

ExxonMobil Pipeline Company

**SCAT Area Transition Report
for A03**

Silvertip Pipeline Incident
Laurel, Montana

October 18, 2011



SCAT Area Transition Report for A03

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Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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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 A03, 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 A03. 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 A03, 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 A03 is 16.7. There were partial access issues for the right and left banks and island in Area A03.

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 A03. Five oiled Woodhouse's toads (*Bufo woodhousii*) were captured, cleaned, and released. In addition, four Woodhouse's toads were captured and taken to the Wildlife Recovery Center for an oiling evaluation, determined to be un-oiled, and released. One deceased Cedar waxwing (*Bombycilla cedrorum*) with no visible oiling and one deceased lightly oiled yellow bullhead (*Ameiurus natalis*) were recovered in Area A03. No Wildlife Priority Cleanup Areas were identified in Area A03. A Wildlife Priority Cleanup Area was identified on the tip of "A03-Island"; however, this site is in Area A02 and is discussed in the SATR for that area. A spotted sandpiper (*Actitis macularius*) nest was also identified on A03-Island.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area A03. 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 A03 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	LAMT0715DW202	15-Jul-11	Water_Drinking	LAMT_372_DW202	45.651727	-108.750487
CTEH	LAMT0715DW203	15-Jul-11	Water_Drinking	LAMT_372_DW203	45.651587	-108.750684
CTEH	LAMT0721DW303	21-Jul-11	Water_Drinking	LAMT_390_DW303	45.652682	-108.74625
CTEH	LAMT0721SW302	21-Jul-11	Water_Surface	LAMT_390_SW302	45.653639	-108.747307
CTEH	LAMT0726DW201	26-Jul-11	Water_Drinking	LAMT_446_DW201	45.651864	-108.748488
CTEH	LAMT0810DW301	10-Aug-11	Water_Drinking	LAMT_522_DW301	45.651917	-108.748058
CTEH	LAMT0810IW301	10-Aug-11	Water_Irrigation	LAMT_522_IW301	45.651933	-108.747935
CTEH	LAMT0812SO401	12-Aug-11	Soil_River	SO-A03-07	45.654298	-108.747654
CTEH	LAMT0812SO402	12-Aug-11	Soil_River	SO-A03-06	45.654362	-108.747697
CTEH	LAMT0812SO405	12-Aug-11	Soil_River	SO-A03-01	45.654359	-108.747639
CTEH	LAMT0812SO406	12-Aug-11	Soil_River	SO-A03-05	45.654361	-108.747633
CTEH	LAMT0812SO407	12-Aug-11	Soil_River	SO-A03-02	45.654369	-108.747625
CTEH	LAMT0815SO201	15-Aug-11	Soil_surface	LAMT_434_SO201	45.653953	-108.746376
CTEH	LAMT0815SO202	15-Aug-11	Soil_surface	LAMT_434_SO202	45.654581	-108.748402
CTEH	LAMT0815SO203	15-Aug-11	Soil_surface	LAMT_434_SO203	45.654739	-108.748891
CTEH	LAMT0815SO204	15-Aug-11	Soil_surface	LAMT_434_SO204	45.653826	-108.746045
CTEH	LAMT0818DW101	18-Aug-11	Water_Drinking	LAMT_545_DW101	45.651855	-108.748198
EPA	SP50108D02_071311	13-Jul-11	Soil_Surface	SP50108	45.6530624	-108.7452513

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 were two exceedances for vanadium.

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 A03 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area A03.

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. 3](#), [CTR No. 10](#), [CTR No. 17](#), and [CTR No. 26](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area A03 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 A03 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the island and right bank within Area A03, 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 A03 and developed a Post-Inspection Survey Transmittal (POST) associated with the island within Area A03, which is presented in Appendix D.

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area A03 following completion of oil removal activities. The SCAT team performed final surveys of the island and right bank within SCAT Area A03 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 initial SCAT surveys of the left bank, no oil was observed. Based on the final SCAT surveys performed on the island and right bank within Area A03, no further treatment is recommended for these segments. SCAT Segment Sign-Off Forms are included as Appendix F.

A Wildlife Priority Cleanup Area was identified on the tip of "A03-Island"; however, this site is in Area A02 and is discussed in the SATR for that area.



**SCAT Area Transition
Report for A03**

Silvertip Pipeline Incident
Laurel, Montana

2. Transition Sign-Off Form

SCAT Area Transition Report for A03

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for A03**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for A03

Prepared for:

Unified Command

Date

Unified Command – FOSC



**SCAT Area Transition
Report for A03**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for A03

Prepared for:

Unified Command

Date

Unified Command – MDEQ

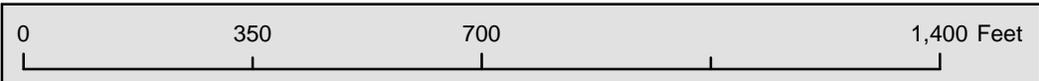


Figure 1

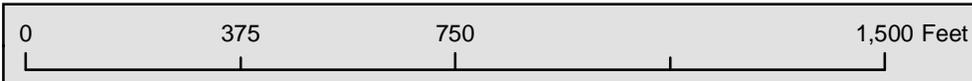
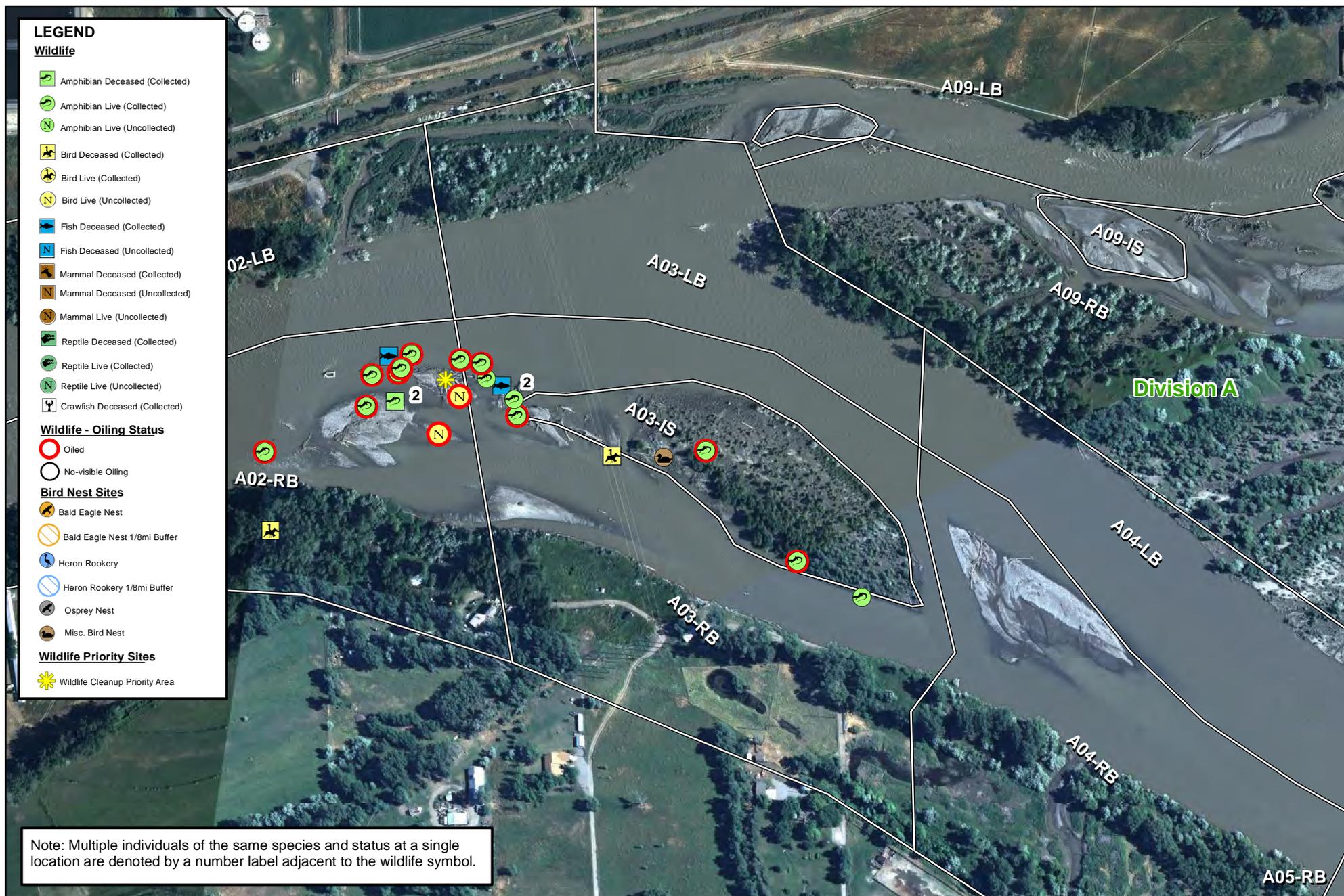
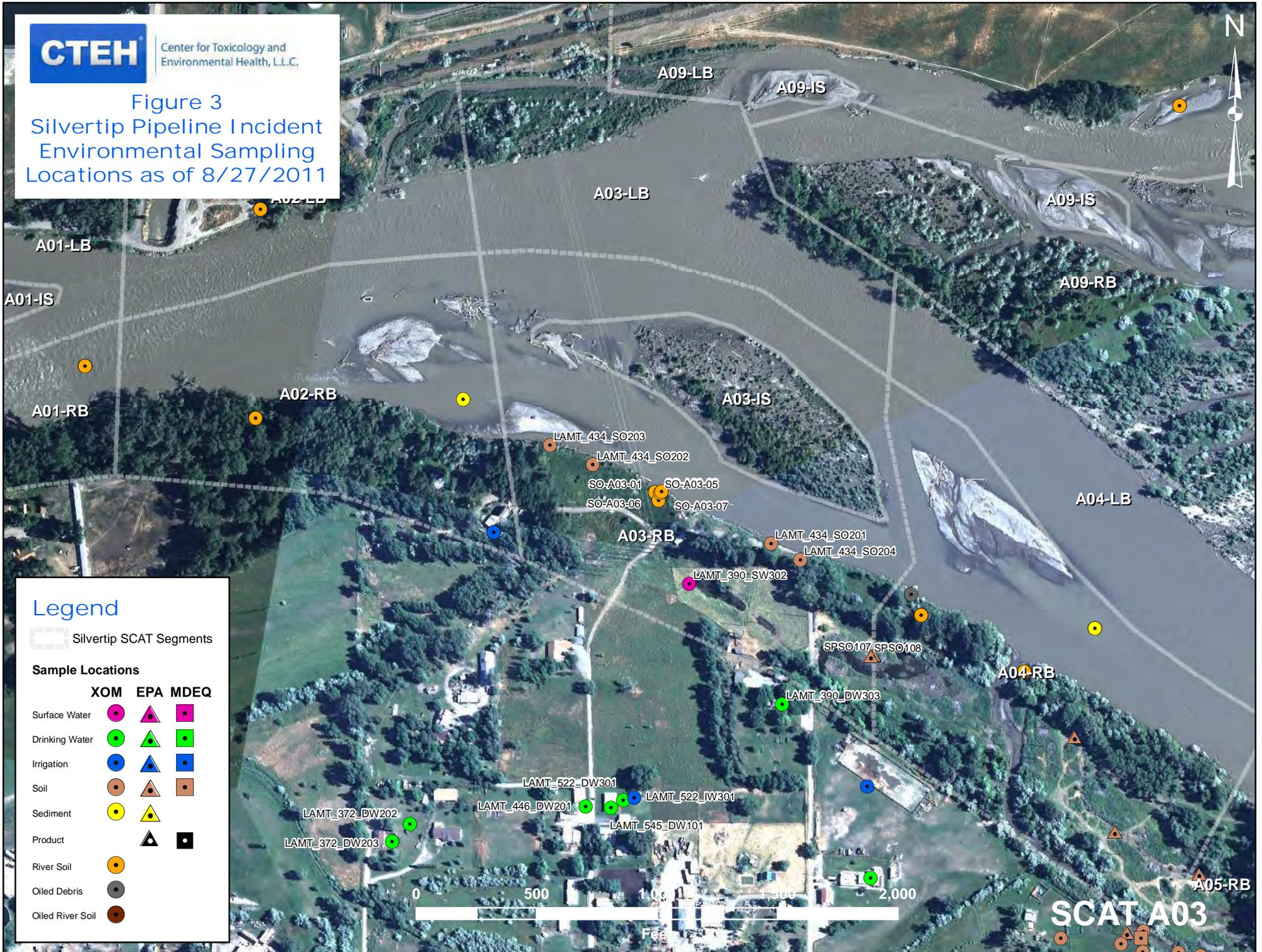


Figure 2
Wildlife Resources



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 A03



	9999 Oiling Zone ID	Light Oiling
	Heavy Oiling	Very Light Oiling
	Moderate Oiling	No Oil Observed

Figure 4 - Maximum SCAT Observations For SCAT Area: A03

POLARIS
APPLIED SCIENCES, INC.

230 0 230 460
Feet



- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed

**Figure 5 - Final SCAT Observations
For SCAT Area: A03**





Appendix A

Sample Detection Summary



Detections in Samples Collected in SCAT Area A03

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Arsenic	Y	20.6	40		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Barium	Y	143	820		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Cadmium	Y	1.1	3.8		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Chromium	Y	21.8	280		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Lead	Y	9.8	400		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Nickel	Y	17.4	150		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 6010	Vanadium	Y	36	39		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 9060	Mean Total Organic Carbon	Y	20300	NA		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 9060	RSD%	Y	34	NA		%	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	EPA 9060	Total Organic Carbon	Y	27200	NA		mg/kg	no
LAMT0812SO401	12-Aug-11	Field	Soil_River	MADEP EPH	Total Extractable Hydrocarbons	Y	34	200		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Arsenic	Y	23.6	40		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Barium	Y	169	820		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Cadmium	Y	1.2	3.8		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Chromium	Y	28.2	280		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Lead	Y	10.6	400		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Nickel	Y	22.4	150		mg/kg	no
LAMT0815SO201	15-Aug-11	Field	Soil_surface	EPA 6010	Vanadium	Y	42.7	39		mg/kg	YES
LAMT0815SO201	15-Aug-11	Field	Soil_surface	MADEP EPH	Total Extractable Hydrocarbons	Y	22.1	200		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Arsenic	Y	20.1	40		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Barium	Y	146	820		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Cadmium	Y	1.1	3.8		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Chromium	Y	24.3	280		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Lead	Y	9.4	400		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Nickel	Y	18.8	150		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 6010	Vanadium	Y	38.4	39		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	EPA 7471	Mercury	Y	0.021	1		mg/kg	no
LAMT0815SO202	15-Aug-11	Field	Soil_surface	MADEP EPH	Total Extractable Hydrocarbons	Y	17.8	200		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Arsenic	Y	21.4	40		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Barium	Y	145	820		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Cadmium	Y	1.2	3.8		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Chromium	Y	23.8	280		mg/kg	no



Detections in Samples Collected in SCAT Area A03

Printed 9/9/2011

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Lead	Y	10.1	400		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Nickel	Y	18.6	150		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	EPA 6010	Vanadium	Y	38.4	39		mg/kg	no
LAMT0815SO203	15-Aug-11	Field	Soil_surface	MADEP EPH	Total Extractable Hydrocarbons	Y	60.6	200		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Arsenic	Y	23.9	40		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Barium	Y	154	820		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Cadmium	Y	1.3	3.8		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Chromium	Y	26.9	280		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Lead	Y	11.5	400		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Nickel	Y	20.3	150		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 6010	Vanadium	Y	43.5	39		mg/kg	YES
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 7471	Mercury	Y	0.021	1		mg/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	EPA 8270 by SIM	Chrysene	Y	11.9	20000		ug/kg	no
LAMT0815SO204	15-Aug-11	Field	Soil_surface	MADEP EPH	Total Extractable Hydrocarbons	Y	41.6	200		mg/kg	no



Appendix B

Initial SCAT Survey Forms and
Sketches

DB/A/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1107 hrs to 1108 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A3 Left Bank / Right Bank / <u>Island</u>				
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

2 SURVEY TEAM # 2 & 4	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 316 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 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

Debris: Y / N oiled Y / N amount _____ bags or 10 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	X	347	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				

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

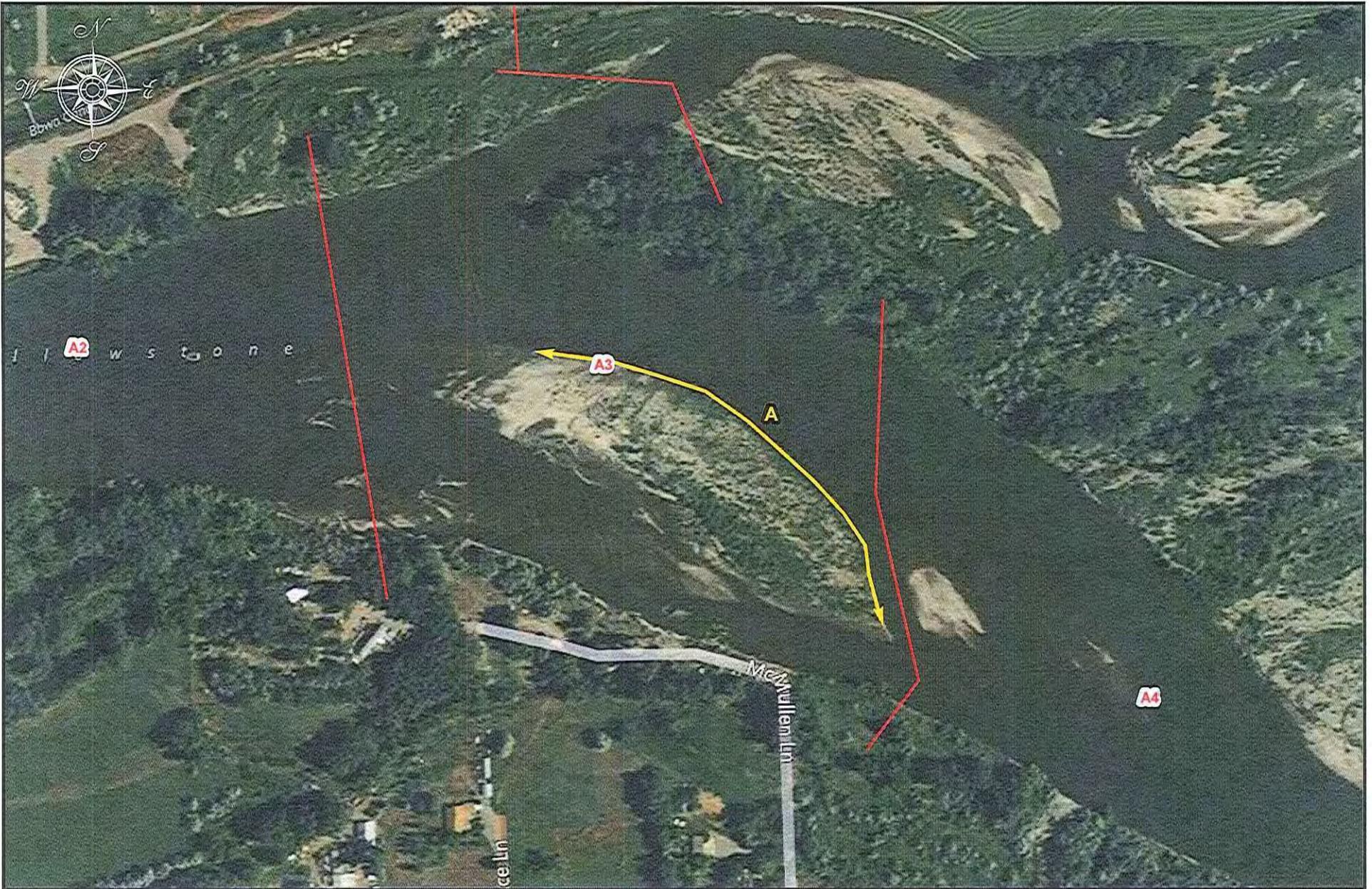
Oiled Band Heights: Zone A - 30cm

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)

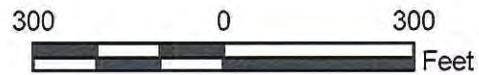
Sketch (Yes/No) Photos (Yes/No) (Roll # _____ Frames _____) Video Tape Yes/No (tape# _____)



SCAT Teams 2 & 4 Survey

Segment A3 Island

11-Jul-2011



Legend

-  Oil Zones
-  Segment Boundaries

DB / 6 / SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 18-Jul-2011	Time (24h): std / daylight 0915 hrs to 1017 hrs	Water Level low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: A03 Left Bank / 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	
Bruce Kvam	<u>EBK</u>	Polaris	
Pete Lee	<u>PBL</u>	Polaris	
Andy Johnson	<u>Handwritten</u>	USCG	
Travis Olson	<u>TO</u>	USCG	
Aaron Anderson	<u>AA</u>	MTDEQ	
Darrik Turner	<u>Larry Alheim</u>	MTDEQ	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 405 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 S Boulder _____ Peat/Organic _____ Vegetated Bank: S Wooded Upland: P

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 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

Debris: Y/N oiled Y/N amount _____ bags or 15 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

SW
313

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	60	35	25	X	X	X	X		X	X							Grass, trees, debris, soil, rocks
B				X	170	50	15		X	X	X		X								Grass, trees, debris
C				X	175	25	5			X	X		X								Grass, trees

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				

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

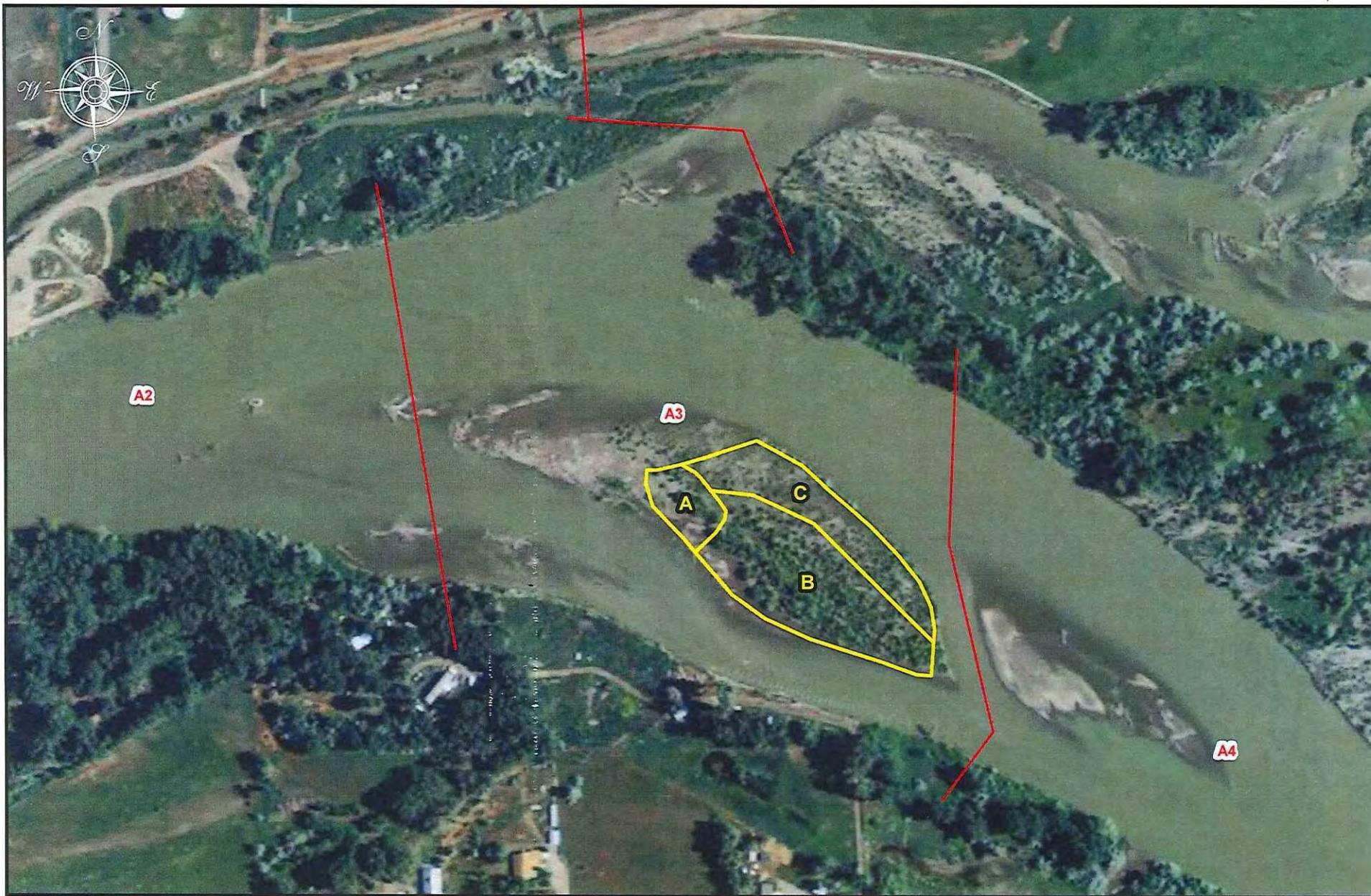
Oil band heights: Zone A - 30cm; Zone B - 30cm; Zone C - 10cm

Treatment Recommendations:
 Zone A: Remove pooled oil with sorbents. Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris. Due to the size and quantity of oil coated debris in this zone, alternative methods, such as burning, could be considered. Remove oil coated sediments with hand tools. Wipe oil coated cobble. The Technical Advisory Group will need to be consulted for alternative treatment methods for oiled debris.

Zones B & C: Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.

*Refer to current approved treatment methods #1 (Cutting of Vegetation), #2 (Dead Vegetation and Small Debris), #3 (Large Woody Debris), #6 (Sorbent Use), # (Unconsolidated Sediments)

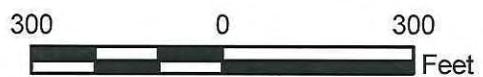
Sketch Yes / No Photos Yes / No Frames 4687-4822 (Milanes); 0981-1008 (Lee)



SCAT Teams 1 & 2 Survey

Segment A03 - Island

18 July 2011



Legend

- Segment Boundaries
- ▭ Oiled Zones

DB/19

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A03</u>	Left Bank / Right Bank / <u>Island</u>	<u>2010811</u>	<u>9:20</u> hrs to <u>9:40</u> hrs	low - mean - bankfull - overbank
Operations Division: <u>A</u>				<u>falling</u> - steady - rising
Survey by: <u>Foot/ATV/Boat</u> / Helicopter / Overlook /	<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm			Air Temp + / - ___ deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Todd Farrar</u>	<u>Polaris</u>	<u>Todd Farrar</u>
	<u>Lisa Geremacher</u>	<u>Entrix</u>	<u>Lisa Geremacher</u>
	<u>Jeffrey Herrick</u>	<u>DEQ</u>	<u>Jeffrey Herrick</u>
	<u>Rachelle Thompson</u>	<u>EPA</u>	<u>Rachelle Thompson</u>
	<u>Ethan Stapp</u>	<u>DNRC</u>	<u>Ethan Stapp</u>

ORIGINAL

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 4200 256 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 P Boulder _____ Peat/Organic _____ Vegetated Bank: _____ Wooded Upland: _____

Sediment Flat: Clay/Mud _____ Sand S Mixed/Coarse _____ Other: BARB 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: _____

Sloped: (>5°)(15°)(30°) 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

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.																
	ID	MS	LB	UB	OB	m	m	%	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO	
<u>1728</u> <u>1729</u> <u>1730</u>	A	<u>X</u>	X			<u>109</u>	<u>58</u>	<u>1</u>			<u>P</u>	<u>S</u>						<u>P</u>					
	B		X			<u>71</u>	<u>22</u>																X
	C		X			<u>76</u>	<u>21</u>																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

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

Zone A - OPERATIONAL CLEANUP CREW IN PROGRESS. ESTIMATED BAG TO BE GENERATED 100 bags. CONTINUE CLEANUP RECOMMENDED.

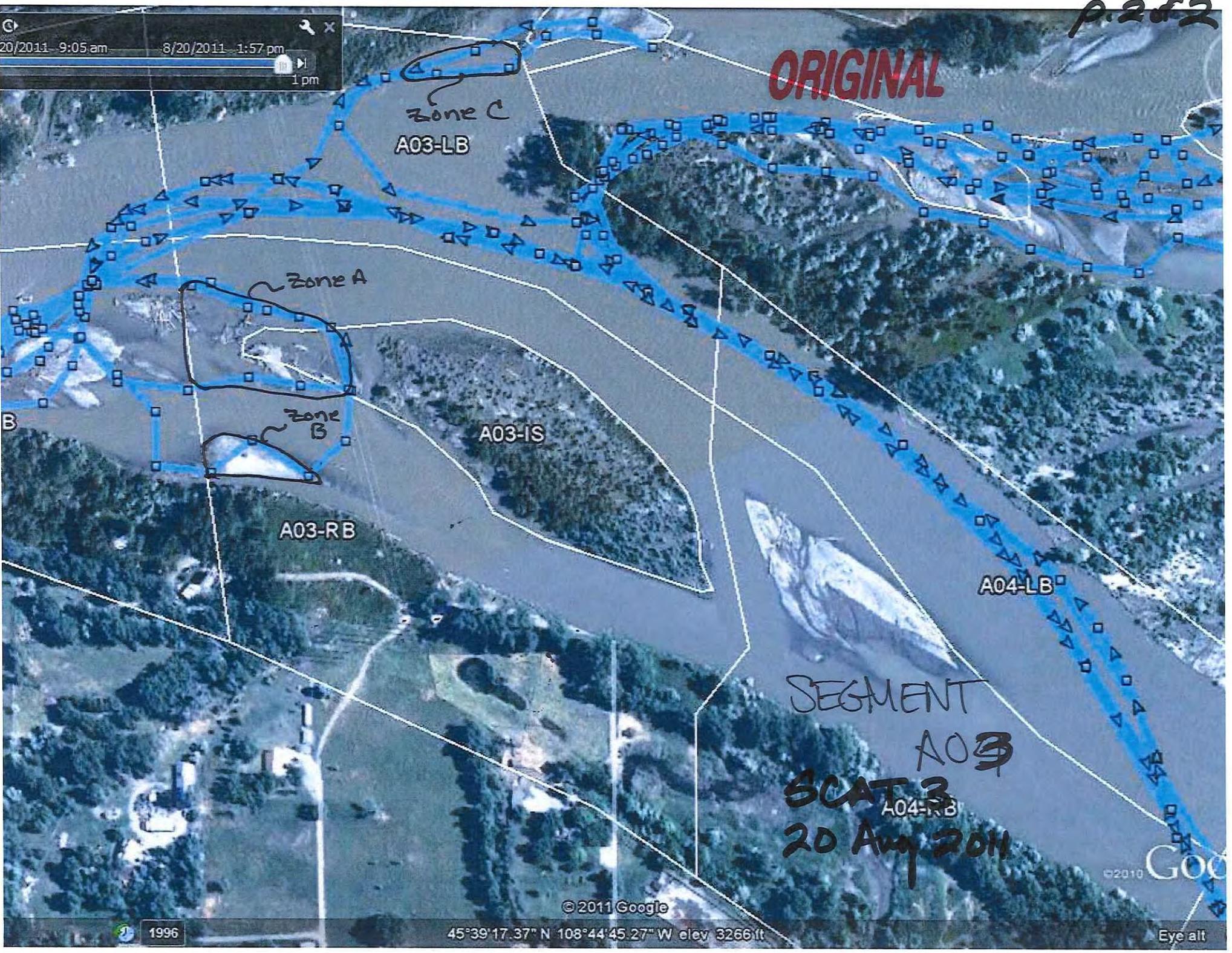
Zone B - NDO. NFT

Zone C - NDO. NFT

Sketch Yes / No Photos Yes / No Frames _____ Photographer _____

ORIGINAL

20/2011 9:05 am 8/20/2011 1:57 pm
 1 pm



SEGMENT
 A03
 SCAT 3
 A04-RB
 20 Aug 2011

D1316

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 30/AUG/2011	Time (24h): std / daylight 10:38 hrs to 16:15 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: A03 Left Bank / Right Bank / Island				
Operations Division: A03 ISLAND				
Survey by: Foot / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 30 deg C	

2 SURVEY TEAM # <u>5</u>	name	organization	contact phone number
	Ariel Blanc	Polaris	<i>[Signature]</i>
	Earl Radonski	FWP	<i>Earl Radonski</i>
	Larisa Leonova	EPA	<i>L. Leonova</i>

3 SEGMENT	Total Segment/Reach Length _____ m	Segment/Reach Length Surveyed 183 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 <u>S</u> Mixed <u>S</u> Pebble/Cobble <u>S</u> Boulder _____ Peat/Organic _____	Vegetated Bank: <u>P</u>		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 <u>2-3</u> m	canyon _____ manmade _____ meander <u>P</u> confined or leveed _____	Substrate Type: <u>sand/sed</u>	
Sloped: (>5°)(15°)(30°)	straight _____ braided <u>S</u> oxbow _____ flood plain valley _____	Forested / Vegetated / Bare	

4C RIVER CHANNEL CHARACTER circle or select as appropriate			
est. width: < 1m 1-10 m 10-100 m >100m _____ 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: <u>falling</u> — 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 1-2 trucks		access restrictions		
Oiled trees/shrubs Y / N		River Current strong Y / N	Other Features: ISLAND	

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	%														
A				x	123	43	<1			S	P							X			Debris/veg
B				x	140	102	5			P	S					X		X			Debris/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	SUBSURFACE OIL CHARACTER					WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
							SAP	OP	PP	OR	OF				

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

ReSCAT

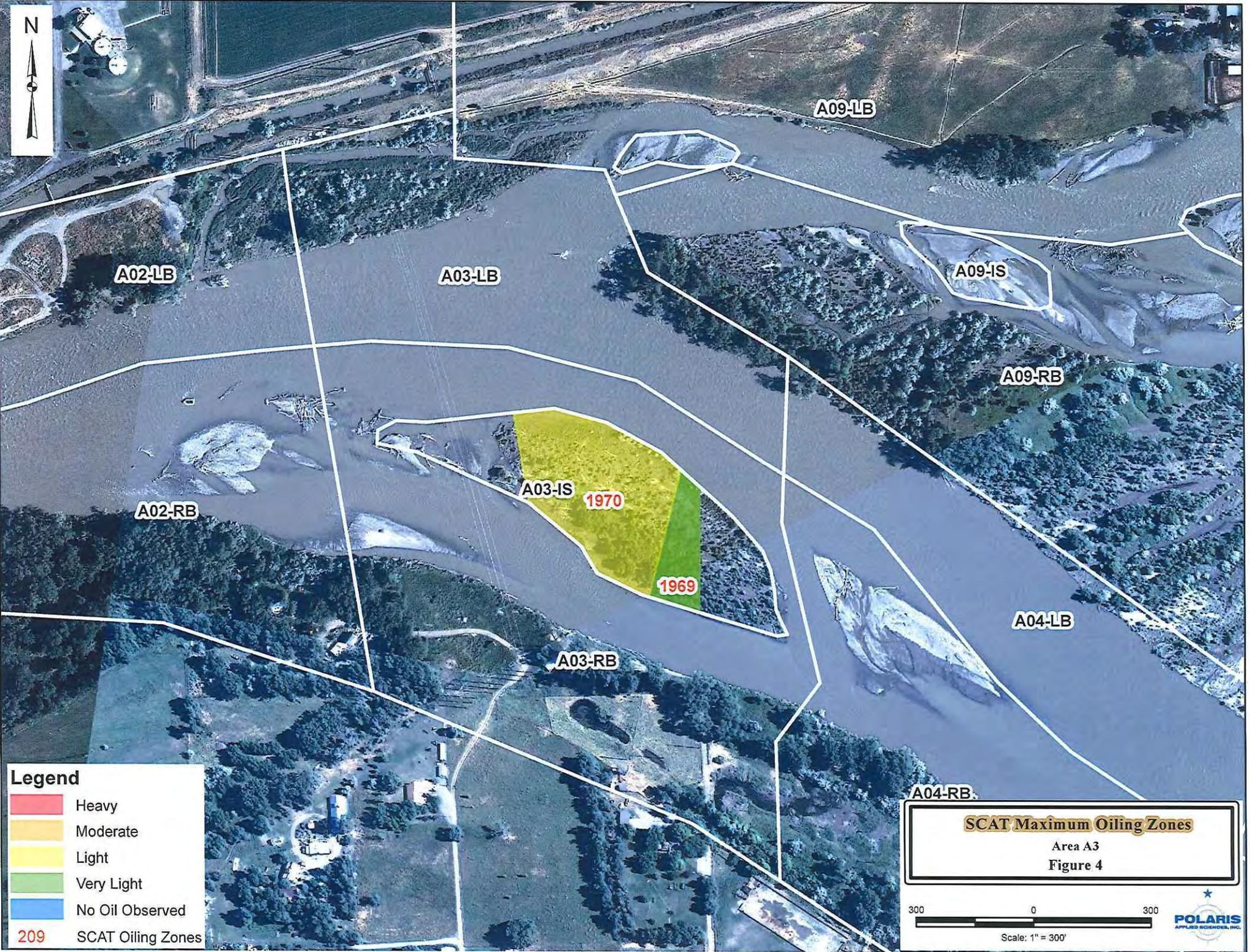
Zone A: Trace oiled (primarily stained) vegetation and natural debris. Hotshot crew accompanied ReSCAT Team. Remaining transferable oil removed during ReSCAT. Zone A meets operational endpoints. NFT.

Zone B: Zone B does not meet operational endpoints. Overall, the zone is comprised of 5% stained debris and vegetation. Oil is primarily concentrated in several large debris piles, along the southern portion of the zone. CT4 continue (CTR 26). Recommended continual treatment of debris and vegetation with transferable oil, ATM 1, 2, 3 & 9.

(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# _____)

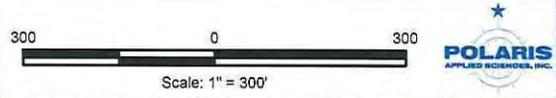
1969
1970



Legend

■	Heavy
■	Moderate
■	Light
■	Very Light
■	No Oil Observed
209	SCAT Oiling Zones

SCAT Maximum Oiling Zones
 Area A3
 Figure 4



DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A3</u>	Left Bank / Right Bank / Island	<u>3-9-11</u>	<u>1100</u> hrs to _____ hrs	low - <u>mean</u> 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>20</u> deg C

2 SURVEY TEAM # <u>3</u>	name	organization	contact phone number
<u>Chole Ren</u>		<u>Carbo ENERGY</u>	<u>Chole Ren</u>
<u>Steve OPP</u>		<u>DER</u>	<u>Steve OPP</u>
<u>TERRY TANNER</u>		<u>U.S. EPA</u>	<u>TERRY TANNER</u>

3 SEGMENT Total Segment/Reach Length 340 m Segment/Reach Length Surveyed 130 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: _____

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: L

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 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 2 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	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO	
	m	m	%	m	m	%																
<u>2077 A</u>				<u>X</u>	<u>65</u>	<u>50</u>	<u>0</u>														<u>X</u>	<u>S</u>
<u>2078 B</u>				<u>X</u>	<u>95</u>	<u>25</u>	<u>cl</u>			<u>S</u>	<u>P</u>						<u>X</u>					<u>S</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

Zone A - No oil obs

Zone C1 at Sta v3 + debris One pile of debris was caught near to be removed and a piece of beam to be removed.

(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 # _____)

9/3/2011 2:01 pm

A-315 Edwards
T-3 9-3-11

A03-IS

002

A

W108°44'42.72"

V02

V05

V01

V03

B

003

V04

©2011 Google

©2010 Google

ate: 4/30/2004

1996

45°39'17.09" N 108°44'45.13" W elev 3266 ft

Eye alt 4

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1107 hrs to 1108 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: A3 <u>Left Bank / Right Bank / Island</u>				
Operations Division: A				
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>29.4</u> deg C

2 SURVEY TEAM # 2 & 4	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 332 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

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 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

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

154
155

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		91	1															X	Grass, trees, debris
B			X		241	1															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

Cleanup Recommendations: No oil observed along river channel margin

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

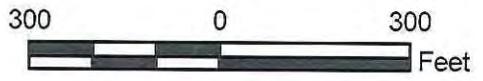
Sketch (Yes/No) Photos (Yes/No) Roll # _____ Frames _____) Video Tape Yes/No (tape# _____)



SCAT Teams 2 & 4 Survey

Segment A3 Left Bank

11-Jul-2011



Legend

-  Oil Zones
-  Segment Boundaries

DB/G/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A3</u>	<input checked="" type="checkbox"/> Left Bank / <input type="checkbox"/> Right Bank / Island	<u>10/07/11</u>	<u>1413</u> hrs to <u>1430</u> hrs	low - mean - <u>bankfull</u> - overbank
Operations Division: <u>A</u>				falling <u>steady</u> rising
Survey by: <u>(Foot) / ATV / Boat / Helicopter / Overlook /</u>	<input checked="" type="checkbox"/> Sun / <input type="checkbox"/> Clouds / <input type="checkbox"/> Fog / <input type="checkbox"/> Rain / <input type="checkbox"/> Snow / <input type="checkbox"/> Windy / <input type="checkbox"/> Calm			Air Temp + / - <u> </u> deg C

2 SURVEY TEAM # <u>10</u>	name	organization	contact phone number
	<u>Chelsea Murphy</u>	<u>Cardno ENTRIX</u>	<u>775-313-3976</u>
	<u>Joe Boyle</u>	<u>Cardno ENTRIX</u>	<u>386-204-6358</u>
	<u>Juan Patino</u>	<u>USGS USCG</u>	<u>406-1097-3443</u>
	<u>Bob Roll</u>	<u>MT DEQ</u>	<u>208-871-3274</u>

7/11/11
251-480-9215

3 SEGMENT	Total Segment/Reach Length <u>200</u> m	Segment/Reach Length Surveyed <u>150</u> m
Start GPS: LATITUDE <u>45.05771</u> deg.	LONGITUDE <u>108.75044</u> deg.	Datum: <u>WGS 84</u>
End GPS: LATITUDE <u>45.05784</u> deg.	LONGITUDE <u>108.74820</u> deg.	

4A RIVER BANK TYPE SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED			
Bedrock: Cliff/Ramp <u> </u> Shelf <u> </u>	Manmade: Solid <u> </u> Permeable <u> </u> (type) <u> </u>	Wetland: Swamp <u> </u> Bog/Fen <u> </u> Marsh <u> </u>	
Sediment Bank: Clay/Mud <u> </u> Sand <u> </u> Mixed <u>P</u> Pebble/Cobble <u>S</u> Boulder <u> </u> Peat/Organic <u> </u>	Vegetated Bank: <u>P</u>	Wooded Upland: <u> </u>	
Sediment Flat: Clay/Mud <u> </u> Sand <u> </u> Mixed/Coarse <u> </u> Other: <u> </u>	If snow and ice use Winter River SOS		

4B RIVER VALLEY CHARACTER select as appropriate			complete for primary
Cliff or Bluff: <u> </u> Est Height <u> </u> m	canyon <u> </u> manmade <u> </u> meander <u>S</u> confined or leveed <u> </u>	Substrate Type: <u>mud</u>	
Sloped <u>5</u> (>5°)(15°)(30°)	straight <u> </u> braided <u>P</u> oxbow <u> </u> flood plain valley <u> </u>	Forested <u>(Vegetated)</u> Bare <u> </u>	

4C RIVER CHANNEL CHARACTER circle or select as appropriate			
est. width: <1m 1-10m 10-100m <u>>100m</u> <u>120</u> m	est. water depth: <1m 1-3m <u>3-10m</u> >10m <u> </u> m		
shoal(s) present Y/N <u> </u> point bar present Y/N <u> </u>	bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris		
seasonal water level: low / mean / <u>bank full</u> / overbank flow	est. change over next 7 days: <u>falling</u> - same - rising		

5 OPERATIONAL FEATURES	Suitable backshore staging <u>Y/N</u>	Access: Direct from backshore <u>Y/N</u> Alongshore from next segment Y / N
Debris: Y / <u>N</u> oiled Y / <u>N</u> amount <u> </u> bags or <u> </u> trucks	access restrictions <u> </u>	
Oiled trees/shrubs <u>Y/N</u>	River Current strong <u>Y/N</u>	Other Features: <u> </u>

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>P</u>	<u>150</u>	<u>30</u>	<u>0</u>														<u>P</u>	<u>vegetated</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

- only 1 zone (A) - NOO
 - unable to access island shoreline within segment due to channel -> recommend assessment by boat

(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#)

Photo #s 54

DD/G

RIVER BANK OILING SUMMARY FORM for Silverlin Pipeline Incident

Page 1 of 1

1. GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A3</u> <input type="checkbox"/> Left Bank <input checked="" type="checkbox"/> Right Bank / Island		<u>11/07/11</u>	<u>1413</u> hrs to <u>1430</u> hrs	low - mean - <u>bank full</u> - overbank falling (e) / rising
Operations Division: <u>A</u>		Survey by: <u>Food/ATV/Boat/Helicopter/Overlook/</u>		Air Temp + / - <u> </u> deg C
Sun/Clouds / Fog / Rain / Snow / Windy / Calm				

2. SURVEY TEAM			
name	organization	contact phone number	
<u>Chelsea Murphy</u>	<u>Carolinus ENTREX</u>	<u>775-313-2276</u>	
<u>Joe Kyle</u>	<u>Carolinus ENTREX</u>	<u>306-204-6868</u>	
<u>Juan Patino</u>	<u>USCG</u>	<u>406-1007-3443</u>	
<u>Bob Roll</u>	<u>MT DEP</u>	<u>203-371-8274</u>	

3. SEGMENT	Total Segment/Reach Length <u>200</u> m	Segment/Reach Length Surveyed <u>150</u> m
Start GPS: LATITUDE <u>45.65771</u> deg. min.	LONGITUDE <u>108.7800</u> deg. min.	Date: <u>11/07/11</u>
End GPS: LATITUDE <u>45.65789</u> deg. min.	LONGITUDE <u>108.79820</u> deg. min.	

4A. RIVER BANK TYPE			
SELECT only one primary (P) shoreline type and any number of secondary (S) types: <u>OILED</u> (those OILED)			
Bedrock: <u>Cliff/Ramp</u> <u>Shell</u> <u>Manmade/Solid</u> <u>Permeable</u> (type) <u>Wetland/ Swamp</u> <u>Boq/Fon</u> <u>Marsh</u>			
Sediment Bank: <u>Clay/Mud</u> <u>Sand</u> <u>Mixed</u> <u>Pebble/Cobble</u> <u>S Boulder</u> <u>Pea/Organic</u>	<u>Vegetated Bank</u> <u>P</u> <u>Wooded Upland</u>		
Sediment Flat: <u>Clay/Mud</u> <u>Sand</u> <u>Mixed/Coarse</u> <u>Other</u>	if snow and ice use Winter River SOS		

4B. RIVER VALLEY CHARACTER			
select as appropriate			
Cliff or Bluff: <u>Est Height</u> <u> </u> m	<u>canyon</u> <u>manmade</u> <u>meander</u> <u>S</u> <u>confined or leveed</u>	Substrate Type: <u>mixed</u>	
Slope: <u>45</u> (>5°) (<u>15</u>) (<u>30</u>)	<u>straight</u> <u>braided</u> <u>P</u> <u>oxbow</u> <u>flood plain valley</u>	Forested <u>(V)</u> <u>Unforested</u> <u>Bare</u>	

4C. RIVER CHANNEL CHARACTER			
circle or select as appropriate			
est. width: <u><1m</u> <u>1-10m</u> <u>10-100m</u> <u>>100m</u> <u>120</u> m	est. water depth: <u><1m</u> <u>1-3m</u> <u>3-10m</u> <u>>10m</u> <u> </u> m		
shoal(s) present <u>Y/N</u>	point bar present <u>Y/N</u>	bar-shoal substrate: <u>silt</u> <u>sand</u> <u>gravel</u> <u>cobble</u> <u>boulder</u> <u>bedrock</u> <u>debris</u>	
seasonal water level: <u>low</u> <u>mean</u> <u>bank full</u> <u>overbank flow</u>	est. change over next 7 days: <u>falling</u> <u>same</u> <u>rising</u>		

5. OPERATIONAL FEATURES			
Sustainable backshore staging <u>Y/N</u>		Access: <u>Direct from backshore</u> <u>Alongshore from next segment</u> <u>Y/N</u>	
Debris: <u>Y/N</u> <u>oiled</u> <u>Y/N</u> amount <u> </u> bags or <u> </u> trucks		access restrictions <u> </u>	
Oiled trees/shrubs <u>Y/N</u>		River Current strong <u>Y/N</u>	
		Other features: <u> </u>	

6. SURFACE OILING CONDITIONS																						
begin with "A" in the lowest tidal zone - circle the zones 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	OV	OT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
<u>A</u>				<u>P</u>	<u>150</u>	<u>30</u>	<u>0</u>														<u>P</u>	<u>vegetated</u>

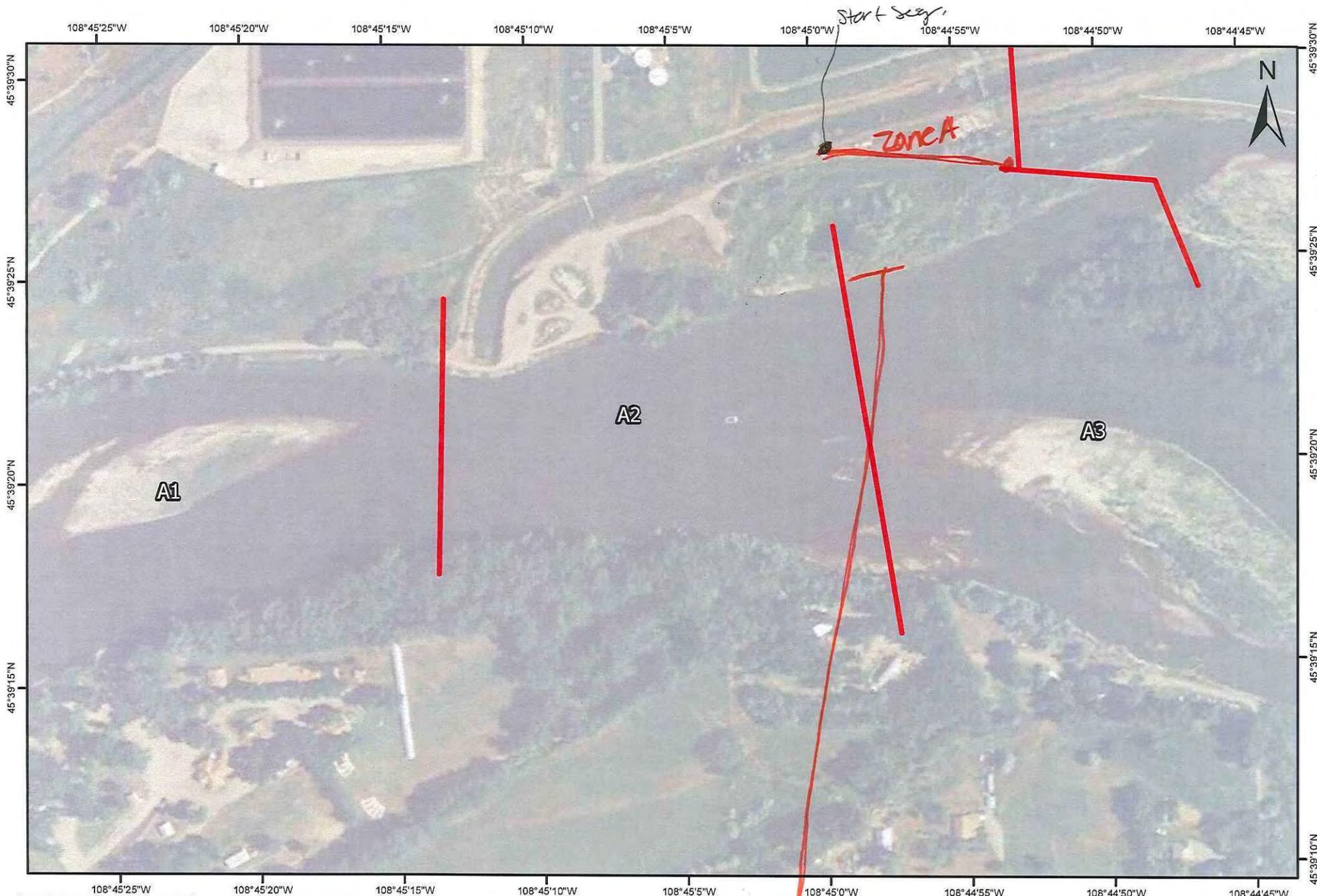
7. SUBSURFACE OILING CONDITIONS																
use letter for ZONE location plus Number of pit or trench - e.g. "A1"																
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHREN COLOUR B, R, S, N	CLEAN BELOW Yes/No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR				

8. COMMENTS: ecological/recreational/cultural/economic constraints - shorezone plots and wildlife observations - cleanup recommendations

only 1 zone (A) - NOO
unable to access island shoreline within segment due to channel -> recommend assessment by boat

(for ALL segments record: sub-segment ID, length, length surveyed, and GPS start/end (uses))
 Sketch (Yes/No) Photos (Yes/No) (Roll # Frames) Video Tape Yes/No (Tape #)

Photo #s p. 5-1

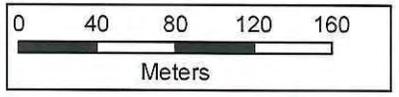


A02 -
(L/R/I)??

DATE: 7/16/11
 TEAM: Chelsea # 4

COMMENTS:

Could cross over to main channel due to high flowings + deep side channel. walked along side channel - no oil observed





Zone A
on
sheets A3, A4, A5, A6,
A8, A9, A10.

see second
map

A3

A9

A10

A15

A4

A5

A6

A8

A7

A11

2036 ft

© 2011 Google

Image © 2011 DigitalGlobe

© 2010

Go

Date: 5/1/2004



1996

45° 39.316' N 108° 43.941' W elev. 3254 ft

Eye alt 12

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 03/09/11	Time (24h): std / daylight 1000 hrs to 1330 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: A <u>3</u> <u>Left Bank</u> / Right Bank / Island				
Operations Division: A				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>22</u> deg C

2 SURVEY TEAM # 2	Name	Organization	Signature
Pete Lee		Polaris	<i>P. Lee</i>
Larry Alheim		MTDEQ	<i>L. Alheim</i>
Stephen Ball		USEPA	<i>S. Ball</i>

3 SEGMENT Total Segment/Reach Length 410 m Segment/Reach Length Surveyed 410 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 X 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: _____

Sloped: (>5°)(15°)(30°) _____ straight _____ braided X oxbow _____ flood plain valley X 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 >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: Accessible by boat only

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	110	75															X	Grass, trees, debris
B				X	130	15															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

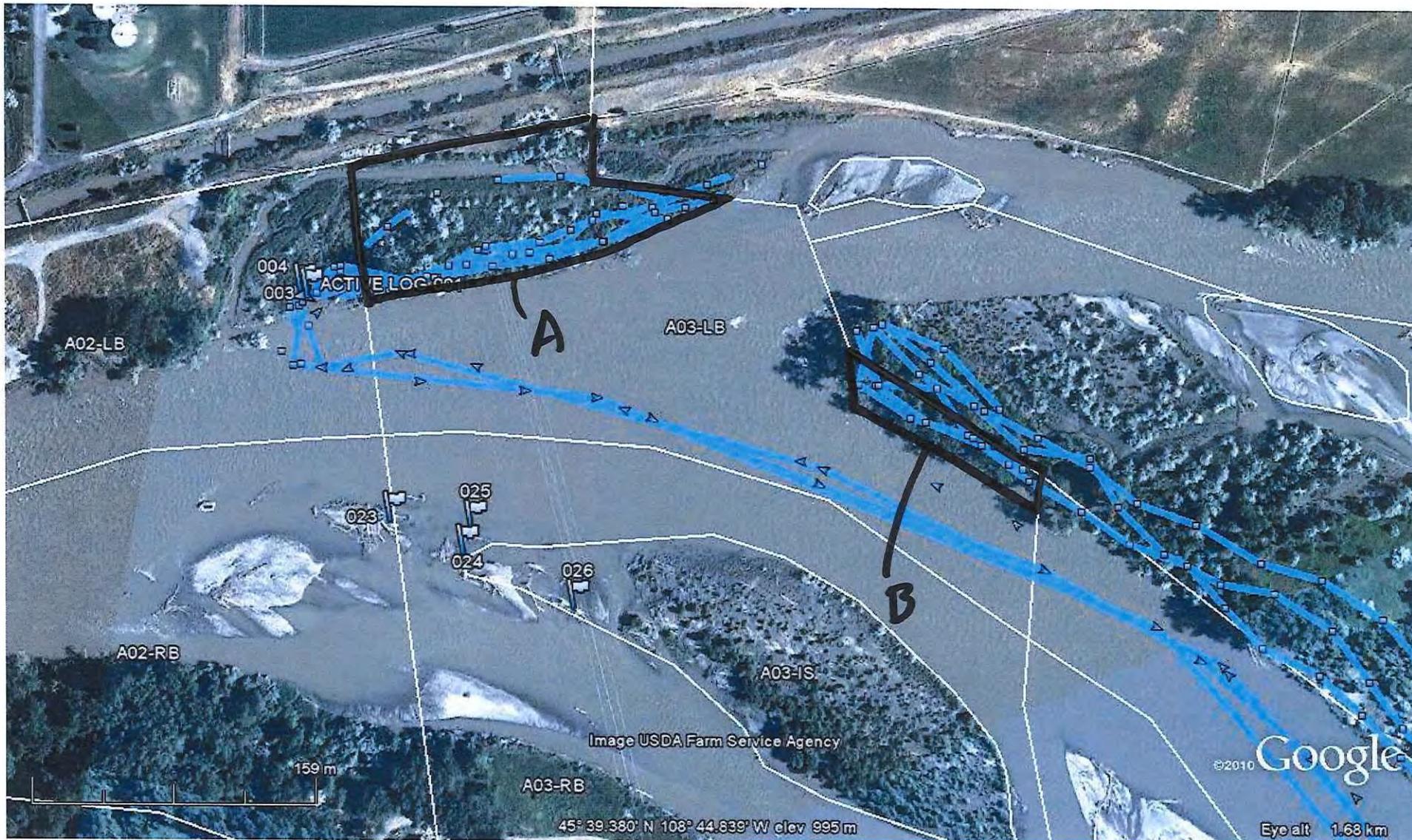
Overbank Survey Required Y/N Overbank Survey Completed Y/N Shoreline Survey Completed Y/N

Oil height: N/A

Treatment recommendations:
Zone A, B: No oil ; No treatment required
Zone :

Private landowner

Sketch Yes / No Photos Yes / No Frames _____ Photographer _____



A3LB
A,B:NO
T2 9/13/11

DB/G/E

1 GENERAL INFORMATION Date (dd/mm/yy) 9 Jul 11 Time (24h): std / daylight 1711 hrs to 1720 hrs Water Level low - mean - bankfull - overbank
 Segment/Reach ID: A3 Left Bank (Right Bank) Island Right Bank falling - steady - rising
 Operations Division: A

Survey by: Foot / ATV / Boat / Helicopter / Overlook / Sun / Clouds / Fog / Rain / Snow / Windy / Calm Air Temp + / - deg C
2 SURVEY TEAM # A

name	organization	contact phone number
<u>Andy Graham</u> <u>USMC</u> <u>Andres milites</u>	<u>Polaris</u>	<u>206 419 1745</u>
<u>Andy Johnson</u>	<u>USCG</u>	<u>609 351 8517</u>

3 SEGMENT Total Segment/Reach Length 70 m Segment/Reach Length Surveyed 70 m
 Start GPS: LATITUDE 45.65407 deg. 45.65407 min. LONGITUDE 108.74674 deg. 108.74674 min. Datum: _____
 End GPS: LATITUDE 45.65313 deg. 45.65313 min. LONGITUDE _____ deg. 108.74592 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 P Pebble/Cobble _____ 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 _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: Mixed
 Sloped: (>5°)(15°)(30°) 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 _____ 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 single road to river, fences surrounding fields
 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

wpt 81
wpt 82
wpt 84

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		2	0.3	5			X			X									veg
B			X		1	0.3	5			X			X									veg
C				X	50	0.5	60			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

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

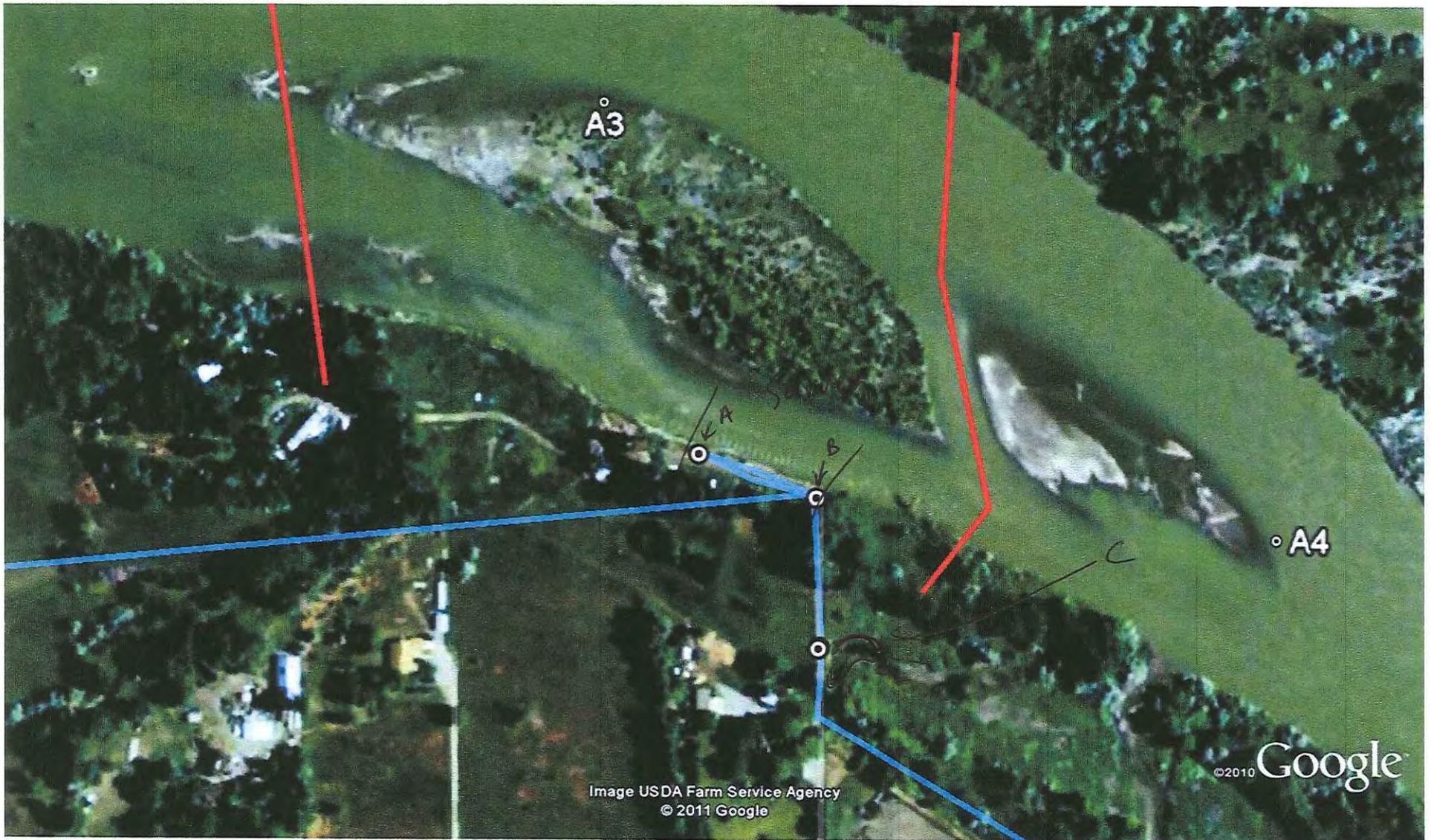
private property limited access - Road is McMullen Rd - access from Denith's km
 single dirt road to river - two small patches of oiling on veg @ river
 field next to road on east side is flooded - To on debris / water in flooded field, oiled veg on both sides of pond, 20cm high on veg. (Zone C)
 MUD on west side of McMullen Rd.
 Zone A/B - 5-10cm high on veg. - NPT

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 2

Zone C - vac truck could be used to get oil off water, remove oiled debris and cut vegetation. At least use sorbent pads on water

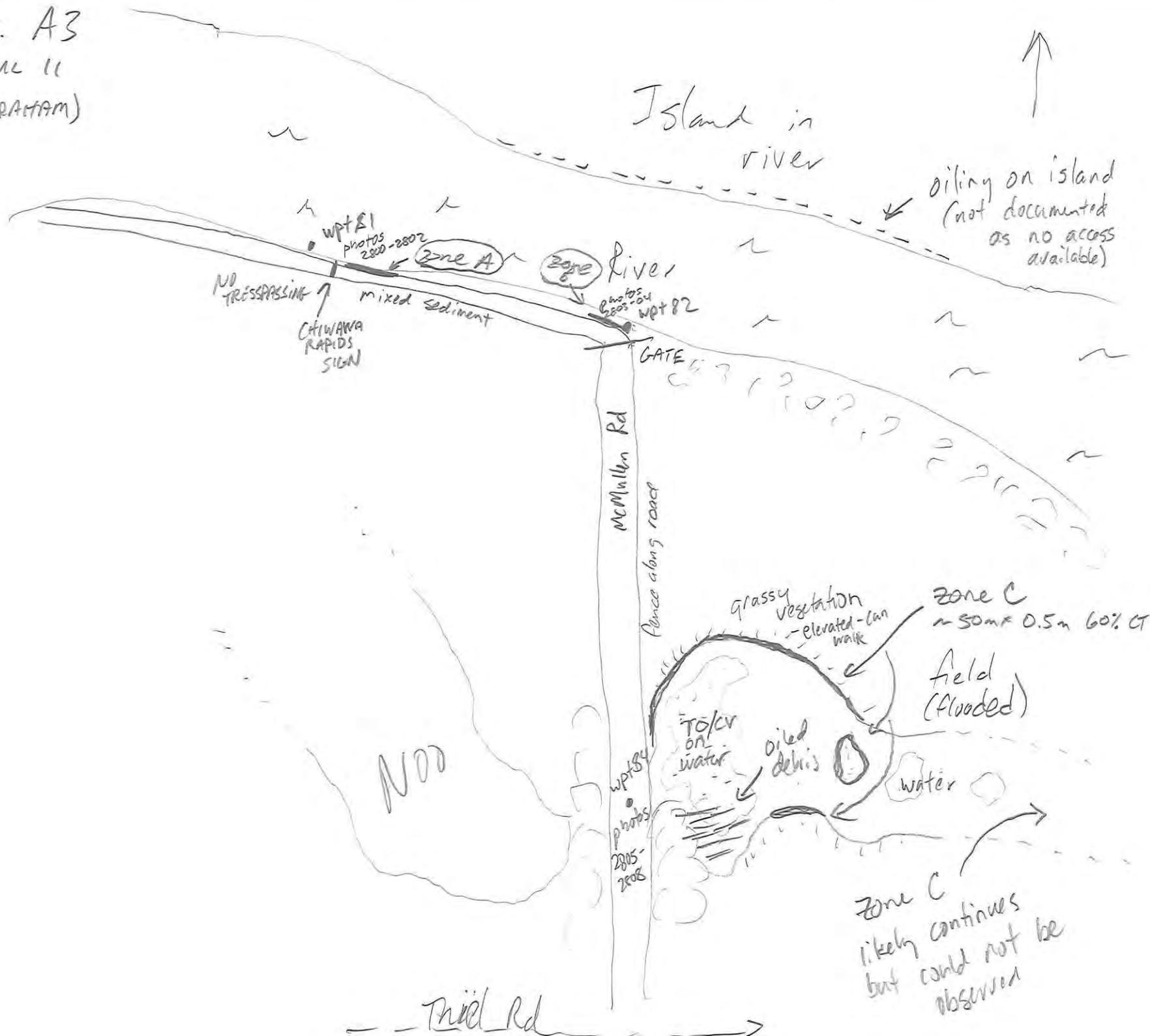
(for ALL sub-segments record: sub-segment ID, length, length surveyed, and GPS start/end fixes)
 Sketch Yes/No Photos Yes/No (Roll # _____) Frames _____ Video Tape Yes/No (tape# _____)

→ fence in way, will need to contact land owner



4 JUL 11
TEAM A

SEGMENT: A3
DATE: 4 JUL 11
TEAM: A (GRAHAM)





A3 right, zone A



Segment A3 right, Chiwawa Rapids/No Trespassing sign, start of survey



A3 island, oiling on island in river



A3 right, looking east



A3 right, Zone C, oiled debris



A3 right, Zone B



A3 right, Zone C



A3 right, Zone C, flooded field, TO/CV on water, CT on veg



A3 right, Zone C in background, McMullen Rd and fence, looking east

A03-RB

Laurel

Survey Date **Monday, July 04, 2011**

Survey Time **17:11 - 17:20**

SurveyType

Survey Status

Primary Oiling

<p style="text-align: center;">Documentation</p> <p><input type="checkbox"/> SIR Report</p> <p><input type="checkbox"/> POM Report</p> <p><input checked="" type="checkbox"/> SOS Report</p> <p><input type="checkbox"/> STRT Report</p> <p><input checked="" type="checkbox"/> Sketch Map</p> <p><input checked="" type="checkbox"/> Location Map</p> <p><input checked="" type="checkbox"/> Photos Available</p> <p><input checked="" type="checkbox"/> GPS Data Available</p> <p><input type="checkbox"/> Samples Collected</p> <p><input type="checkbox"/> Other Documents</p> <p>Description of Other Documents Received</p> <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<p style="text-align: center;">Survey Personnel</p> <p>RP</p> <p>FOSC Johnson , Andy</p> <p>SOSC</p> <p>Owner</p> <hr/> <p style="text-align: center;">Segment Coordinates</p> <p style="text-align: center;">GPS Datum WGS94</p> <p style="text-align: center;"><u>Decimal Degrees</u></p> <p>Start Latitude</p> <p>Start Longitude</p> <p>Mid Latitude 0.00000000</p> <p>Mid Longitude 0.00000000</p> <p>End Latitude</p> <p>End Longitude</p> <p style="text-align: center;"><u>Degrees - Decimal Minutes</u></p> <p>Start Latitude ° ' "</p> <p>Start Longitude ° ' "</p> <p>Mid Latitude #Type!</p> <p>Mid Longitude #Type!</p> <p>End Latitude ° ' "</p> <p>End Longitude ° ' "</p>	<p style="text-align: center;">Packet Distribution</p> <p>FOSC <input type="checkbox"/></p> <p>Date _____</p> <hr/> <p>SOSC <input type="checkbox"/></p> <p>Date _____</p> <hr/> <p>OPS <input type="checkbox"/></p> <p>Date _____</p> <hr/> <p>SCAT <input type="checkbox"/></p> <p>Date _____</p> <hr/> <p>Land Owner <input type="checkbox"/> _____</p> <p>Date _____</p> <hr/> <p>Other _____</p> <p>Date _____</p> <hr/> <p>Data Archive <input type="checkbox"/></p> <p>Date _____</p>
--	---	---

Discussed with Ops Personnel

A03-RB

Laurel

Survey Status:

Date: Monday, July 04, 2011

Time: 17:11 - 17:20

Survey Type:

Oil Category:

Length (m):

Max Width: 0

ESI Code:

Primary Shoretype: Sediment Bank

Primary Substrate: Mixed (sgp)

Primary Backshore: Braided

Backshore Height:

SOS Comments:

Coordinate Data

Start:

End:

GPS Datum WGS94

Survey Tidal Data

Low: 0 m

High: 0 m

Direction: Rising

Survey Methods

Foot

General Survey Comments

Private Property limited access - Road is McMullen Rd - across from Dennitts - single dirt road to river.

Access Restrictions

Single Road to river, fences surrounding fields

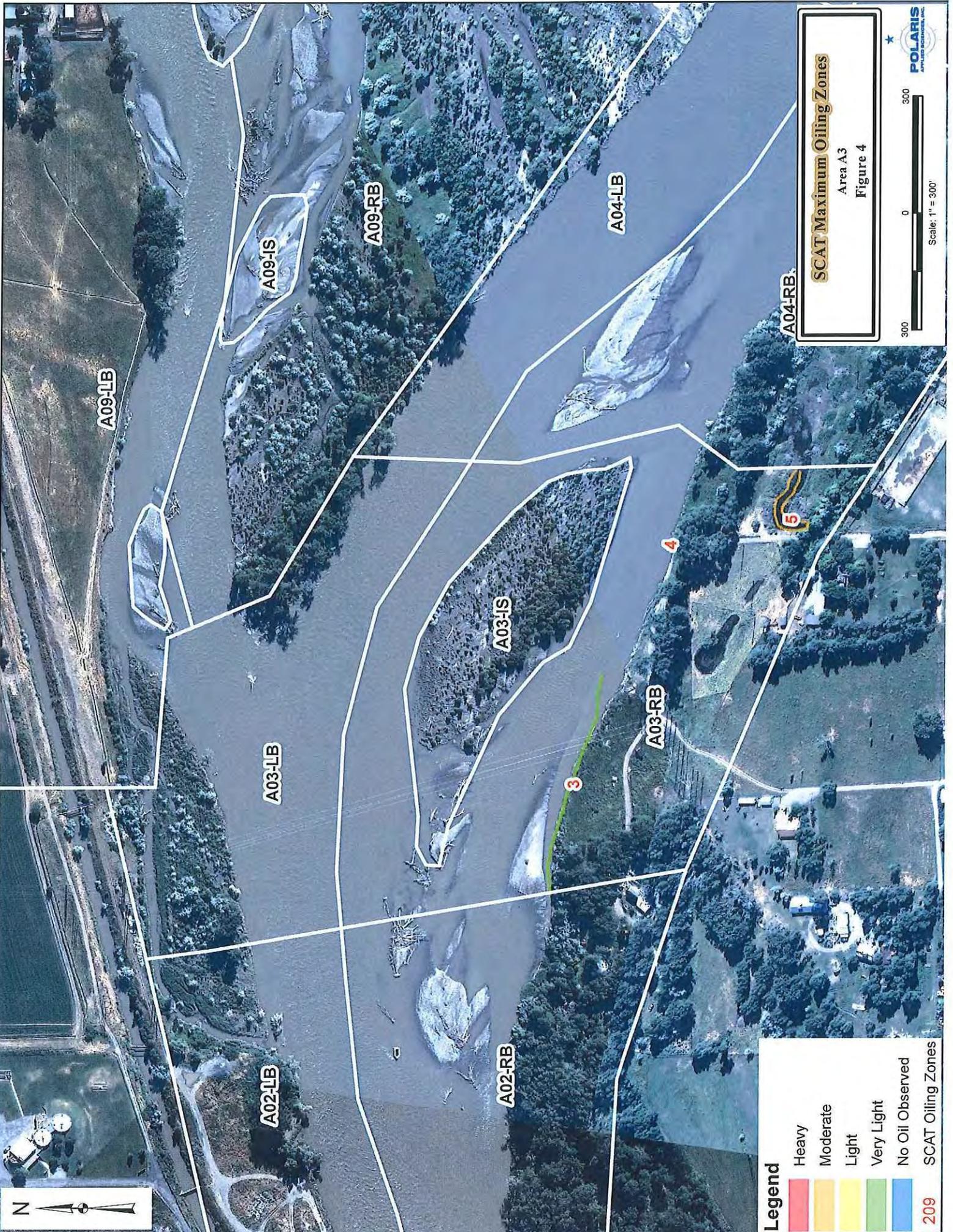
- Backshore Access**
- Alongshore Access**
- Staging Areas**

- Debris**
 - Oiled Debris**
- Amount** 0

two small pathces of oiling on veg @ river. Field next to road oin east side is flooded - TO on debris/water in flooded field, oiled vegetation on both sides of pond, 20 cm high on veg.(zoneC). NOO on west side of McMullen Rd. Zone A/b 5-10cm high on veg. - NFT

Zone Oiling Data

Zone	Length	Width	Tidal	% Oil Distribution	Character	Category	Substrate Type	Zone ID
A	2	0.3	UB	5	FR		Terrestrial Vegetation	3
B	1	0.3	UB	5	FR		Terrestrial Vegetation	4
C	50	0.5	OB	60	FR		Terrestrial Vegetation	5



Legend

- Heavy
- Moderate
- Light
- Very Light
- No Oil Observed
- SCAT Oiling Zones

209

SCAT Maximum Oiling Zones
 Area A3
 Figure 4

300 0 300
 Scale: 1" = 300'

DB/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 18-Jul-2011	Time (24h): std / daylight 0910 hrs to 0911 hrs	Water Level low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: A03 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>32</u> deg C

2 SURVEY TEAM # 1 & 2	name	organization	contact phone number
Andrew Milanes	<u>AM</u>	Polaris	
Bruce Kvam	<u>BK</u>	Polaris	
Pete Lee	<u>PL</u>	Polaris	
Andy Johnson	<u>AJ</u>	USCG	
Travis Olson	<u>TO</u>	USCG	
Aaron Anderson	<u>AA</u>	MTDEQ	
Darrick Turner	<u>DT</u>	MTDEQ	
	<u>Larry Alheim</u>		

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 374 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 S (type) riprap _____ 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 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 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

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		NO
A			X		374	1	60			X	X		X								Grass, trees

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

Oil band heights: Zone A - 30cm

Treatment Recommendations:
Zone A: Cut & remove oil coated vegetation smaller than 1" diameter. Wipe larger oil coated vegetation.

*Refer to current approved treatment methods #1 (Cutting of Vegetation)

Sketch Yes / No Photos Yes / No Frames 4659-4667 (Milanes)



SCAT Teams 1 & 2 Survey

Segment A03 - Right Bank

18 July 2011



Legend

— Segment Boundaries



Appendix C

Pre-Inspection Survey Transmittal

PIST

Pre Inspection Survey Transmittal

Segment A03 IS

Date of Survey 9-3-11

SCAT/Ops Liaison Ray McKelvey

Signed: [Signature]

~~State/DEQ~~
SCAT/Ops Liaison Daryl Reed

Signed: [Signature]

SCAT/Ops Liaison _____

Signed: _____

SCAT/Ops Liaison _____

Signed: _____

Segment meets Approved Treatment Methods Target Endpoints Criteria and is ready for a ReSCAT Assessment (Mark Yes or No)?

YES → **Segment Referred to SCAT for Sign-Off Assessment**

Comments for SCAT:

NO → **Segment Referred to Ops for Further Treatment**

Describe the areas requiring further treatment. Based on the CTR(s), comment on oiling conditions, the appropriate ATMs to use, GPS waypoints, additional comments, attach a map, etc.

Zone Dimensions: Length _____ Width _____ GPS Waypoint: Lat. _____ Long. _____
(required) (center of zone)

SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 8/17/11

Segment: A3RB

Team: SCAT Liaison Ray McKelvey

Signed: 

SCAT Liaison John Spenik

Signed: 

Observer _____

Signed: _____

Observer _____

Signed: _____

Segment meets criteria? YES X NO _____

RBOS attached? YES _____ NO X

If NO:

Location Sketch attached? YES _____ NO X

CTR continue? YES _____ NO X

Comments: **Segment A3RB is ready for final re-scat inspection.**



Appendix D

Post-Inspection Survey Transmittal

POST

Post Inspection Survey Transmittal

Segment AC3-Island

Date of Survey 30-AUG-2011

SCAT Team Member Ariel Blanc Signed: Ariel Blanc

SCAT Team Member Earl Radonski: FWP Signed: Earl Radonski

SCAT Team Member Larisa Leonora EPP Signed: L. Leonora

Segment FAILED ReSCAT

Segment Conditionally PASSES ReSCAT



Referred to Ops
For Further Treatment

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.

Zone B: Recommended continual treatment of the 140x102m area, cutting of oiled (transferable) vegetation, cleaning of large oiled (transferable) debris, removing 24 inch oiled (transferable) debris, and treatment with dust fixative (ATM 1, 2, 3 & 9). Cleanup crews should focus on debris piles along southern portion of zone. Much of the debris appears heavily oiled, but is stained with non-transferable oil. This debris should not be treated. Ops to focus on transferable oiled debris and vegetation.

Zone Dimensions: Length 140 Width 102 GPS Waypoint: Lat. 45° 39.308 Long. 108° 44.802
(required) (center of zone)

Estimated Work Effort: Number of People 10-15 Hours of Work unknown Applicable CTR(s) 26
(required)

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

Sign Name	Print Name/ Affiliation	Date
-----------	-------------------------	------

Sign Name Silvertip Pipeline Response	Print Name/ Affiliation	Date Updated: 8/30/2011
--	-------------------------	----------------------------



Appendix E

Final SCAT Survey Forms and
Sketches

DB

1 GENERAL INFORMATION		Date (dd/mm/yy) 29/08/11	Time (24h): std / daylight 1010 hrs to 1100 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: A3 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 +/- 30 deg C

2 SURVEY TEAM # 2	Name	Organization	Signature
	Pete Lee	Polaris	See attached
	Eric Harlow	Cardno Entrix	See attached
	Griff Miller	USEPA	See attached
	Larry Alheim	MTDEQ	See attached

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 125 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 X Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank: X Wooded Upland: X

Sediment Flat: Clay/Mud _____ Sand _____ Mixed/Coarse P _____ Other: Debris 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: _____

Sloped: _____ (>5°)(15°)(30°) straight _____ braided X oxbow _____ flood plain valley X 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	NO	
2258 A				x	125	70	<1				x						x					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

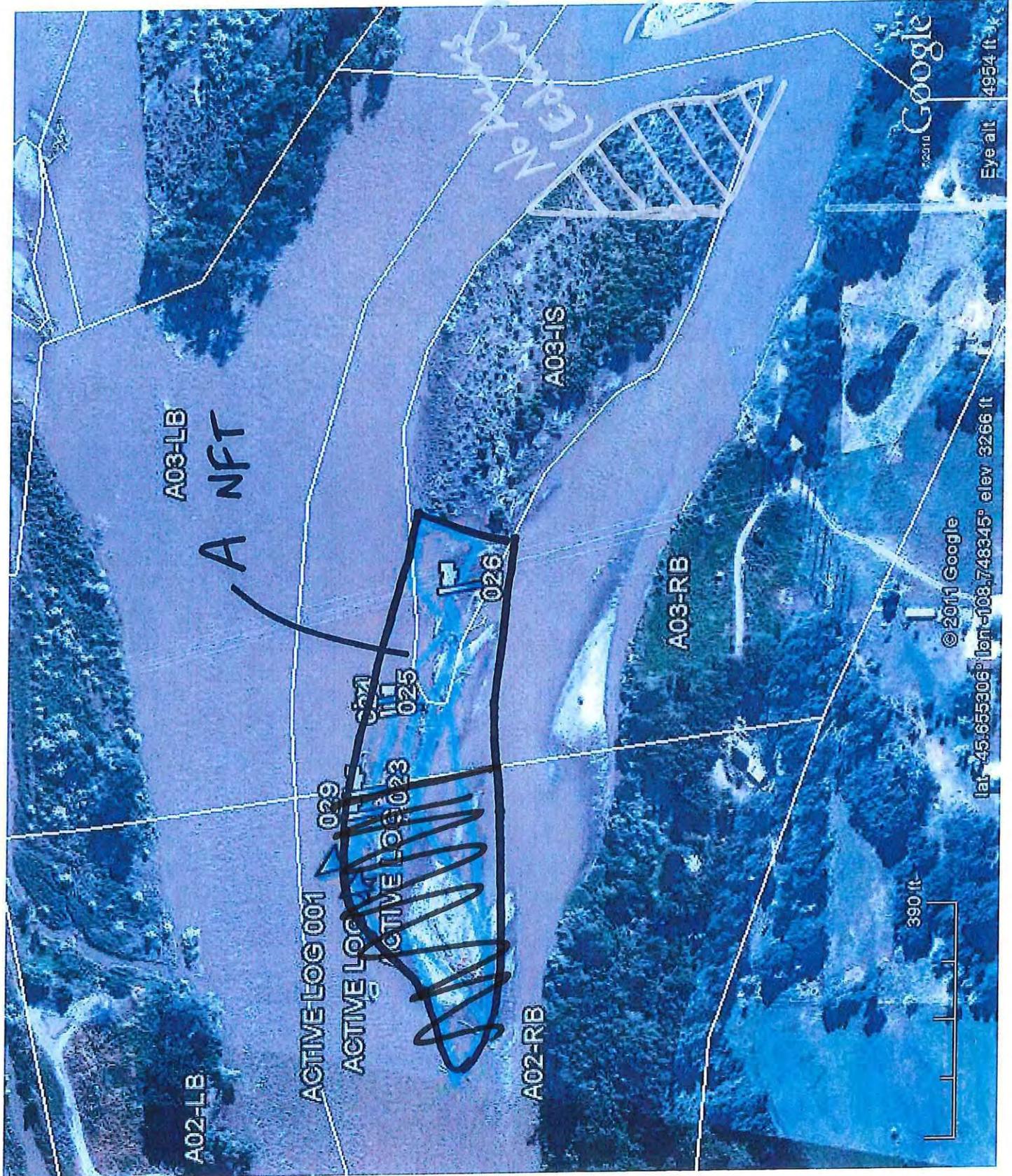
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

RESCAT

Zone A : No further treatment required

Sketch Yes / No Photos Yes / No Frames/Photographer: _____

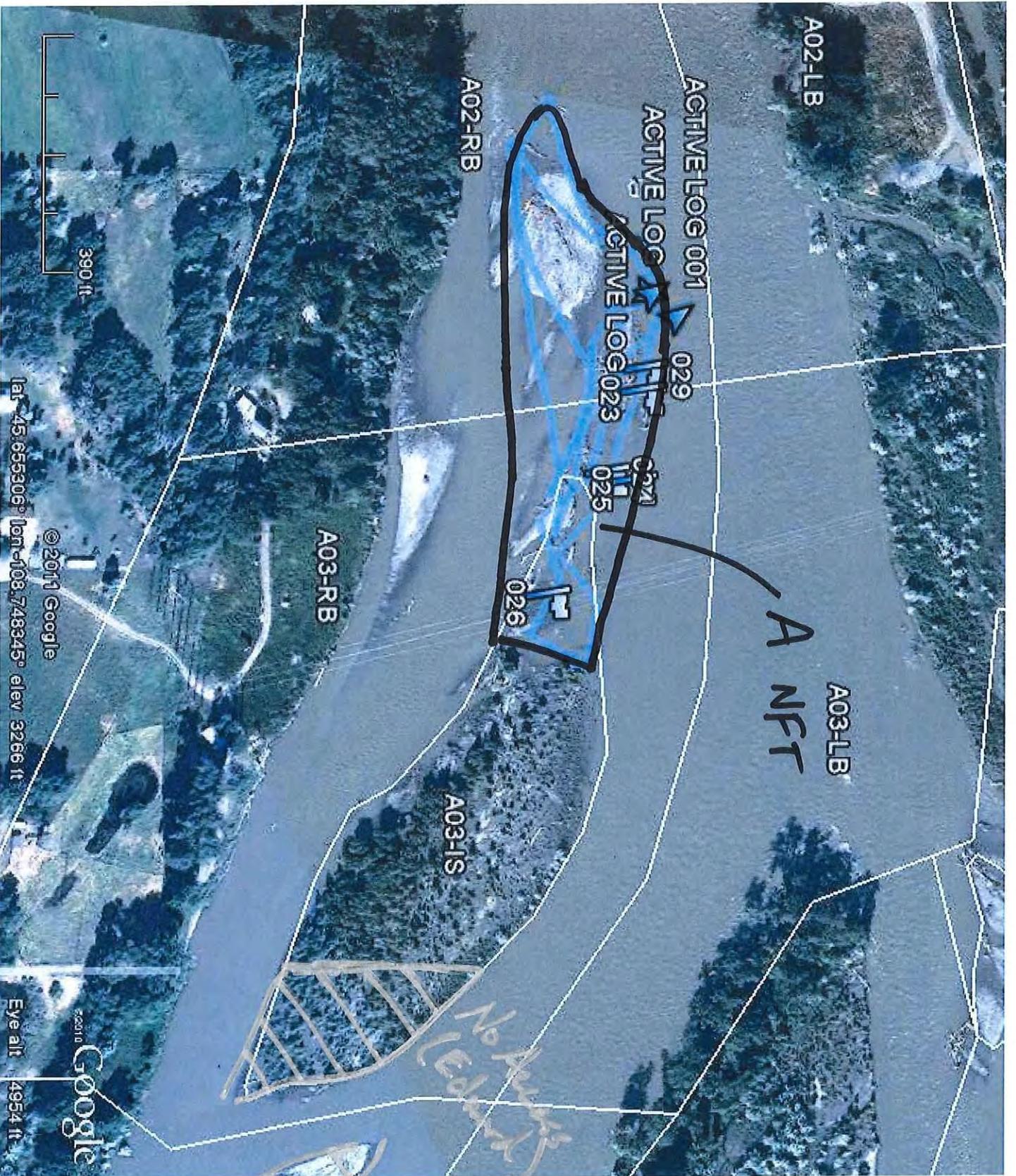


A3 IS.

8/29/11

Team 2

Partial



A 3 IS.

8/29/11

Team 2

Partial

DBIG

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy) <u>3-9-2011</u>	Time (24h): std / daylight <u>10:00</u> hrs to <u>10:45</u> hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - <u>steady</u> - rising
Segment/Reach ID: <u>A3</u>	Left Bank / Right Bank / Island			
Operations Division: <u>A</u>				Air Temp +/- <u>20</u> deg C
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		

2 SURVEY TEAM # <u>3</u>	name	organization	contact phone number
<u>Steve Opp</u> <u>KERRY TANNER</u>	<u>Chuck Poon</u>	<u>Code ENTRIX</u> <u>DEQ</u> <u>EPA</u>	<u>Chuck Poon</u> <u>Steve Opp</u>

3 SEGMENT	Total Segment/Reach Length <u>340</u> m	Segment/Reach Length Surveyed <u>210</u> 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 <u>S</u> Mixed <u>P</u> Pebble/Cobble <u>S</u> Boulder _____ Peat/Organic _____	Vegetated Bank: <u>S</u>		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 _____	confined or leveed _____	Substrate Type: <u>S</u>	
Sloped: (>5°)(15°)(30°)	straight _____ braided <u>X</u> oxbow _____	flood plain valley _____	Forested / Vegetated / Bare	

4C RIVER CHANNEL CHARACTER circle or select as appropriate			
est. width: <1m 1-10m 10-100m <u>>100m</u> _____ m	est. water depth: <1m 1-3m 3-10m >10m _____ m		
shoal(s) present <u>Y</u> /N point bar present <u>Y</u> /N	bar-shoal substrate: silt / <u>sand</u> / gravel / cobble / boulder / bedrock / debris		
seasonal water level: low / <u>mean</u> / bank full / overbank flow	est. change over next 7 days: <u>falling</u> - same - rising		

5 OPERATIONAL FEATURES	Suitable backshore staging <u>Y</u> /N	Access: Direct from backshore <u>Y</u> /N	Alongshore from next segment <u>Y</u> /N
Debris: <u>Y</u> /N oiled <u>Y</u> /N amount _____ bags or _____ trucks	access restrictions		
Oiled trees/shrubs <u>Y</u> /N	River Current strong <u>Y</u> /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)		
					Length	Width	Distrib.															
	MS	LB	UB	OB	m	m	%	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
2076 A				<u>K</u>	<u>340</u>	<u>80</u>	<u>oc</u>				<u>P</u>						<u>P</u>					<u>S</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)
							SAP	OP	PP	OR	OF	TR				

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

Zone A has clay of sand veg + debris
No further treatment

(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# _____)

9/3/2011 11:57 am 9/3/2011 2:01 pm 6 pm

A3

A

A03-IS

W108

002

A-3 IS
T-3 9-3-11

Edwards
No Access

V01

V02

V03

G01

© 2011 Google

1996

45°39'18.27" N 108°44'48.59" W elev 3266 ft

Eye alt 12



DB16

R

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 1

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>A3 (partial)</u> Left Bank / Right Bank / Island		<u>24/08/11</u>	<u>0945</u> hrs to <u>1445</u> hrs	low - mean - bankfull - overbank falling - steady - rising
Operations Division: <u>A</u>		Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Air Temp + / - <u>34</u> deg C
		<input checked="" type="checkbox"/> Sun / <input type="checkbox"/> Clouds / Fog / Rain / Snow / Windy / Calm		

2 SURVEY TEAM # <u>2</u>	Name	Organization	Signature
	<u>Joe Boyle</u>	<u>Gordon ENTRIX</u>	<u>[Signature]</u>
	<u>Lance Richman</u>	<u>US EPA</u>	<u>[Signature]</u>
	<u>Dave Hergenrider</u>	<u>FWP</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 340 m Segment/Reach Length Surveyed 60 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 _____ 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 S confined or leveed _____ Substrate Type: _____

Sloped: (->5°)(15°)(30°) 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 50 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 N Access: Direct from backshore N Alongshore from next segment N

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

Oiled trees/shrubs Y/N River Current strong 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			<u>S</u>	<u>P</u>	<u>60</u>	<u>130</u>	<u>0</u>														<u>P</u>	<u>Ung</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

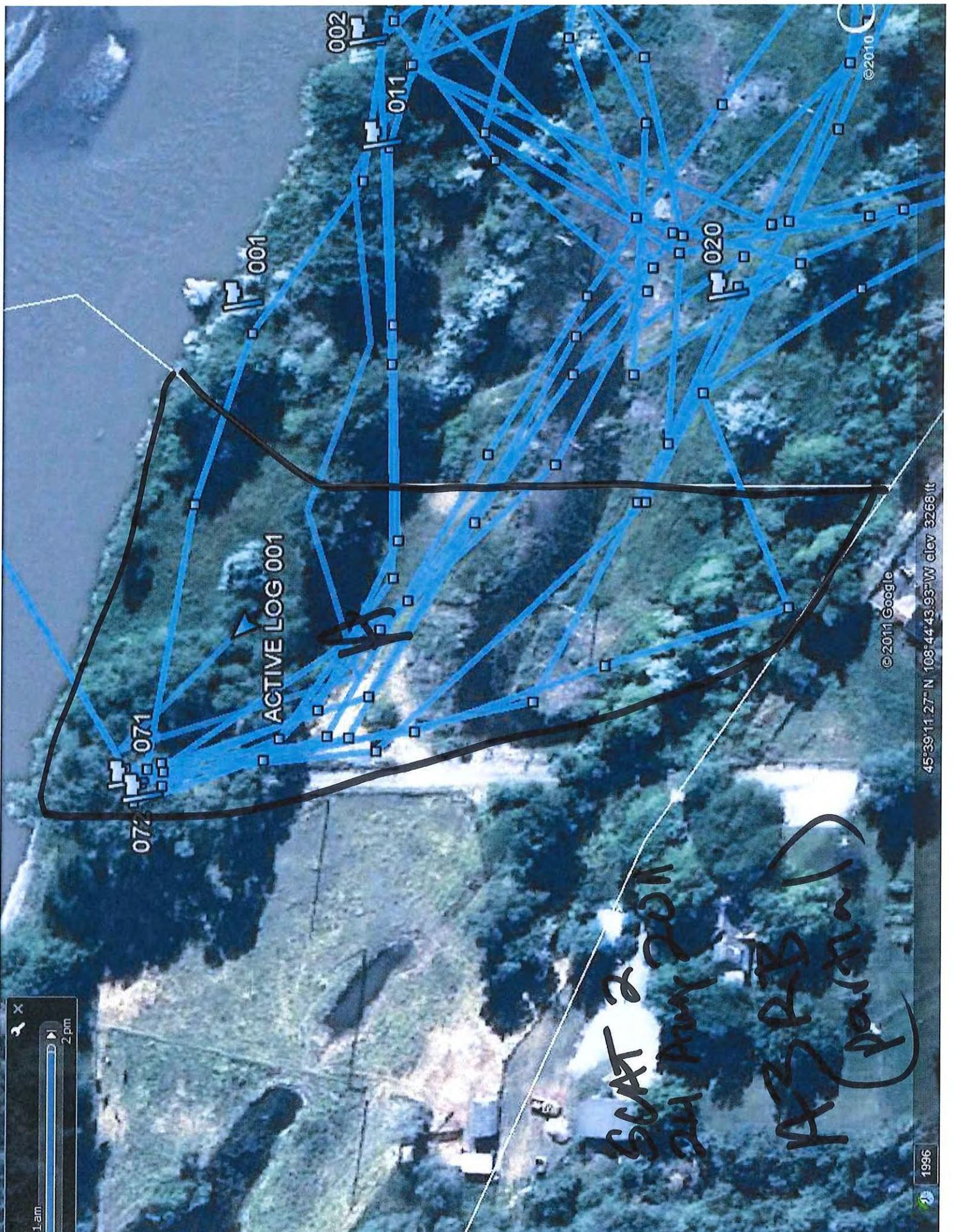
Overbank Survey Required N Overbank Survey Completed N Shoreline Survey Completed N

zone A: no oil observed

NFT

Rescat

Sketch Yes / No Photos Yes / No Frames _____ Photographer _____



SCAT 2 2011
2nd May 2011
AZRB (position)

5:1 am
2 pm

© 2011 Google

45°39'11.27" N 108°44'43.93" W elev 3266 ft

1996

DB/G

R

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) <u>24-8-11</u>	Time (24h): std / daylight <u>9:45</u> hrs to <u>10:30</u> hrs	Water Level low - (mean) bankfull - overbank falling - steady - rising <u>mean</u>
Segment/Reach ID: <u>A7</u>	Left Bank / Right Bank / Island <u>Right Bank</u>			
Operations Division: <u>A</u>				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM # <u>1</u>	Name	Organization	Signature
	<u>Charles Poon</u>	<u>Cardno ENTRY</u>	<u>Charles Poon</u>
	<u>Robert Ashton</u>	<u>M DEQ</u>	<u>Robert Ashton</u>
	<u>Nathan Hammond</u>	<u>Cardno Entry</u>	<u>Nathan Hammond</u>
	<u>Linda Watson</u>	<u>EPA</u>	<u>Linda Watson</u>

3 SEGMENT Total Segment/Reach Length 365 m Segment/Reach Length Surveyed 260 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 _____

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: _____

Sloped: (>5°)(15°)(30°) straight P 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 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

Debris Y / N oiled Y / N amount 1/2 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

1825
1826

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	260	360/50	0														X	
B				X	10	1	<1			S	P							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

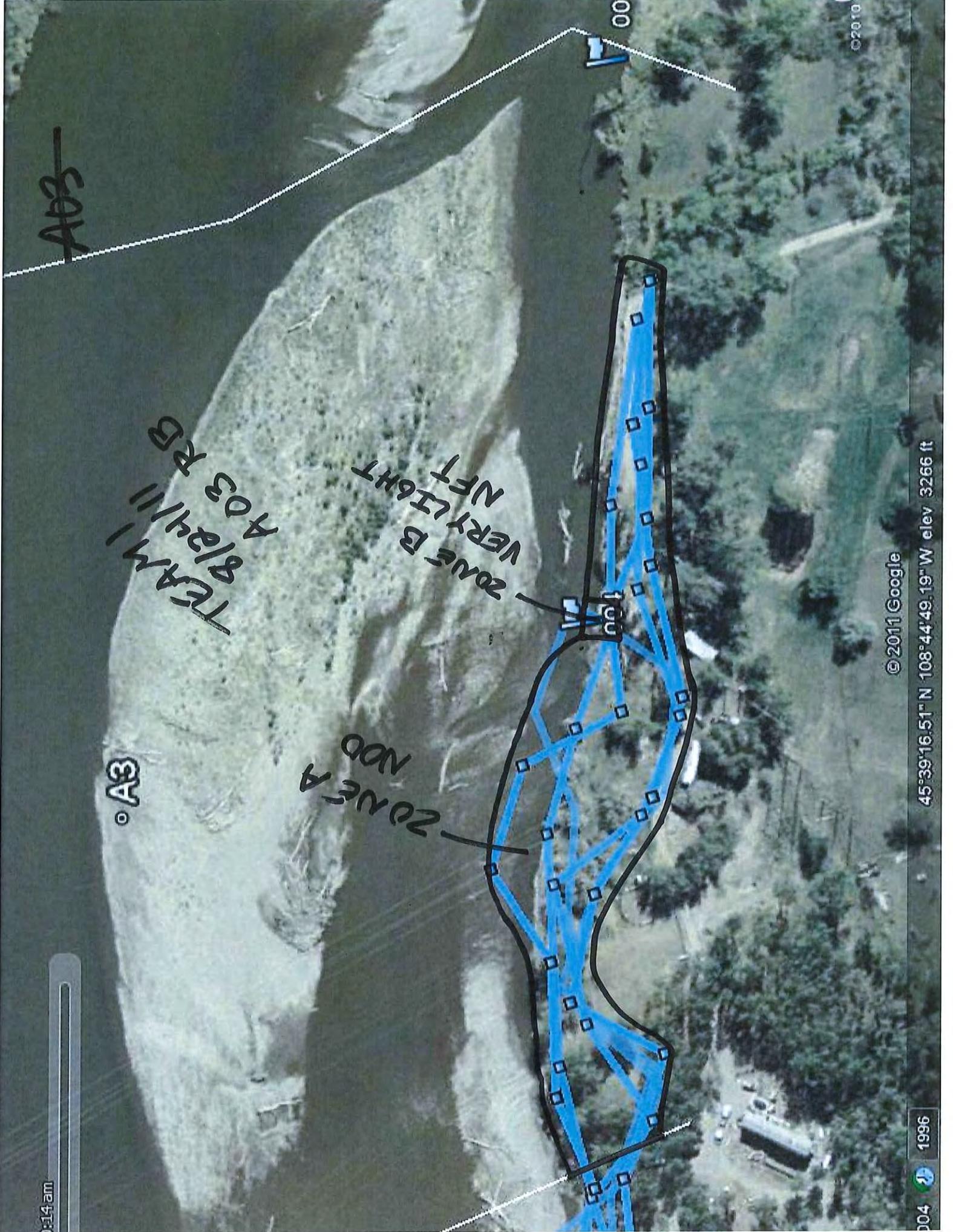
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Resect - Isolated area of creek + shrub veg + debris. Hot stick
Crew picked up + bagged all creek debris + veg. No further
treatment

Zone 2 (DEQ) remains 65 meters
Survived remains 65 meters

Sketch Yes / No Photos Yes / No Frames _____ Photographer _____



A03

TEAM 1
8/24/11
A03 RB

ZONE A
NDD

ZONE B
VERY LIGHT
NFT

A03



Appendix F

Completed SCAT Segment Sign-Off
Forms

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment A3 Island Date of Survey 8/29/11

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

CTR(s) Associated with SCAT Segment 26

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

Segment Assessment Complete¹

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] Giff Miller / EPA 8-29-11
Sign Name Print Name/ Affiliation Date
Federal Representative (EPA/USCG)

[Signature] Larry Alheim DEQ 8/29/11
Sign Name Print Name/ Affiliation Date
State Representative (DEQ/FWP)

[Signature] PETE LEE / Polaris 8/29/11
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.

¹ 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 A 3 IS Date of Survey 9-3-11

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

CTR(s) Associated with SCAT Segment _____

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

Segment Assessment Complete¹

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 9/3/11
Sign Name Print Name/ Affiliation Date
Federal Representative (EPA/USCG)

[Signature] Steve Opp / DEQ 9/3/11
Sign Name Print Name/ Affiliation Date
State Representative (DEQ/FWP)

[Signature] Charles Paul Carter ENTRIX 9-3-11
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.

¹ 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.

Silvertip Pipeline Spill Segment Sign-Off Sheet

O
SC
SC

COMPLETED

B	C
: <u>A3</u>	
12-LB/IS/RB): <u>A3 RB</u>	

Check if Complete:

1. Completion Date for Initial SCAT Assessment: 04 JUL 11 (FL)

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

Yes/No

List CTRs Applicable to SCAT Segment: _____

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

<u>[Signature]</u>	<u>8/27/11</u>
Federal Representative (EPA/USCG) <u>Lance [Signature]</u>	Date
<u>[Signature]</u>	<u>8/24/11</u>
State Representative (DEQ/FWP) <u>Dave Mergenthauser</u>	Date
<u>[Signature]</u>	<u>8/29/11</u>
RP Representative (SCAT Contractor) <u>Joseph Boyle</u>	Date

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.

Silvertip Pipeline Spill SCAT Segment Sign-Off Sheet

Operations Division: <u> A X </u> <u> B </u> <u> C </u>
SCAT Area Number (i.e. A12): <u> A 3 </u>
SCAT Segment Number (i.e. A12-LB/IS/RB): <u> A 3 12 B </u>

Partial

Check if Complete:

1. Completion Date for Initial SCAT Assessment: 04 JUL 11
2. Combined Treatment Recommendations (CTRs) Developed/Issued: Yes/No

List CTRs Applicable to SCAT Segment: _____

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

 Linda R. Blatz 8/24/11
Federal Representative (EPA/USCG) Date

 Robert Ashton 8/24/11
State Representative (DEQ/FWP) Date

 Charles Ross 8-24-11
RP Representative (SCAT Contractor) Date

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.