.

Each of these project files contain a main view which has been defined at a 1/50K scale.

SCI_Topo_Maps.zip

Compressed file set containing the ArcView project (files with .APR extensions) which has been used to produce the MaxOilTopo.jpg image (above). All files necessary to produce maps are also included: Shape files of maximum oiling conditions, boundaries of subdivisions, boundaries of segments and a copy of 1 1/100K USGS based georeferenced topographical map (quadrangle.).

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