

ExxonMobil Pipeline Company

**SCAT Area Transition Report
for C45**

Silvertip Pipeline Incident
Laurel, Montana

October 24, 2011



SCAT Area Transition Report for C45

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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Our Ref.:
B0085883.1103

Date:
October 24, 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 C45, 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 C45. 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 C45, 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 C45 is 153.5. There were conditional access issues for the right bank.

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 C45 due to the low level of oiling in Division C. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. A bald eagle (*Haliaeetus leucocephalus*) nest was identified in Area C45 and a buffer zone around it was provided to Operations to protect the nest.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area C45. 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 C45 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	WOMT0707DW003	7/7/2011	Water_Drinking	WOMT_285_DW003	45.995080	-108.130158
CTEH	WOMT0707IW001	7/7/2011	Water_Irrigation	WOMT_285_IW001	45.995094	-108.129883
CTEH	WOMT071811DW201	7/18/2011	Water_Drinking	WOMT_285_DW201	45.995109	-108.130150
CTEH	WOMT0725DW104	7/25/2011	Water_Drinking	WOMT_401_DW104	45.995905	-108.132304
CTEH	WOMT0729SW201	7/29/2011	Water_Surface	WOMT_417_SW201	45.995884	-108.130589
CTEH	WOMT0729SW202	7/29/2011	Water_Surface	WOMT_417_SW201	45.995884	-108.130589
CTEH	WOMT0801SO201	8/1/2011	Soil_Surface	WOMT_462_SO201	45.995841	-108.129737
CTEH	WOMT0801SO202	8/1/2011	Soil_Surface	WOMT_462_SO202	45.995767	-108.129473
CTEH	WOMT0801SO203	8/1/2011	Soil_Surface	WOMT_462_SO203	45.995916	-108.128953
CTEH	WOMT0801SO205	8/1/2011	Soil_Surface	WOMT_462_SO205	45.996082	-108.132849
CTEH	WOMT0803SW301	8/3/2011	Water_Surface	WOMT_487_SW301	45.994982	-108.129330
CTEH	WOMT0818SO201	8/18/2011	Soil_Surface	WOMT_488_SO201	45.995471	-108.130415
CTEH	WOMT0818SO202	8/18/2011	Soil_Surface	WOMT_488_SO202	45.994854	-108.130230
CTEH	WOMT0818SO203	8/18/2011	Soil_Surface	WOMT_488_SO203	45.994767	-108.129458
CTEH	WOMT0818SO204	8/18/2011	Soil_Surface	WOMT_488_SO204	45.994975	-108.129550
CTEH	WOMT0818SOBKG205	8/18/2011	Soil_Surface	WOMT_488_SOBKG205	45.995135	-108.130620
EPA	SPSE121_071511	7/15/2011	Sediment	SPSE121	45.997616	-108.129334

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 five exceedances: four for selenium and one for benzo(a)pyrene.

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 C45 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area C45.

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. 45](#) and [CTR No. 60](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area C45 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 C45 following completion of oil removal activities. The SCAT team performed final surveys of the left bank and island within SCAT Area C45 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 bank and island within Area C45, no further treatment is recommended for these segments. Based on the initial SCAT surveys performed on the right bank within Area C45, the very light oiling observed will be addressed through natural attenuation. SCAT Segment Sign-Off Forms are included as Appendix F.

2. Transition Sign-Off Form

SCAT Area Transition Report for C45

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for C45**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for C45

Prepared for:

Unified Command

Date

Unified Command – FOSC



**SCAT Area Transition
Report for C45**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for C45

Prepared for:

Unified Command

Date

Unified Command – MDEQ

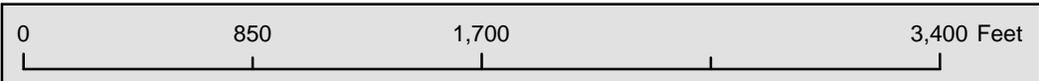
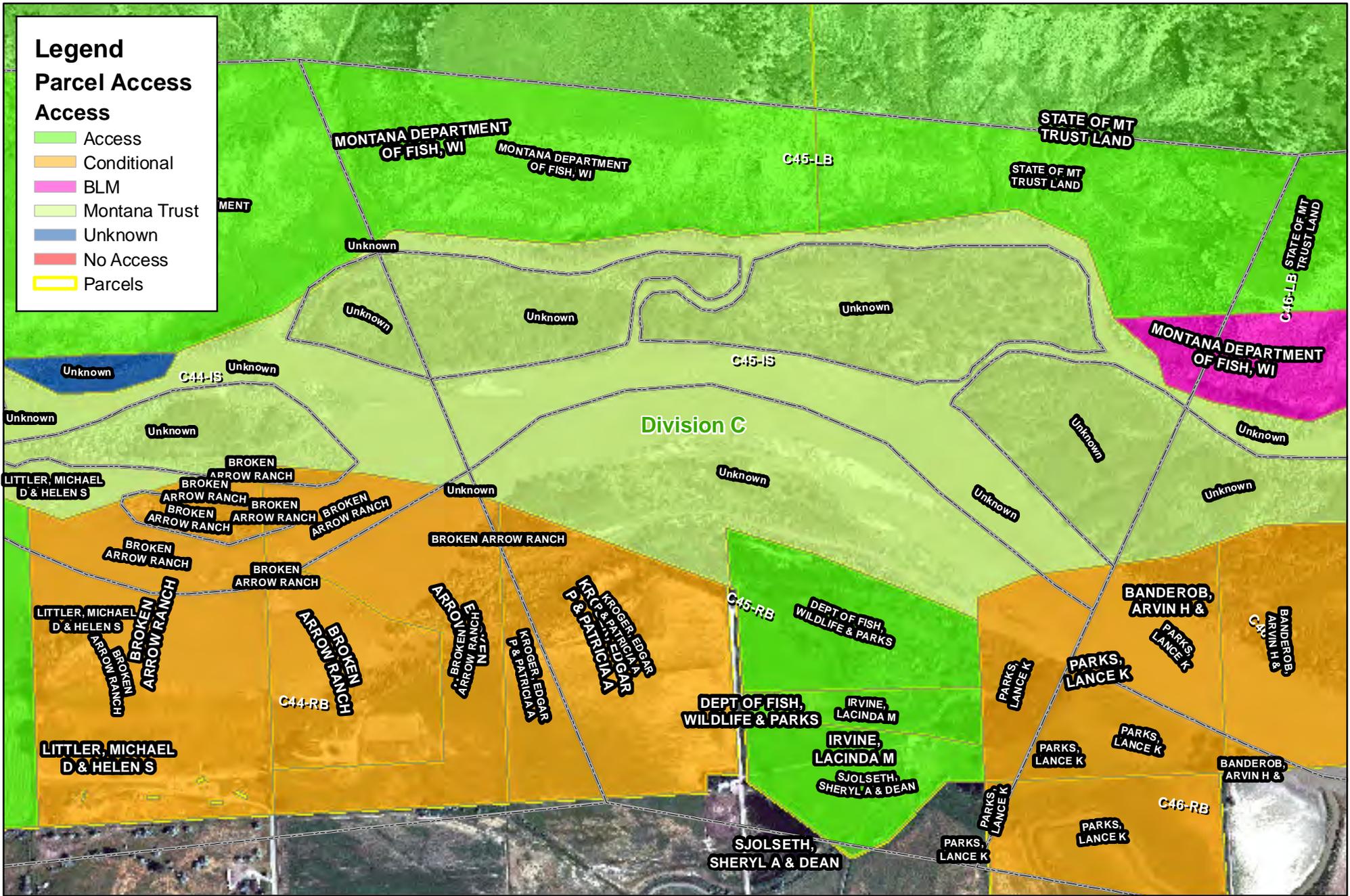


Figure 1

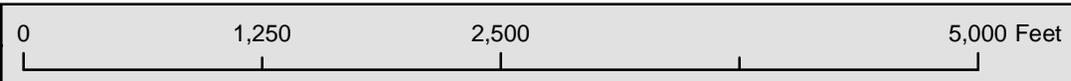
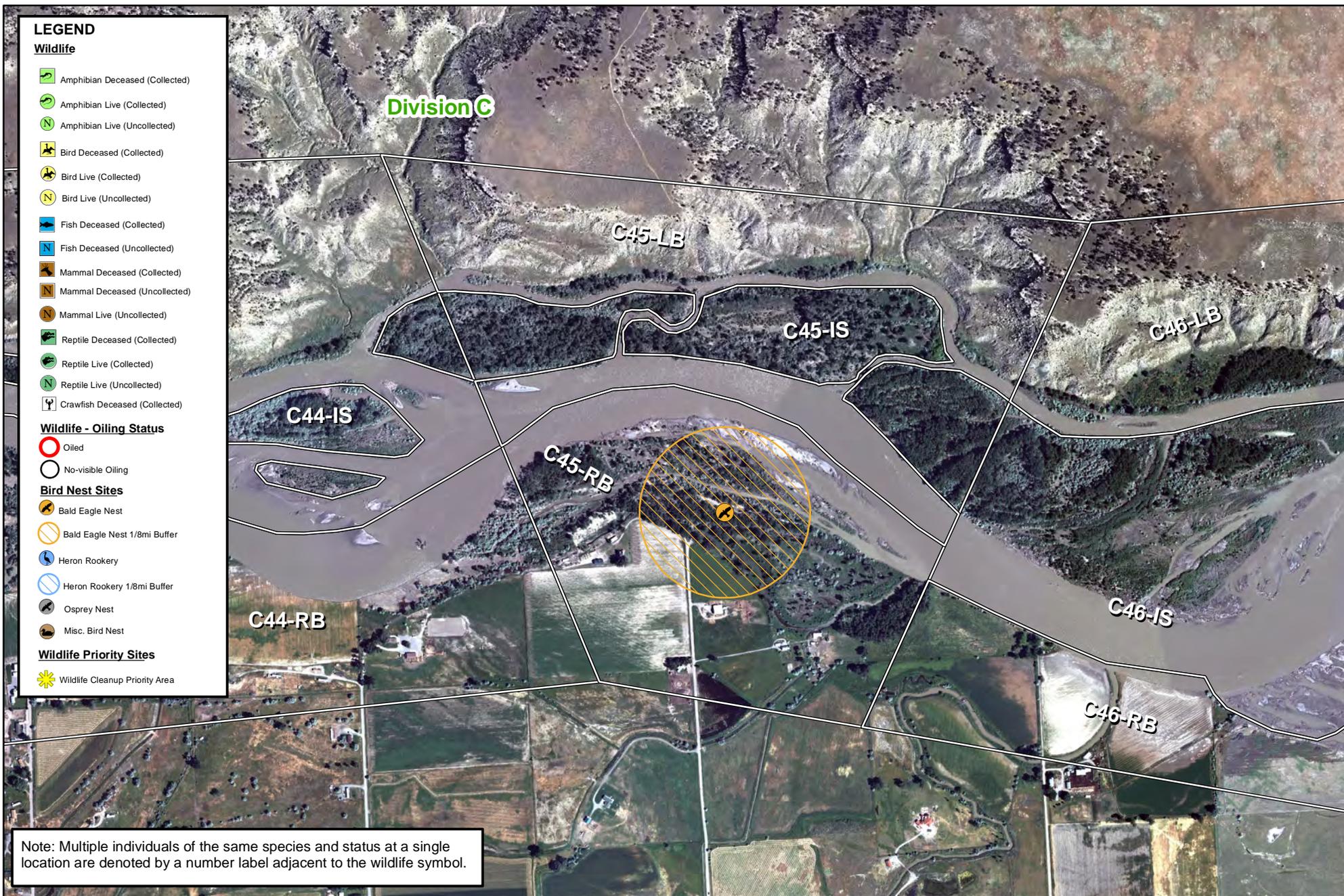
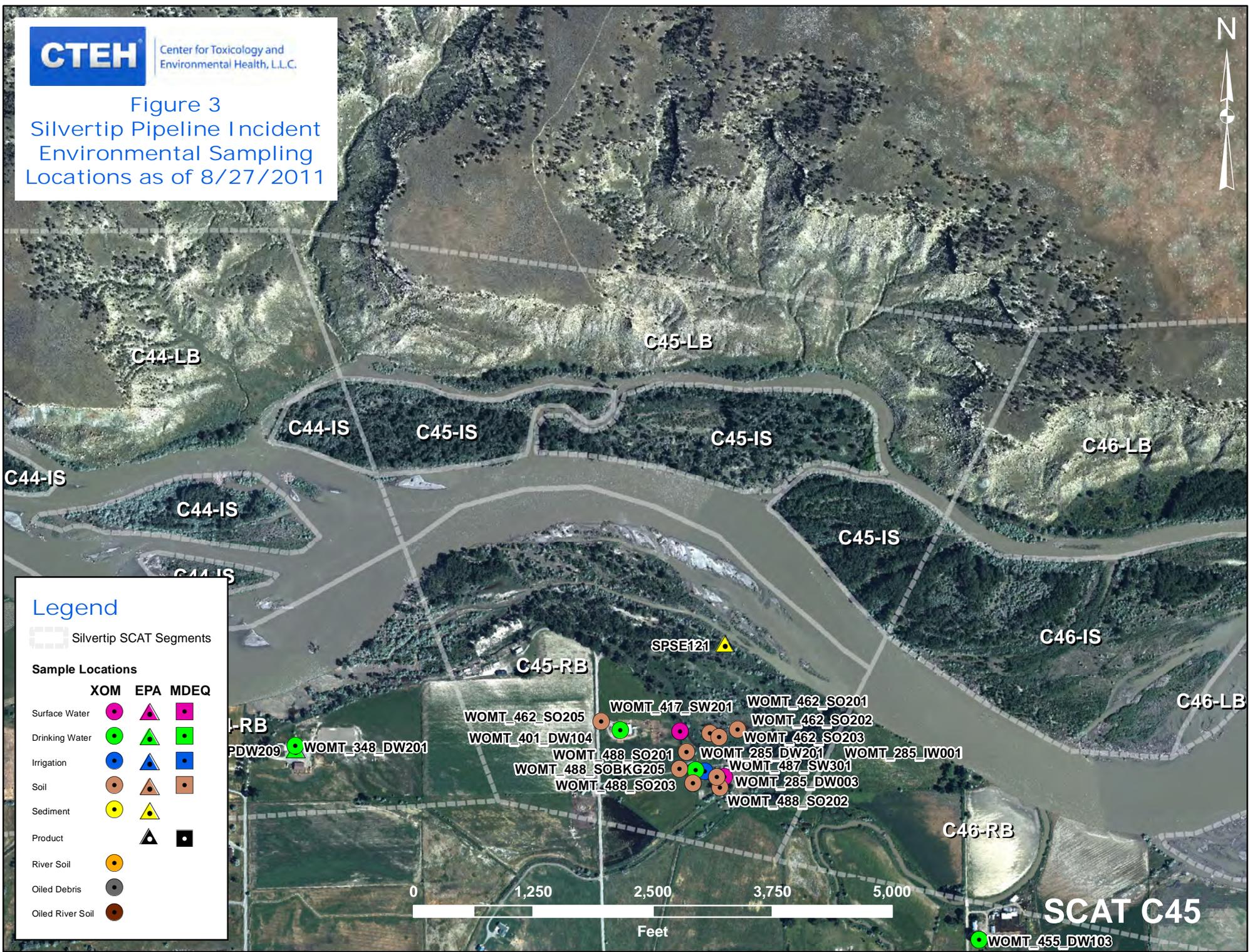


Figure 2
Wildlife Resources

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



Legend

Silvertip SCAT Segments

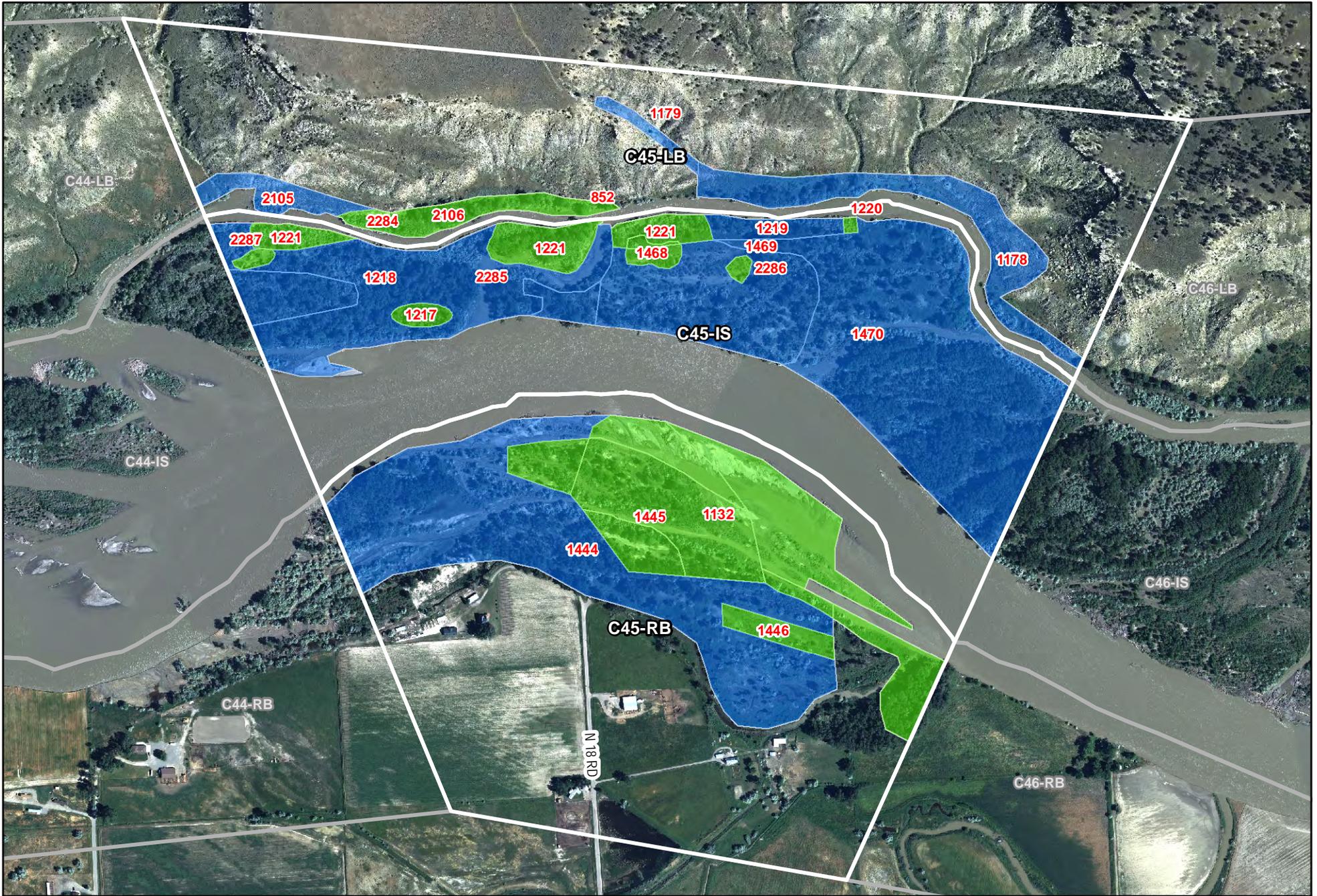
Sample Locations

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



SCAT C45

WOMT_455_DW103

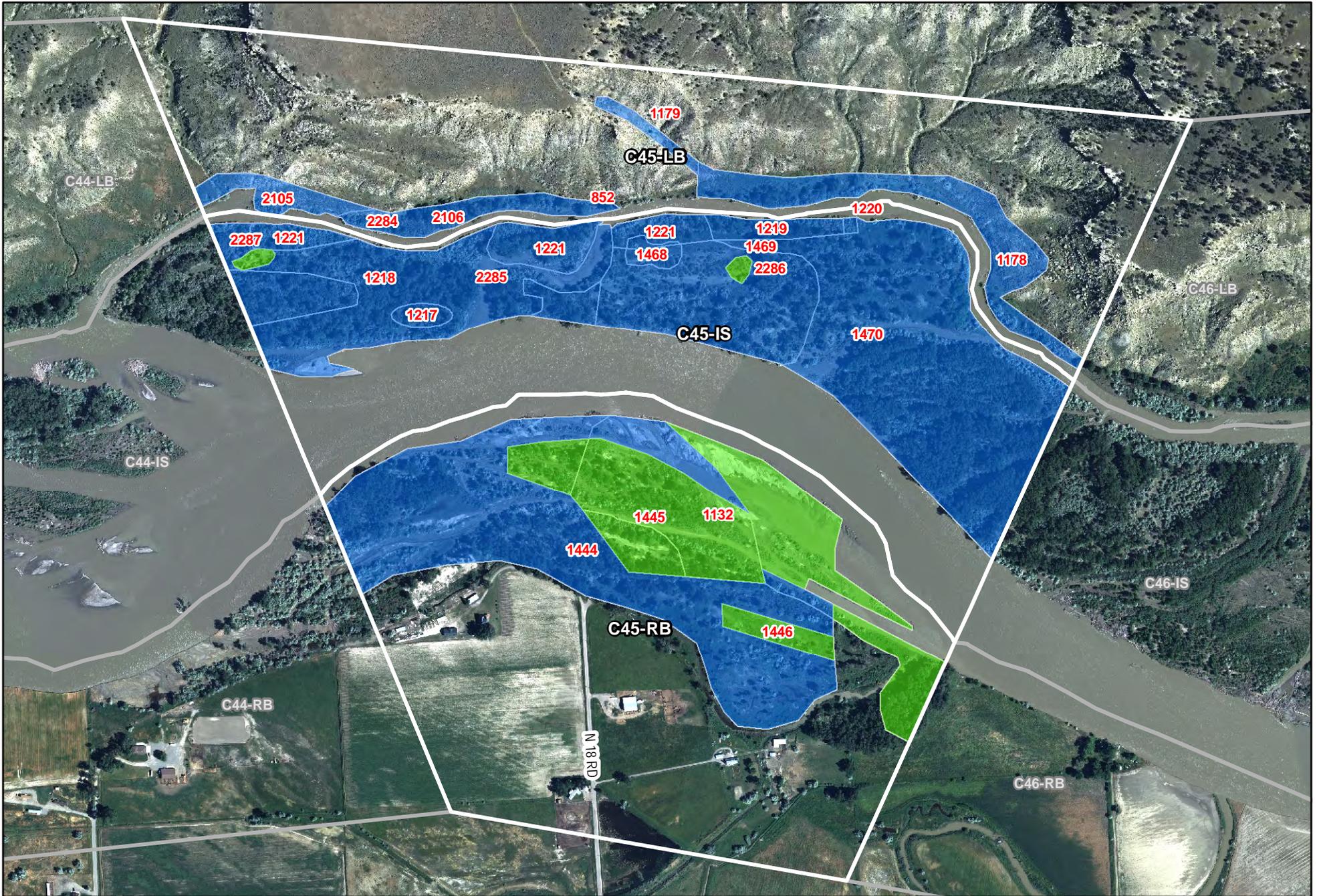


- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed

Figure 4 - Maximum SCAT Observations For SCAT Area:





- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed

520 0 520 1,040 Feet

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





Appendix A

Sample Detection Summary



Detections in Samples Collected in SCAT Area C45

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
SPSE121_071511	07/15/2011	Field	Sediment	MADEP EPH	Total Extractable Hydrocarbons	Y	186	200		mg/kg	no
WOMT0707IW001	07/07/2011	Field	Water_Irrigation	SW8260B	Benzene	Y	0.17	5	J	ug/L	no
WOMT071811DW201	07/18/2011	Field	Water_Drinking	E524.2	Bromodichloromethane	Y	0.94	10		ug/L	no
WOMT071811DW201	07/18/2011	Field	Water_Drinking	E524.2	Chlorodibromomethane	Y	0.24	4		ug/L	no
WOMT071811DW201	07/18/2011	Field	Water_Drinking	E524.2	Chloroform	Y	13	70		ug/L	no
WOMT071811DW201	07/18/2011	Field	Water_Drinking	E524.2	Trihalomethanes, Total	Y	14	100		ug/L	no
WOMT0729SW202	07/29/2011	Field	Water_Surface	EPA 8270 by SIM	Naphthalene	Y	0.059	100		ug/L	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	9.5	40		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Barium	Y	138	820		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.46	3.8		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	19.8	280		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Lead	Y	21.6	400		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 7471	Mercury	Y	0.042	1		mg/kg	no
WOMT0801SO201	08/01/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	4.7	2.6		mg/kg	YES
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	11.5	40		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Barium	Y	154	820		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.53	3.8		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	22.3	280		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Lead	Y	25	400		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 7471	Mercury	Y	0.044	1		mg/kg	no
WOMT0801SO202	08/01/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	5.3	2.6		mg/kg	YES
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	7.7	40		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Barium	Y	140	820		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.41	3.8		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	20.3	280		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Lead	Y	23.3	400		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 7471	Mercury	Y	0.046	1		mg/kg	no
WOMT0801SO203	08/01/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	5.3	2.6		mg/kg	YES
WOMT0801SO203	08/01/2011	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	13.8	200		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	4.8	40		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Barium	Y	131	820		mg/kg	no



Detections in Samples Collected in SCAT Area C45

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.31	3.8		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	18.2	280		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Lead	Y	17.6	400		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 7471	Mercury	Y	0.027	1		mg/kg	no
WOMT0801SO205	08/01/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	3.5	2.6		mg/kg	YES
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	9.4	40		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Barium	Y	70.3	820		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.62	3.8		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	17.4	280		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Lead	Y	5.8	400		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	11.3	150		mg/kg	no
WOMT0818SO201	08/18/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	30.1	39		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	14.6	40		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Barium	Y	142	820		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.98	3.8		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	21.5	280		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Lead	Y	10.5	400		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	17.8	150		mg/kg	no
WOMT0818SO202	08/18/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	35.6	39		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	22.6	40		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Barium	Y	139	820		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(a)anthracene	Y	12.5	200		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(a)pyrene	Y	15.7	20		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(b)fluoranthene	Y	39	200		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(k)fluoranthene	Y	10.9	2000		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	1	3.8		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	21.2	280		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Chrysene	Y	38.8	20000		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Fluoranthene	Y	25.7	300000		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Lead	Y	9.8	400		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	16.6	150		mg/kg	no



Detections in Samples Collected in SCAT Area C45

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Pyrene	Y	25.3	200000		ug/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	44.4	200		mg/kg	no
WOMT0818SO203	08/18/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	35.7	39		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	12.6	40		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Barium	Y	124	820		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(a)anthracene	Y	10.9	200		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(a)pyrene	Y	22.6	20		ug/kg	YES
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(b)fluoranthene	Y	51.6	200		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(k)fluoranthene	Y	23.5	2000		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.7	3.8		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	17.8	280		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Chrysene	Y	53.8	20000		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Fluoranthene	Y	26.7	300000		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	Y	13.1	200		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Lead	Y	8	400		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	13	150		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 8270 by SIM	Pyrene	Y	25.7	200000		ug/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	31.4	200		mg/kg	no
WOMT0818SO204	08/18/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	31.2	39		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	15.3	40		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Barium	Y	141	820		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.96	3.8		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	21.7	280		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Lead	Y	9.7	400		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	17	150		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	MADEP EPH	Total Extractable Hydrocarbons	Y	47.8	200		mg/kg	no
WOMT0818SOBKG205	08/18/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	36.5	39		mg/kg	no



Detections in Samples Collected in SCAT Area C45

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
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Appendix B

Initial SCAT Survey Forms and
Sketches

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>45</u>	Left Bank (Right Bank) Island	<u>02/08/11</u>	<u>0825</u> hrs to <u>0932</u> hrs	low - mean - <u>bankfull</u> - overbank
Operations Division: <u>C</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>26</u> deg C

2 SURVEY TEAM # <u>5</u>	Name	Organization	Signature
	<u>Nathan Hammond</u>	<u>Cardno Entry</u>	<u>Nathan Hammond</u>
	<u>Brandon Owens</u>	<u>Cardno Entry</u>	<u>Brandon Owens</u>
	<u>Dominick Ventura</u>	<u>EPA</u>	<u>Dominick Ventura</u>
	<u>Ken Frazer</u>	<u>FLWP</u>	<u>Ken Frazer</u>
	<u>Jack Smith</u>	<u>USCG</u>	<u>Jack Smith</u>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 689 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: _____

Sloped: X (>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 1 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	
<u>A</u>				<u>X</u>	<u>689</u>	<u>201</u>	<u><1</u>			<u>S</u>	<u>P</u>		<u>S</u>				<u>P</u>					<u>Gross debris is still in scrub</u>
B																						

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 - No treatment recommended - Natural Attenuation

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

©45

009

010

ZONE A

L=689m

W=201m

ZONE A
VERY LIGHT
Dist % = < 1%

©2010

1996

45°59'53.60" N 108°07'40.66" W elev 2913 ft

C45 RB-Team 5 - 8/2/11

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 08/11/2011	Time (24h): std / daylight 0904 hrs to 1150 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: C45 Left Bank / <u>Right Bank</u> / Island		Operations Division:		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- 33 deg C

2 SURVEY TEAM # 6	Name	Organization	Signature
Chris Arredondo		CardnoENTRIX	
Dominic Ventura		EPA	
Jay Watson		FWP	

3 SEGMENT Total Segment/Reach Length 1100 m Segment/Reach Length Surveyed 766 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 _____ Boulder _____ Peat/Organic _____ Vegetated Bank: S _____ Wooded Upland: (S) _____

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

Cliff or Bluff: _____ Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: 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 0 bags or 0 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.	OIL THICKNESS					OIL CHARACTER										
	ID	MS	LB	UB	OB	m	m	%	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
1444 A				X	766	248																X	
1445 B				X	412	124	<1			X								X					debris, shrubs
1446 C				X	208	12	<1			X								X					shrubs

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

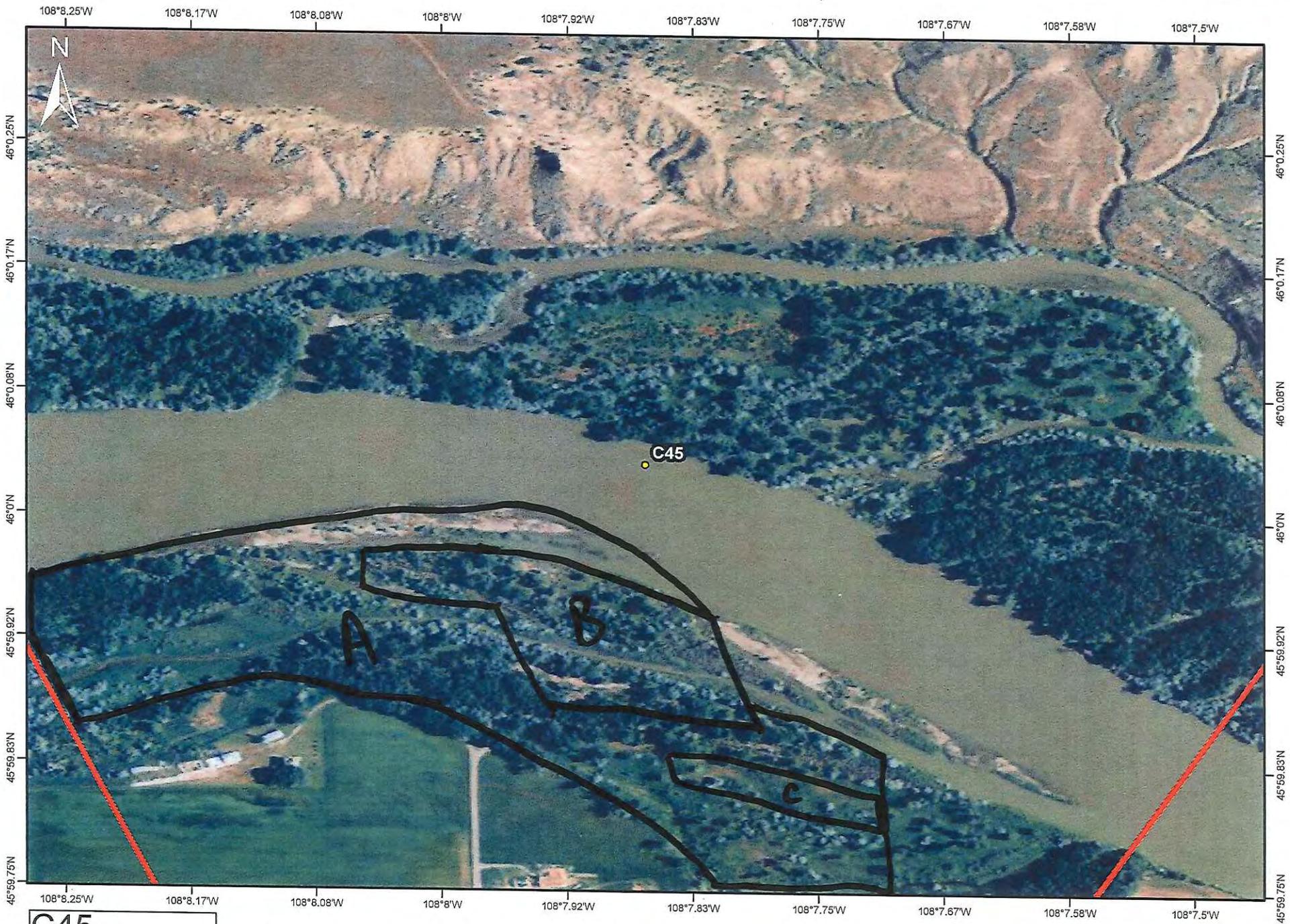
Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

Zone A: No treatment required.

Zone B: Natural attenuation recommended.

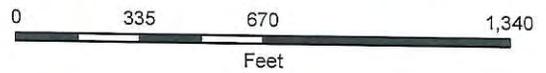
Zone C: Natural attenuation recommended.

Sketch Yes / No Photos Yes / No Frames _____ Photographer Chris Arredondo/Jay Watson



C45-
(L/R)??

8/11/2011 Team 6



DB/G/S

1 GENERAL INFORMATION		Date (dd/mm/yy) 26/07/11	Time (24h): std / daylight 1207 hrs to 1209 hrs	Water Level low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: C <u>45</u> Left Bank / Right Bank / Island				
Operations Division:				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>28</u> deg C

2 SURVEY TEAM # 1	Name	Organization	Signature
Pete Lee	<u>PPL</u>	Polaris	225.892.6459
John Beach	<u>JB</u>	US EPA	415.972.3347
Larry Alheim		MT DEQ	406.461.7516

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 1257 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: Mixed

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 400m 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	
852 A				<u>X</u>	1257	1															<u>X</u>	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

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

Oil height: NO

Treatment recommendations:

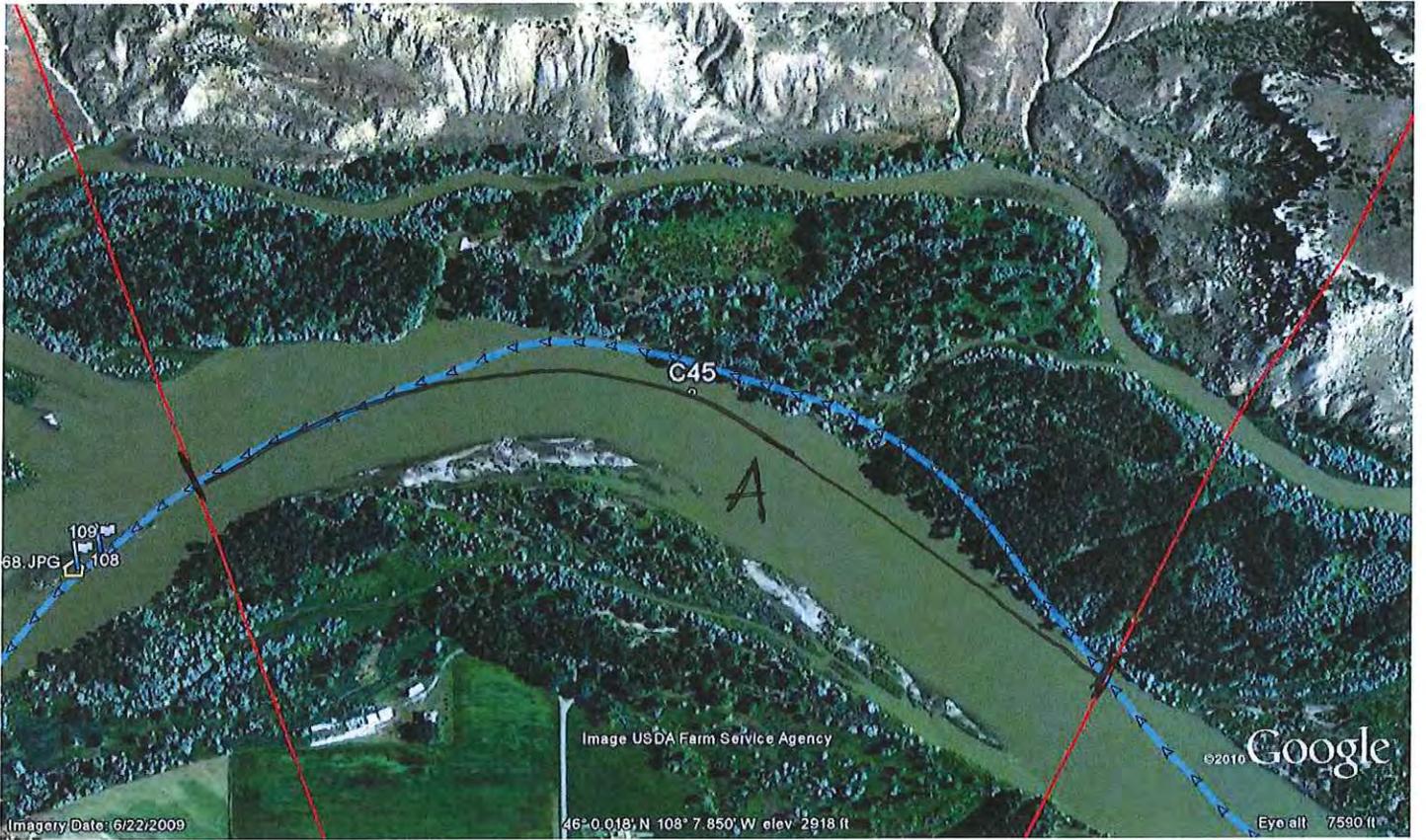
Zone A : No oil observed; no treatment required.

Zone _____ : Cut & remove oil coated vegetation smaller than 1" diameter. Remove debris smaller than 4" diameter. Wipe larger oil coated vegetation.

*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 _____

A = 310 + 390 + 557



DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 04/ 08/ 11	Time (24h): std / <u>daylight</u>	Water Level low - mean <u>bankfull</u> - overbank <u>falling</u> - steady - rising
Segment/Reach ID: C45 <u>Left Bank</u> / Right Bank / Island		Operations Division: C		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		<u>Sunny</u> Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- 3 2 _ deg C

2 SURVEY TEAM # 3	Name	Organization	Signature
Michael Dirks		Cardno ENTRIX	<i>Michael D. Dirks</i>
Matthew Kent		MTDEQ	<i>Matthew Kent</i>
Travis Cain		EPA	

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

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

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 X Sand _____ Mixed _____ Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank: S Wooded Upland: P

Sediment Flat: Clay/Mud X 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: X Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: silt

Sloped: ~10° (>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 10-100 m >100m 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 N/A bags or N/A trucks access restrictions: steep bluff slopes, drive Bozeman Rd & MTFWP cut-off

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			<u>X</u>	<u>X</u>	700	65	0															X	Wooded bank, vegetated shore
B			<u>X</u>	<u>X</u>	290	45	0															X	Vegetated over-bank

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: No oiling observed, no treatment required.

Zone B: No oiling observed, no treatment required.

Note: Complete the Foot Survey of section C45LB, access turn-off ~4.0 miles from Bozeman road parking at lower MTFWP lot. Complete shoreline surveys & island surveys by boat.

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

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 04/ 08/ 11	Time (24h): std / <u>daylight</u>	Water Level low - mean <u>bankfull</u> - overbank
Segment/Reach ID: C45 <u>Left Bank</u> / Right Bank / Island			1230 hrs to 1305 hrs	<u>falling</u> - steady - rising
Operations Division: C				Air Temp +/- 3 2 deg C
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		<u>Sun</u> Clouds / Fog / Rain / Snow / Windy / Calm		

2 SURVEY TEAM # 3	Name	Organization	Signature
Michael Dirks	Cardno ENTRIX		<i>Michael Dirks</i>
Matthew Kent	MTDEQ		<i>Matthew Kent</i>
Travis Cain	EPA		<i>Travis Cain</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 981 - 990 m

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

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 X Sand _____ Mixed _____ Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank: S Wooded Upland: P

Sediment Flat: Clay/Mud X 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: X Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: silt _____

Sloped: ~10° _____ (>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 10-100 m >100m 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 N/A bags or N/A trucks access restrictions: steep bluff slopes, drive Bozeman Rd & MTFWP cut-off

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			<u>X</u>	<u>X</u>	700	65	0														X	Wooded bank, vegetated shore
B				<u>X</u>	290	45	0														X	Vegetated over-bank

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

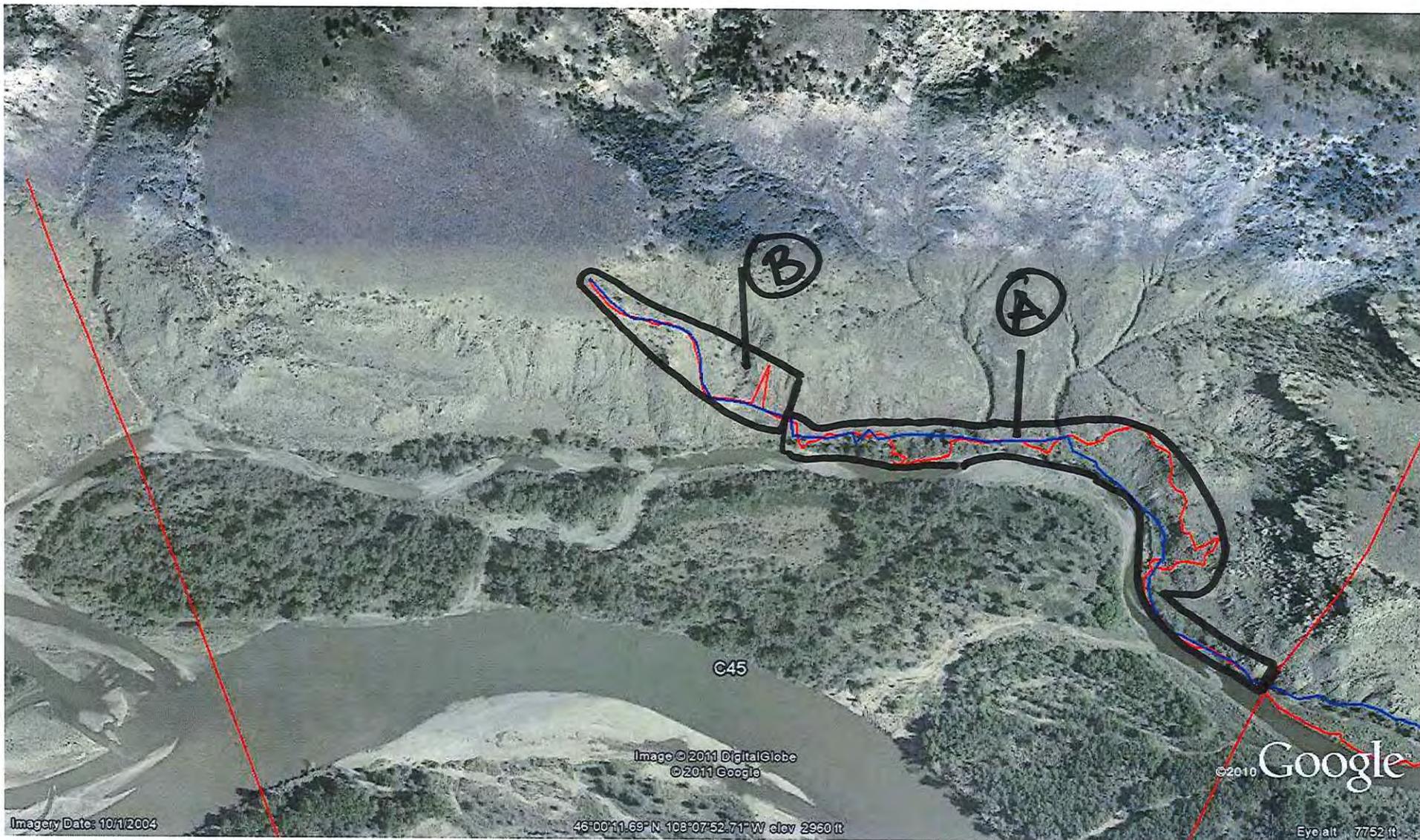
Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

Zone A: No oiling observed, no treatment required.

Zone B: No oiling observed, no treatment required.

Note: Complete the Foot Survey of section C45LB, access turn-off ~4.0 miles from Bozeman road parking at lower MTFWP lot. COMPLETE SHORELINE SURVEYS & ISLAND SURVEYS BY BOAT.

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

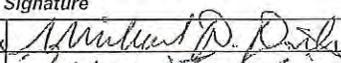
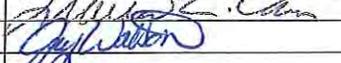
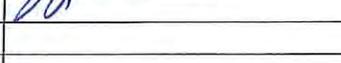


C45 LB
Zones A+B

Team #3
04/08/11

Partial Survey DB/G/15

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C45</u> <u>Left Bank</u> / Right Bank / Island		05/08/11	09:10 - 13:00 -	low - mean - <u>bankfull</u> - overbank
Operations Division: <u>C</u>			10:25 hrs to 14:30 hrs	falling - steady - rising
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>28</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
<u>Michael Dirks</u>	<u>Michael Dirks</u>	<u>Cardno ENTRIX</u>	
<u>Travis Cain</u>	<u>Travis Cain</u>	<u>USEPA</u>	
<u>Jay Watson</u>	<u>Jay Watson</u>	<u>MTFWP</u>	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 1757 m

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

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 X 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: X Est Height ~150 m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: Silt / clay

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

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

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

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

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

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

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

Oiled trees/shrubs Y / N River Current strong Y / N Other Features: Steep bluffs of silt, landslides during heavy rain.

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	P	S			80	25	<1			X				X								Vegetation, silt
B	S	P			610	275	0															Vegetation, woodland, silt
C	P				312	45	0															Vegetation, woodland, silt
D	P				20	20	<1			X				X								Vegetation, woodland, silt
<u>E</u>			<u>P</u>	<u>S</u>	<u>735</u>	<u>45</u>	<u><1</u>			<u>X</u>	<u>X</u>			<u>X</u>								Vegetation, woodland, silt

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

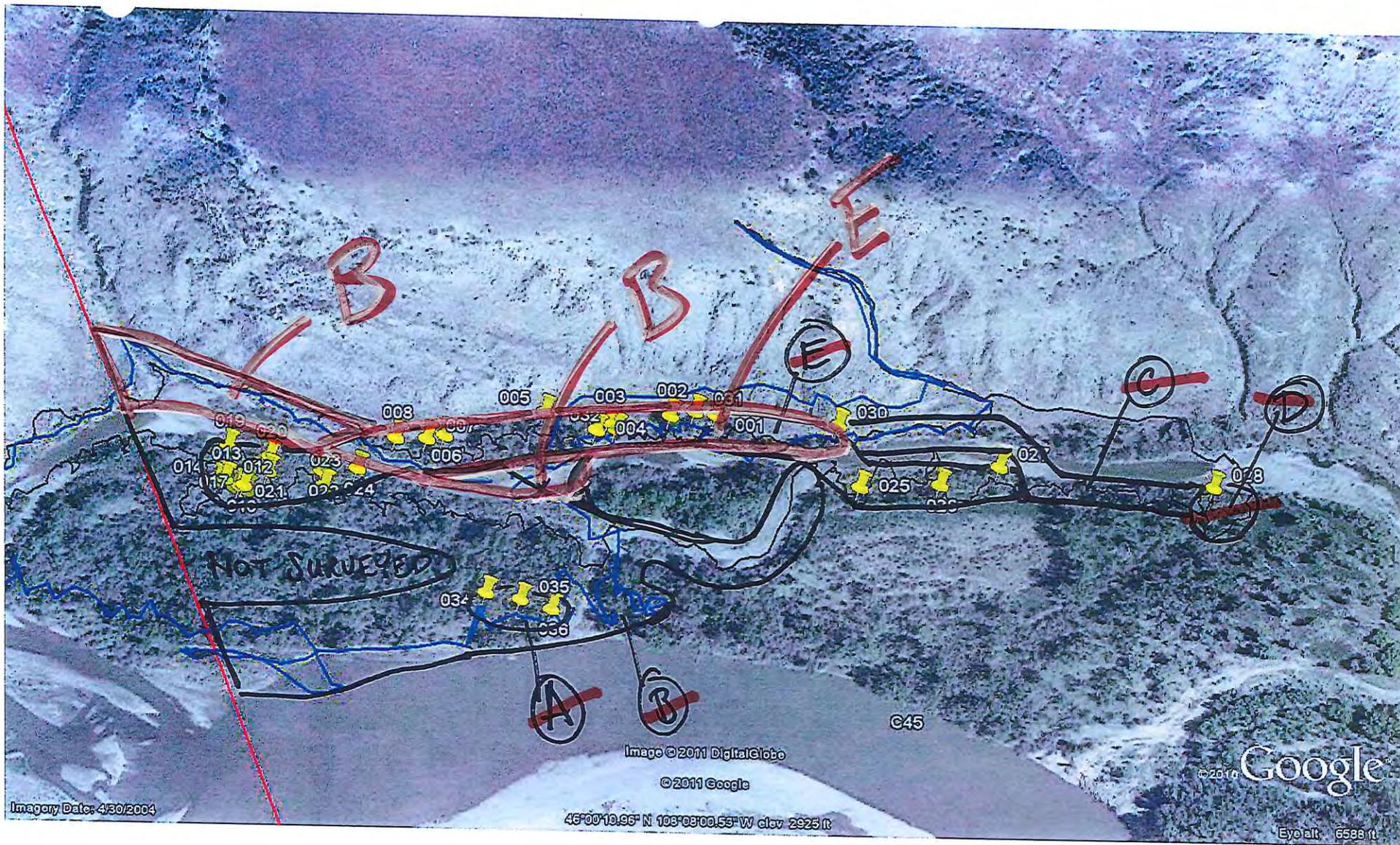
8 COMMENTS *ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations*

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

Zones A, D, & E: Very light oiling observed as coating on grass and branches primarily in the lowerbank areas of the slow moving channels among the Russian Olive trees. Recommend a minimal crew with trash bags to collect debris piles only use dust fixative on the other minor areas. Otherwise, no further treatment, especially if the operations crews will have a heavy impact in these zones.

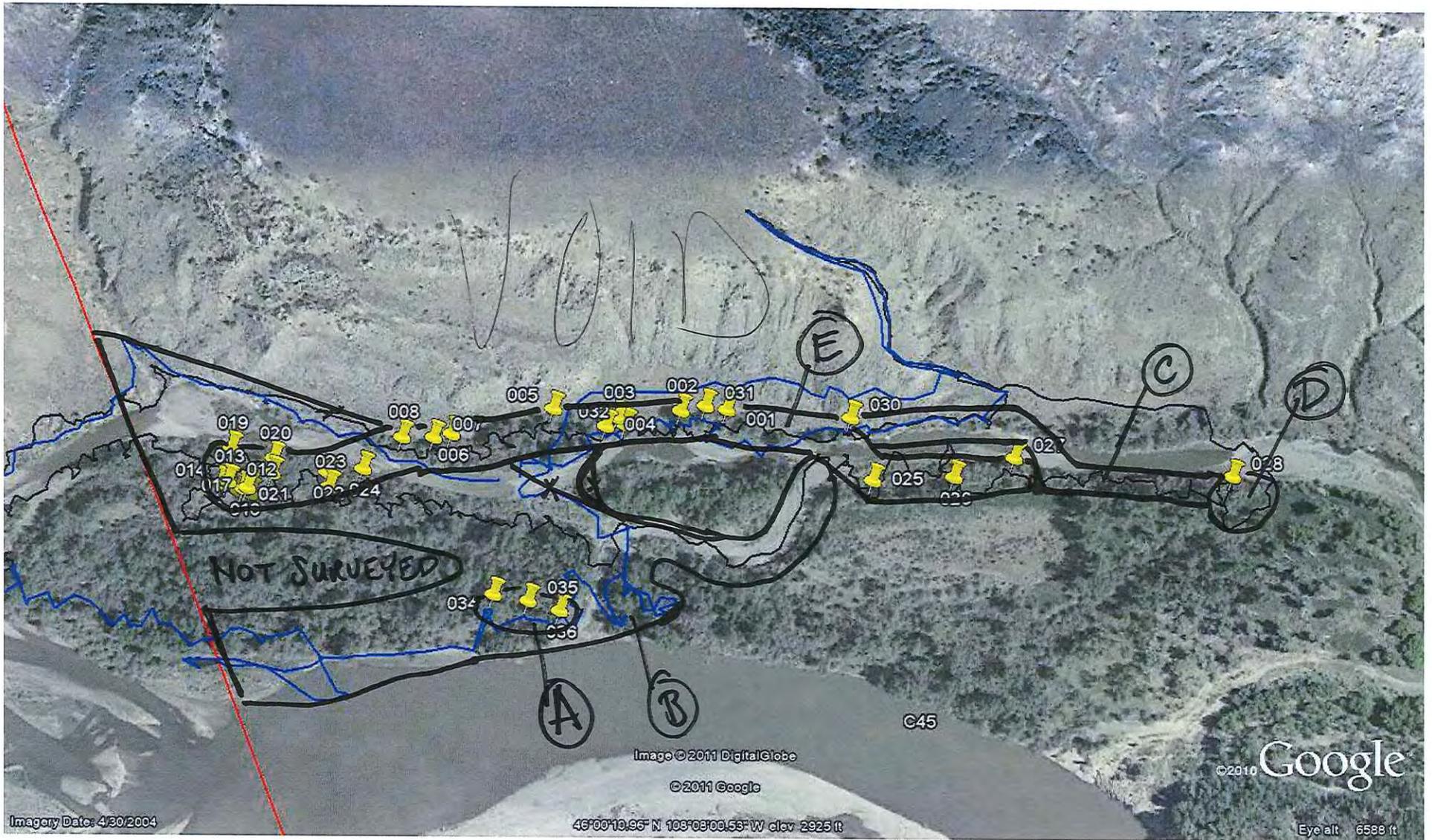
Zones B & C: No oil observed, no further treatment recommended.

Sketch Yes / No Photos Yes / No Frames/Photographer: Jay Watson, Michael Dirks



Datasheet split
into LB + 15

08/05/2011
SCAT TEAM 3
C45 LB



08/05/2011
SCAT TEAM 3
C45 LB

Partial Survey DB/16/15

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C45</u>	<u>Left Bank</u> / Right Bank / Island	<u>05/08/11</u>	<u>09:10 - 13:00 - 10:25</u> hrs to <u>14:30</u> hrs	low - mean - <u>bankfull</u> - overbank falling - steady - rising
Operations Division: <u>C</u>				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Sun / <u>Clouds</u> / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>28</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
<u>Michael Dirks</u>	<u>Michael Dirks</u>	<u>Cardno ENTRIX</u>	<i>[Signature]</i>
<u>Travis Cain</u>	<u>Travis Cain</u>	<u>USEPA</u>	<i>[Signature]</i>
<u>Jay Watson</u>	<u>Jay Watson</u>	<u>MTFWP</u>	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 1757 m

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

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 X 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: X Est Height ~150 m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: Silt / clay

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

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

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

Oiled trees/shrubs Y / N River Current strong Y / N Other Features: Steep bluffs of silt, landslides during heavy rain.

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

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)				
	ID	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO	
																							m
<u>1217</u> A			P	S		80	25	<1			X				X								Vegetation, silt
<u>1218</u> B			S	P		610	275	0														X	Vegetation, woodland, silt
<u>1219</u> C			P			312	45	0														X	Vegetation, woodland, silt
<u>1220</u> D			P			20	20	<1			X				X								Vegetation, woodland, silt
E			P	S		735	45	<1			X	X			X								Vegetation, woodland, silt
<u>1221</u> E			P	S		735	45	<1			X	X			X								veg, woodland, silt

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

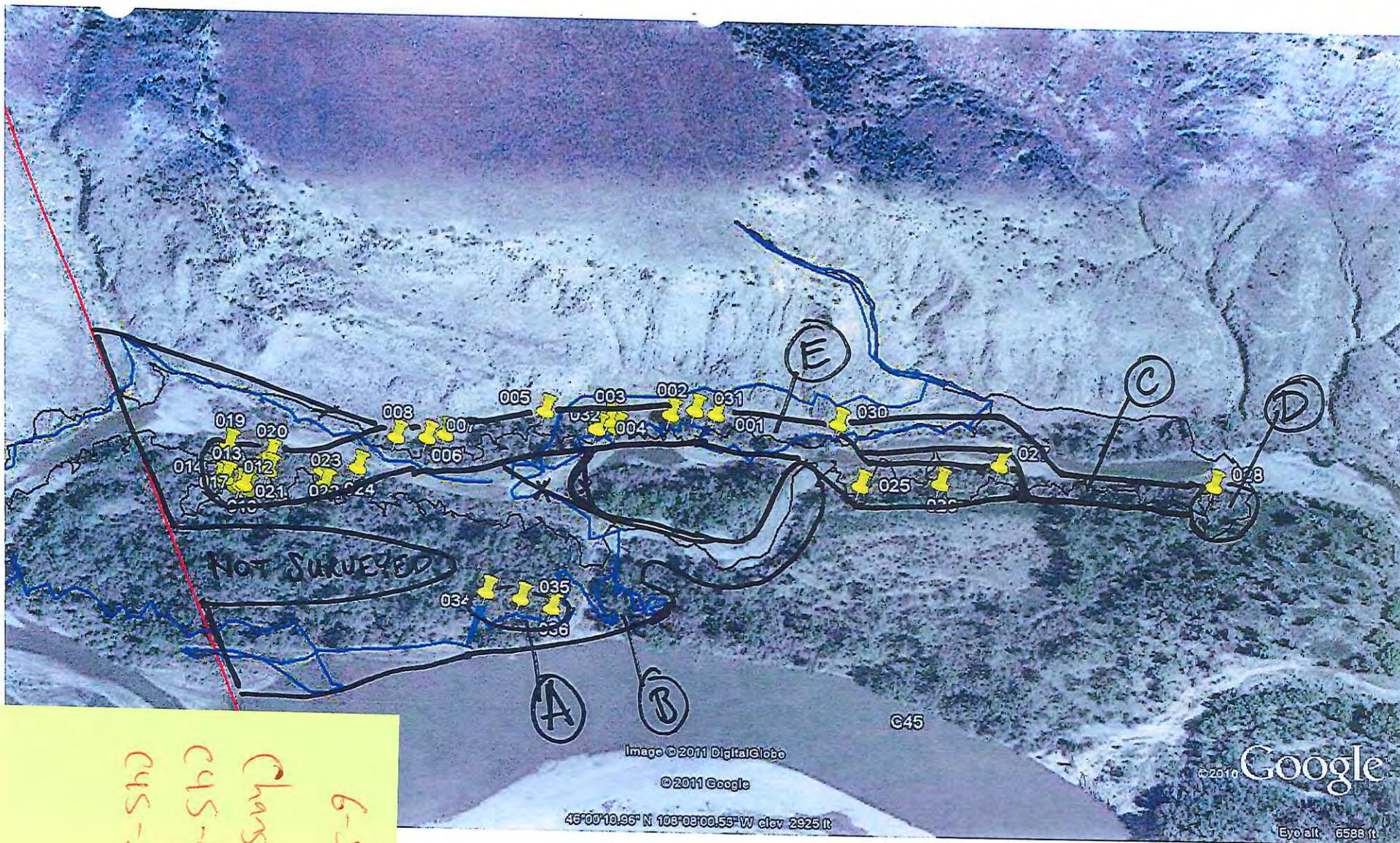
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

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

Zones A, D, & E: Very light oiling observed as coating on grass and branches primarily in the lowerbank areas of the slow moving channels among the Russian Olive trees. Recommend a minimal crew with trash bags to collect debris piles only use dust fixative on the other minor areas. Otherwise, no further treatment, especially if the operations crews will have a heavy impact in these zones.

Zones B & C: No oil observed, no further treatment recommended.



6-Sep
 Changed from
 C4S-LB to
 C4S-IS

08/05/2011
 SCAT TEAM 3
 C4S LB

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION

Segment/Reach ID: C45 Left Bank / Right Bank / Island

Operations Division: _____

Survey by: Foot / Boat / Helicopter / Overlook / _____

Date (dd/mm/yy) 12/08/11 Time (24h): std / daylight 10:00 hrs to 12:40 hrs

Water Level: low - mean - bankfull - overbank
 falling - steady - rising

Sun / Clouds / Fog / Rain / Snow / Windy / Calm _____ Air Temp +/- _____ deg C

2 SURVEY TEAM # 5

Name	Organization	Signature
LISA GALENCHER	Cardno ENTRIX	<i>Lisa Galencher</i>
BETSY HOUDA	DEQ	<i>Betsy Houda</i>
RON LYNN	USCG	
MATT DELONG	HOT SHOT	<i>Matthew DeLong</i>

3 SEGMENT Total Segment/Reach Length 202 m Segment/Reach Length Surveyed 807 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:** 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

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

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

Substrate Type: _____
 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 (3m) 3-10m >10m _____ m

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

Debris N oiled N amount 3 bags or _____ trucks access restrictions large cliff bluff to descend into segment.

Oiled trees/shrubs 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)			
					Length	Width	Distrib.	THICKNESS					CHARACTER									
	MS	LB	UB	OB	m	m	%	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
A				X	209	78	<1			(X)	X						(X)	X				vegetated OTHER
B				X	65	77	<1			(X)	X						X	(X)				veg & debris
C			X	X	807	285															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)
							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 - Light to moderate coating on vegetation and debris about 25m above ground. Easily transferable / very casual contact / old factory evidence. 3 dead raccoons found in floodwaters pathway / wildlife hotline called. sensitive species Juniper found. action recommend hot shot to surgically remove 2 bag vegetation. 3 bags generated. **NFI**

Zone B - staining to light coating on vegetation. sporadic. hot shot crew surgically removed 2 bagged vegetation. **NFI**

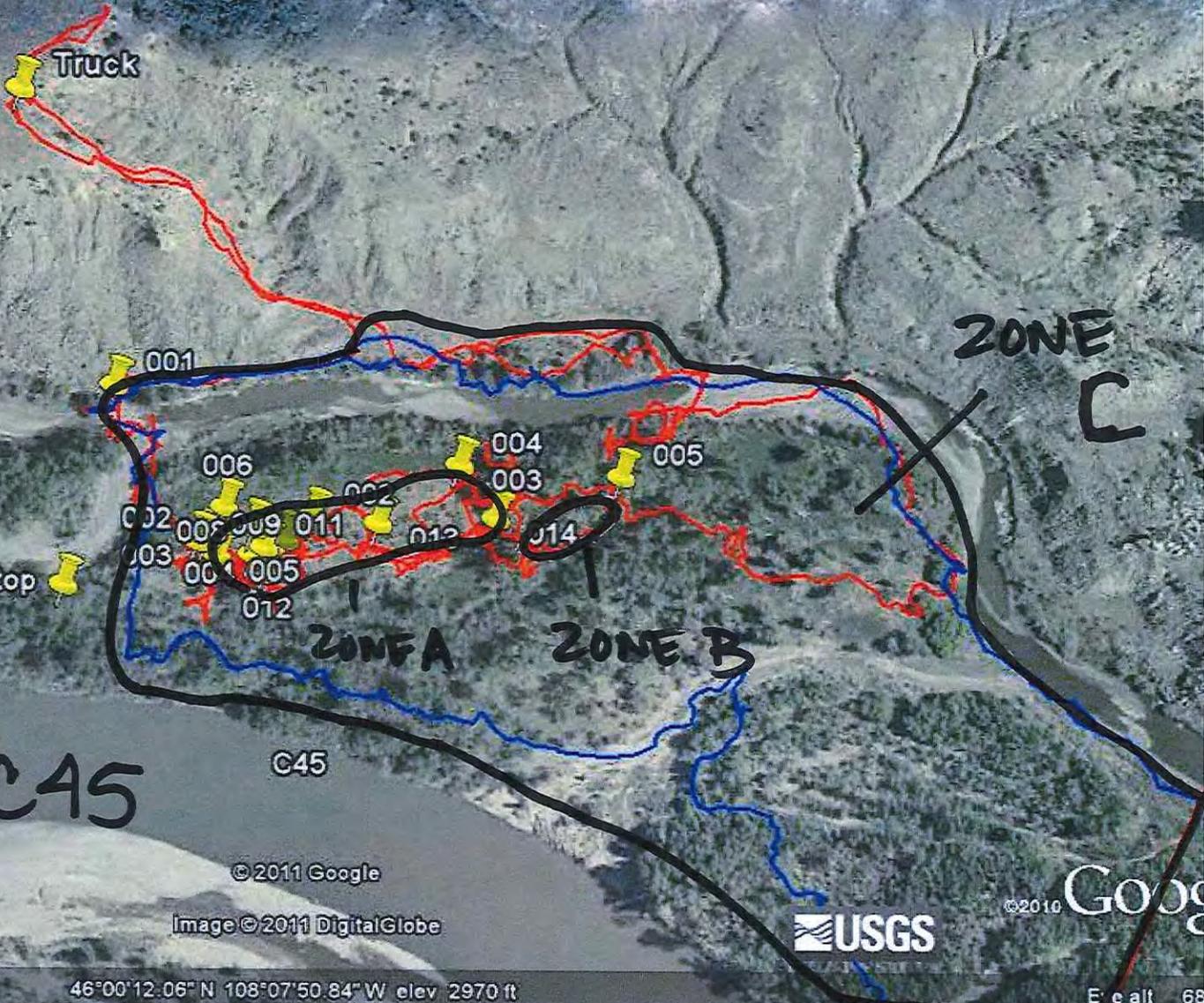
Zone C - no oiling observed. No treatment required.

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

TEAM #5

12/08/11

- Latitude
- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1
- Age
- 1st hour
- 1st day
- 1st week
- States
- Boundaries
- Divergence



SEGMENT C45

© 2011 Google

Image © 2011 DigitalGlobe

USGS

© 2010 Google

Date: 10/1/2004 1996

46°00'12.06" N 108°07'50.84" W elev 2970 ft

Elev 68



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

D/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>C45</u> (Left Bank) / Right Bank / Island		<u>13/09/11</u>		low (mean) - bankfull - overbank
Operations Division: <u>C</u>			<u>0930</u> hrs to <u>1240</u> hrs	(falling) steady - rising
Survey by: (Foot) (ATV) (Boat) (Helicopter) / Overlook / _____		(Sun) (Clouds) / Fog / Rain / Snow / Windy (Calm)		Air Temp + / - <u>24</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Damien Korte</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>
	<u>Nathan Hammond</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>
	<u>Marcile Sigler</u>	<u>DEQ</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 1400 m Segment/Reach Length Surveyed 655 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: 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: _____

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

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

Debris: Y (N) oiler 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

2284

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		S	P		655	45	0														✓

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 - NOO - No Treatment required

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

9/13/2011 3:01 pm

9/13/2011

SCAT
Team 3
9/13/11
C45-LB

A

002

001

C45-IS

C45-LB
C45

ACTIVE LOG
ACTIVE LOG

Image © 2011 DigitalGlobe

© 2011 Google

46°00'05.99" N 108°07'57.34" W elev 2925 ft

©2010

1996

D/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C45</u> Left Bank / Right Bank / <u>Island</u>		<u>13/09/11</u>	<u>0930</u> hrs to <u>1240</u> hrs	low (mean) bankfull - overbank
Operations Division: <u>C</u>				(falling) steady - rising
Survey by: <u>Foot</u> <u>ATV</u> <u>Boat</u> Helicopter / Overlook / _____		(Sun) <u>Clouds</u> Fog / Rain / Snow / Windy <u>Calm</u>		Air Temp +/- <u>24</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Damien Korte</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>
	<u>Nathan Hammond</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>
	<u>Marcile Sigler</u>	<u>DEC</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 1251340 m Segment/Reach Length Surveyed 1070 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: 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: _____

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

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

Debris: Y(N) oiled Y(N) amount <1 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

2285
2286
2287

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER								SUBST. TYPE(S)	
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP	NO		
A				X	1070	160	0															veg
B				X	10	10	<1			S	P											veg, debris
C				X	10	10	<1			P	S											veg, debris

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

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

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

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

Zone A - NOO

Zone B - Hot shot crew utilized ATM 1 and 2 to remove 1/4 bag of oiled veg/debris. NFT

Zone C - Hot shot crew utilized ATM 1 and 2 to remove 1/4 bag of oiled veg/debris. NFT

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

9/13/2011 3:01pm

SCAT
TEAM 3
9/13/11
C45 IS

C

A

B

002

01

C45-3

C45-LB
C45

ACTIVE LOG
ACTIVE LOG

Image © 2011 DigitalGlobe

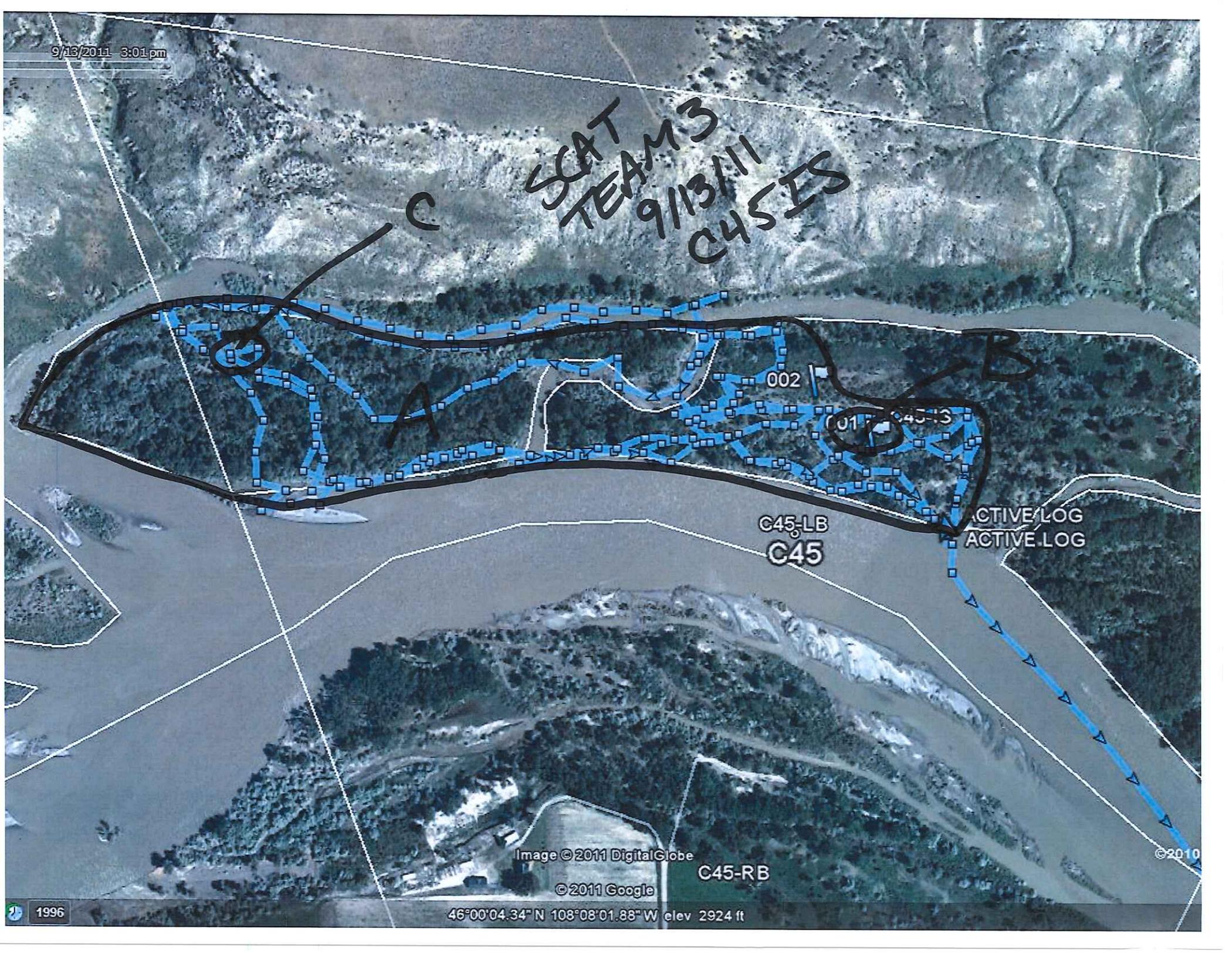
© 2011 Google

C45-RB

© 2010

1996

46°00'04.34" N 108°08'01.88" W elev 2924 ft





Appendix F

Completed SCAT Segment Sign-Off
Forms

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment C45LB Date of Survey 9/13/11

Dates of Initial SCAT Assessments

26 Jun 2011 (B)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment

60

Segment has been treated by Operations or an Operations Hotshot Team

YES

NO

Segment Assessment Complete¹

Partial Segment Assessment

In addition to other SCAT reports this section is completely cleared

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.

Sign Name

Print Name/ Affiliation

Date

Federal Representative (EPA/USCG)

Sign Name

Print Name/ Affiliation

Date

State Representative (DEQ/FWP)

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 C45TS Date of Survey 9/13/11

Dates of Initial SCAT Assessments _____
05 AUG 2011 (73)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 60

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

Segment Assessment Complete¹

Partial Segment Assessment

In addition to other SCAT reports this section is completely cleared.

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.

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

Marcile Sigler / DEQ MARCILE SIGLER 9/13/11

Sign Name Print Name/ Affiliation Date
State Representative (DEQ/FWP)

[Signature] Damien Korte / Cardio Entoirx 9/13/11

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.