

ExxonMobil Pipeline Company

**SCAT Area Transition Report
for A27**

Silvertip Pipeline Incident
Laurel, Montana

October 19, 2011



SCAT Area Transition Report for A27

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Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

Prepared by:
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Date:
October 19, 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 A27, 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 A27. 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 A27, 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 A27 is 85.9. There were access issues for most of the right bank.

1.2 Cultural, Historic, and Natural Resource Constraints

This area was not surveyed for historic properties or cultural resources at the request of the private landowners.

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 A27. A lightly oiled Leopard frog (*Rana pipiens*) was captured, cleaned, and released. Three deceased Red Fox squirrels (*Sciurus niger*) with no visible oiling were identified and retained. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area A27.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area A27. 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 A27 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Name	Date	Matrix	Location	Latitude	Longitude
CTEH	LAMT0707DWW001	07-Jul-11	Water_Drinking	LAMT_282_DWW001	45.6852303	-108.6577301
CTEH	LAMT0707DWW002	07-Jul-11	Water_Drinking	LAMT_282_DWW002	45.6841812	-108.657341
CTEH	LAMT0709IWW4002	09-Jul-11	Water_Irrigation	LAMT_282_IWW001	45.685595	-108.65802
CTEH	LAMT0710DW101	10-Jul-11	Water_Drinking	LAMT_340_DW101	45.691674	-108.656545
CTEH	LAMT0814SD410	14-Aug-11	Soil_River	SD-A27R-1	45.688662	-108.656492
MDEQ	ST-071411-KW-SW	14-Jul-11	Water_Surface	ST-KW-04	45.6834	-108.6552
MDEQ	ST-071411-KW-SW-F	14-Jul-11	Water_Surface	ST-KW-04	45.6834	-108.6552
MDEQ	ST-071511-KW-DW1	15-Jul-11	Water_Drinking	ST-KW-05	45.6851	-108.65865
EPA	SPDW06_071011	10-Jul-11	Water_Drinking	SPDW06	45.6916697	-108.6565166
EPA	SPDW07_071011	10-Jul-11	Water_Drinking	SPDW07	45.685447	-108.657782
EPA	SPGW01_070911	09-Jul-11	Water_Irrigation	SPGW01	45.6855153	-108.6578507

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 no exceedances for Area A27.

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 A27 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area A27.

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. 15](#) and [CTR No. 40](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area A27 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

A Pre-Inspection Survey Transmittal (PIST) was not conducted for this area.

1.8 Post-Inspection Survey Transmittal

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

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area A27 following completion of oil removal activities. The SCAT team performed final surveys of the left and right banks within SCAT Area A27 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 A27, no further treatment is recommended for these segments. SCAT Segment Sign-Off Forms are included as Appendix F.



**SCAT Area Transition
Report for A27**

Silvertip Pipeline Incident
Laurel, Montana

2. Transition Sign-Off Form

SCAT Area Transition Report for A27

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for A27**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for A27

Prepared for:

Unified Command

Date

Unified Command – FOSC



**SCAT Area Transition
Report for A27**

Silvertip Pipeline Incident
Laurel, Montana

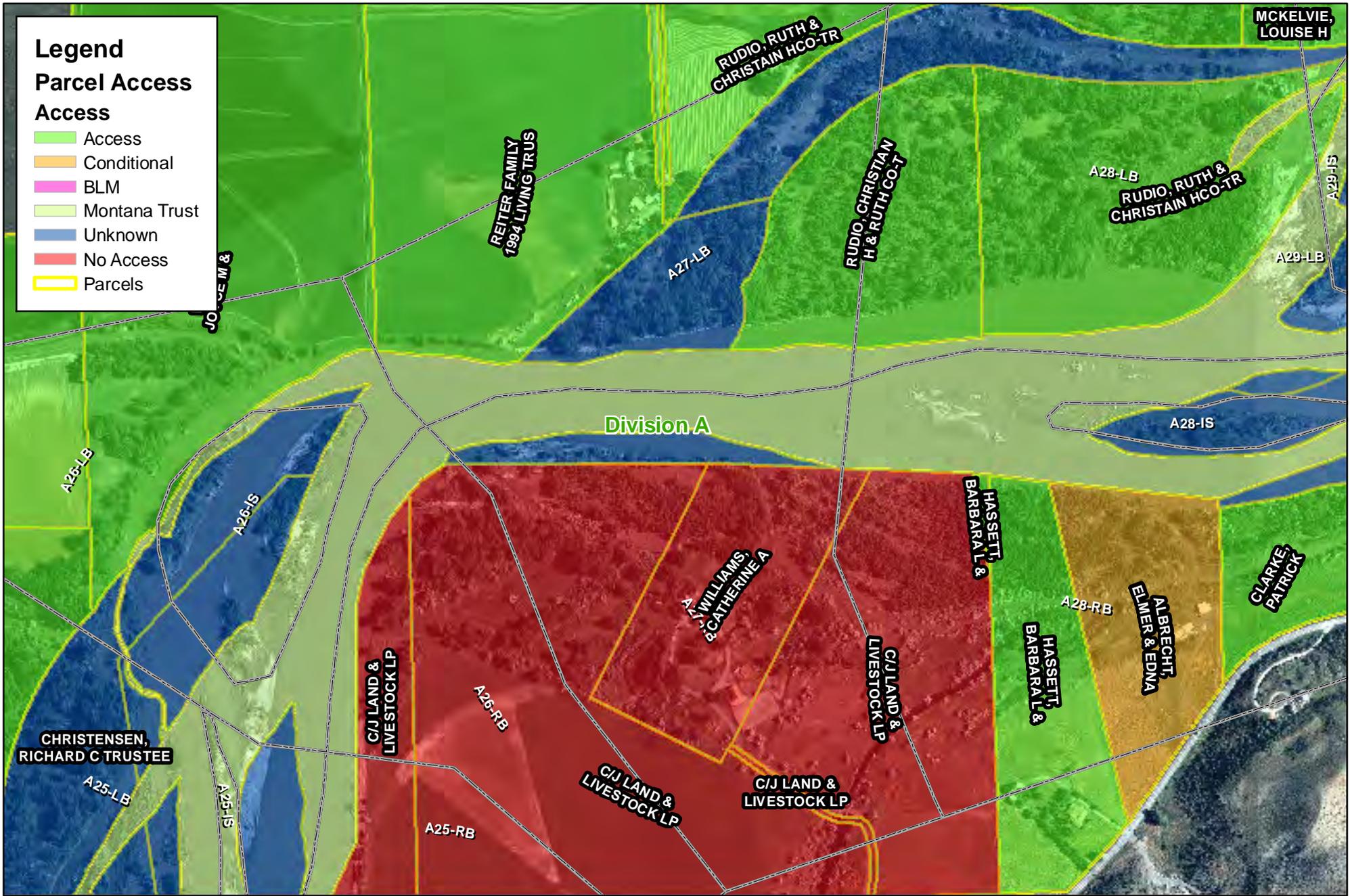
SCAT Area Transition Report for A27

Prepared for:

Unified Command

Date

Unified Command – MDEQ



Legend

Parcel Access

Access

- Access
- Conditional
- BLM
- Montana Trust
- Unknown
- No Access
- Parcels

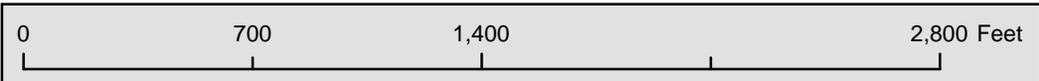


Figure 1

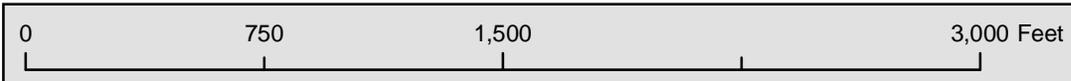
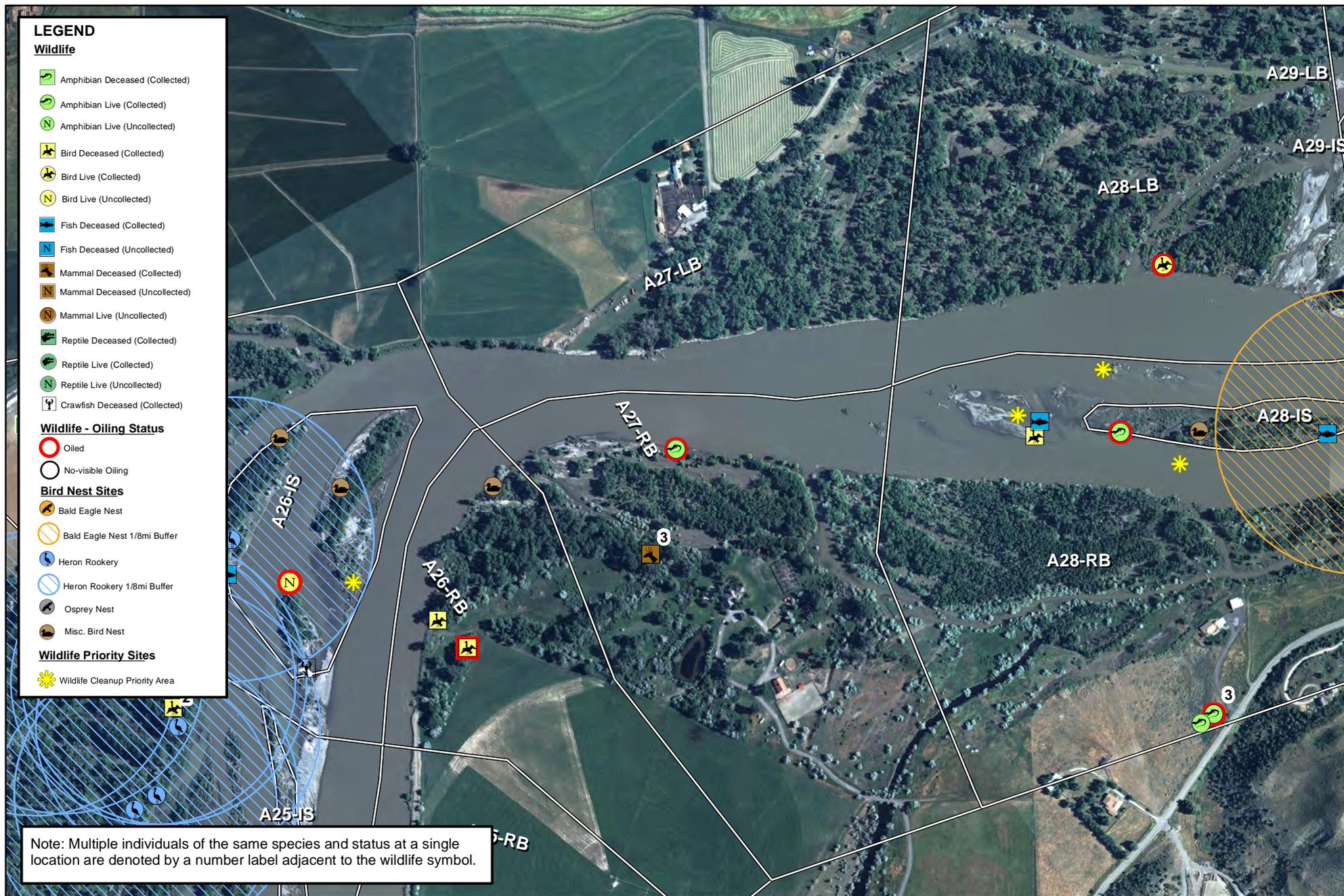
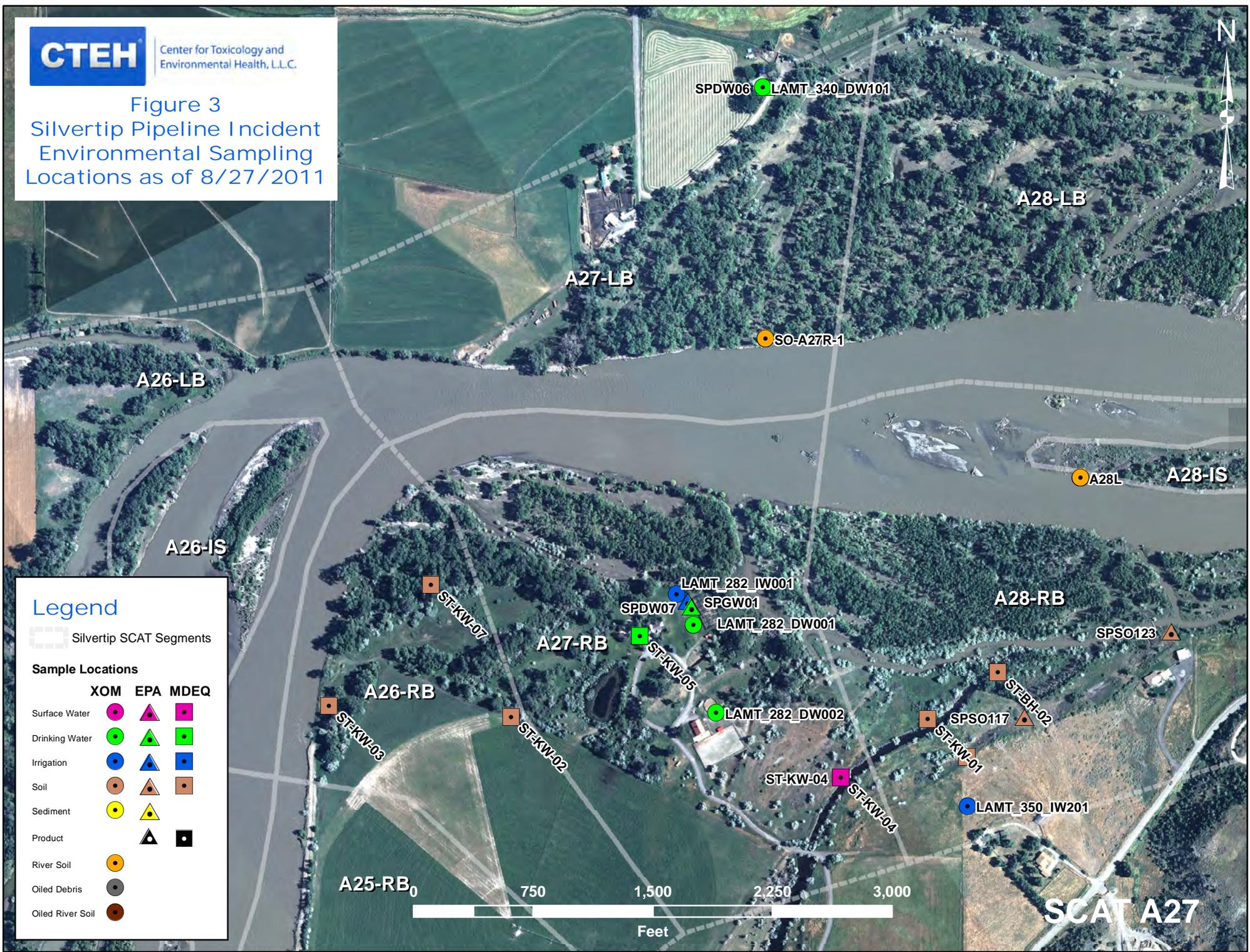


Figure 2
Wildlife Resources

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



Legend

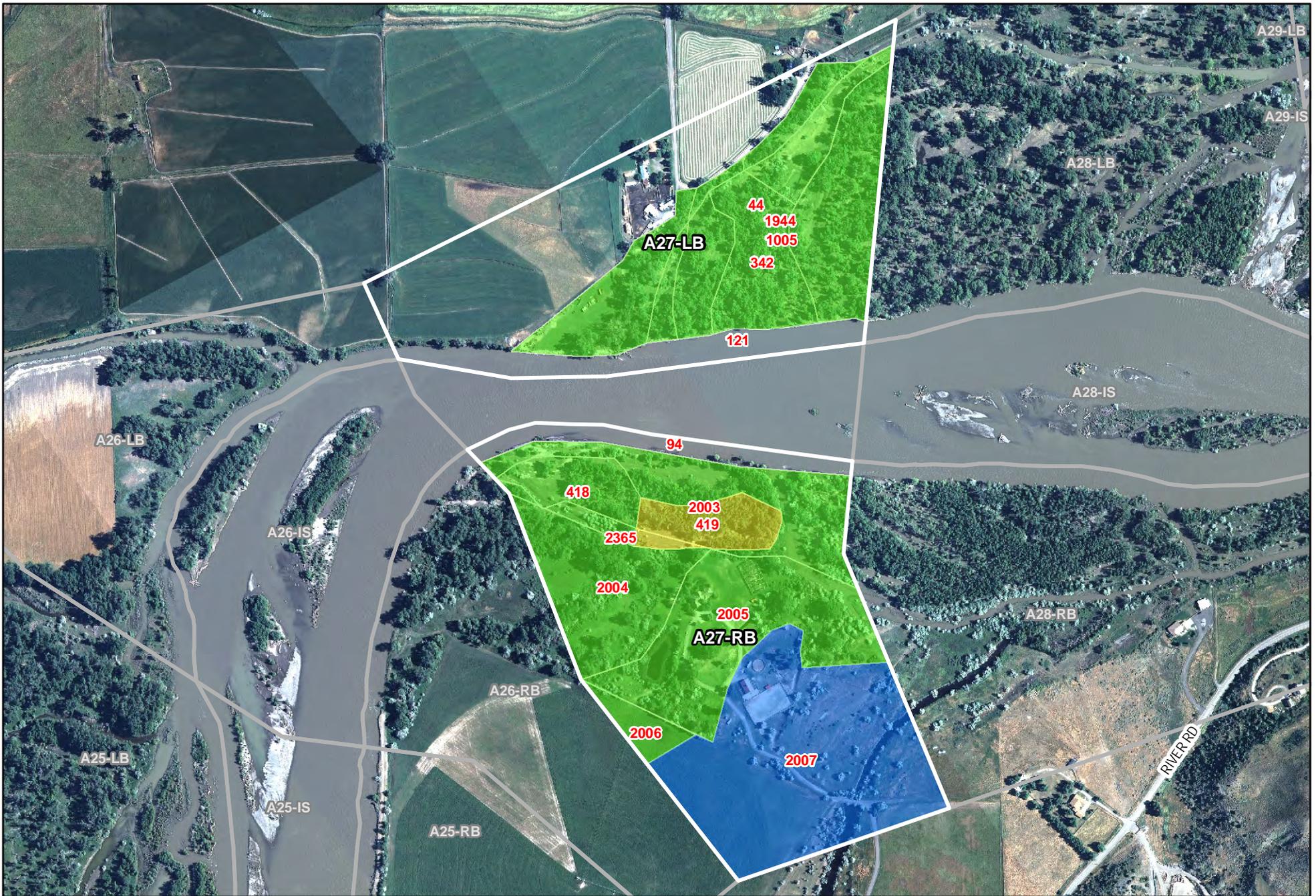
Silvertip SCAT Segments

Sample Locations

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

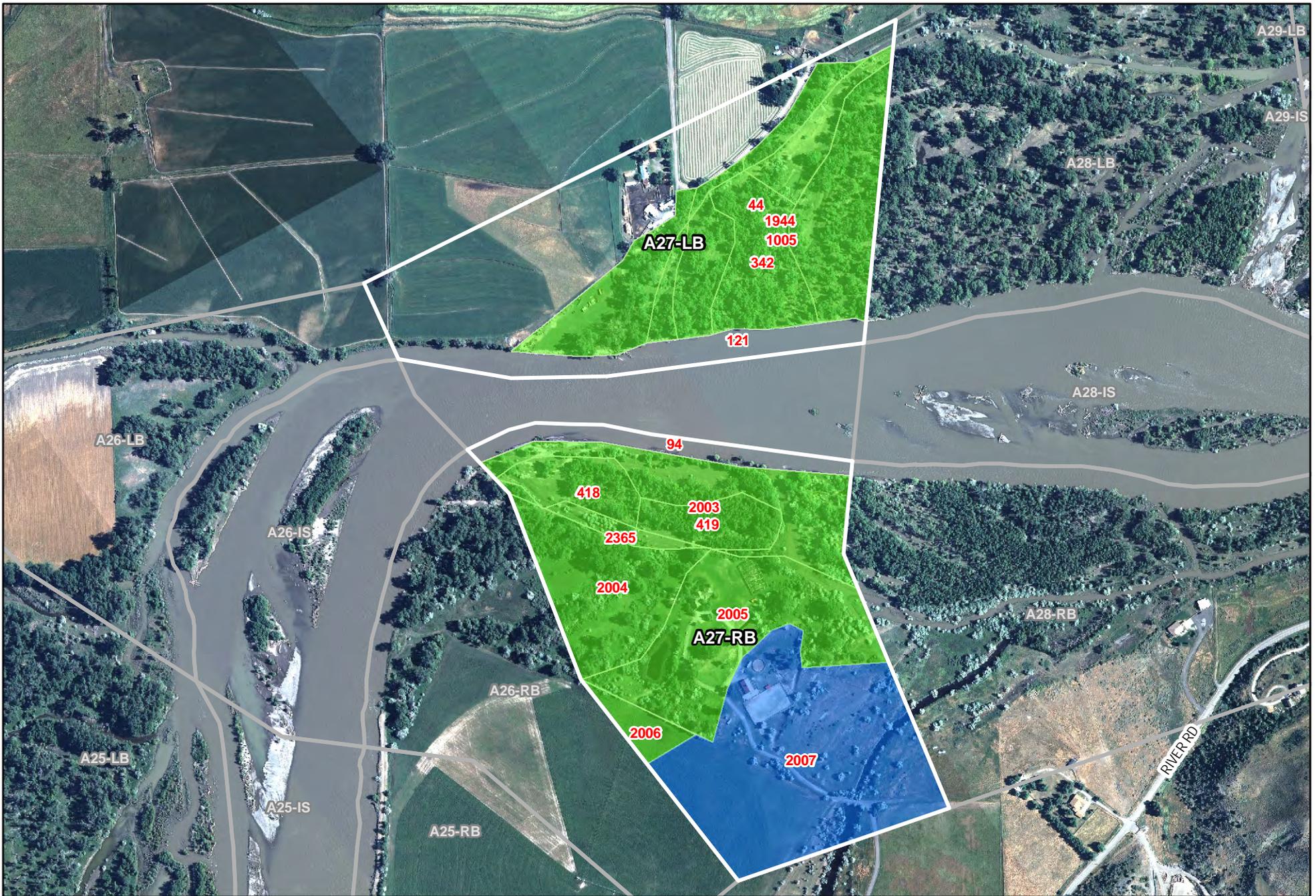


SCAT A27



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

Figure 4 - Maximum SCAT Observations For SCAT Area: A27



- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed

Figure 5 - Final SCAT Observations
For SCAT Area: A27





Appendix A

Sample Detection Summary



Detections in Samples Collected in SCAT Area A27

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
LAMT0707DW001	07/07/2011	Field	Water_Drinking	E524.2	Chloroform	Y	1.9	70	J-	ug/L	no
LAMT0707DW001	07/07/2011	Field	Water_Drinking	E524.2	Trihalomethanes, Total	Y	1.9	100	J-	ug/L	no
LAMT0707DW002	07/07/2011	Field	Water_Drinking	E524.2	Chloroform	Y	0.24	70	J-	ug/L	no
LAMT0707DW002	07/07/2011	Field	Water_Drinking	E524.2	Trihalomethanes, Total	Y	0.24	100	J-	ug/L	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Arsenic	Y	18	40		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Barium	Y	123	820		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Cadmium	Y	1.1	3.8		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Chromium	Y	19	280		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Lead	Y	8.3	400		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 9060	Mean Total Organic Carbon	Y	3110	NA		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Nickel	Y	14.1	150		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 9060	RSD%	Y	6.1	NA		%	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 9060	Total Organic Carbon	Y	3380	NA		mg/kg	no
LAMT0814SO410	08/14/2011	Field	Soil_River	EPA 6010	Vanadium	Y	37	39		mg/kg	no
SPDW06_071011	07/10/2011	Field	Water_Drinking	EPA 524.2	Methylene Chloride	Y	0.57	5		ug/L	no
SPGW01_070911	07/09/2011	Field	Water_Irrigation	MADEP VPH	Aliphatic (C09-C12), Adjusted	Y	2.4	1000	J	ug/L	no
SPGW01_070911	07/09/2011	Field	Water_Irrigation	MADEP VPH	Aliphatic (C09-C12).Unadjusted	Y	20	1000	U	ug/L	no
ST-071411-KW-SW		Field	Water_Surface	8260B	1,2-Dichloroethane-d4	Y	94	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	2,4,6-Tribromophenol	Y	32	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	2-Fluorobiphenyl	Y	36	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8260B	Dibromofluoromethane	Y	102	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	Nitrobenzene-D5	Y	38	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	o-Fluorophenol	Y	21	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8015M-MDEQ-REM	o-Terphenyl	Y	63	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8260B	p-Bromofluorobenzene	Y	86	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	Phenol-d5	Y	20	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8270C	Terphenyl-d14	Y	20	NA		%	no
ST-071411-KW-SW		Field	Water_Surface	8260B	Toluene-d8	Y	103	NA		%	no
ST-071411-KW-SW-F		Field	Water_Surface	FLOW-EST-MDEQ-REM	Flow	Y	0	NA		cfs	no
ST-071511-KW-DW1		Field	Water_Drinking	524.2	1,2-Dichloroethane-d4	Y	99	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	525.2	2-Nitro-M-Xylene	Y	95	NA		%	no



Detections in Samples Collected in SCAT Area A27

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
ST-071511-KW-DW1		Field	Water_Drinking	524.2	Chloroform	Y	1.1	70		ug/l	no
ST-071511-KW-DW1		Field	Water_Drinking	8015M-MDEQ-REM	o-Terphenyl	Y	78	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	524.2	p-Bromofluorobenzene	Y	106	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	525.2	Perylene-d12	Y	83	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	525.2	Pyrene-d10	Y	120	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	524.2	Toluene-d8	Y	103	NA		%	no
ST-071511-KW-DW1		Field	Water_Drinking	524.2	Trihalomethanes	Y	1.1	100		ug/l	no
ST-071511-KW-DW1		Field	Water_Drinking	525.2	Triphenyl phosphate	Y	93	NA		%	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) 09-Jul-2011	Time (24h): std / daylight 1030 hrs to 1200 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A27 <u>Left Bank</u> / Right Bank / Island				
Operations Division: A				
Survey by: <u>Foot</u> / ATV / <u>Boat</u> / Helicopter / Overlook / _____		<u>Sun</u> / 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	<i>[Signature]</i>
Tom Freeman		Polaris	<i>[Signature]</i>
Andrew Johnson		USCG	<i>[Signature]</i>
Travis Olson		USCG	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 460 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: P Wooded Upland: S

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10 m 10-100m >100m _____ 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

(4)

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					460	<u>55</u>															X	Grass, trees, debris

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

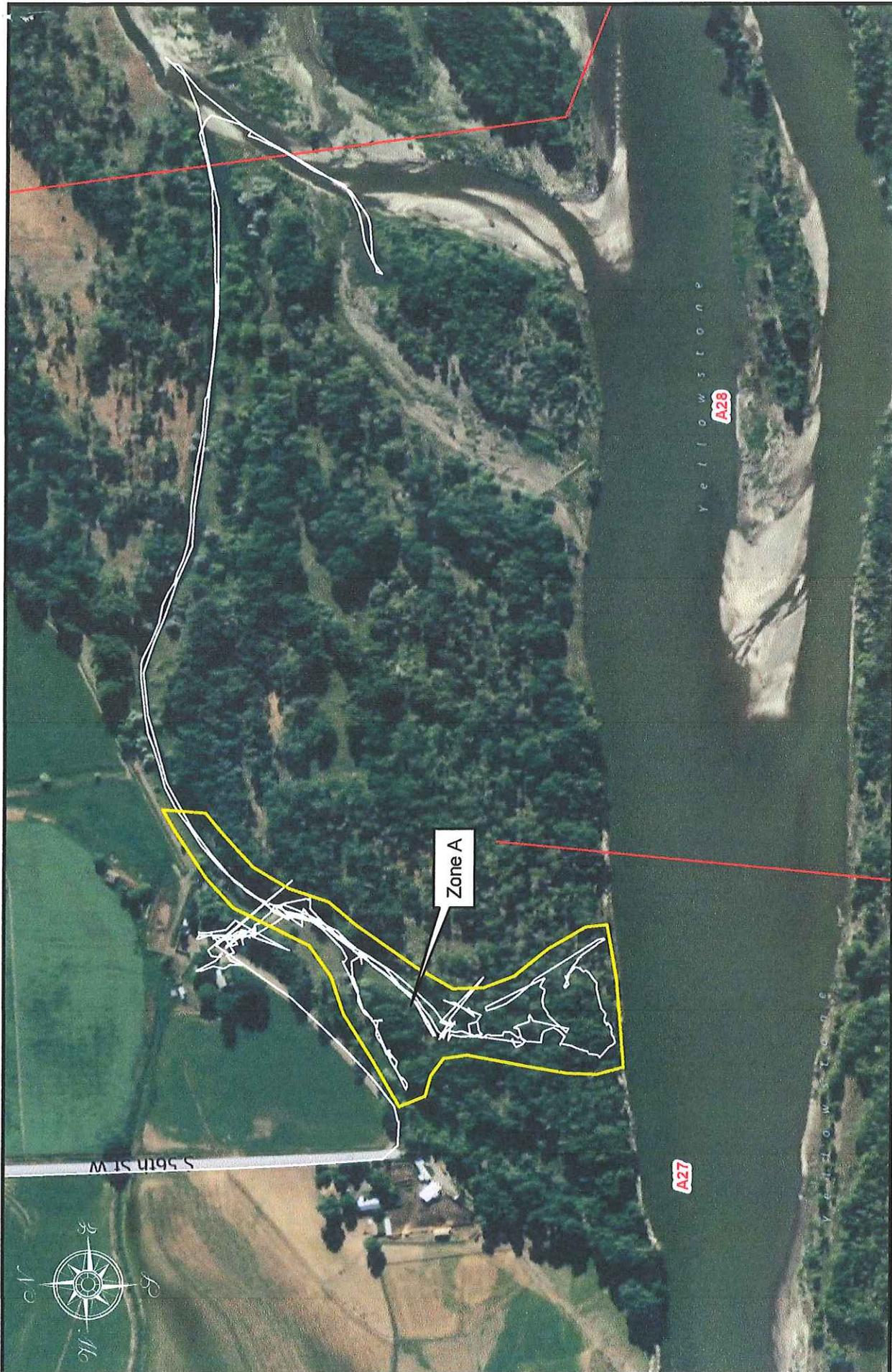
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR				

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

No oil observed.

(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 A27

09-Jul-2011



Legend

 GPS Track

DB/G/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1043 hrs to 1044 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A27 <u>Left Bank</u> / Right Bank / Island				
Operations Division: A				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>29.4</u> deg C

2 SURVEY TEAM # 2 & 4	name	organization	contact phone number
Andrew Milanes		Polaris	<i>[Signature]</i>
Tom Freeman		Polaris	<i>[Signature]</i>
Andrew Johnson		USCG	<i>[Signature]</i>
Travis Olson		USCG	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 674 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: 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 110m 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		
121 A			X		674	1															X	Grass, trees, debris	

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

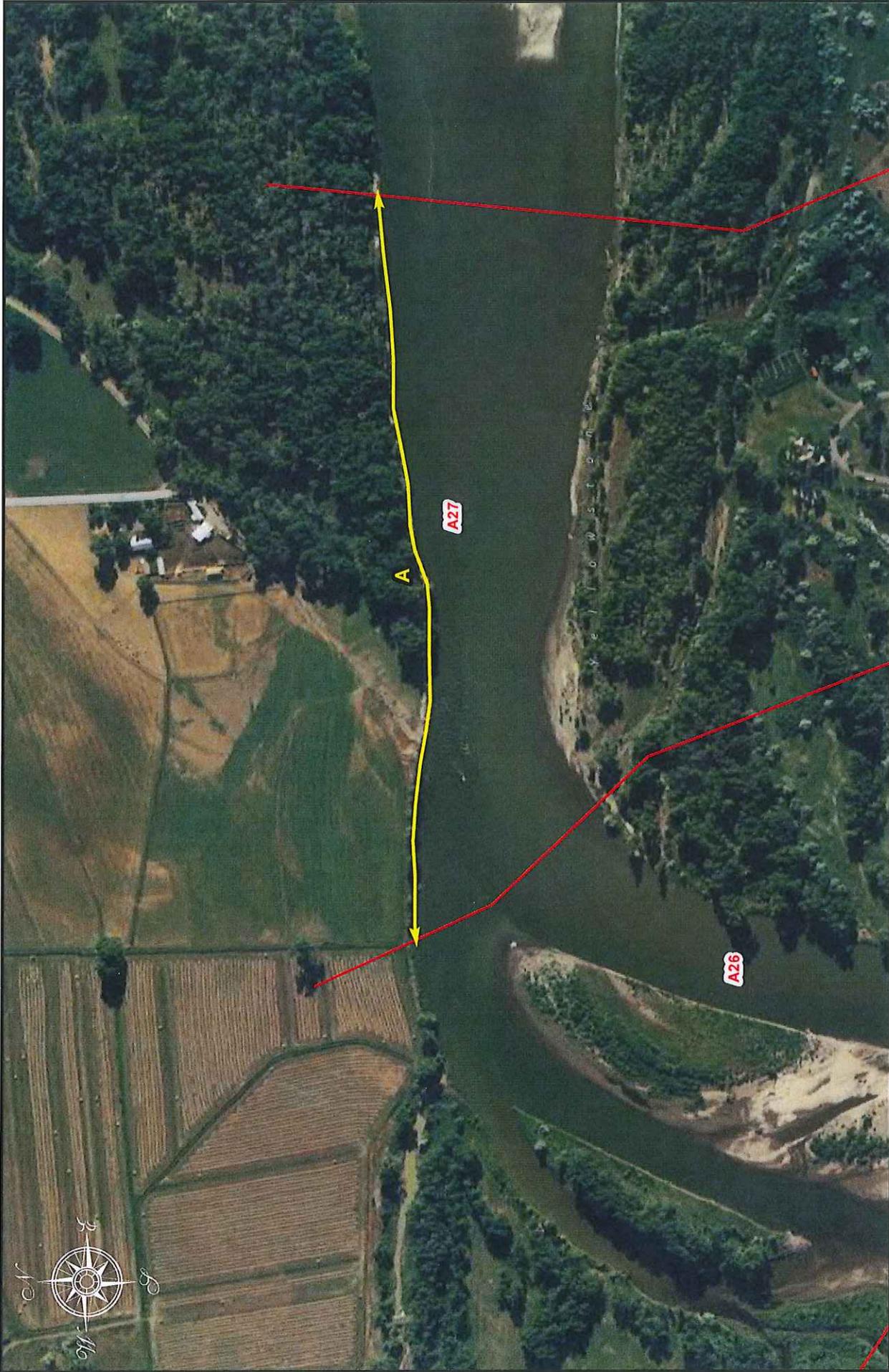
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER								WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)						
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR	NO											

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 # _____)



Legend

-  Oil Zones
-  Segment Boundaries



SCAT Teams 2 & 4 Survey

Segment A27 Left Bank

11-Jul-2011

DB/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 18/07/2011	Time (24h): std / <u>daylight</u> 14:55 hrs to 16:25 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A27 <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 / <u>Calm</u>		Air Temp + / - <u>34</u> deg C

2 SURVEY TEAM # 3	Name:	Organization:	Signature:
Jenni Nelson		Polaris	<i>Jenni Nelson</i>
Mike Ruggles		Montana Fish Wildlife and Parks	<i>Mike Ruggles</i>
Janice Witul		EPA	<i>Janice Witul</i>
Rebecca Ridenour		MDEQ	<i>Rebecca Ridenour</i>

3 SEGMENT	Total Segment/Reach Length _____ m	Segment/Reach Length Surveyed <u>215</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 _____ Mixed _____	Pebble/Cobble _____ Boulder _____ Peat/Organic _____	Vegetated Bank: <u>P</u>	Wooded Upland: <u>S</u>
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 <u>P</u>	confined or leveed _____	Substrate Type: <u>Mud/Sand</u>	
Sloped: (>5°)(15°)(30°)	straight _____ braided _____ oxbow _____	flood plain valley _____	Forested / <u>Vegetated</u> / Bare	

4C RIVER CHANNEL CHARACTER		circle or select as appropriate	
est. width: <1m 1-10m 10-100m >100m 200 _____ m	est. water depth: <1m 1-3m <u>3-10m</u> >10m _____ m		
shoal(s) present <u>Y</u> / N	point bar present <u>Y</u> / N	bar-shoal substrate: <u>silt / sand</u> / gravel / cobble / boulder / bedrock / debris	
seasonal water level: low / mean / bank full / <u>overbank flow</u>	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 <u>5</u> bags or _____ trucks		access restrictions: Area is wet, and has lots of running channels.		
Oiled trees/shrubs <u>Y</u> / N		River Current strong <u>Y</u> / N	Other Features: shoal areas have deep mud and wet unstable sand	

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		
312 A				X	215	400	1		X	X	X		X								mud/veg/sand		

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

A - Area had trace occasional oiled debris (mostly wooden), bath tub ring on several trees, and areas of tarry specs on grass (ave. 20-25 cm high on blade). Most oiled wood debris was associated with piles of drift logs and/or trapped under bushes. Very intermittent distribution primarily along edges of flood channel pathways. Size of oil patches range from 0.25 cm to ~50 cm. Bath tub ring from 0.5 cm to 5 cm wide. Evidence of landowner use throughout area

(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# _____)

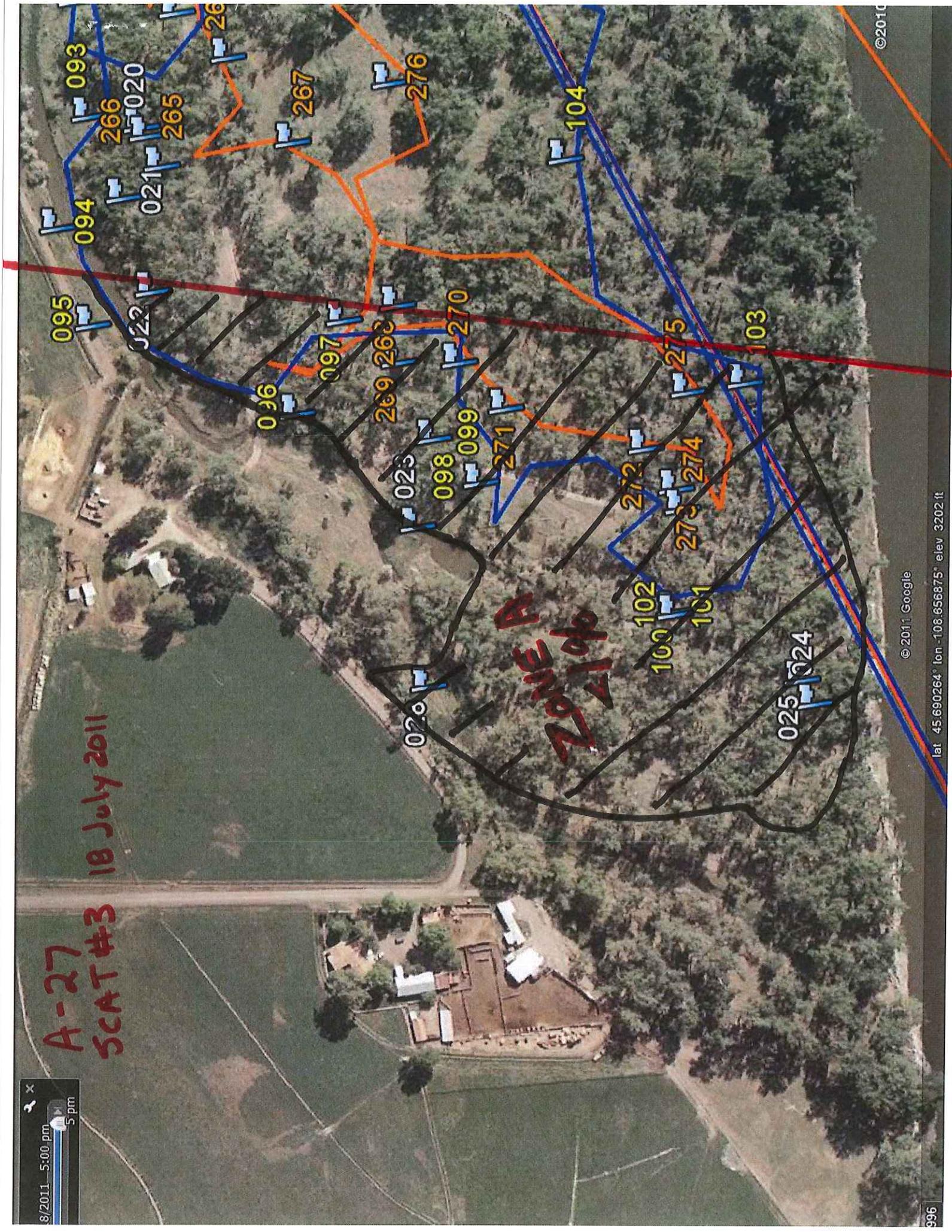
log cutting, farm related, etc.

A-27
SCAT #3

18 July 2011

ZONE A
2106

8/2011 5:00 pm
5 pm



©2010

©2011 Google

lat 45.690264° lon -108.656875° elev 3202 ft

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION
 Segment/Reach ID: A27 Left Bank / Right Bank / Island
 Date (dd/mm/yy) 30/07/11
 Time (24h): std / daylight 08:58 hrs to 11:00 hrs
 Water Level: low - mean - bankfull - overbank
 falling - steady - rising
 Operations Division:
 Survey by: Foot / ATV / Boat / Helicopter / Overlook / Boat access Sun / Clouds / Fog / Rain / Snow / Windy / Calm
 Air Temp +/- 36 deg C

2 SURVEY TEAM # 1

Name	Organization	Signature
Rich Marty	RP/Polaris	Richard Marty
Darcey Miller	RP/ARDNO ENTRIX	Darcey Miller
Peter Reich <i>Pete Reich</i>	EPA	Pete Reich
Mark Peterson <i>M. Peterson</i>	MT DEQ	Mark Peterson

3 SEGMENT Total Segment/Reach Length 658 m Segment/Reach Length Surveyed 321 m
 Start GPS: LATITUDE 45 deg. 41.306 min. LONGITUDE 108 deg. 39.831 min. Datum: WGS 84
 End GPS: LATITUDE 45 deg. 41.324 min. LONGITUDE 108 deg. 39.314 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: ___ 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

Cliff or Bluff: ___ Est Height ___ m canyon ___ manmade ___ meander ___ confined or leveed ___ Substrate Type: sand/mud
 Sloped: (>5°)(15°)(30°) straight ___ braided ___ oxbow ___ flood plain valley X P Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 148 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	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
A				X	<u>93</u>	<u>180</u>	<u>1</u>															<u>sand/mud</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

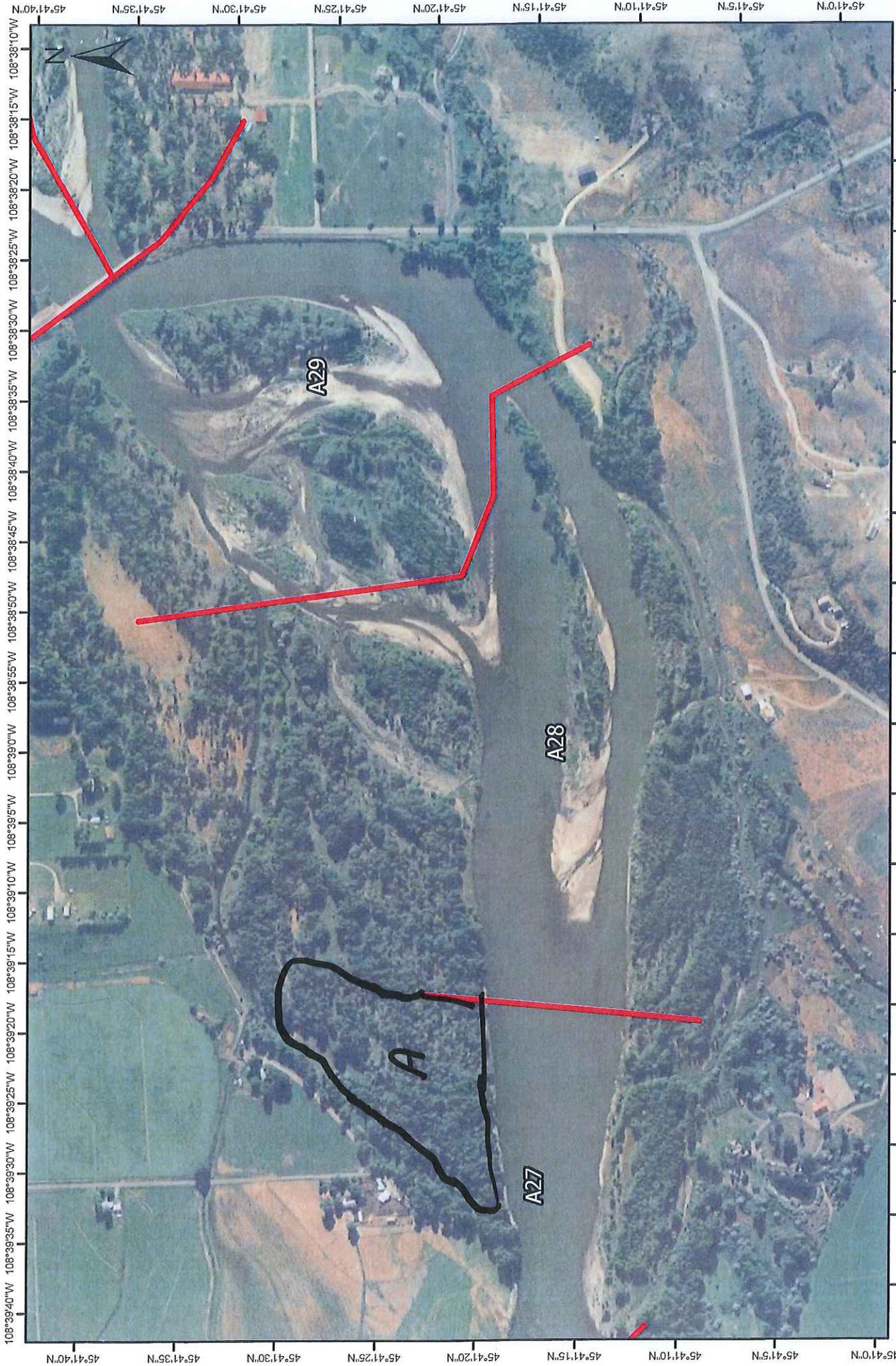
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A - Recommend hand removal of small woody debris. Fixation with native soils on large wood.

D. Miller - 2-6

Sketch Yes / No Photos Yes / No Frames _____ Photographer D. Miller
R. Marty
M. Peterson



A28 -
 (L/R/I)??

DATE: _____
 TEAM: _____

COMMENTS: _____

0 90 180 270 360
 Meters

45°41'0"N 45°41'5"N 45°41'10"N 45°41'15"N 45°41'20"N 45°41'25"N 45°41'30"N 45°41'35"N 45°41'40"N
 108°39'40"W 108°39'35"W 108°39'30"W 108°39'25"W 108°39'20"W 108°39'15"W 108°39'10"W 108°39'5"W 108°39'0"W 108°38'55"W 108°38'50"W 108°38'45"W 108°38'40"W 108°38'35"W 108°38'30"W 108°38'25"W 108°38'20"W 108°38'15"W 108°38'10"W

45°41'0"N 45°41'5"N 45°41'10"N 45°41'15"N 45°41'20"N 45°41'25"N 45°41'30"N 45°41'35"N 45°41'40"N
 108°39'40"W 108°39'35"W 108°39'30"W 108°39'25"W 108°39'20"W 108°39'15"W 108°39'10"W 108°39'5"W 108°39'0"W 108°38'55"W 108°38'50"W 108°38'45"W 108°38'40"W 108°38'35"W 108°38'30"W 108°38'25"W 108°38'20"W 108°38'15"W 108°38'10"W

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 1044 hrs to 1046 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A27 Left Bank / <u>Right Bank</u> / Island				
Operations Division: A				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>29.4</u> deg C

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 536 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: 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 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 145m est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

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

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

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

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

94

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		536	1	45			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

Zone A Oiled Band Height: 20cm

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)

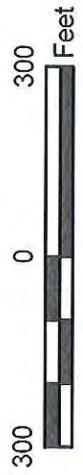
Sketch (Yes) No Photos (Yes) No (Roll # _____ Frames _____) Video Tape Yes/No (tape# _____)



Legend

Oil Zones

Segment Boundaries



SCAT Teams 2 & 4 Survey

Segment A27 Right Bank

11-Jul-2011

DB/G

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>A27</u> Left Bank / <u>Right Bank</u> / Island		<u>21/07/11</u>	<u>1159</u> hrs to <u>1224</u> hrs	low - mean - <u>bankfull</u> - overbank
Operations Division: <u>A</u>				<u>falling</u> - steady - rising
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy <u>Calm</u>		Air Temp + / - <u>29</u> deg C

2 SURVEY TEAM #	name	organization	contact phone number
<u>1</u>	<u>Chelsea Murray</u>	<u>Cardno Enviro</u>	<u>115-313-3976</u>
	<u>Josh Rodgers</u>	<u>USCG PAC STRIKE TEAM</u>	<u>727-244-8292</u>
	<u>Steve Kennedy</u>	<u>Cardno Enviro</u>	<u>291-723-1259</u>
	<u>Derrick Turner</u>	<u>MT DEC</u>	<u>406-444-1504</u>

3 SEGMENT Total Segment/Reach Length ~520 m Segment/Reach Length Surveyed ~440 m

Start GPS: LATITUDE 45.6804 deg. _____ min. LONGITUDE 108.6620 deg. _____ min. Datum: WGS84

End GPS: LATITUDE 45.68620 deg. _____ min. LONGITUDE 108.65283 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 S 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

Cliff or Bluff: _____ Est Height _____ m canyon _____ manmade _____ meander S confined or leveed _____ Substrate Type: mud

Sloped S (>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 1-10 m 10-100 m (100m) 200 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 Y (N) amount _____ bags or _____ trucks access restrictions: Private Property - dense veg

Oiled trees/shrubs Y / N River Current strong Y / N Other Features: for working - no heavy equipment

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	
<u>418</u> <u>419</u> A				<u>P</u>	<u>240</u>	<u>30</u>	<u>3%</u>				<u>P</u>		<u>P</u>									<u>mud/veg</u>
B				<u>P</u>	<u>200</u>	<u>100</u>	<u>8%</u>	<u>CV</u>	<u>P</u>	<u>S</u>	<u>S</u>		<u>P</u>									<u>mud/veg</u>

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

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH 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

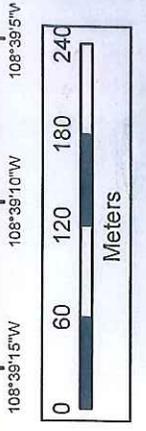
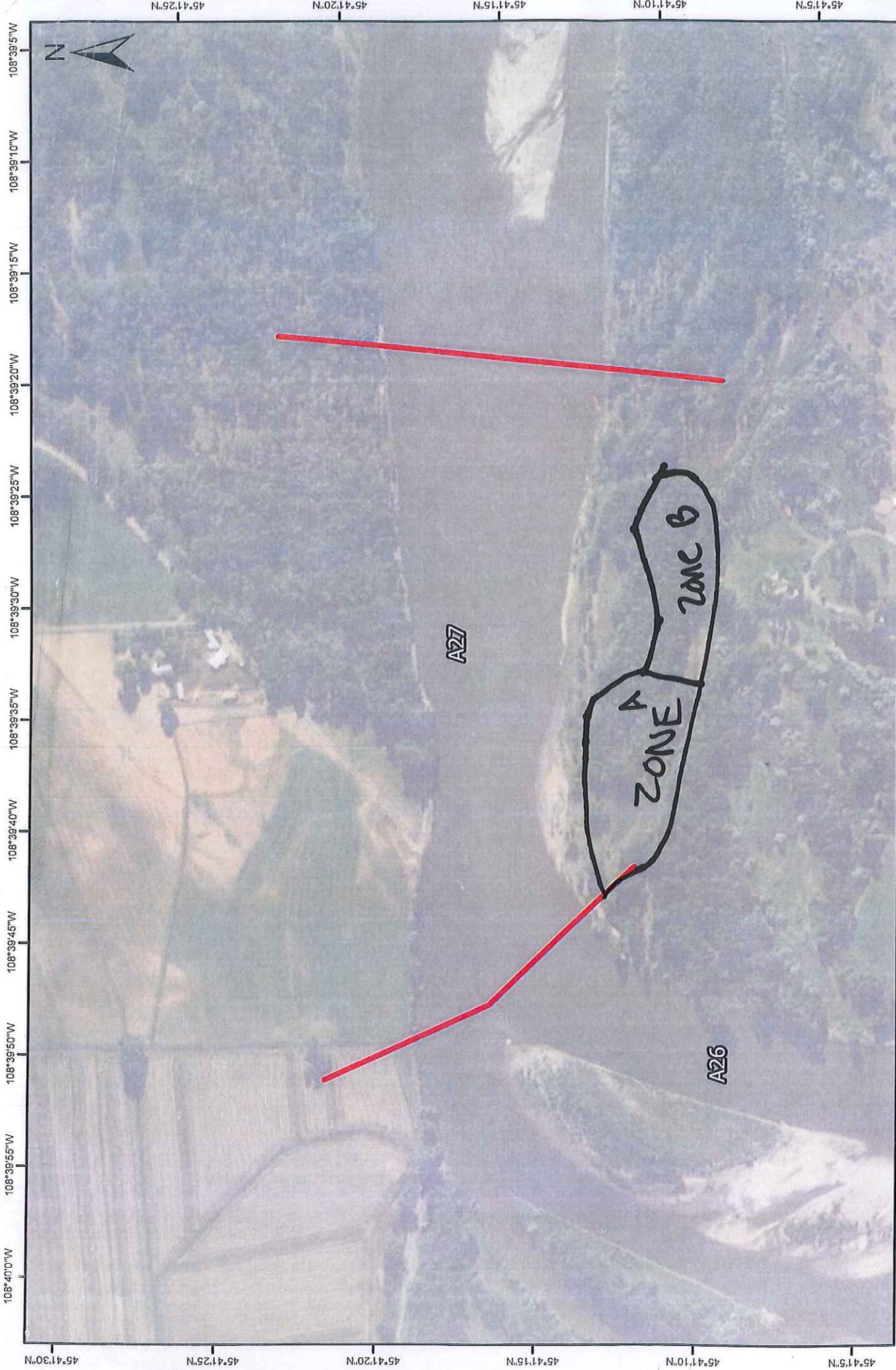
Recommendation Zone A: hand removal of stained vegetation with weed wacker (hand tools). Bag + remove grasses.

Recommendation Zone B: Removal + chipping of debris piles (oiled) - hand cutting of grasses + raking of oiled small debris/sediment.

(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 # _____)

Pic # 11-13



Overbank only

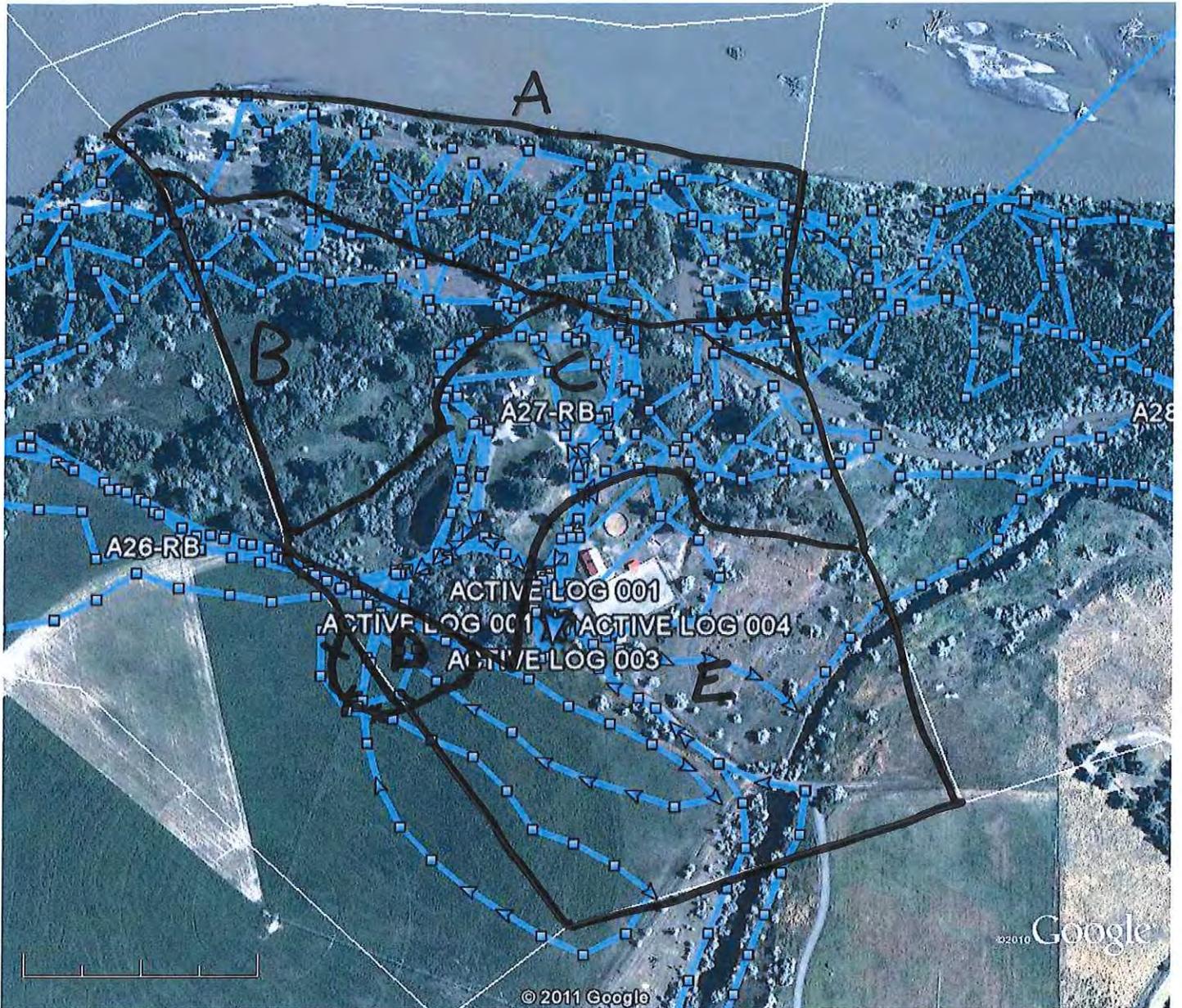
COMMENTS:

DATE: 7/21/11
 TEAM: Scad # 6

A27 - A+B
 (L60)??

108°39'5" N 108°39'10" W 108°39'15" W 108°39'20" W 108°39'25" W 108°39'30" W 108°39'35" W 108°39'40" W 108°39'45" W 108°39'50" W 108°39'55" W 108°40'0" W

45°41'30" W 45°41'25" W 45°41'20" W 45°41'15" W 45°41'10" W 45°41'5" N 45°41'10" N 45°41'15" N 45°41'20" N 45°41'25" N 45°41'30" N



A27RB
9/1/11
Team 2



Appendix C

Pre-Inspection Survey Transmittal

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



Appendix D

Post-Inspection Survey Transmittal

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



Appendix E

Final SCAT Survey Forms
and Sketches

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 29/08/11	Time (24h): std / daylight 0800 hrs to 0903 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: A27 <u>Left Bank</u> / Right Bank / Island				
Operations Division: <u>A</u>				
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>25</u> deg C
2 SURVEY TEAM # 1	Name	Organization	Signature	
	Josh Hofkes	Cardno ENTRIX		
	Tom Bovington	DEQ		
	Stephen Ball	EPA		

3 SEGMENT Total Segment/Reach Length 670 m Segment/Reach Length Surveyed 490 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 P Boulder _____ Peat/Organic S 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 _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: mix

Sloped: _____ (>5°)(15°)(30°) straight _____ 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 est. water depth: <1 m 1-3m 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 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

1944

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	490	280	21			X	⊗						X					veg/debris

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

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

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: N.F.T

Ops: Matt DeLong
=> Removed 2 bags of oiled veg/debris

4m² area w/ 30% coverage of silverfish present

*ReSCAT

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



TEAM 1 A27LB ZONE A: Less than 1% oiling
August 29, 2011 N. F. T.

DB/G

1 GENERAL INFORMATION		Date (dd/mm/yy) 22/09/11	Time (24h): std / daylight 1100 hrs to 1500 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: <u>A27</u> Left Bank / <u>Right Bank</u> / Island		Operations Division: A		
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>30</u> deg C

2 SURVEY TEAM #12	Name	Organization	Signature
Merlo Gauvreau		Polaris	<i>[Signature]</i>
Pete Lee		Polaris	<i>[Signature]</i>
Jeffrey Frank Herrick		MTDEQ	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length 470 m Segment/Reach Length Surveyed 470 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 P _____ 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: Williams property

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

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

2365

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	470	190	<1			S	P								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

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

Oil height: 30-90 cm

Treatment recommendations:

Zone A : Treated by Ops as per CTR 63; No Further Treatment

Zone :

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

22/09/2011 A27-RB (Williams)

Team #2

NFT

A

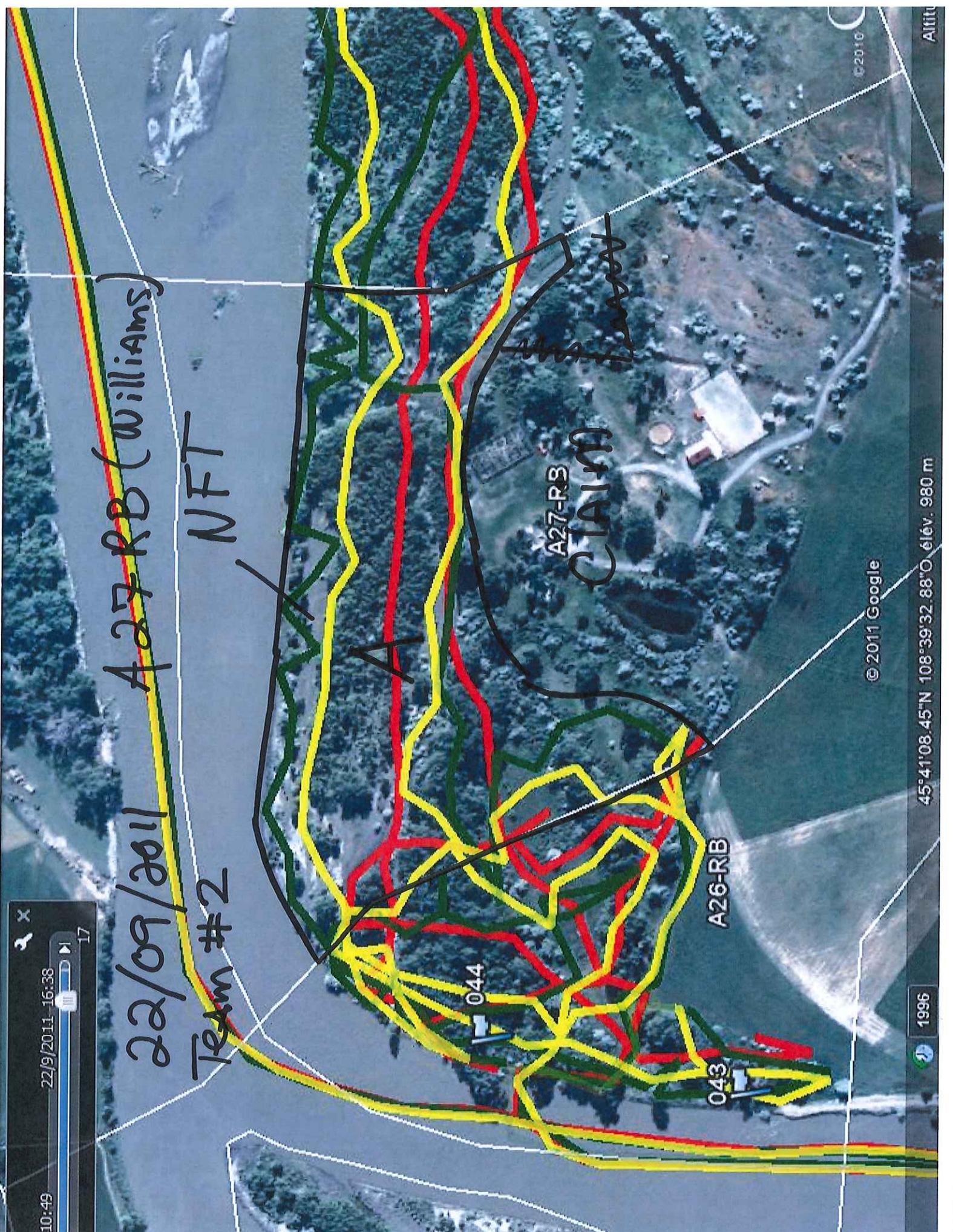
A27-RB

CLAIM

A26-RB

044

043





Appendix F

Completed SCAT Segment
Sign-Off Forms

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment A27 LB Date of Survey 29/08/11

Dates of Initial SCAT Assessments _____
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 40

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).

AK. BUN Stephen Ball - EPA 8/29/11
Sign Name Print Name/ Affiliation Date
Federal Representative (EPA/USCG)

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

[Signature] Josh Hofkes/Carano 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 27 RB Date of Survey 9/22/11

Dates of Initial SCAT Assessments 11 Jun 2011
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 63

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).

No Federal Rep Present

Sign Name _____ Print Name/ Affiliation _____ Date _____
Federal Representative (EPA/USCG)

Jeffrey Paul Smith *Frank Herrick* *22 Sept. 2011*
 Sign Name _____ Print Name/ Affiliation _____ Date _____
State Representative (DEQ/FWP)

PBLee *Peter Lee / Polaris* *9/22/11*
 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.