

**ExxonMobil Pipeline Company**

**SCAT Area Transition Report for  
A13**

Silvertip Pipeline Incident  
Laurel, Montana

October 18, 2011



## **SCAT Area Transition Report for A13**

Silvertip Pipeline Incident  
Laurel, Montana

Prepared for:  
ExxonMobil Pipeline Company

Prepared by:  
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Our Ref.:  
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Date:  
October 18, 2011

*The observations described in this Report were made exclusively under the conditions at the time and subject to the limitations stated therein. It is understood by Client that ARCADIS has relied on the accuracy of documents, oral information, and other material and information provided by sources documented in this report, including but not limited to information provided by Client and Client's other contractors. ARCADIS has not independently verified any such information. The conclusions presented in the Report are based solely upon the observations and representations made by others.*

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## **1. Executive Summary of Oil Removal Activities**

This Shoreline Cleanup Assessment Technique (SCAT) Area Transition Report provides a summary of the SCAT surveys conducted to determine the extent of oiling along the riverbanks and floodplain within SCAT Area A13, as well as the oil remediation activities completed in this area based on the SCAT Team recommendations. This report also summarizes the environmental samples collected in SCAT Area A13. This report is intended to be read and used in conjunction with the Summary of Assessment and Oil Removal Activities report.

### **1.1 Land Ownership and Access Issues**

Figure 1 provides an aerial map of SCAT Area A13, along with the (a) SCAT Area boundary, (b) parcel boundaries and respective property owners, and (c) access constraints identified during the oil cleanup process. The acreage surveyed in Area A13 is 18.5. There were no access issues for the left bank, and a conditional access agreement on the right bank.

### **1.2 Cultural, Historic, and Natural Resource Constraints**

No historic properties or cultural resources have been identified within this segment that would affect oil removal activities.

Figure 2 summarizes the natural resources identified in this segment. International Bird Rescue and Resource Advisors from U.S. Fish and Wildlife Service conducted regular inspections of area A13. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area A13.

### **1.3 Summary of Environmental Sampling**

Table 1 (below) summarizes samples collected within Area A13. The analytical results for the samples collected can be accessed through a publicly accessible database on the United States Environmental Protection Agency's (USEPA's) website. The approximate locations of samples collected within Area A13 are provided on Figure 3.

**Table 1 Environmental Sampling Summary**

Agency	Sample Number	Date	Matrix	Location	Latitude	Longitude
CTEH	LAMT0710DW302	10-Jul-11	Water_Drinking	LAMT_341_DW302	45.650127	-108.708756
CTEH	LAMT0710DW303	10-Jul-11	Water_Drinking	LAMT_342_DW303	45.650004	-108.709304
CTEH	LAMT0714DW301	14-Jul-11	Water_Drinking	LAMT_364_DW301	45.651444	-108.705629
CTEH	LAMT0823SO601	23-Aug-11	Soil_River	SO-A13	45.651803	-108.709803
MDEQ	B11072247-001	25-Jul-11	Soil_Surface	ST-LVW-01	45.651514	-108.70761
EPA	SPDW08_071011	10-Jul-11	Water_Drinking	SPDW08	45.650004	-108.709304
EPA	SPDW09_071011	10-Jul-11	Water_Drinking	SPDW09	45.650471	-108.70788
EPA	SPDW207_071411	14-Jul-11	Water_Drinking	SPDW207	45.6514603	-108.705629
EPA	SPSE201_072811	28-Jul-11	Sediment	SPSE201	45.6524048	-108.7080048
EPA	SPSO205D01_071211	12-Jul-11	Soil_Surface	SPSO205	45.651514	-108.7076111
EPA	SPSO206D01_071211	12-Jul-11	Soil_Surface	SPSO206	45.651514	-108.7076111
EPA	SPSO207D01_071211	12-Jul-11	Soil_Surface	SPSO207	45.650303	-108.7095154

Appendix A contains a summary of sample results with detections for this sample set. Detections with a result above the screening level are highlighted; for this set, two exceedances are shown for total extractable hydrocarbons.

#### 1.4 Summary of Initial SCAT Surveys

The SCAT teams used systematic evaluation criteria and treatment method tables approved by the National Oceanic and Atmospheric Administration to provide a standard approach for data collection and conducting field surveys. The forms and sketches from the initial SCAT surveys performed along the river bank (water edge) and floodplain within Area A13 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area A13.

#### 1.5 Applicable Compiled Treatment Recommendations

The SCAT team developed compiled treatment recommendations (CTRs) providing approved treatment methods (ATMs) for each oiling zone identified during the initial SCAT surveys ([CTR No. 1](#) and [CTR No. 4](#)).

#### 1.6 Oil Removal Activities

Oil removal activities were conducted within Area A13 in accordance with the ATMs identified in the CTRs. [Appendix I](#) of the Summary of Assessment and Oil Removal Activities report presents this data including: date range/days worked, average number of people working per day, equipment used, and various types of bags removed: oily

debris, personal protective equipment (PPE), plastic, trash, super sacks, wood chips, and contaminated wood.

#### **1.7 Pre-Inspection Survey Transmittal**

SCAT Operations liaisons performed an inspection of the remediated areas of SCAT Area A13 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the left bank within Area A13, which is presented in Appendix C.

#### **1.8 Post-Inspection Survey Transmittal**

A Post-Inspection Survey Transmittal (POST) was not conducted for this segment.

#### **1.9 Summary of Final SCAT Surveys**

Figure 5 shows the oiling conditions within Area A13 following completion of oil removal activities. The SCAT team performed final surveys of the right and left banks within SCAT Area A13 to confirm the agreed-upon cleanup endpoints identified in the applicable CTRs had been achieved. The final SCAT survey documentation is presented in Appendix E.

#### **1.10 SCAT Area Conclusions**

Based on the final SCAT surveys performed on the right and left banks within Area A13, no further treatment is recommended for this area. A SCAT Segment Sign-Off Sheet is included as Appendix F.



**SCAT Area Transition  
Report for A13**

Silvertip Pipeline Incident  
Laurel, Montana

**2. Transition Sign-Off Form**

**SCAT Area Transition Report for A13**

**Prepared for:**

**Unified Command**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Unified Command – RP

## SCAT Area Transition Report for A13

**Prepared for:**

**Unified Command**

9/28/2011

Date

 S. MERRITT  
Unified Command – FOSC



**SCAT Area Transition  
Report for A13**

Silvertip Pipeline Incident  
Laurel, Montana

**SCAT Area Transition Report for A13**

**Prepared for:**

**Unified Command**

9/28/11

Date

A handwritten signature in blue ink, appearing to read "Van Arman", written over a horizontal line.

Unified Command – MDEQ

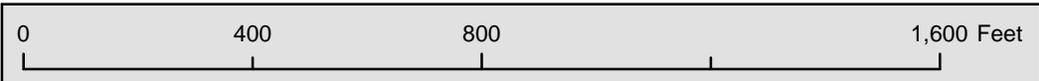
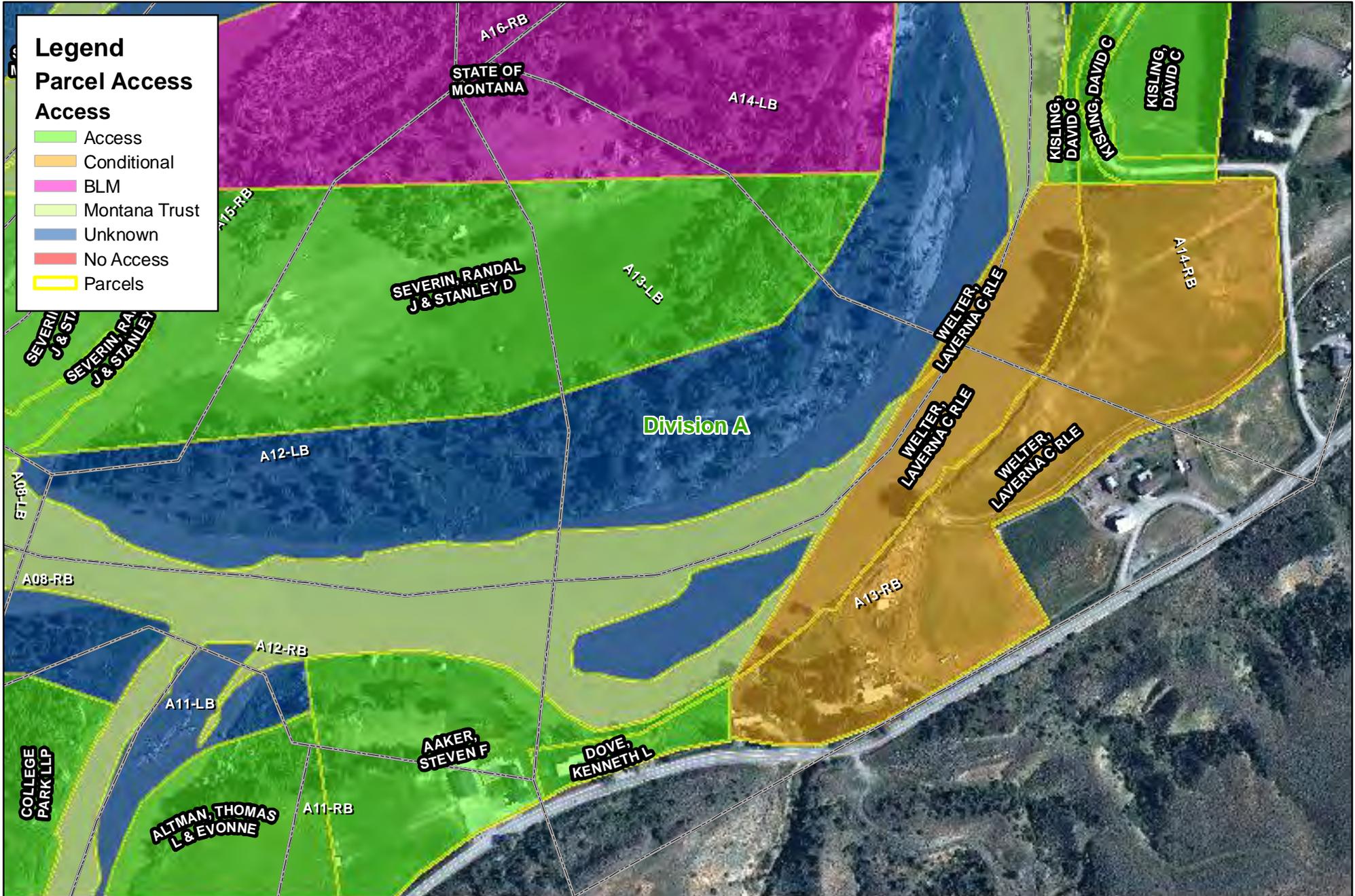
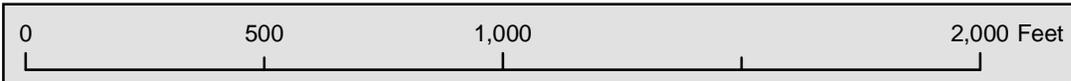


Figure 1

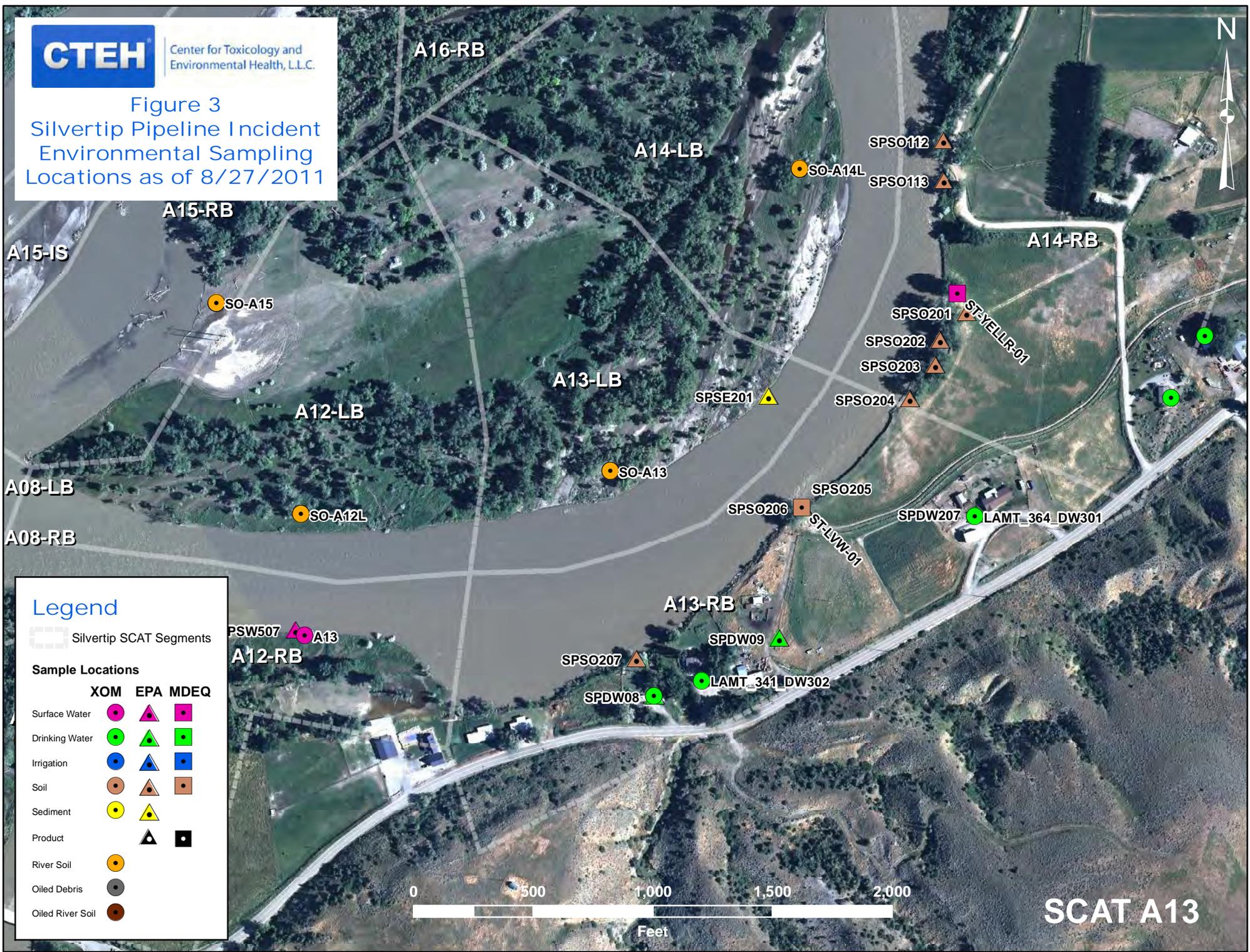


**Figure 2**  
**Wildlife Resources**



Center for Toxicology and Environmental Health, L.L.C.

Figure 3  
Silvertip Pipeline Incident  
Environmental Sampling  
Locations as of 8/27/2011



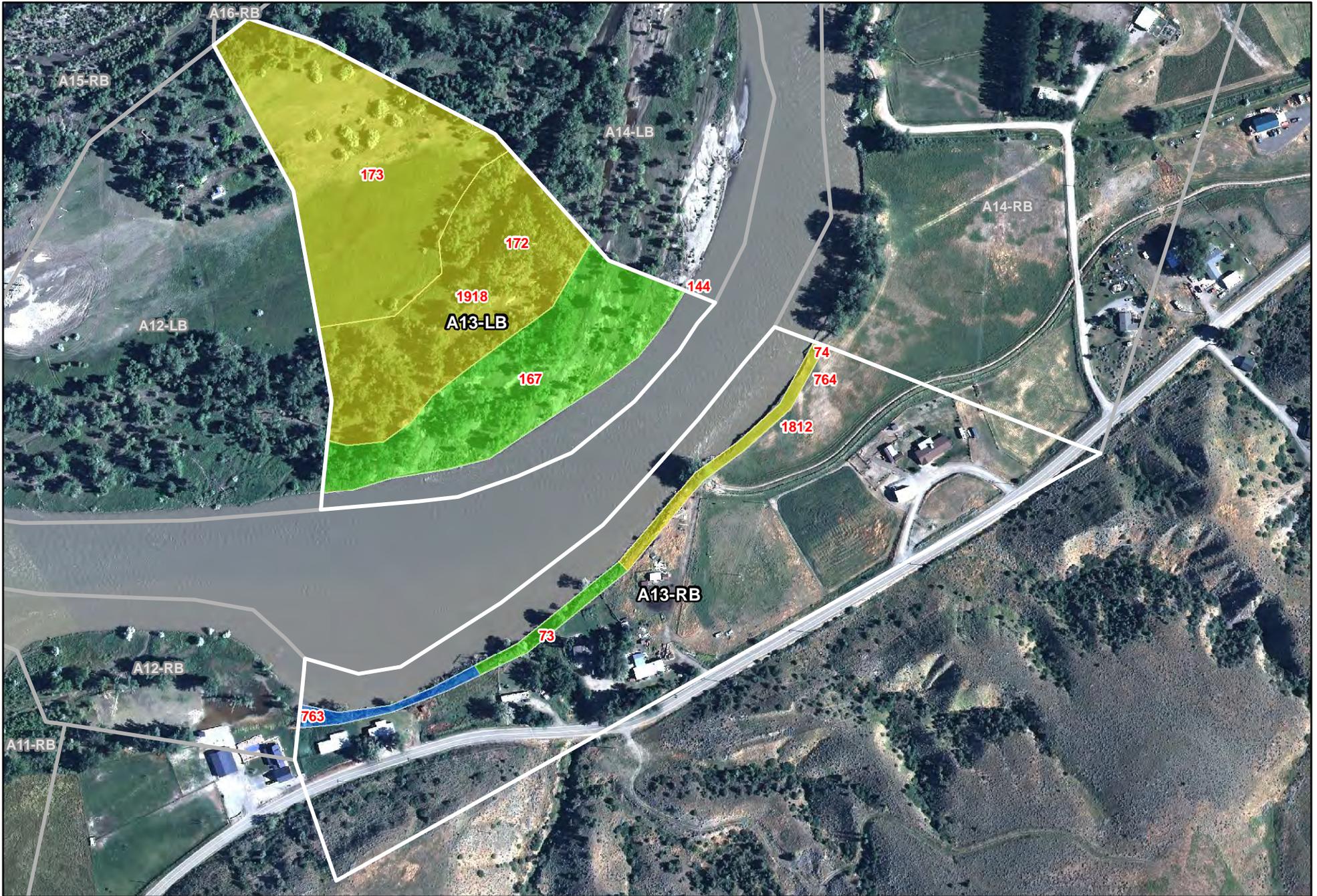
### Legend

Silvertip SCAT Segments

#### Sample Locations

	XOM	EPA	MDEQ
Surface Water			
Drinking Water			
Irrigation			
Soil			
Sediment			
Product			
River Soil			
Oiled Debris			
Oiled River Soil			

SCAT A13

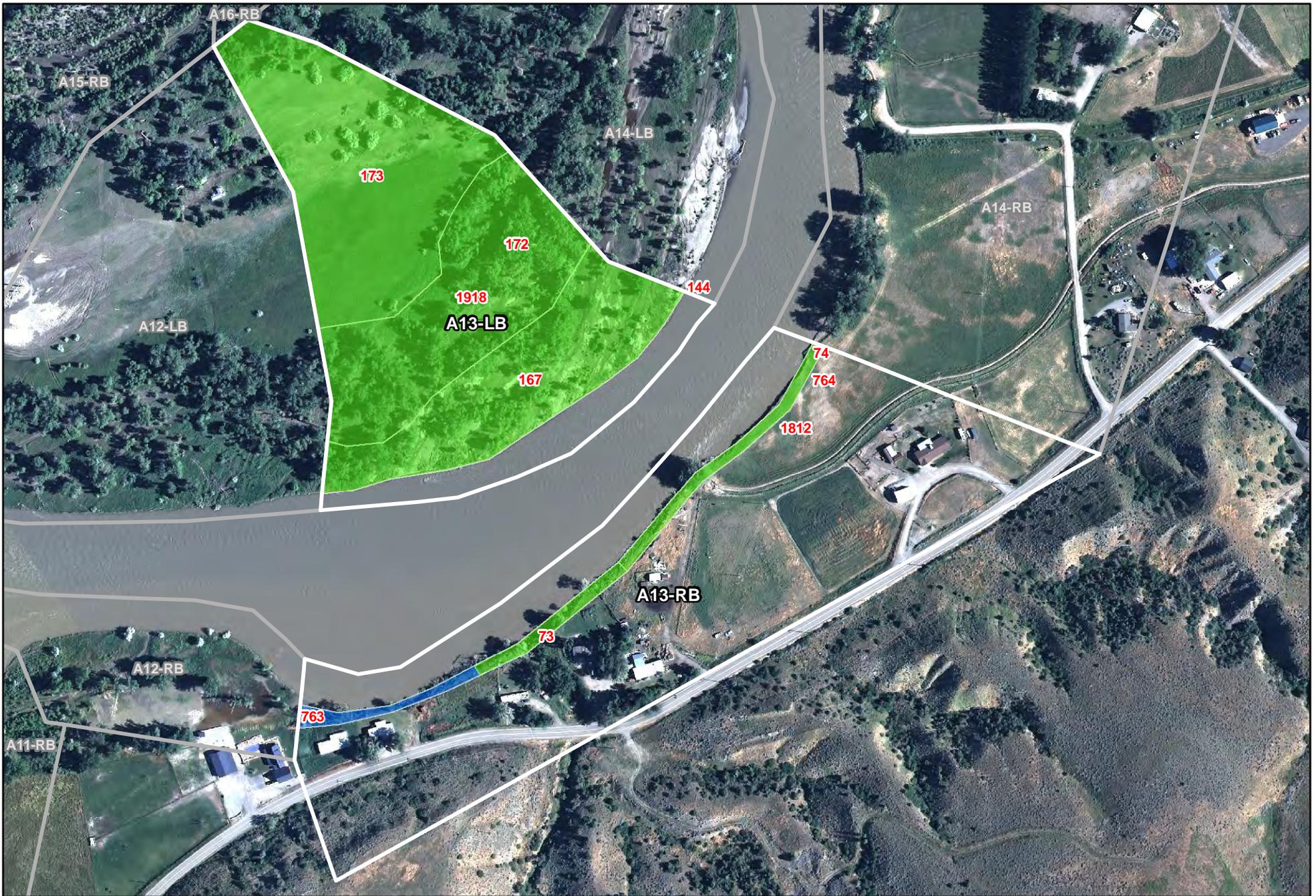


**Figure 4 - Maximum SCAT Observations For SCAT Area: A13**

<p>9999 Oiling Zone ID</p> <p>Heavy Oiling</p> <p>Moderate Oiling</p>	<p>Light Oiling</p> <p>Very Light Oiling</p> <p>No Oil Observed</p>
---	---

250 0 250 500 Feet

**POLARIS**  
APPLIED SCIENCES, INC.



	<b>9999</b> Oiling Zone ID	Light Oiling
	Heavy Oiling	Very Light Oiling
	Moderate Oiling	No Oil Observed

**Figure 5 - Final SCAT Observations**  
**For SCAT Area: A13**





## **Appendix A**

Sample Detections Summary



### Detections in Samples Collected in SCAT Area A13

Printed 9/7/2011

NA - Not Available

**Detected Above Screening Level**

Sample Num	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
B11072247-001	Field	Soil_Surface	MA-VPH-MDEQ-REM	VPH Aliphatics Surrogate	Y	91	NA		%	no
B11072247-001	Field	Soil_Surface	MA-VPH-MDEQ-REM	VPH Aromatics Surrogate	Y	81	NA		%	no
B11072247-001	Field	Soil_Surface	NONE-MDEQ-REM	Moisture content	Y	22	NA		% by wt	no
SPSO205D01_071211	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	21900	200		mg/kg	YES
SPSO205D01_071211	Field	Soil_Surface	MADEP VPH	Toluene	Y	0.14	10		mg/kg	no
SPSO206D01_071211	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	32600	200		mg/kg	YES
SPSO207D01_071211	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	134	200		mg/kg	no



## **Appendix B**

Initial SCAT Survey Forms and  
Sketches

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

DB/a/sc

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1100 hrs to 1102 hrs	<b>Water Level</b> low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A13 Left Bank / <u>Right Bank</u> / Island				
Operations Division: A				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>29.4</u> deg C

<b>2 SURVEY TEAM # 2 &amp; 4</b>		
name	organization	contact phone number
Andrew Milanes	Polaris	
Tom Freeman	Polaris	
Andrew Johnson	USCG	
Travis Olson	USCG	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 507 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid S Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S Pebble/Cobble S Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: P Wooded Upland: S

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: (>5°)(15°)(30°) straight \_\_\_\_\_ braided X oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 105m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or 5 trucks access restrictions \_\_\_\_\_

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: \_\_\_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

73  
74

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
A			X		196	1															X	Grass, trees, debris
B			X		311	1	60			X	X		X									Grass, trees, debris

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Zone B Oiled Band Height: 15cm

Due to survey platform (jet-drive boat) oil band width and heights are estimates. Unable to verify by foot.

Cleanup Recommendations: Trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees;

(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# \_\_\_\_\_)



**SCAT Teams 2 & 4 Survey**

Segment A13 Right Bank

11-Jul-2011



**Legend**

-  Oil Zones
-  Segment Boundaries

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 1

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A13</u>	Left Bank / <u>Right Bank</u> / Island	<u>25/07/11</u>	<u>0830</u> hrs to <u>1230</u> hrs	low / mean / - bankfull - overbank
Operations Division: <u>A</u>				falling / steady / rising
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun / Clouds / Fog / Rain / Snow / Windy / Calm</u>		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Joe Boyle</u>	<u>CONRAD ENTERIX</u>	<u>[Signature]</u>
	<u>John Brown</u>	<u>MDEQ</u>	<u>[Signature]</u>
	<u>GARY RILEY</u>	<u>USAPA</u>	<u>[Signature]</u>
	<u>Steve Kennedy</u>	<u>Conrad Enterix</u>	<u>[Signature]</u>

**3 SEGMENT** Total Segment/Reach Length 500 m Segment/Reach Length Surveyed 500 m

Start GPS: LATITUDE 45.64985 deg. \_\_\_\_\_ min. LONGITUDE 108.7116 deg. \_\_\_\_\_ min. Datum: WGS 84

End GPS: LATITUDE 45.65233 deg. \_\_\_\_\_ min. LONGITUDE 108.70648 deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud S Sand \_\_\_\_\_ Mixed \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder S Peat/Organic \_\_\_\_\_ Vegetated Bank: P Wooded Upland: \_\_\_\_\_

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander S confined or leveed \_\_\_\_\_ Substrate Type: rock

Sloped: (>5°)(15°)(30°) 90° straight \_\_\_\_\_ braided P oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 160m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y(N) point bar present Y(N) bar-shoal substrate: silt/sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling - same - rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y(N) Access: Direct from backshore Y(N) Alongshore from next segment Y(N) N

Debris: Y(N) oiled Y(N) amount \_\_\_\_\_ bags or \_\_\_\_\_ trucks access restrictions private property

Oiled trees/shrubs Y(N) River Current strong Y(N) Other Features: \_\_\_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)			
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
<u>A</u>			<u>S</u>	<u>P</u>	<u>300</u>	<u>15</u>	<u>0</u>														<u>X</u>	
<u>B</u>			<u>P</u>	<u>B</u>	<u>200</u>	<u>15</u>	<u>5</u>			<u>P</u>	<u>S</u>		<u>P</u>									<u>and veg</u>

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench - e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH	OILED ZONE	SUBSURFACE OIL CHARACTER					WATER TABLE	SHEEN COLOUR	CLEAN BELOW	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF				

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required (Y) / N Overbank Survey Completed (Y) / N Shoreline Survey Completed (Y) / N

Zone A: NO oil observed  
 recommendation: continue to monitor as water level falls

Zone B: very low distribution of oil coated vegetation on bank  
 recommendation: cut/trim oiled vegetation

Sketch Yes / No Photos Yes / No Frames \_\_\_\_\_ Photographer \_\_\_\_\_

108°42'50"W

108°42'45"W

108°42'40"W

108°42'35"W

108°42'30"W

108°42'25"W

108°42'20"W

108°42'15"W



45°39'10"N

45°39'5"N

45°39'0"N

45°38'55"N



108°42'50"W

108°42'45"W

108°42'40"W

108°42'35"W

108°42'30"W

108°42'25"W

108°42'20"W

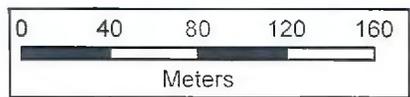
108°42'15"W

**A13 -**  
(L/R)??

DATE: 07/25/11

TEAM: 3

COMMENTS:



DB/R/sc

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1100 hrs to 1101 hrs	<b>Water Level</b> low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A13 <u>Left Bank</u> / Right Bank / Island				
Operations Division: A				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>29.4</u> deg C

<b>2 SURVEY TEAM # 2 &amp; 4</b>	name	organization	contact phone number
Andrew Milanes		Polaris	
Tom Freeman		Polaris	
Andrew Johnson		USCG	
Travis Olson		USCG	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 344 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ **Manmade:** Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ **Wetland:** Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ **Vegetated Bank:** P **Wooded Upland:** S

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ **Other:** \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate **complete for primary**

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: (>5°)(15°)(30°) straight P braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 105m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or 1 trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: \_\_\_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS										OIL CHARACTER	SUBST. TYPE(S)			
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC			SR	AP	NO
	m	m	%																			
A			X		344	1	95			X	X		X									Grass, trees, debris

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER								WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)				
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR	NO									

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

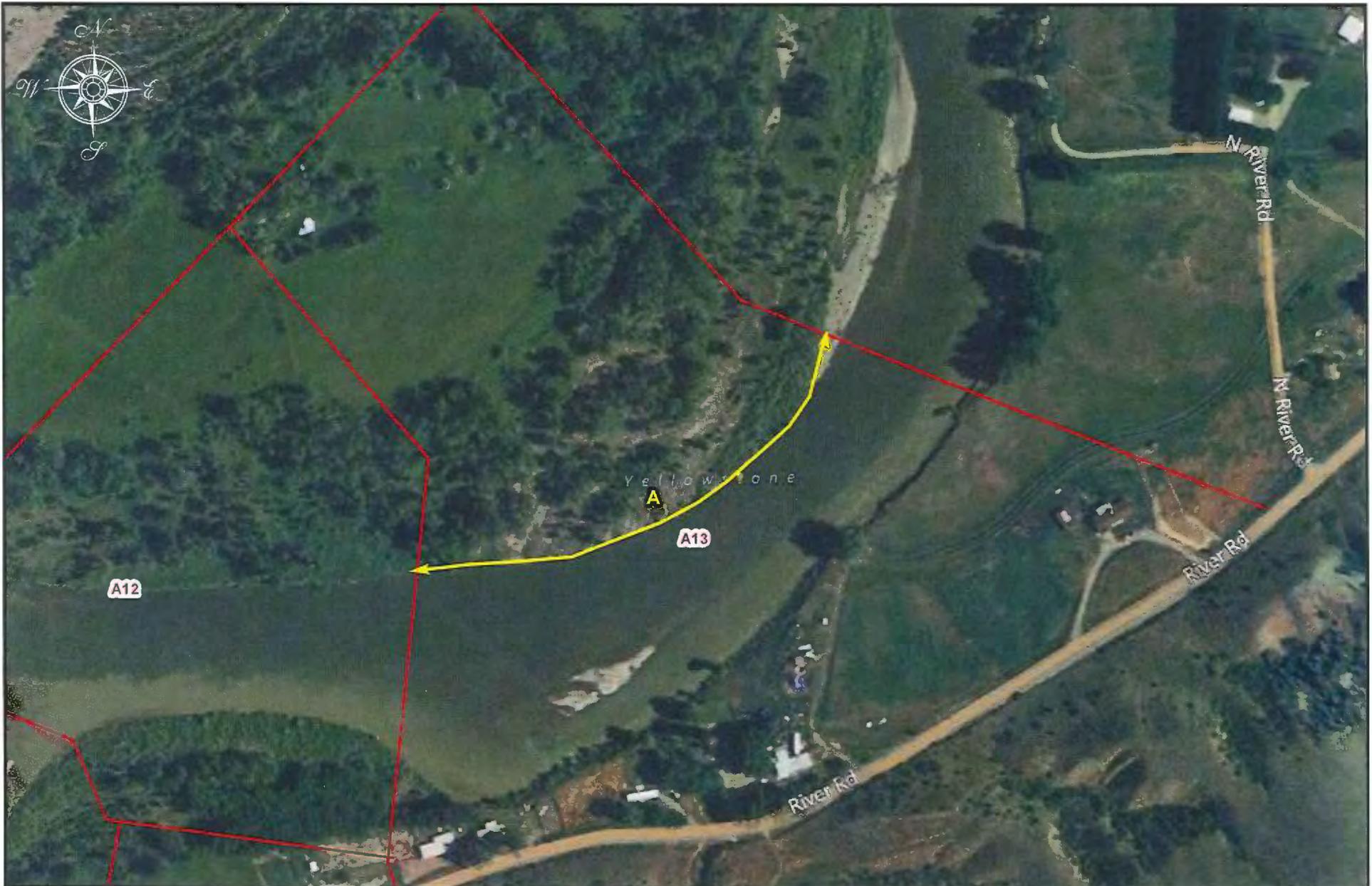
Oiled Band Heights: Zone A - 30cm

Due to survey platform (jet-drive boat) oil band width and heights are estimates. Unable to verify by foot.

Cleanup Recommendations: Trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees;

(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# \_\_\_\_\_)



**SCAT Teams 2 & 4 Survey**

Segment A13 Left Bank

11-Jul-2011



**Legend**

 Oil Zones

 Segment Boundaries

PB/0/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 13-Jul-2011	Time (24h): std / daylight 1025 hrs to 1044 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A13 <u>Left Bank</u> / Right Bank / Island		Operations Division: A		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>32</u> deg C

<b>2 SURVEY TEAM # 2 &amp; 4</b>	name	organization	contact phone number
Andrew Milanes		Polaris	
Tom Freeman		Polaris	
Andrew Johnson		USCG	
Travis Olson		USCG	
Trevor Selch		Montana Fish & Game	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 302 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: P Wooded Upland: S

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: (>5°)(15°)(30°) straight P braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 105m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or 1 trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: \_\_\_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
A				X	270	50	5				X	X	X									Grass, trees, debris

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Oiled Band Heights: Zone A - 10cm

Cleanup Recommendations: For substrates with oiling greater than stain, trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees. No treatment for stained substrates is recommended.

STR to be developed.

(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# \_\_\_\_\_)





**SCAT Teams 2 & 4 Survey**

Segment A13 - Left Bank

13-Jul-2011



**Legend**

 Oiling Zones

 Segment Boundaries

DB/6/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 14-Jul-2011	Time (24h): std / daylight 0947 hrs to 1034 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A13 <u>Left Bank</u> / Right Bank / Island		Operations Division: A		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>32</u> deg C

2 SURVEY TEAM # 1 & 2		name	organization	contact phone number
Andrew Milanes	<u>ANM</u>		Polaris	
Tom Freeman	<u>TFE</u>		Polaris	
Andrew Johnson	<u>AJ</u>		USCG	
Travis Olson	<u>TO</u>		USCG	
Aaron Anderson	<u>AA</u>		MTDEQ	406-841-5049
Darrick Turner	<u>DT</u>		MTDEQ	406-444-1504

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 465 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: P \_\_\_\_\_ Wooded Upland: S \_\_\_\_\_

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: >5°(15°)(30°) straight P braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 105m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or 1 trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: \_\_\_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

172  
173

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)	
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO
A				X	235	75	25			X	X		X								Grass, trees, debris
B				X	230	135	35			X	X		X								grass

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes/No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR				

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Oiled Band Heights: Zone A - 10cm; Zone B - 20

Cleanup Recommendations: For substrates with oiling greater than stain, trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees. No treatment for stained substrates is recommended.

STR to be developed.

(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 # \_\_\_\_\_)



**SCAT Teams 1 & 2 Survey**

Segment A13 - Left Bank

14 July 2011



**Legend**

- Segment Boundaries
- ▭ Oiling Zones



## **Appendix C**

Pre-Inspection Survey Transmittal

## SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 23 Aug 2011

Segment: A13LB (Tower Island CTR1)

Team: SCAT Liaison Lauren Glushik-Polaris Signed:   
Observer Jd Ann Eskelsen Signed:   
Observer Pete Lee Signed:   
Observer \_\_\_\_\_ Signed: \_\_\_\_\_

Segment meets criteria? YES  NO

RBOS attached? YES  NO

**If NO:**

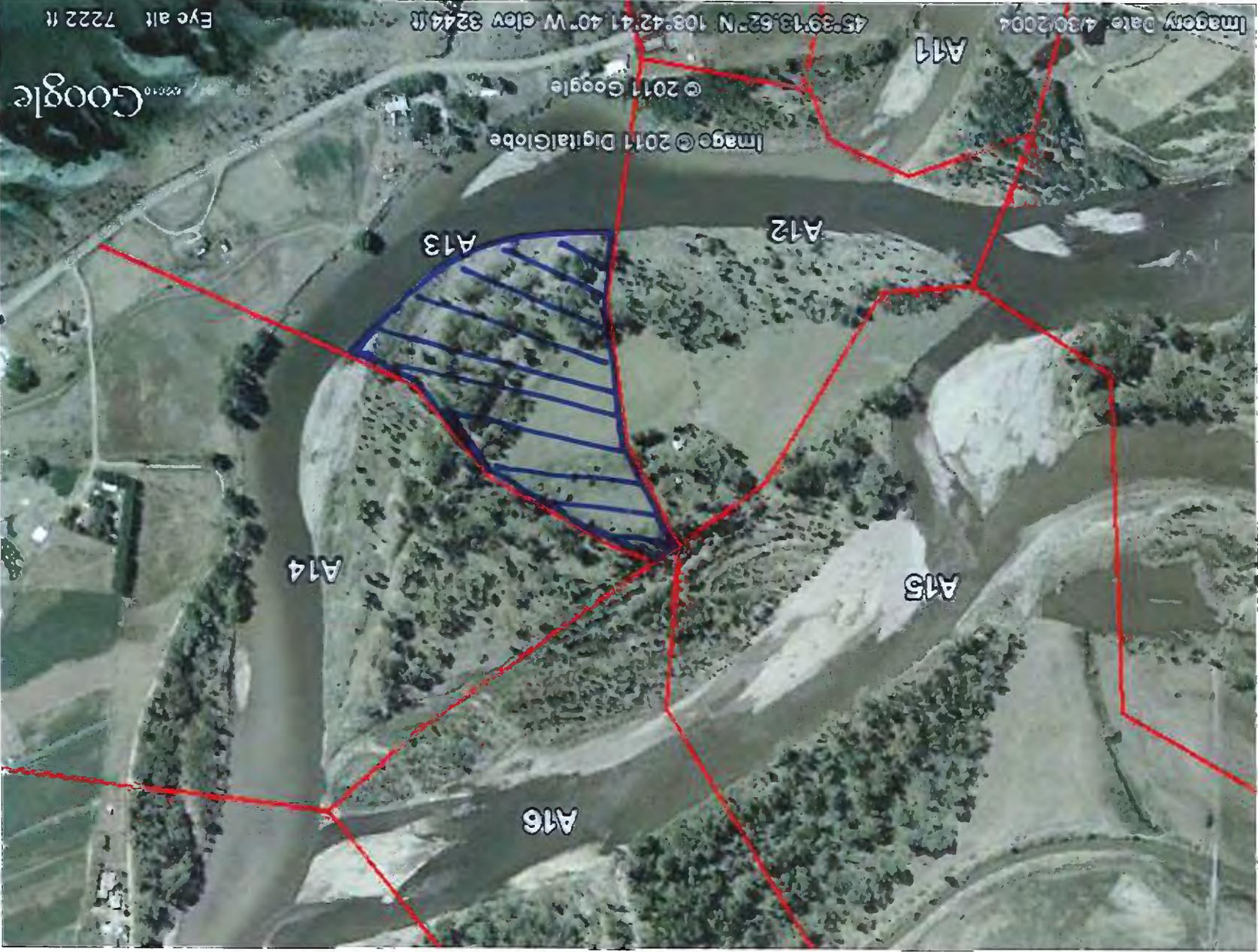
Location Sketch attached? YES  NO

CTR continue? YES  NO

Comments:

Segment A13LB is on Tower Island and is a portion of CTR1.

Full seg.



BLUE = PIST AREA



## **Appendix D**

Post-Inspection Survey Transmittal

**A Post-Inspection Survey  
was not conducted for this area**



## **Appendix E**

Final SCAT Survey Forms and  
Sketches

DB/K

R

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 08/24/11	Time (24h): std / daylight 1058 hrs to 1420 hrs	Water Level low - <u>mean</u> - bankfull - overbank
Segment/Reach ID: A13	Left Bank / Right Bank / Island			
Operations Division: <u>A</u>				
Survey by: Foot / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp +/- <u>90F</u> deg C	

2 SURVEY TEAM # 6	Name	Organization	Signature
<del>Lee Burroughs</del>	<del>MF&amp;P</del>	<del>MF&amp;P</del>	<del>duplicate (see below)</del>
Terry Tanner	USEPA		
Bruce Kvam	Polaris Applied Sciences, LLC		
Jeffrey Frank Herrick	MDEC		
Eric Harlow	Cardno Entrix		
Lee Burroughs	MF&P		

**3 SEGMENT** Total Segment/Reach Length 480 m Segment/Reach Length Surveyed 320 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid X Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed X Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank P Wooded Upland: X

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse X Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander x confined or leveed \_\_\_\_\_ Substrate Type: \_\_\_\_\_

Sloped: <5° (>5°)(15°)(30°) straight \_\_\_\_\_ braided \_\_\_\_\_ oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 100m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y / N point bar present Y / N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y / N Access: Direct from backshore Y / N Alongshore from next segment Y / N

Debris: Y / N oiled Y / N amount \_\_\_\_\_ bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y / N River Current strong Y / N Other Features:

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)				
					Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO			
ID	MS	LB	UB	OB	m	m	%																	
<u>A</u>			<u>X</u>		320	10	1					X						X						shrub, grass, rock
<del>B</del>																								

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH	OILED ZONE	SUBSURFACE OIL CHARACTER						WATER TABLE	SHEEN COLOUR	CLEAN BELOW	SUBST. TYPE(S)	
							SAP	OP	PP	OR	OF	TR					NO
					cm	cm-cm											

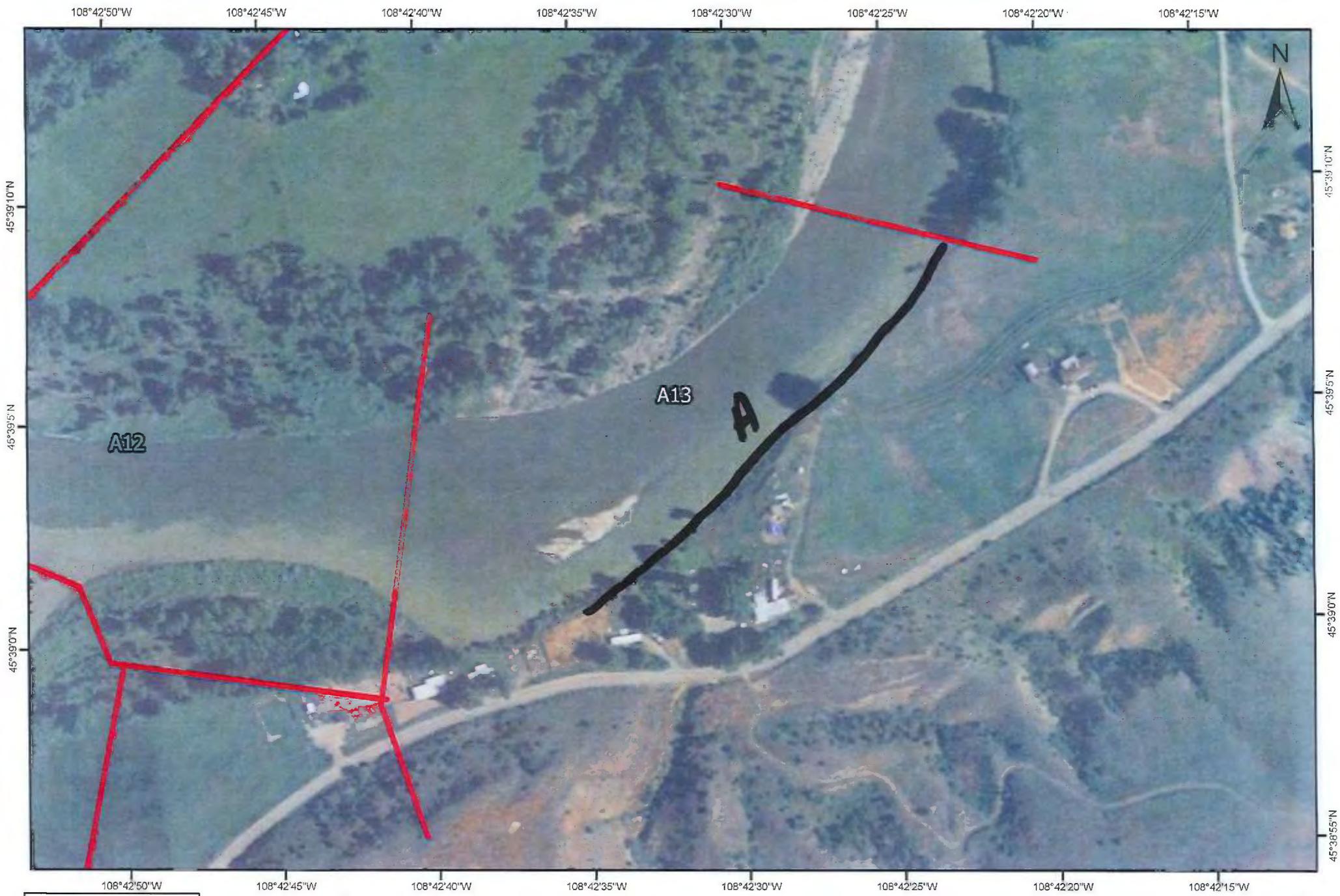
**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

Did not survey 160m of upstream portion due to steep bank. Needs to be surveyed from water.

Zone A- Whole area surveyed (except 160m of upstream portion). Stains and treated areas observed. NFT.

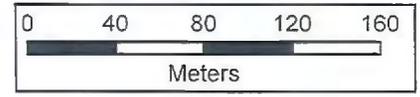
Sketch Yes / No Photos Yes / No Frames \_\_\_\_\_ Photographer \_\_\_\_\_



**A13 -**  
 (L~~1~~)??

DATE: 08/24/2011  
 TEAM: 6

COMMENTS: Balance of A13 could not be surveyed due to steep, high bank. Initial SCAT on 7/11/2011 showed NOO.



DB 16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 26/AUG/2011	Time (24h): std / daylight 09:45 hrs to 10:15 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: A13 <u>Left Bank / Right Bank / Island</u>				
Operations Division: A13 LB				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - <u>29</u> deg C	

2 SURVEY TEAM # 3 & 5	name	organization	contact phone number
Merlo Gauvreau	Polaris		
Tom Freeman	Polaris		
Ariel Blanc	Polaris		
Daniel Elefant	Cardno ENTRIX		
Larisa Leonova	EPA		
Rachelle Thompson	EPA		
Donnie McCurry	DEQ		
Darrick Turner	DEQ		
Ernie McKenzie	BLM		

3 SEGMENT Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 226 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

4A RIVER BANK TYPE **SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED**

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ **Manmade:** Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ **Wetland:** Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud S Sand P Mixed \_\_\_\_\_ Pebble/Cobble S Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ **Vegetated Bank:** S **Wooded Upland:** \_\_\_\_\_

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ **Other:** \_\_\_\_\_ If snow and ice use Winter River SOS

4B RIVER VALLEY CHARACTER **select as appropriate** **complete for primary**

Cliff or Bluff: \_\_\_\_\_ Est Height 2 m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander P confined or leveed \_\_\_\_\_ Substrate Type: sand/sed

Sloped: (>5°)(15°)(30°) straight \_\_\_\_\_ braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER **circle or select as appropriate**

est. width: <1m 1-10m 10-100m >100m \_\_\_\_\_ m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y(N) point bar present Y(N) bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

5 OPERATIONAL FEATURES Suitable backshore staging Y(N) Access: Direct from backshore Y(N) Alongshore from next segment Y / N

Debris: Y / N oiled Y / N amount \_\_\_\_\_ bags or \_\_\_\_\_ trucks access restrictions: **ISLAND**

Oiled trees/shrubs Y / N River Current strong Y / N Other Features: \_\_\_\_\_

6 SURFACE OILING CONDITIONS **begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type**

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)		
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
	m	m	%	m	m	%	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm	cm		cm	
A				X	226	433	<1			X	(X)						X					Veg/debris

7 SUBSURFACE OILING CONDITIONS **use letter for ZONE location plus Number of pit or trench — e.g., "A1"**

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)						
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO					

8 COMMENTS **ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations**

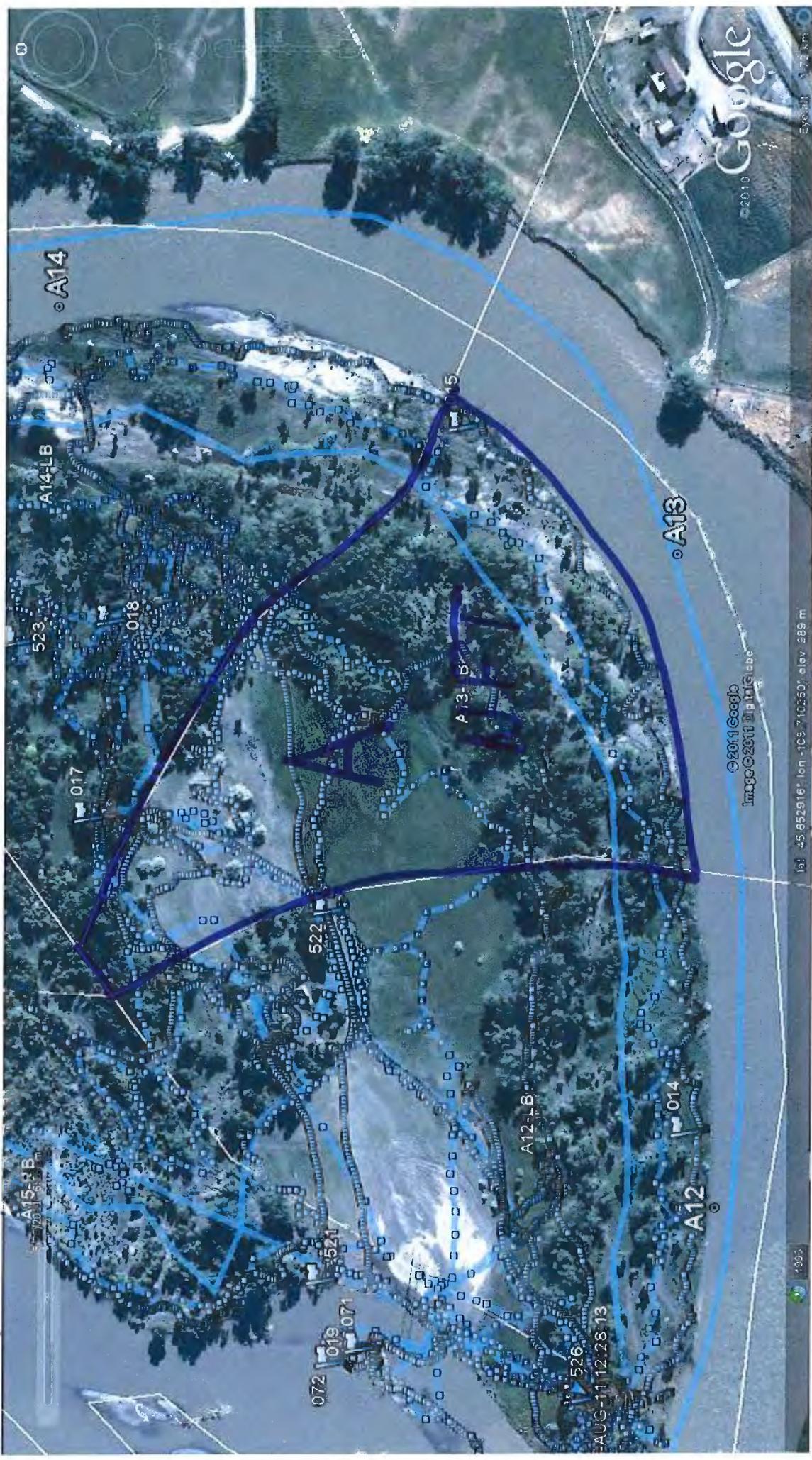
**ReSCAT**

Zone A: Trace oiled vegetation and natural debris. Hotshot crew accompanied ReSCAT Team. Remaining transferable oil removed during ReSCAT. Segment meets operational endpoints. NFT.

(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 # \_\_\_\_\_)

26 August ReSCAT  
A13-LB  
TEAM # 3, 5



2/2



## **Appendix F**

Completed SCAT Area Sign-Off  
Forms

# Silvertip Pipeline Spill SCAT Segment Sign-Off Sheet

**Operations Division:** A 13 B C

**SCAT Area Number (i.e. A12):** A13

**SCAT Segment Number (i.e. A12-LB/IS/RB):** A13 RB

\* Partial - Upstream 160m of mit too steep to survey by foot.

**Check if Complete:**

1. Completion Date for Initial SCAT Assessment: 07/11/2011

2. Combined Treatment Recommendations (CTRs) Developed/Issued:

Yes/No

List CTRs Applicable to SCAT Segment: 4

3. Clean-Up Operations Conducted:

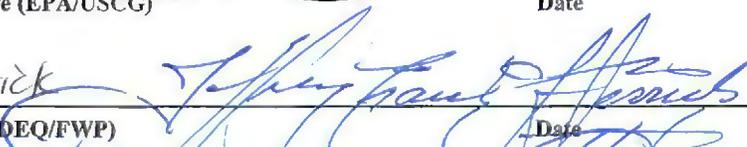
4. Inspection (CTR Objectives and CTR Addendums Complete):

\_\_\_\_\_  
RP Representative (SCAT/Ops Liaison Contractor) Date

5. SCAT Reassessment: Yes/No

Terry Tanner   
Federal Representative (EPA/USCG) Date

8/24/11

Jeffrey Herrick   
State Representative (DEQ/FWP) Date

8/24/11

Bruce Kwan   
RP Representative (SCAT Contractor) Date

8/24/11

Once all applicable SCAT Segments (i.e. LB, RB, and IS) within a particular SCAT Area (i.e. A21) have been successfully signed-off during a formal SCAT Reassessment, the SCAT area will achieve the response endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ upon completion.

COMPLETED

# Silvertip Pipeline Spill SCAT Segment Sign-Off Sheet

Operations Division: (A)      B      C

SCAT Area Number (i.e. A12): A13

SCAT Segment Number (i.e. A12-LB/IS/RB): A13/LB

Check if Complete:

1. Completion Date for Initial SCAT Assessment: 11-13-14 July-2011
2. Combined Treatment Recommendations (CTRs) Developed/Issued:   
List CTRs Applicable to SCAT Segment: 1 Yes/No
3. Clean-Up Operations Conducted:
4. Meets Qualitative Approved Treatment Methods Target Endpoints:  Yes/No
5. SCAT Reassessment:

Rachel Thompson      Rachelle Thompson      26/08/2011  
 Sign Name      Print Name      Date  
 Federal Representative (EPA/USCG)

Donnie McCurry      Donnie McCurry      26/08/2011  
 Sign Name      Print Name      Date  
 State Representative (DEQ/FWP)

[Signature]      Herto Gaurresan (Polaris)      26/08/2011  
 Sign Name      Print Name      Date  
 RP Representative (SCAT Contractor)

[Signature]      Ariel Blanc (Polaris)      26/08/2011

Once all applicable SCAT Segments (i.e. LB, RB, and IS) within a particular SCAT Area (i.e. A21) have been successfully signed-off during a formal SCAT Reassessment, the SCAT area will achieve the response endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ upon completion.