

ExxonMobil Pipeline Company

**SCAT Area Transition Report
for C53**

Silvertip Pipeline Incident
Laurel, Montana

October 25, 2011



SCAT Area Transition Report for C53

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

Prepared by:
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Our Ref.:
B0085883.1103

Date:
October 25, 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 C53, 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 C53. 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 C53, 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 C53 is 57.0. There were no access issues for this area.

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 limited inspections of Area C53 due to the low level of oiling in Division C. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. Three Osprey (*Pandion haliaetus*) nests were identified in Area C53.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area C53. 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 C53 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	CUMT0725SW501	7/25/2011	Water_Lab	C53	45.996515	-108.007080
CTEH	CUMT0725SW501	7/25/2011	Water_Surface	C53	45.996515	-108.007080
CTEH	POMT0711DW201	7/11/2011	Water_Drinking	POMT_346_DW201	45.994610	-107.997950
CTEH	PPMT0808DW103	8/8/2011	Water_Drinking	PPMT_508_DW103	45.994717	-107.997994
CTEH	PPMT0808SW101	8/8/2011	Water_Surface	PPMT_508_SW101	45.996676	-108.004767

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: one for bromodichloromethane and one for chlorodibromomethane.

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 C53 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area C53.

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. 48](#) and [CTR No. 61](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area C53 in accordance with the ATMs identified in the CTRs. [Appendix I](#) of the Summary of Assessment and Oil Removal Activities report presents this data including: date range/days worked, average number of people working per day, equipment used, and various types of bags removed: oily debris, personal protective equipment, plastic, trash, super sacks, wood chips, and contaminated wood.

1.7 Pre-Inspection Survey Transmittal

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

A final SCAT survey was not conducted for this area.

1.10 SCAT Area Conclusions

Based on the initial SCAT survey performed within Area C53, only very light oiling was observed on a portion of the left bank and no oiling was observed in the remainder of Area C53. The very light oiling zones will be addressed through natural attenuation. Therefore, a PIST, POST, and final SCAT survey were not performed and a SCAT Segment Sign-Off Form is not necessary.



**SCAT Area Transition
Report for C53**

Silvertip Pipeline Incident
Laurel, Montana

2. Transition Sign-Off Form

SCAT Area Transition Report for C53

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for C53**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for C53

Prepared for:

Unified Command

10/11/2011

Date

[Signature] S. MELLON

Unified Command – FOOSC



**SCAT Area Transition
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Silvertip Pipeline Incident
Laurel, Montana

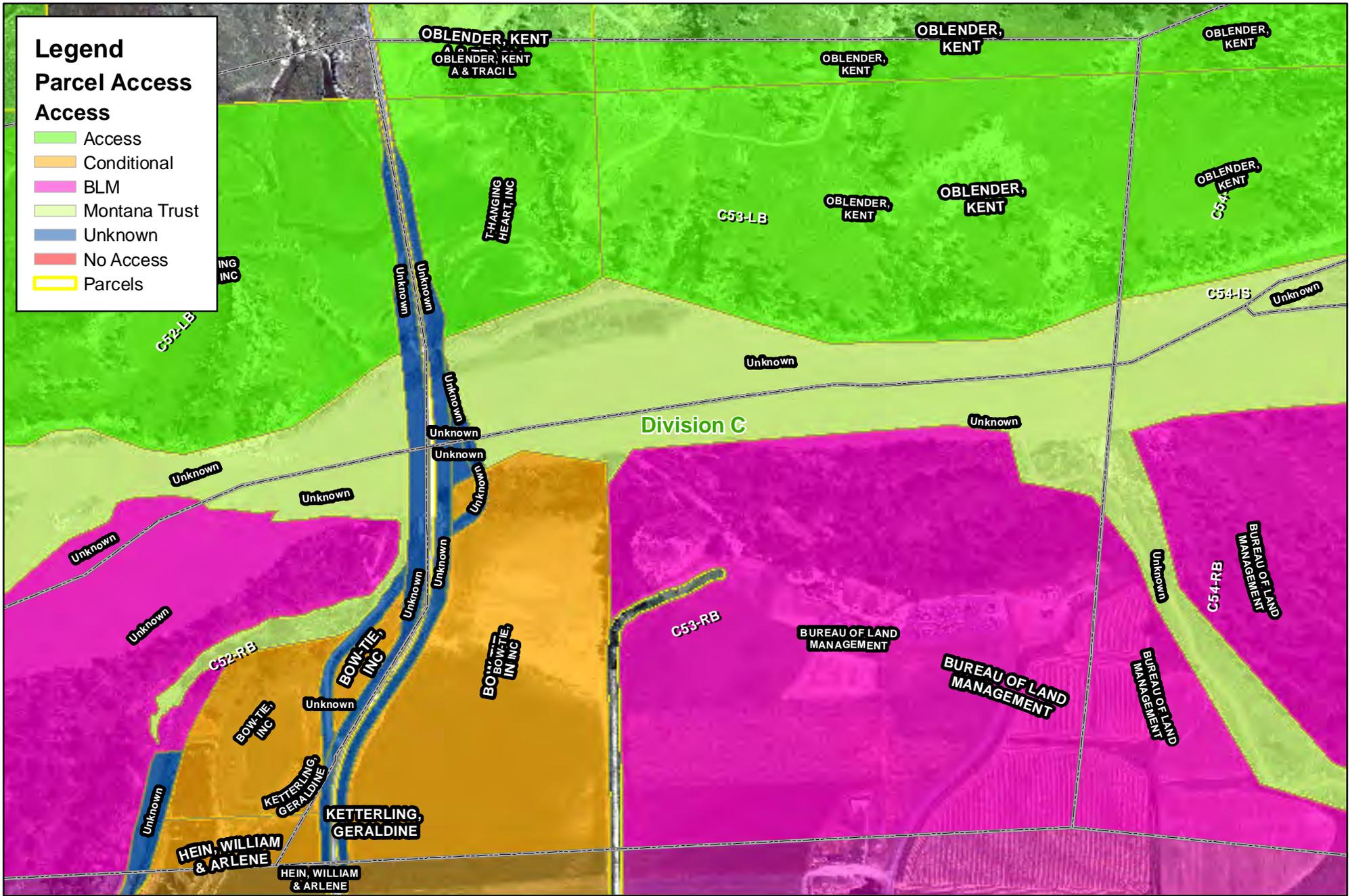
SCAT Area Transition Report for C53

Prepared for:

Unified Command

Date

Unified Command – MDEQ



Legend

Parcel Access

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

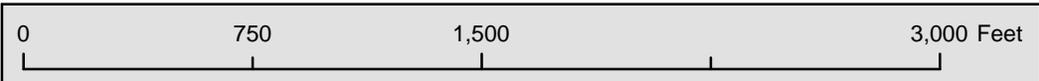
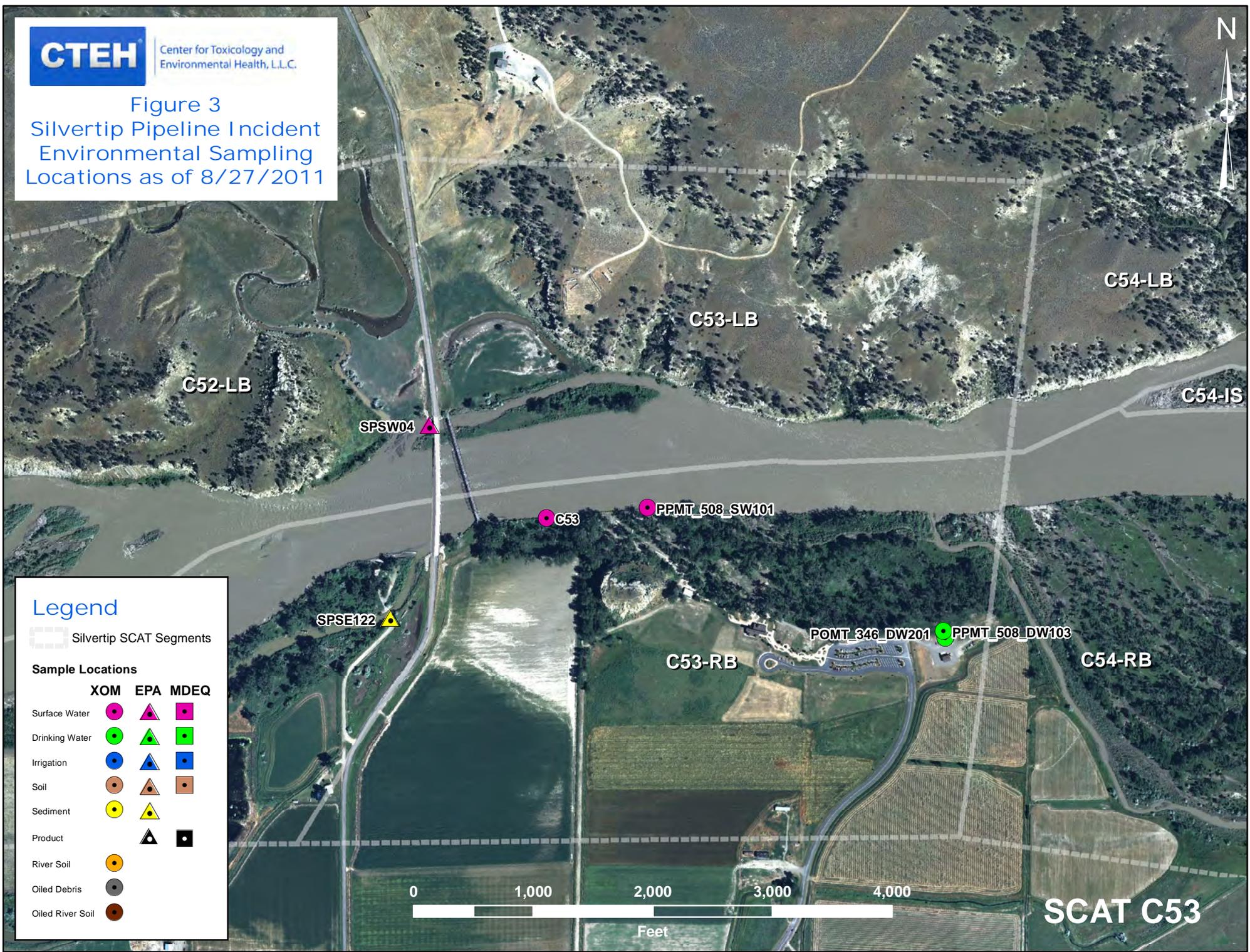


Figure 1



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			

0 1,000 2,000 3,000 4,000
Feet

SCAT C53



 <p>9999 Oiling Zone ID Red Heavy Oiling Orange Moderate Oiling</p>	<p>Yellow Light Oiling Green Very Light Oiling Blue No Oil Observed</p>	<p>Figure 4 - Maximum SCAT Observations For SCAT Area:</p> <p>470 0 470 940  Feet</p>	
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Appendix A

Sample Detection Summary



Detections in Samples Collected in SCAT Area C53

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Arsenic	Y	8.3	10		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Barium	Y	54.9	1000		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Calcium	Y	18900	NA		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Chromium	Y	2.4	100		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Lead	Y	1.9	15		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Magnesium	Y	6560	NA		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 1631E	Mercury	Y	0.00000606	0.00005		mg/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Nickel	Y	3.8	100		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Potassium	Y	2140	NA		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Sodium	Y	11000	NA		ug/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	SM 2540D	Total Suspended Solids	Y	127	NA		mg/L	no
CUMT0725SW501	07/25/2011	Field	Water_Surface	EPA 6020	Vanadium	Y	5	180		ug/L	no
PPMT0808DW103	08/08/2011	Field	Water_Drinking	E524.2	Bromodichloromethane	Y	22	10		ug/L	YES
PPMT0808DW103	08/08/2011	Field	Water_Drinking	E524.2	Chlorodibromomethane	Y	4.6	4		ug/L	YES
PPMT0808DW103	08/08/2011	Field	Water_Drinking	E524.2	Chloroform	Y	52	70		ug/L	no
PPMT0808DW103	08/08/2011	Field	Water_Drinking	E524.2	Trihalomethanes, Total	Y	78	100		ug/L	no



Appendix B

Initial SCAT Survey Forms and
Sketches

DB 16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 25/07/11	Time (24h): std / daylight 1212 hrs to 1215 hrs	Water Level low - mean (bankfull) overbank (falling) steady - rising
Segment/Reach ID: C 53 Left Bank / Right Bank / Island		Operations Division: C		
Survey by: Foot / ATV (Boat) / Helicopter / Overlook / _____		(Sun) / Clouds / Fog / Rain / Snow / Windy / Calm		
Air Temp +/- 2.5 deg C		Signature <i>Chelsea Murphy</i>		
2 SURVEY TEAM # 6		Organization		
Name		Signature		
Chelsea Murphy		Cardno ENTRIX		
David Rouse		US Fish and Wildlife		
Jay Watson		MT Fish Wildlife and Parks		

3 SEGMENT Total Segment/Reach Length ~ 1,000 m Segment/Reach Length Surveyed ~ 926 m

Start GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min. Datum: WGS 84

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

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

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

Sediment Bank: Clay/Mud S Sand _____ Mixed _____ Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank (P) _____ Wooded Upland: _____

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: mud/silt _____

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 1-10 m 10-100 m (>100m) 160m 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

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	
1308 1309 A			P		836	<1	Ø															P	veg, mud
B					90	<1	190			S	P			P									"

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

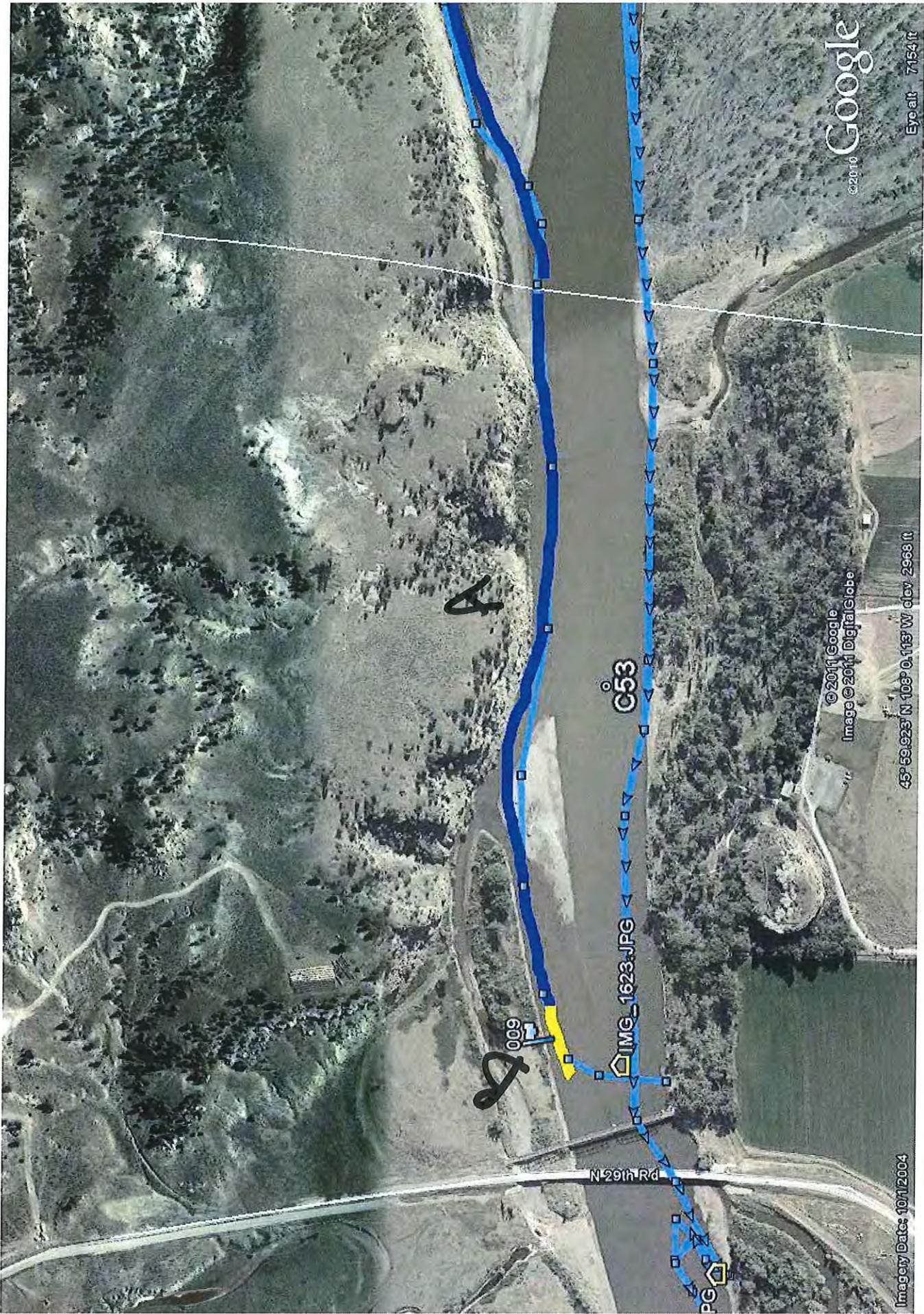
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A - NOO - NFT

Zone B - 3" oil band on veg ~1/2' above shoreline - Further SCAT recommended - appears to be a stain.

Sketch (Yes) / No Photos (Yes) / No Frames 1598 + 1599 Photographer Chelsea Murphy



C53LB
Team #6
25/07/11

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 09/08/11	Time (24h): std / daylight 1332 hrs to 1450 hrs	Water Level low (mean - bankfull) overbank falling - steady - rising
Segment/Reach ID: C53 <u>Left Bank / Right Bank / Island</u>				
Operations Division: C				
Survey by: <u>(Foot) ATV / Boat / Helicopter / Overlook /</u>		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- 2.7 deg C

2 SURVEY TEAM # 1,2	Name	Organization	Signature
Joe Busalacchi	Cardno Entrix		<i>[Signature]</i>
Larkin Chandler	Cultural Resources		<i>[Signature]</i>
John Davis	USCG		<i>[Signature]</i>
Betsy Hovda	DEQ		<i>[Signature]</i>
Adam Bausch	Cardno Entrix		<i>[Signature]</i>
Lisa Gerencher	Cardno Entrix		<i>[Signature]</i>
Jack Smith	USCG		<i>[Signature]</i>
Earl Radonski	FWP		<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length ~~1115~~ 1023 m Segment/Reach Length Surveyed 1000 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 X _____ Other: _____ If snow and ice use Winter River SOS

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 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 - boat access island

Oiled trees/shrubs Y N River Current strong Y N Other Features: a few shallow braided channels

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	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO
A				X	400	80	<1				X		X								Mixed
B			X		600	18														X	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

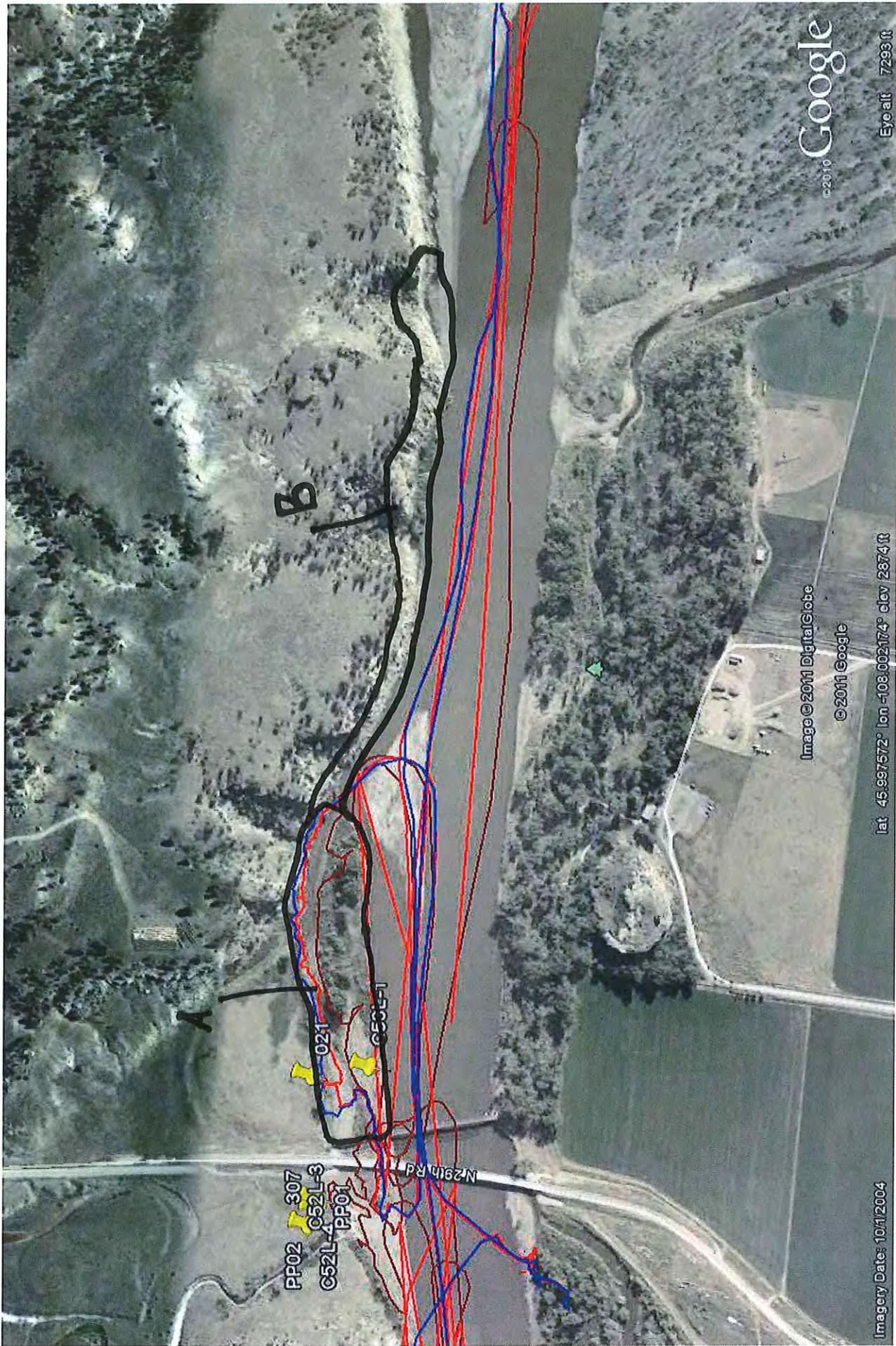
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A - ~~cut and remove grass along LB from Bunkie Bridge to 100m east.~~ NFT

Zone B - N00

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



V53LB
Teams # 1 + 8
09/08/11

C53

DB/G-150

1 GENERAL INFORMATION Date (dd/mm/yy) 6 Jul 11 Time (24h): std / daylight 1615 1630 hrs to hrs Water Level low - mean - bankfull - overbank
 Segment/Reach ID: 252 Left Bank/ Right Bank/ Island Left Bank Operations Division: C falling steady - rising
 Survey by: Foot / ATV / Boat / Helicopter / Overlook / (Sun / Clouds / Fog / Rain / Snow / Windy / Calm) Air Temp + / - deg. C

2 SURVEY TEAM # 2 name organization contact phone number
Andy Graham Polaris 206 419 1745
Donnie Sampson OPS/Exxon 225 408 9789
Sonni ? NPS @ Pompeii's Pillar

3 SEGMENT Total Segment/Reach Length 985 m Segment/Reach Length Surveyed 80 m
 Start GPS: LATITUDE 45.996290 deg. -1 min. LONGITUDE -108.009476 deg. min. Datum:
 End GPS: LATITUDE 45.996731 deg. min. LONGITUDE -107.996629 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:
 Sediment Flat: Clay/Mud Sand Mixed/Coarse Other: drainage ditch 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 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
 Oiled trees/shrubs Y/N River Current strong Y/N Other Features:

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

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER					SUBST. TYPE(S)			
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO
					m	m	%														
A					60	1															
B					40	1															
C					85	1															

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

NOD
Pompeii's Pillar - NPS site
 mission was to investigate reports of oiling
 looked at 2 drainage ditches - only organic material + natural sheen
 checked out small area on river - NOD
 *Lengths and Widths added based on map drawings by AM, TS, CK on 9/20/11. No LxW originally entered.

(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 #)



108°0'30"W

108°0'0"W

108°0'10"W

108°0'20"W

108°0'30"W

45°59'50"N

45°59'40"N

45°59'50"N

45°59'40"N

107°59'50"W

108°0'0"W

108°0'10"W

108°0'20"W

108°0'30"W

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 02/Aug/2011	Time (24h): std / daylight 1230 hrs to 1430 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: <u>C53</u> Left Bank / <u>Right Bank</u> / Island		Operations Division:		
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 # <u>3</u>	Name	Organization	Signature
	John Bauer	Polaris	<i>[Signature]</i>
	Steve Opp	MT DEQ	<i>[Signature]</i>
	Jay Parks	BLM	<i>[Signature]</i>
	Larry Patten <u>Padden</u>	<u>EPA BLM</u>	<i>[Signature]</i>
	Josh Hofkes	Cardno Entrix	<i>[Signature]</i>
	Mark Denny	Tribal representative	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 990 m

Start GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min. Datum: WGS 84

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 S Bog/Fen _____ Marsh _____

Sediment Bank: Clay/Mud _____ Sand _____ Mixed s _____ Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank: _____ Wooded Upland: P

Sediment Flat: Clay/Mud(s) _____ 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: gravel

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

1127
1128

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>X</u>	<u>1</u>	<u>1</u>	<u>1</u>			<u>(X)</u>	<u>X</u>		<u>(X)</u>				<u>X</u>				<u>veg</u>
B				<u>X</u>	<u>990</u>	<u>200</u>														<u>X</u>	<u>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

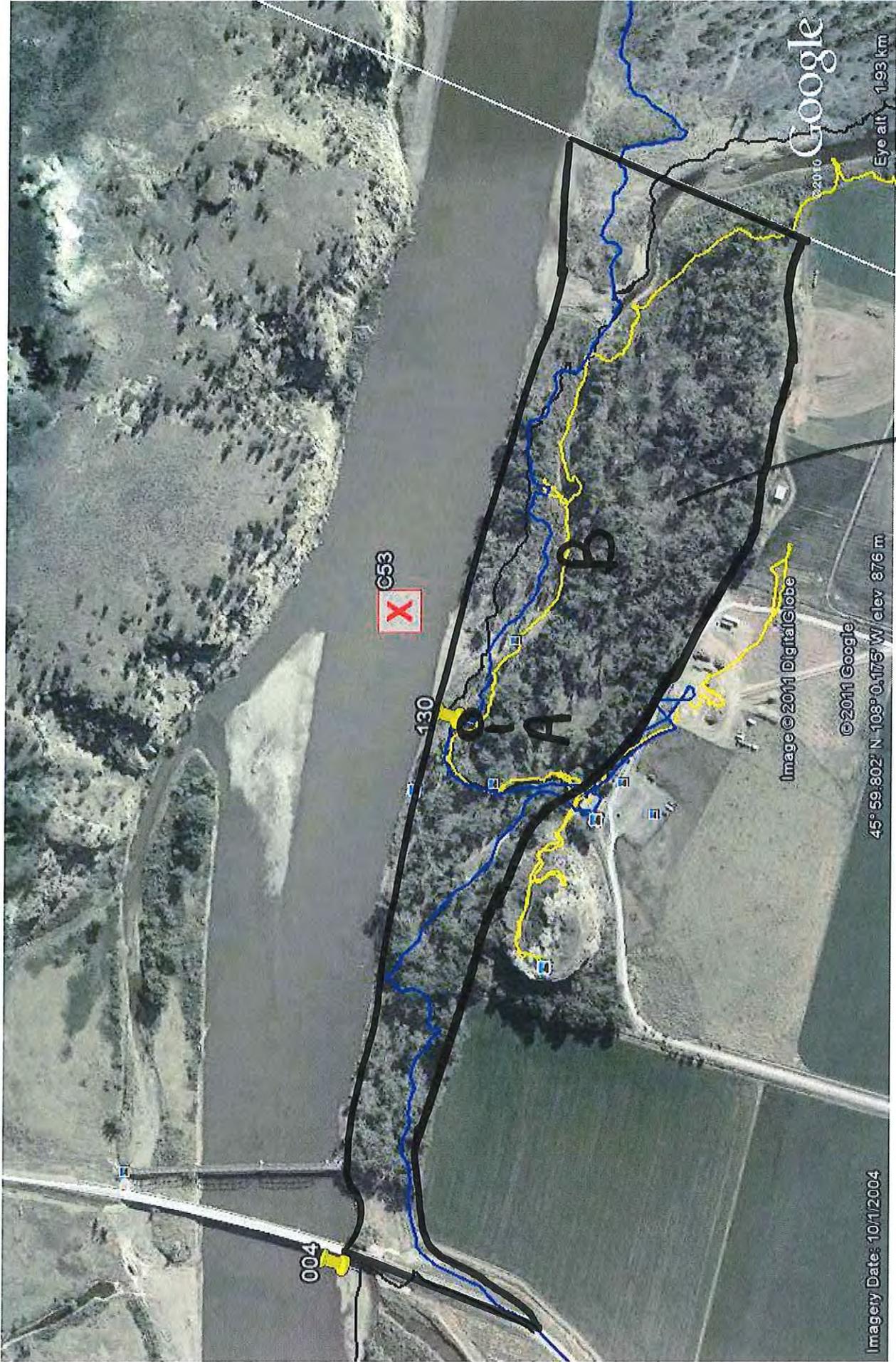
Overbank Survey Required Y/N Overbank Survey Completed Y/N Shoreline Survey Completed Y/N

Oil band heights:

Treatment Recommendations:
Zone : A: no treatment recommended
B NOO. no treatment recommended

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 _____ Photographer _____



BML (2x) this area surveyed this area Zones A+B

August 2, 2011
TEAM 3 C53



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

**Final SCAT Surveys were not
conducted for this area**



Appendix F

Completed SCAT Segment Sign-Off
Forms

**SCAT Segment Sign-Off Forms were not
necessary for this area**