

**ExxonMobil Pipeline Company**

**SCAT Area Transition Report for  
B44**

Silvertip Pipeline Incident  
Laurel, Montana

October 27, 2011



## **SCAT Area Transition Report for B44**

Silvertip Pipeline Incident  
Laurel, Montana

Prepared for:

ExxonMobil Pipeline Company

Prepared by:

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Our Ref.:

B0085883.1103

Date:

October 27, 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 B44, 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 B44. 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 B44, 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 B44 is 7.5. There were no landowner access issues for this area. However, the upstream portion of the right bank was inaccessible, unvegetated and a rocky cliff.

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

No historic properties or cultural resources have been identified within this area 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 B44. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area B44.

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

Table 1 (below) summarizes samples collected within Area B44. 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 B44 are provided on Figure 3.

**Table 1 Environmental Sampling Summary**

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude	Results Validated?
CTEH	BIMT0826SE403	26-Aug-11	Sediment	B44	45.790529	-108.473426	No
EPA	SPSW03_070411	04-Jul-11	Water_Surface	SPSW03	45.790373	-108.474419	NA
EPA	SPSW03_070411	04-Jul-11	Water_Surface	SPSW03	45.790373	-108.474419	Yes

NA - Not Available

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, there was one exceedance for selenium.

#### 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 B44 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area B44.

#### 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. 32](#) and [CTR No. 33](#)).

#### 1.6 Oil Removal Activities

Oil removal activities were conducted within Area B44 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, 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 B44 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the right and left banks within Area B44, which is presented in Appendix C.

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

SCAT Operations liaisons performed an inspection of the remediated areas of SCAT Area B44 and developed a Post-Inspection Survey Transmittal (POST) associated with the left bank within Area B44, which is presented in Appendix D.

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

Figure 5 shows the oiling conditions within Area B44 following completion of oil removal activities. The SCAT team performed final surveys of the right and left banks within SCAT Area B44 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 left and right banks within Area B44, no treatment is recommended for the majority of the right bank with natural attenuation recommended for areas of very light oiling. No further treatment is recommended for the left bank. SCAT Segment Sign-Off Forms are included as Appendix F.



**SCAT Area Transition  
Report for B44**

Silvertip Pipeline Incident  
Laurel, Montana

**2. Transition Sign-Off Form**

**SCAT Area Transition Report for B44**

**Prepared for:**

**Unified Command**

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Date

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Unified Command – RP



**SCAT Area Transition  
Report for B44**

Silvertip Pipeline Incident  
Laurel, Montana

**SCAT Area Transition Report for B44**

**Prepared for:**

**Unified Command**

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Date

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Unified Command – FOSC



**SCAT Area Transition  
Report for B44**

Silvertip Pipeline Incident  
Laurel, Montana

**SCAT Area Transition Report for B44**

**Prepared for:**

**Unified Command**

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Date

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Unified Command – MDEQ

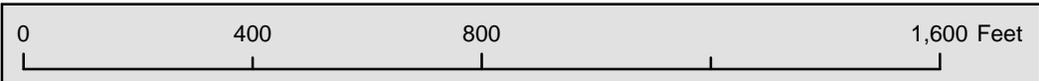
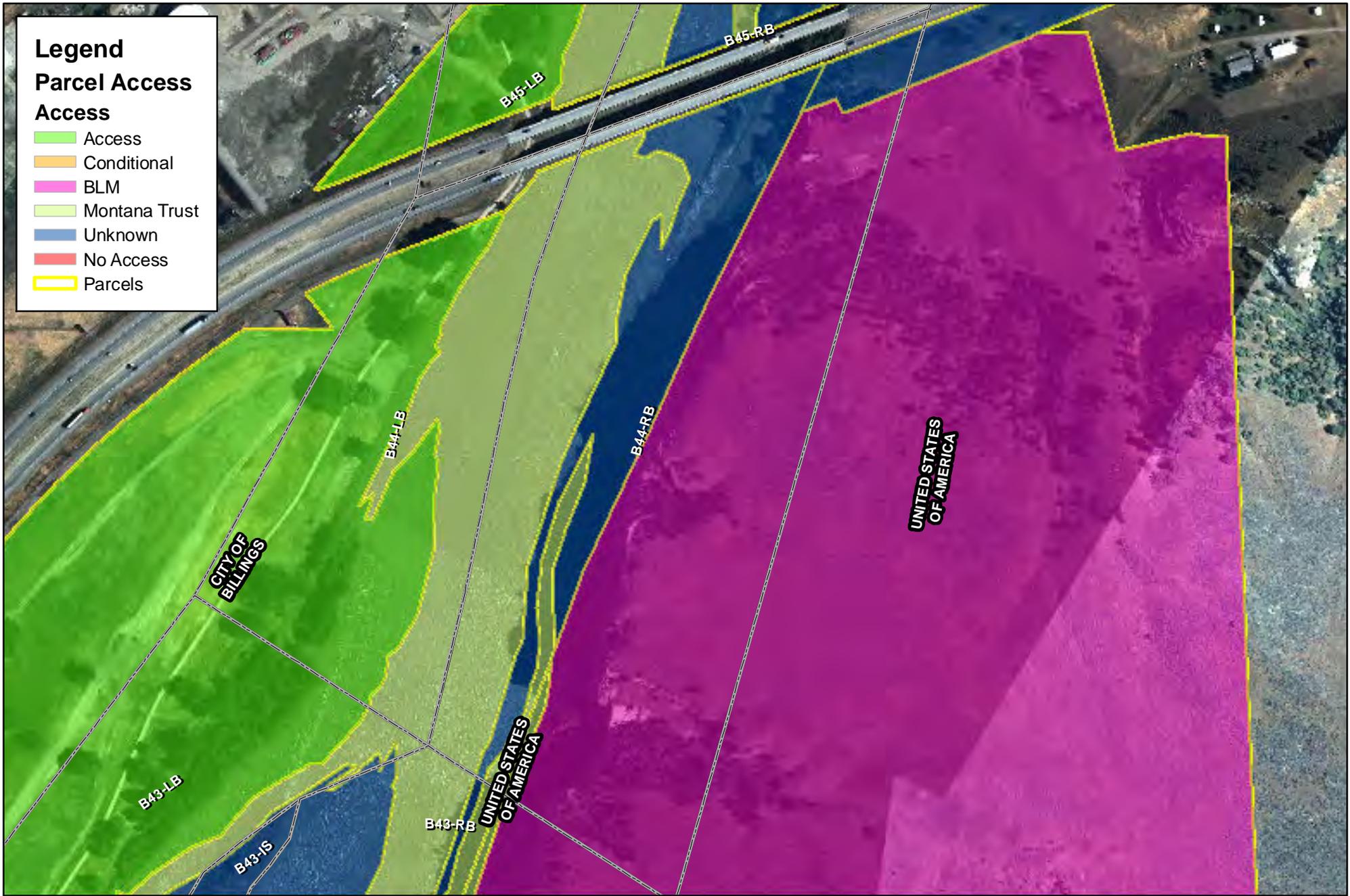
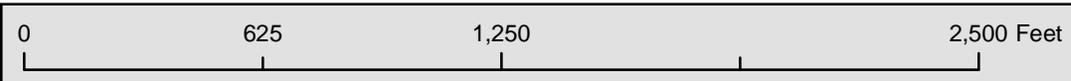


Figure 1

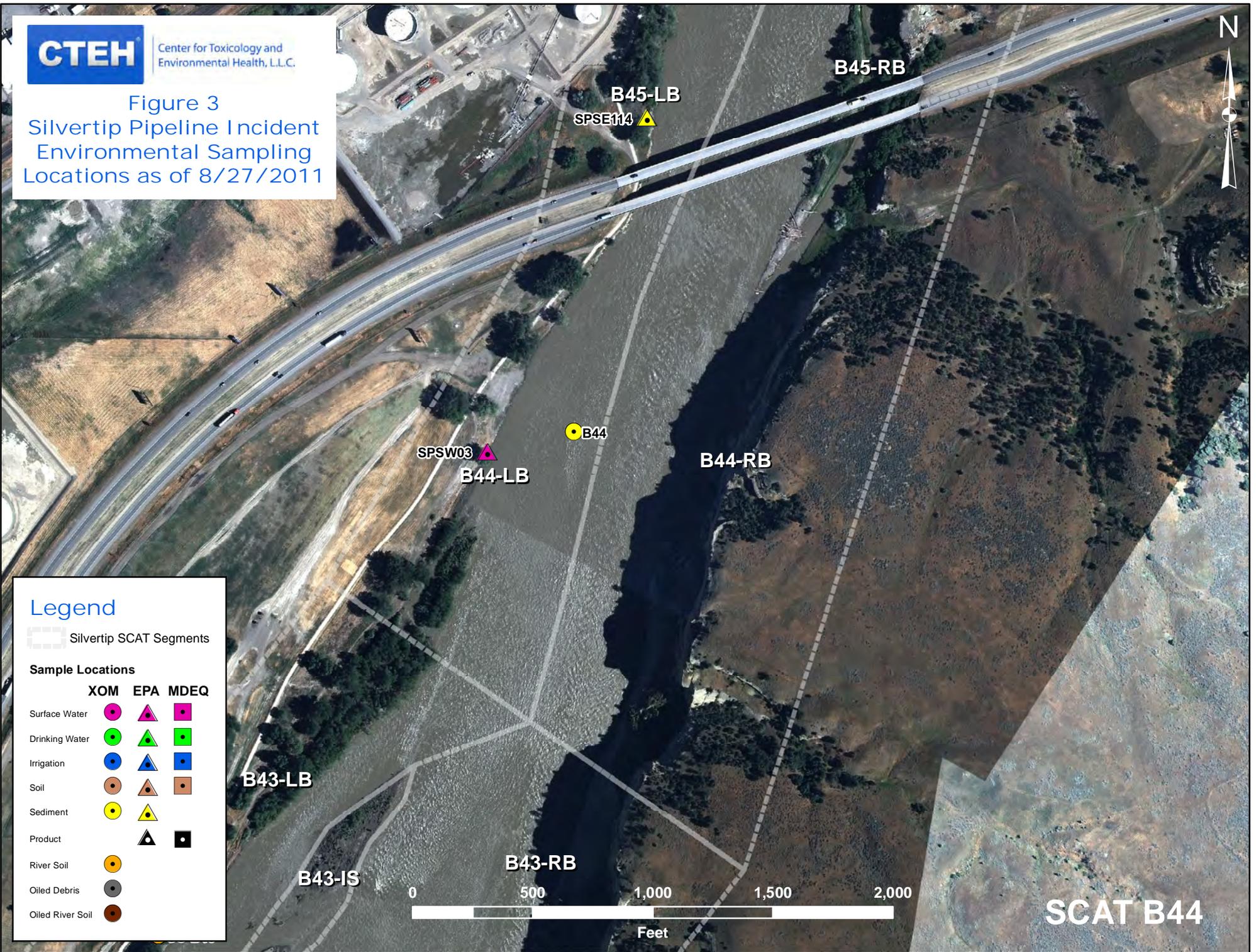


Note: Multiple individuals of the same species and status at a single location are denoted by a number label adjacent to the wildlife symbol.



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

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



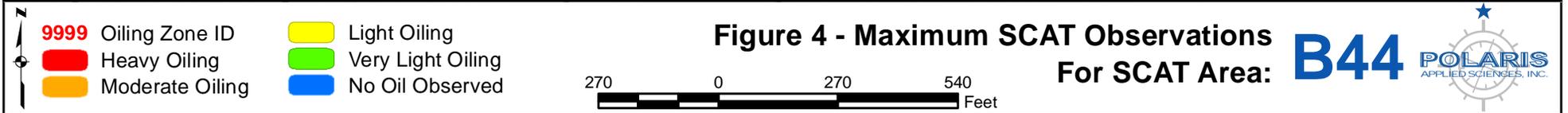
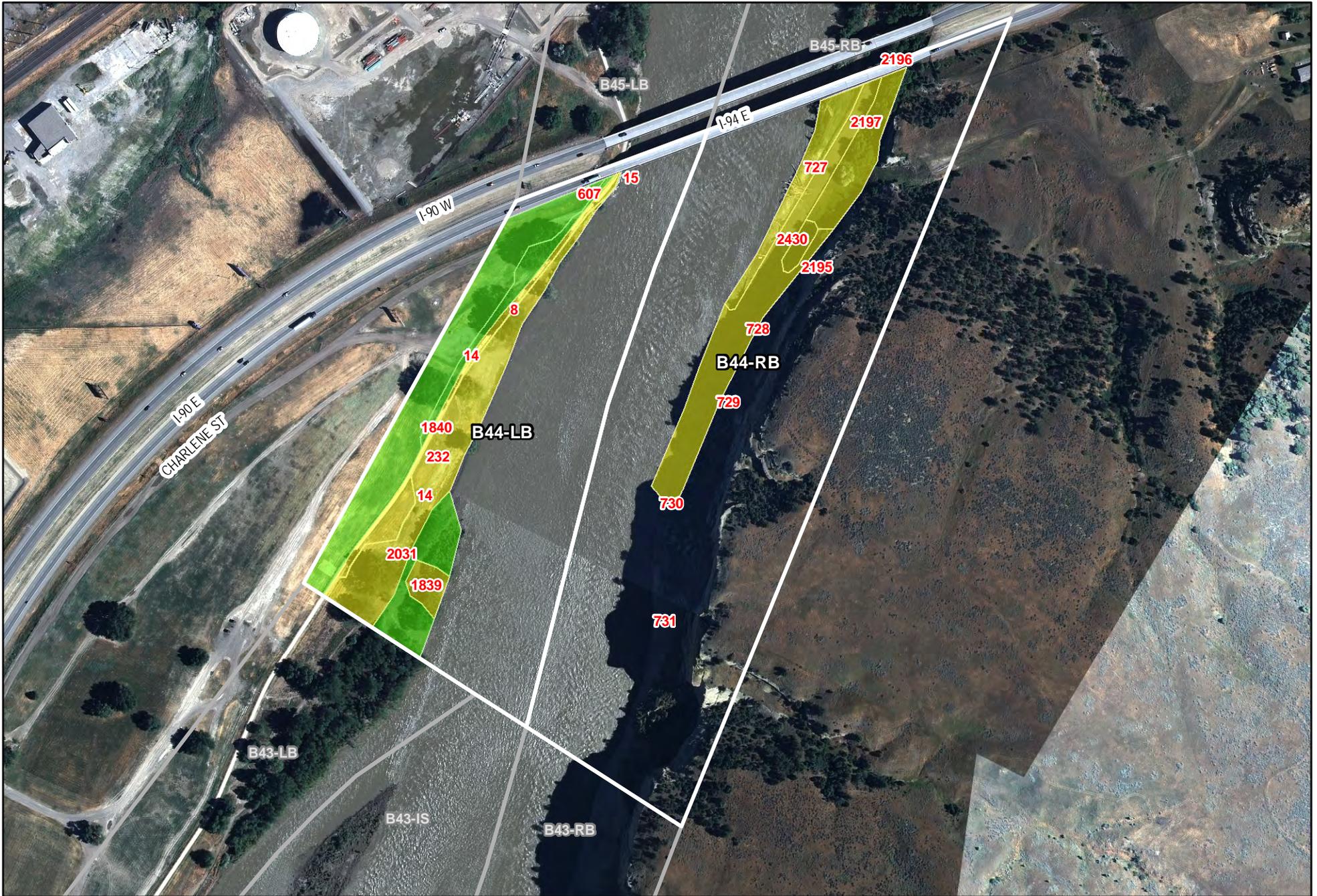
**Legend**

Silvertip SCAT Segments

**Sample Locations**

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

SCAT B44







## **Appendix A**

Sample Detection Summary



## Detections in Samples Collected in SCAT Area B44

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Arsenic	Y	9.1	9.8		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Barium	Y	127	NA		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Cadmium	Y	0.24	0.99		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Chromium	Y	19.3	43.4		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Lead	Y	17.3	35.8		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 9060	Mean Total Organic Carbon	Y	2180	NA		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Nickel	Y	14.5	22.7		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 9060	RSD%	Y	3.8	NA		%	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Selenium	Y	2.6	2		mg/kg	YES
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 9060	Total Organic Carbon	Y	2260	NA		mg/kg	no
BIMT0826SE403	08/26/2011	Field	Sediment	EPA 6010	Vanadium	Y	35.8	NA		mg/kg	no



## **Appendix B**

Initial SCAT Survey Forms and  
Sketches

DB/G/S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>B44</u>	Left Bank / <u>Right Bank</u> / Island	<u>19 / 07 / 11</u>	<u>0851</u> / <u>0852</u>	low - mean / <u>bankfull</u> / overbank
Operations Division: <u>B</u>			<u>0900</u> hrs to <u>0905</u> hrs	<u>falling</u> / steady - rising
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>			<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - <u>35</u> deg C

<b>2 SURVEY TEAM # 5</b>	name	organization	contact phone number
	Bob Nailon	Cardno ENTRIX	713 817 2469
	John Beach <u>DB</u>	EPA	707 364 0491
	Ken Frazer	FWP	406 247 2961

**3 SEGMENT** Total Segment/Reach Length 563 m Segment/Reach Length Surveyed 563 m

Start GPS: LATITUDE N \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE W \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: WGS 84

End GPS: LATITUDE N \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE W \_\_\_\_\_ 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) rip rap Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand S Mixed S Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ 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 X meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: \_\_\_\_\_

Sloped: (>5°)(15°)(30°) straight X 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 150 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 150 bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: bordered by I-90

**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	180																X	veg bank
B				X	20		1			S	P			X								" "
C				X	138																X	" "
D				X	5		20			S	P			X								" "
E				X	220																X	" "

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

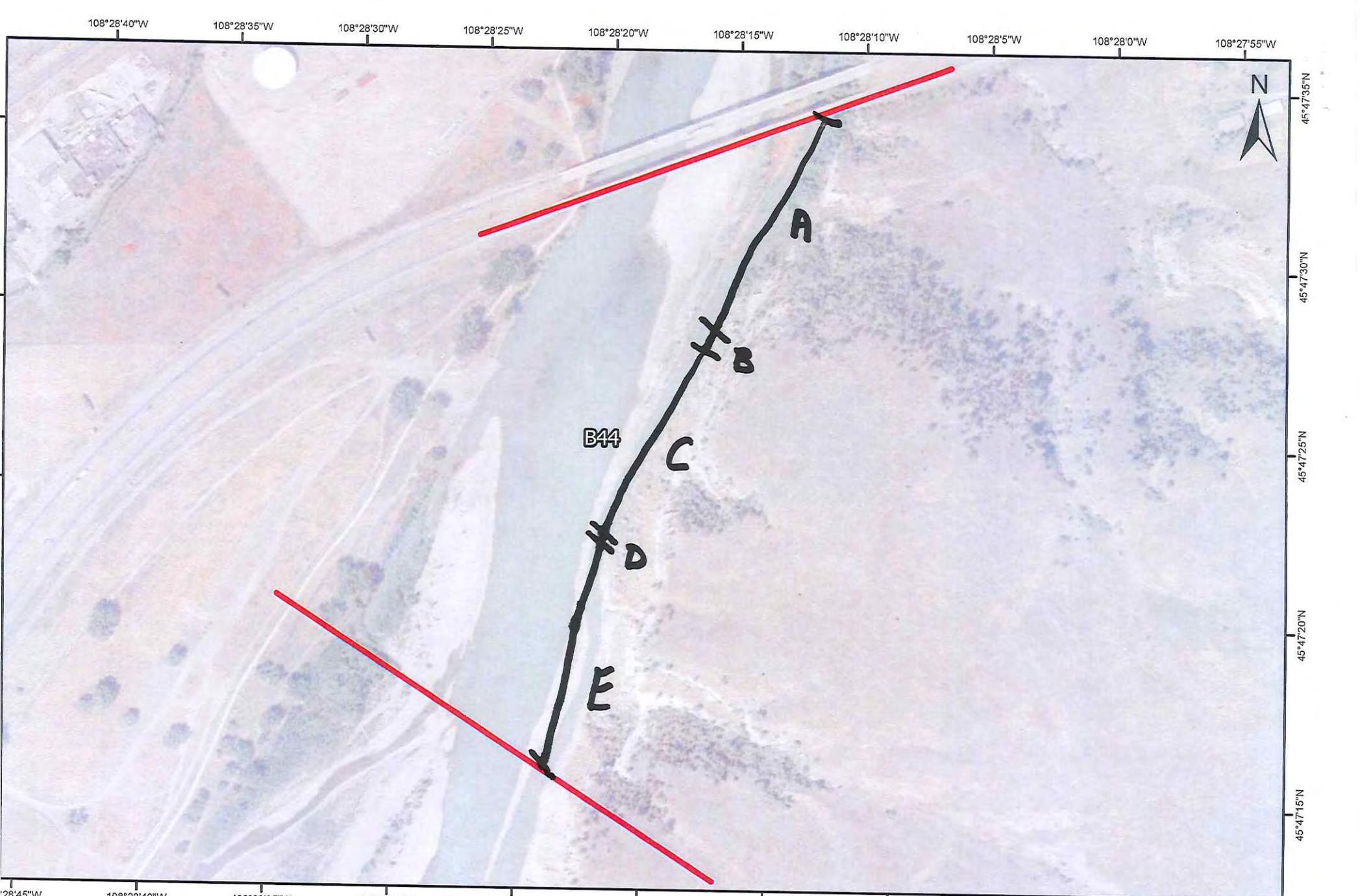
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

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

OSR = 4                      OSC = UNK                      SSC = UNK

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

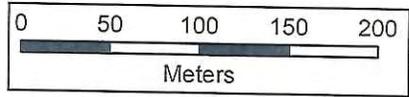
Sketch Yes/No Photos Yes/No (Roll # 4927 Frames 4924) Video Tape Yes/No (Tape # \_\_\_\_\_)



**B44 -**  
(L/R/I)??

DATE:  
TEAM:

COMMENTS:



DB/G/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 16/07/2011	Time (24h): std / daylight 1530 hrs to 1630 hrs	<b>Water Level</b> low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: B44 <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>27</u> deg C

2 SURVEY TEAM # <u>3</u>	name	organization	contact phone number
Richard Marty	<i>Richard Marty</i>	Polaris	208-360-0733
Jenni Nelson		Polaris	<i>Jenni Nelson</i>
Andrew Johnson	<i>Andrew Johnson</i>	US Coast Guard	
Mike Ruggles		Montana Fish Wildlife and Parks	
Ned Balcon		Exxon-Mobile	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 430 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 \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetater 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 P confined or leveed \_\_\_\_\_ Substrate Type: Mud

Sloped: (>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 150 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 20 bags or \_\_\_\_\_ trucks access restrictions Area is wet and a fence separates the area and road

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	430	20	0.5		X					X									Veg.

**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
NONE																	

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

**COULSON PARK.** Zone A is trace oil on vegetation which is found throughout the surveyed portion of the segment. Widely scattered oiled debris is also present. Oiling is approximately 20 cm up stems and 5 cm thick.

Oiled vegetation of Zone A should be cut, bagged, and disposed. Oiled debris and cleanup should be collected, bagged, and disposed.

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



COULSON PARK

*Zone B*  
*Veg & trees 39%*  
*20x30m Bath 706 mg*

*Zone A*

018 ACTIVE LOG

019

020

B43

021

B44

**1 GENERAL INFORMATION** Date (dd/mm/yy) 7-5-2011 Time (24h): std / daylight 1300 hrs to 1400 hrs **Water Level** low - mean - bankfull - overbank  
 Segment/Reach ID: B17 Left Bank / Right Bank / Island  
 Operations Division: Foot / ATV / Boat / Helicopter / Overlook / (Sun) / Clouds / Fog / Rain / Snow / Windy / Calm / Air Temp + / - deg. C

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

<u>R Henry</u>	<u>Polaris/SCAT</u>	<u>409-540-0252</u>
<u>T Olson - USCG</u>	<u>USCG</u>	<u>608-366-9044</u>
<u>J Parks</u>	<u>BLM</u>	<u>406-698-2007</u>

**3 SEGMENT** Total Segment/Reach Length 400 m Segment/Reach Length Surveyed 400 m  
 Start GPS: LATITUDE N 45 deg. 47.115 min. LONGITUDE W 108 deg. 28.365 min. Datum: \_\_\_\_\_  
 End GPS: LATITUDE N 45 deg. 47.515 min. LONGITUDE W 108 deg. 28.490 min. 791

**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  Pebble/Cobble Boulder Peat/Organic Vegetated Bank:  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 1 m canyon manmade meander confined or leveed Substrate Type: \_\_\_\_\_  
 Sloped: (>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 est. water depth: <1m 1-3m 3-10m >10m  
 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 1 bags or trucks access restrictions  
 Oiled trees/shrubs Y (N) River Current strong Y (N) Other Features: Boat access until water falls.

**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)					
	ID	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT		TC	SR	AP	NO	
<u>14</u> B					<u>X</u>	<u>280</u>	<u>0.5</u>															<input checked="" type="checkbox"/>	
<u>8</u> A					<u>X</u>	<u>1</u>	<u>0.5</u>	<u>60</u>				<input checked="" type="checkbox"/>											<u>Tree Limb</u>
<u>15</u> C					<u>X</u>	<u>117</u>	<u>0.5</u>															<input checked="" type="checkbox"/>	

**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

stained tree limb - left bank, north end 18" x 36"  
see attached

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

Belt

DB/G/S

**1 GENERAL INFORMATION** Date (dd/mm/yy) 7-5-2011 Time (24h): std / daylight 1300 hrs to 1400 hrs Water Level low - mean - bankfull - overbank

Segment/Reach ID: B17 (Left Bank / Right Bank / Island) Operations Division: falling - steady - rising

Survey by: Foot / ATV / Boat / Helicopter / Overlook / (Sun) Clouds / Fog / Rain / Snow / Windy / Calm Air Temp + / - deg C

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

R Henry Polaris / Boat 409-540-0252

T Olson - USCG USCG 608-366-9044

J Parks - Jibanks BLM 406-698-2007

**3 SEGMENT** Total Segment/Reach Length 400 m Segment/Reach Length Surveyed 400 m

Start GPS: LATITUDE N 45 deg. 47.115 min. LONGITUDE W 108 deg. 28.365 min. Datum: \_\_\_\_\_

End GPS: LATITUDE N 45 deg. 47.515 min. LONGITUDE W 108 deg. 28.462 min. 791

**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  Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank:  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 1 m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: \_\_\_\_\_

Sloped: (>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 \_\_\_\_\_ m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present  point bar present  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  Alongshore from next segment Y / N

Debris  oiled  amount 1 bags or \_\_\_\_\_ trucks access restrictions \_\_\_\_\_

Oiled trees/shrubs  River Current strong  Other Features: Boat access until water falls.

**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.				<u>17</u>		<u>1</u>	<u>1/2</u>				<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>	<u>Tree Limb</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 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

stained tree limb - left bank, north end 18" x 36"

see attached

No map

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

JP Signature received 8/24/11



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









## **Appendix C**

Pre-Inspection Survey Transmittal

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

Survey Date: 25 August 2011

Segment: B44 RB

Team:

RP Team Leader Eric Harlow

Signed: \_\_\_\_\_

Federal Rep Terry Tanner

Signed: [Signature]

State Rep Marcile Sigler

Signed: \_\_\_\_\_

Other trustee \_\_\_\_\_

Signed: \_\_\_\_\_

Segment meets criteria? YES \_\_\_ NO X

RBOS attached? YES X NO \_\_\_

**If NO:**

Location Sketch attached? YES \_\_\_ NO \_\_\_

CTR continue? YES \_\_\_ NO \_\_\_

Comments: Need to complete final SCAT & unsurveyed segment to inspect lightly oiled area shown on CTR (Zone R).

No BLM @ time of survey - Need to re-do - Crew/ team - may be better w/ a boat.

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

---

Survey Date: 25 August 2011  
Segment: B44 LB

Team:

RP Team Leader Eric Harlow  
Federal Rep Terry Tanner  
State Rep Marcie Sigler  
Other trustee \_\_\_\_\_

Signed:   
Signed:   
Signed:   
Signed: \_\_\_\_\_

Segment meets criteria?      YES \_\_\_      NO X

RBOS attached?                YES X      NO \_\_\_

**If NO:**

Location Sketch attached?    YES \_\_\_      NO \_\_\_

CTR continue?                 YES \_\_\_      NO \_\_\_

Comments:



## **Appendix D**

Post-Inspection Survey Transmittal

# POST

Post Inspection Survey Transmittal

*Created by Connor Kobeshki/Connor ENTRIX 8/30/11  
QA/QC*

Segment B44-LB

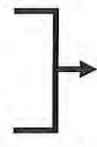
Date of Survey 08/25/11

SCAT Team Member Eric Harlow Signed: (see attached PEST)

SCAT Team Member Terry Tanner Signed: (see attached PEST)

SCAT Team Member Marcile Sigler Signed: (see attached PEST)

## Segment FAILED ReSCAT



Referred to Ops  
For Further Treatment

## Segment Conditionally PASSES ReSCAT



IF the Segment FAILED ReSCAT, another ReSCAT is required after treatment has been completed.  
IF the Segment Conditionally PASSES ReSCAT, a SCAT/Ops Liaison will verify treatment completion.

Describe the zone requiring further treatment. Comment on oiling conditions, relevant portions of the CTR(s), the appropriate ATMs to use, GPS waypoints, additional comments, etc. Attach map.

Intermittent oil on vegetation at eye level in zone A on attached map.  
Treatment started by Hotshot team, but not completed. Cut/remove  
vegetation < 1" diameter, remove coated debris and material < 4" diameter.  
Dust coated transferable oil where appropriate.

Zone Dimensions: Length 34m Width 40m GPS Waypoint: Lat. \_\_\_\_\_ Long. \_\_\_\_\_  
(required) (center of zone)

Estimated Work Effort: Number of People \_\_\_\_\_ Hours of Work \_\_\_\_\_ CTR  
(required) ~~Access Issues?~~ 33

The undersigned attests that the above treatment has been completed and the identified area meets the Approved Treatment Methods Target Endpoints.

(Complete ReSCAT done in place of SCAT/Ops Liaison Sign-off)  
Sign Name \_\_\_\_\_ Print Name/ Affiliation \_\_\_\_\_ Date on POST

Sign Name \_\_\_\_\_ Print Name/ Affiliation \_\_\_\_\_ Date \_\_\_\_\_  
Silvertip Pipeline Response Updated: 8/29/2011



## **Appendix E**

Final SCAT Survey Forms and  
Sketches

RESCAT 03/16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 07/09/2011	Time (24h): std / daylight 1010 hrs to 1050 hrs	<b>Water Level</b> low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: <u>0244</u> Left Bank / <u>Right Bank</u> / Island				
Operations Division: C				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>28</u> deg C

<b>2 SURVEY TEAM #</b> <u>NA</u>	Name	Organization	Signature
Richard Marty		Polaris	<i>[Signature]</i>
Ernie McKenzie		US Bureau of Land Management	<i>[Signature]</i>
Shawn Briggs		Montana FWP	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed \_\_\_\_\_ 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 \_\_\_\_\_ Mixed \_\_\_\_\_ 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 p confined or leveed \_\_\_\_\_ Substrate Type: mud/sand/grvl

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 100 m est. water depth: <1m 1-3 m 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)	
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO
A				X	50	10	<1				x						x				plants
B				x	110	50	0													x	All
C				X	110	10	0													X	All

**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
None																	

**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

Land is primarily BLM ownership.

A - Stain on grass and other plants. Oiling is at trace levels. Natural attenuation is recommended for this oiling.

B- No oil observed. No treatment is required.

Sketch Yes / No Photos Yes / No Frames None Photographer \_\_\_\_\_

B44  
Team 2  
8/7 Sept 2011



A = Very light < 1% total stain  
B = NOO  
C = NOO

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 08/25/11	Time (24h): std / daylight 1400 hrs to 1600 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: B44 Left Bank / <u>Right Bank</u> / Island				
Operations Division:				
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - _____ deg C

<b>2 SURVEY TEAM # 6</b>	Name	Organization	Signature
Bruce Kvam		Polaris	
David Eric Harlow		Cardno ENTRIX	
Mike Herman		FWP	
Marcile Sigler		DEQ	
Terry Tanner		EPA	

**3 SEGMENT** Total Segment/Reach Length 604 m Segment/Reach Length Surveyed 358 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 P Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed \_\_\_\_\_ Pebble/Cobble S Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: (S) 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: Cobles/sand

Sloped: <5° (>5°)(15°)(30°) straight X 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 173m 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 4 bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features: Road on ditch levee

**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	P	358	55	1			P	S						X					Rocky; sandy shrubs, grass
<del>A1</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 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

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

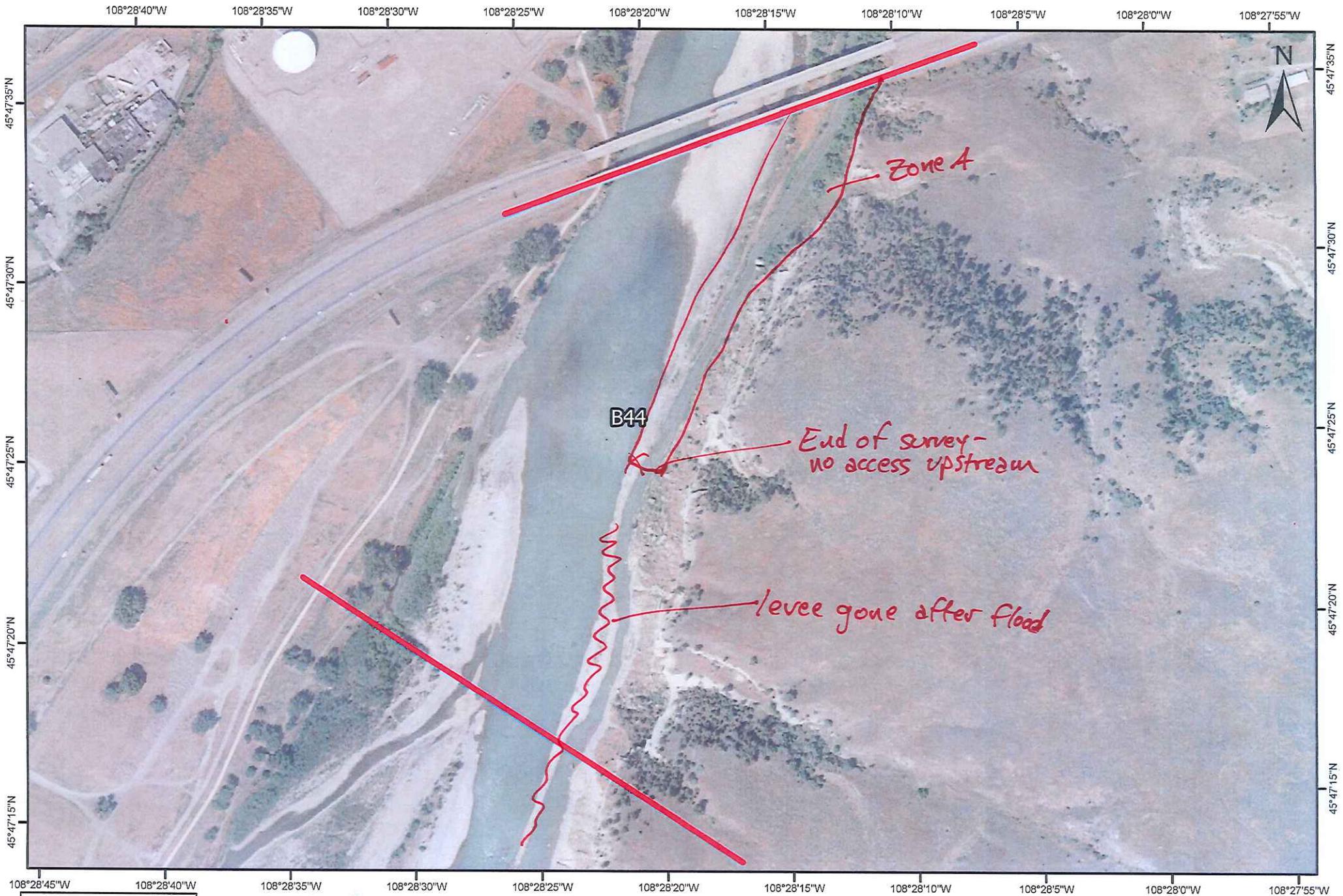
RESCAT- NO PRIOR OPS TREATMENT

Visited with Hotshot team, treated all remaining issues.

Zone A- Intermittent patches of CT and ST, tar, along levee and along bank. Treated with hotshot team- removed oiled vegetation >1 inch, removed oil coated debris >4 inches, dusted with silt remaining stains and coats. No further treatment required. Zone A extends to 358m upstream along levee for ditch intake, where the levee ends. Upstream from the end of the levee, the RB shoreline to the end of unit consists of steep rocky cliff with no vegetation at waters edge.

*Lightly oiled area shown on CTR upstream from area surveyed. Would need to survey that area by boat.*

Sketch Yes / No Photos Yes / No Frames 1378, 1379, 1380 Photographer David Harlow & others



**B44** -  
(L/R/I)??

DATE: 8/25/11  
TEAM: T-6  
Rescat

COMMENTS:  
Upstream of end of survey is rocky unvegetated cliff.

DB/G

**RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident**

<b>B</b>	Date (dd/mm/yy) 08/25/11	Time (24h): std / daylight 1540 hrs to 17:15 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: B44 <span style="color: red;">CB</span> Left Bank / Right Bank / Island	Operations Division:		
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp +/- 9.0 F deg C

2 SURVEY TEAM # <u>6</u>	Name	Organization	Signature
Bruce Kvam	Polaris		<i>Bruce Kvam</i>
David Eric Harlow	Cardno ENTRIX		<i>David Harlow</i>
Mike Herman	FWP		<i>Mike Herman</i>
Marcile Sigler	DEQ		<i>Marcile Sigler</i>
Terry Tanner	EPA		<i>Terry Tanner</i>

**3 SEGMENT** Total Segment/Reach Length 432 m Segment/Reach Length Surveyed 432 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 s \_\_\_\_\_ Mixed \_\_\_\_\_ Pebble/Cobble s \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: s Wooded Upland: (s)

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand P \_\_\_\_\_ Mixed/Coarse s \_\_\_\_\_ 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: Sand \_\_\_\_\_

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

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

est. width: <1m 1-10 m 10-100 m >100m 164 m est. water depth: <1 m 1-3 m 3-10 m >10 m \_\_\_\_\_ 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 (N) amount 1 bags or \_\_\_\_\_ trucks access restrictions

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

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

1839  
1840

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	%														
A				x	34	40	1			p	s							x			sand, thick young shrubs and veg
B				x	420	95	1			s	p							x			sand, grass, forest

**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				
	MS	LB	UB	OB	cm	cm-cm						cm	B, R, S, N	Yes / No	

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

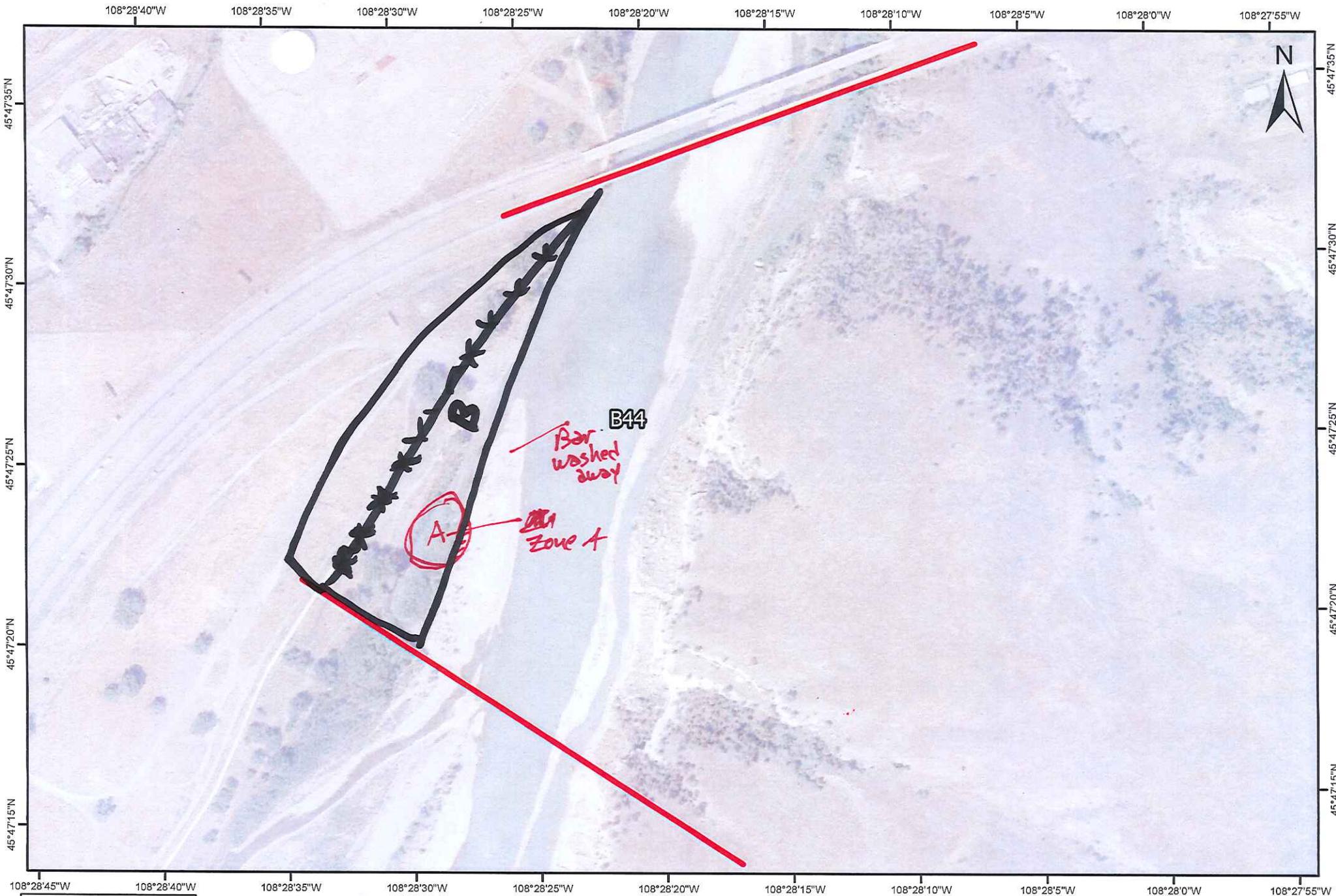
Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

Rescat- had not been treated by ops prior to this visit.

Zone A- Intermittent oil on vegetation at eye level- coatings & stains, tar consistency. Visited with hotshot team and treated a portion of Zone A, but did not complete it. Treatments included cut and remove oiled vegetation <1 inch, remove oil coated material <4 inches, and dusted oil stained and coated material.

Zone B- Rest of unit- some staining visible along bike trail- non transferable, so NFT. However, some areas with stains are visible from bike trail.

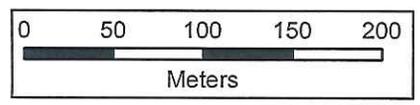
Sketch (Yes) / No Photos (Yes) / No Frames 1381, 1382 Photographer David Harlow



**B44 - LB**  
(L/R/I)??

DATE: 8/25/11  
TEAM: T-6  
Rescat

COMMENTS:  
Zone A - needs treatment - oiled stems - CT, ST, TC  
Zone B - Rest of unit - NPT, some status visible from  
bike trail



DB16

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>B77</u> <input checked="" type="checkbox"/> Left Bank / <input type="checkbox"/> Right Bank / <input type="checkbox"/> Island		<u>1-9-11</u>	<u>1410</u> hrs to <u>1515</u> hrs	low - mean - bankfull - overbank falling - steady - rising
Operations Division: <u>B</u>		Survey by: <u>Foot</u> / <input type="checkbox"/> ATV / <input type="checkbox"/> Boat / <input type="checkbox"/> Helicopter / <input type="checkbox"/> Overlook / _____		Air Temp +/- <u>20</u> deg C
Sun / Clouds / Fog / Rain / Snow / Windy / Calm				

<b>2 SURVEY TEAM #</b> <u>3</u>	Name	Organization	Signature
	<u>Chuck Pons</u>	<u>Canadian ENTRIX</u>	<u>[Signature]</u>
	<u>TERRY TANNER</u>	<u>U.S. EPA</u>	<u>[Signature]</u>
	<u>Mark Peterson</u>	<u>DEQ</u>	<u>[Signature]</u>

**3 SEGMENT** Total Segment/Reach Length 415 m Segment/Reach Length Surveyed 415 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 S Mixed P Pebble/Cobble S Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: S 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: Sand

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 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 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
A				<u>X</u>	<u>415</u>	<u>45</u>	<u>&lt;1</u>				<u>P</u>						<u>P</u>			<u>Sand</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 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

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

Zone A has less than 1kg of stain veg + debris.

No further treatment

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

9/1/2011 5:33 pm

Current Track: 01 SEP 2011 10:55

ACTIVE LOG 003

ACTIVE LOG 007

ACTIVE LOG 008

B44 R

T-3

9-1-11

28'43.68"

W108°28'17.76"



Charlene St

B44-LB

B44

B44-RB

A

007

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Image © 2011 GeoEye

© 2010 Goo

ate: 7/31/2009 1996

45°47'26.29" N 108°28'28.08" W elev 3105 ft

Eye alt



## **Appendix F**

Completed SCAT Segment Sign-Off  
Forms

# SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

## SILVERTIP PIPELINE RELEASE

Segment B44RB Date of Survey 7 September 2011

Dates of Initial SCAT Assessments 19/7, 25/8, 7/9/2011  
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment CTR32

Segment has been treated by Operations or an Operations Hotshot Team **YES** NO

Segment Assessment Complete<sup>1</sup>

Partial Segment Assessment

*The undersigned are in agreement that the above segment or partial segment meets the Approved Treatment Methods Target Endpoints.*

This Segment is Conditionally Approved   
(See attached Post Inspection Survey Transmittal (POST))

*The undersigned are in agreement that the above segment meets the Approved Treatment Methods Target Endpoints conditional upon completion of the treatment identified in the attached Post Inspection Survey Transmittal (POST).*

  
Sign Name \_\_\_\_\_ Print Name/ Affiliation Ernie McKensie/BLM Date 10/11/11  
**Federal Representative (EPA/USCG)**

  
Sign Name \_\_\_\_\_ Print Name/ Affiliation Shawn Briggs/Montana FWL and P Date 9/7/2011  
**State Representative (DEQ/FWP)**

  
Sign Name \_\_\_\_\_ Print Name/ Affiliation Richard Marty/Polaris (for Exxon-Mobil) Date 7 Sept 2011  
**RP Representative (SCAT RP Representative)**

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 Assessment, the SCAT Area will achieve the Response Endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ.

<sup>1</sup> A Segment Sign-Off Assessment is considered complete when all accessible lands that have not already been signed-off by a claims liaison have been surveyed. If any previous SCAT Assessments were conducted, all lands that were originally recommended for treatment must be re-surveyed in the Sign-Off Assessment. If the conducted survey does not meet these conditions it is considered a Partial Assessment. Multiple Partial Assessments that meet the conditions of a Complete Assessment may together constitute a Complete Sign-Off Assessment.

# SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

## SILVERTIP PIPELINE RELEASE

Segment B44 L Date of Survey 9-1-11

Dates of Initial SCAT Assessments 05 JUL 11 (IL)  
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 33

Segment has been treated by Operations or an Operations Hotshot Team YES NO

Segment Assessment Complete<sup>1</sup>

Partial Segment Assessment

*The undersigned are in agreement that the above segment or partial segment meets the Approved Treatment Methods Target Endpoints.*

This Segment is Conditionally Approved   
(See attached Post Inspection Survey Transmittal (POST))

*The undersigned are in agreement that the above segment meets the Approved Treatment Methods Target Endpoints conditional upon completion of the treatment identified in the attached Post Inspection Survey Transmittal (POST).*

[Signature] TERRY TANNER / U.S. EPA 9-1-11  
Sign Name Print Name/ Affiliation Date  
**Federal Representative (EPA/USCG)**

[Signature] Mack Peterson / DEQ 9-1-11  
Sign Name Print Name/ Affiliation Date  
**State Representative (DEQ/FWP)**

[Signature] Charles Paris / Cordoba ENTRIX 9-1-11  
Sign Name Print Name/ Affiliation Date  
**RP Representative (SCAT RP Representative)**

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 Assessment, the SCAT Area will achieve the Response Endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ.

<sup>1</sup> A Segment Sign-Off Assessment is considered complete when all accessible lands that have not already been signed-off by a claims liaison have been surveyed. If any previous SCAT Assessments were conducted, all lands that were originally recommended for treatment must be re-surveyed in the Sign-Off Assessment. If the conducted survey does not meet these conditions it is considered a Partial Assessment. Multiple Partial Assessments that meet the conditions of a Complete Assessment may together constitute a Complete Sign-Off Assessment.