



Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024  
(713) 468-1678

August 30, 2012

Dianne Munson  
Environmental Specialist IV  
Industry Preparedness Program  
Exploration, Production & Refineries Section  
555 Cordova Street  
Anchorage Alaska 99503

Re: Buccaneer Alaska Operations, LLC (Buccaneer) Oil Discharge Prevention and  
Contingency Plan (ODPCP) for Cook Inlet Exploration Drilling Program, Plan No. 11-CP-  
5197

Dear plan holders,

Buccaneer Alaska Operations, LLC (Buccaneer), is submitting its Final *Southern Cross and Northwest Cook Inlet Prospects Oil Discharge Prevention and Contingency Plan (ODPCP)*. Approved by the Alaska Department of Environmental Conservation (ADEC) on August 29<sup>th</sup>, 2012, the ODPCP supports Buccaneer's exploratory drilling program planned in the State of Alaska waters of Cook Inlet.

Please feel free to contact me at (281) 768-7652 or Steve Lombard of CardnoENTRIX at (907) 563-0438.

Best Regards,

Mark R Landt  
Vice President  
Buccaneer Alaska Operations  
952 Echo Lane, Suite 420  
Houston, Texas 77024  
(214) 738-6945 - Cell  
(713) 468-4678 - Work  
[mlandt@buccaneeralaska.com](mailto:mlandt@buccaneeralaska.com)



Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024  
(713) 468-1678

cc:

Steve Russell, ADEC  
Samantha Carroll, ADNR  
Lynnda Kahn, USFWS  
Bradley Dunker, ADFG  
Matt Carr, USEPA  
Steve Catalano, CIRCAC  
Tom Dearlove, KRC/KPB  
Lieutenant Sarah Geoffrion, USCG - Homer  
Christy Bohl, BSEE  
Bob Shavelson, Cook Inletkeeper  
Vicki Clark, Trustees for Alaska  
Kristina O'Connor, O'Brien's  
Todd Paxton, CISPRI  
Harold Shepherd, Center for Water Advocacy  
Steve Lombard, Cardno Entrix  
Clara Crosby, UIC Umiaq

Attachments:

Final ODPCP



Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024  
(713) 468-1678

August 30, 2012

David Moore, Chief  
Oil Spill Response Division  
US Bureau of Safety and Environmental Enforcement (BSEE)  
3801 Centerpoint Drive, Suite 500  
Anchorage, Alaska 99503

Re: Buccaneer Alaska Operations, LLC (Buccaneer) Oil Discharge Prevention and  
Contingency Plan (ODPCP) for Cook Inlet Exploration Drilling Program, Plan No. 11-CP-  
5197

Dear Mr. Moore,

Pursuant to the requirements of 30 CFR 254, Buccaneer Alaska Operations, LLC (Buccaneer), is submitting its *Southern Cross and Northwest Cook Inlet Prospects Oil Discharge Prevention and Contingency Plan (ODPCP)* to the U.S. Bureau of Safety and Environmental Enforcement (BSEE) for review and approval. Approved by the Alaska Department of Environmental Conservation on August 29<sup>th</sup>, 2012, the ODPCP supports Buccaneer's exploratory drilling program planned in the State of Alaska waters of Cook Inlet.

Consistent with 30 CFR 254.2(b), Buccaneer certifies that we have the capability to respond to a worst case discharge or a substantial threat of such a discharge to the maximum extent practicable. We have ensured, by contract, the availability of private personnel and equipment necessary to respond to the discharge. Please refer to the attached CISPRI and O'Brien's Statement of Contractual Terms for details to support this certification.

Please feel free to contact me at (281) 768-7652 or Steve Lombard of CardnoENTRIX at (907) 563-0438.

Best Regards,

Mark R Landt  
Vice President  
Buccaneer Alaska Operations  
952 Echo Lane, Suite 420  
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Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024  
(713) 468-1678

cc: Steve Lombard, CardnoENTRIX, 1600 A St., Suite 304, Anchorage, AK 99501

Electronic cc:

Dianne Munson, ADEC  
Christy Bohl, BSEE  
Steve Lombard, CardnoEntrix  
Clara Crosby, UMIAQ

Attachments:

Final ODPCP  
SOCT with CISPRI  
SOCT with O'Brien'sRM's



STATEMENT OF CONTRACTUAL TERMS

1

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445 (i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Cook Inlet Area Operations

PLAN HOLDER: Buccaneer Alaska Operations, LLC


This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Buccaneer Alaska Operations, LLC the oil discharge prevention and contingency plan holder (hereinafter "PLAN HOLDER"), and Cook Inlet Spill Prevention & Response, Inc the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter "CONTRACTOR"), executed on \_\_\_\_\_ and the original of which is located at Anchorage, Alaska as evidence of the PLAN HOLDER's access to the containment, control and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 - 18 AAC 75.495.

The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (C) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) respond to a Department-conducted discharge exercise required of the PLAN HOLDER; and
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.

STATEMENT OF CONTRACTUAL TERMS


I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

  
Signature \_\_\_\_\_ Date 8/7/2012

Title: Vice President

For: Buccaneer Alaska Operations, LLC  
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

  
Signature \_\_\_\_\_ Date 8-9-12

Title: GENERAL MANAGER

For: Cook Inlet Spill Prevention & Response, Inc.  
CONTRACTOR

## STATEMENT OF CONTRACTUAL TERMS

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445 (i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Cook Inlet Area Operations

PLAN HOLDER: Buccaneer Alaska Operations, LLC

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Buccaneer Alaska Operations, LLC the oil discharge prevention and contingency plan holder (hereinafter "PLAN HOLDER"), and O'Brien's Response Management, Inc. the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter "CONTRACTOR"), executed on \_\_\_\_\_, and the original of which is located at Anchorage, Alaska as evidence of the PLAN HOLDER's access to the containment, control and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 - 18 AAC 75.495.

The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

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- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (D) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) respond to a Department-conducted discharge exercise required of the PLAN HOLDER; and
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                      8/7/2012  
Signature    Date

Title: Vice President

For: Buccaneer Alaska Operations, LLC  
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

                      8/9/2012  
Signature    Date

Title: EXECUTIVE VICE PRESIDENT

For: O'Brien's Response Management, Inc.  
CONTRACTOR

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*OIL DISCHARGE PREVENTION AND  
CONTINGENCY PLAN  
No. 11-CP-5197*

# **Southern Cross and Northwest Cook Inlet Prospects**

**Prepared for**  
*Buccaneer Alaska Operations, LLC*  
952 Echo Lane, Suite 420  
Houston, Texas  
77024



**Prepared by**  
 **Cardno  
ENTRIX**  
Shaping the Future

August 2012

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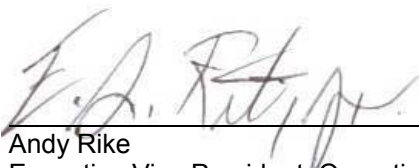
## MANAGEMENT APPROVAL AND MANPOWER AUTHORIZATION

### OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN *Southern Cross and Northwest Cook Inlet Prospects* **Buccaneer Alaska Operations, LLC** **North Cook Inlet, Alaska**

This Oil Discharge Prevention and Contingency Plan (ODPCP or plan) has been prepared for exploration activities in upper Cook Inlet to be conducted by Buccaneer Alaska Operations, LLC (Buccaneer).

This plan is approved for implementation as described herein. Manpower, equipment, and materials will be provided in accordance with this plan.

Buccaneer is prepared to use all available and relevant response tactics, as specified in the *Cook Inlet Spill Prevention and Response, Inc. Technical Manual* (CISPRI, February 2010). Buccaneer will apply strategies, equipment, and response contractors to facilitate and expedite cleanup of any remaining spills that may continue beyond the project drilling program, per *30 Code of Federal Regulations* (CFR) 254.



Andy Rike  
Executive Vice President, Operations  
Buccaneer Alaska Operations, LLC  
295 Fidalgo Avenue  
Kenai, Alaska 99611  
[ARike@buccaneerresources.com](mailto:ARike@buccaneerresources.com)

October 25, 2011

Date

### ***Incident Commander and/or Qualified Individual***

Personnel authorized to commit Buccaneer in the capacity of Incident Commander (IC) or as Qualified Individual (QI) [in accordance with the Oil Pollution Act of 1990 (OPA 90)] include the following individuals:

Andy Rike  
Buccaneer Alaska Operations, LLC  
[ARike@buccaneerresources.com](mailto:ARike@buccaneerresources.com)

Work: (907) 335-0600  
Cell: (713) 703-5157  
Fax: (832) 201-7495

Alternate ICs and/or QIs:

Personnel authorized to commit Buccaneer in the capacity of Alternate IC or as Alternate QI (in accordance with the OPA 90) include the following:

O'Brien'sRM

24-Hour Response: (985) 781-0804

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## REVISIONS AND RENEWAL REQUIREMENTS

This plan is maintained by Buccaneer. If Buccaneer finds that routine updates or significant changes occur, this plan will be amended.

Before a change to this plan may take effect, Buccaneer will obtain approval from the ADEC for an amendment to the plan. An application for approval of an amendment must be submitted on a form supplied by the ADEC. The ADEC will use the procedures set out at 18 AAC 75.455 to review a plan amendment, unless the plan amendment is a routine plan update, or otherwise does not diminish the Buccaneer's ability to respond to an oil discharge.

Buccaneer will send a copy of any proposed plan amendment to resource agencies, regional citizens' advisory councils, and other persons as directed by the ADEC

### Routine Updates

Routine plan updates include a revision to the list of names, addresses, or telephone numbers of spill command and response personnel; and a revision to a training procedure or course work requirement that does not reduce the amount or quality of training required by this chapter.

### Renewal Requirements

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#### Revision and Renewal Requirements

Agency	Citation	Requirement
ADEC	18 AAC 75.415 and 18 AAC 75.420	Buccaneer's plan expiration date is five years from the date of approval by the ADEC. Major plan amendments including renewals and when operational changes are made that diminish the ability to respond will be submitted with sufficient time to accommodate the review requirements of 18 AAC 75.455.renewal will be as follows:
BSEE	30 CFR Part 254.30 (as of 25 March 1997)	Every two years, or when there are significant changes to the plan including: <ul style="list-style-type: none"> <li>• Reduction in response capabilities</li> <li>• Change in worst case discharge scenario</li> <li>• Change in response organizations</li> <li>• Change to Area Contingency Plan (ACP)</li> </ul> Revisions from the above must be submitted within 15 days for approval.
USCG	33 CFR Part 154.1065 (as of 1 July 1999)	The plan must be reviewed every year followed by submittal of appropriate plan amendments. Plan content and review requirements are detailed in 33 CFR Part 154.1030, and summarized below: <ul style="list-style-type: none"> <li>• Significant change in facility configuration</li> <li>• Change in oil type that is handled and stored</li> <li>• Change in response organizations and/or emergency response procedures</li> <li>• Other significant changes</li> <li>• Upon request of the USCG</li> </ul>

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AAC = Alaska Administrative Code  
ADEC = Alaska Department of Environmental Conservation  
BSEE = Bureau of Safety and Environmental Enforcement  
USCG = US Coast Guard



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## OPERATIONS RECORD OF REVISIONS

<b>Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program ODPCP</b>			
<b>Revision No.</b>	<b>Revision Date</b>	<b>Date Entered</b>	<b>Signature of Person Entering Changes</b>

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## EXECUTIVE SUMMARY

This ODPCP is to be followed by the employees and contractors working at Buccaneer offshore exploration sites in Cook Inlet. The ODPCP discusses discharge prevention measures as well as step-by-step procedures to follow from the time a spill is detected through site closure and disposition of recovered oil.

The Response Action Plan (Part 1) identifies initial response actions and notification procedures to be performed as soon as possible after the first detection of a spill. The Prevention Plan (Part 2) provides a detailed description of all oil discharge prevention measures and policies employed onboard and onshore. The Supplemental Information (Part 3) presents equipment, training, and environmental information pertinent to efficient oil spill containment and cleanup. Review of the Best Available Technology (BAT) utilized for spill prevention, control and mitigation is addressed in Part 4. Part 5 summarizes calculations of the applicable response planning standard (RPS) set out in Title 18 AAC 75.441(a) and (b).

Proposed project operations have been reviewed, and this ODPCP is formatted to meet and/or supplement the requirements under the OPA-90, specific to USCG (33 CFR 154), and to BSEE in Chapter 30 Parts 254 of the CFR (BSEE – 30 CFR 254). Please reference Appendix D.

The plan also meets ADEC regulations promulgated in Title 18 Chapter 75 - Oil and Hazardous Substances Pollution Control, Article 4: ODPCPs and Nontank Vessel Plans (18 AAC 75, Article 4). Specific information required by OPA 90 and 18 AAC 75 and cross-references to BSEE, USCG, and ADEC regulations, are at the end of this section.

The Qualified Individual for Buccaneer is:

Andy Rike  
Executive Vice President, Operations  
Buccaneer Alaska Operations, LLC  
295 Fidalgo Avenue  
Kenai, Alaska 99611  
(907) 335-0600 Work  
(713) 703-5157 Cell  
(832) 201-7495 Fax  
ARike@buccaneerresources.com

Alternate Qualified Individual for Buccaneer is:

O'Brien's Response Management (O'Brien'sRM)  
2000 Old Spanish Trail, Suite 210  
Slidell, LA 70458  
24-hour Response: (985) 781-0804

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## **PROPOSED OPERATIONS REVIEW WITH REGARD TO THE OIL POLLUTION ACT OF 1990**

As noted, the proposed offshore exploration drilling operations have been reviewed with regard to requirements under the OPA 90, and this plan was developed to satisfy requirements of BSEE 30 CFR 254 and 300, USCG 33 CFR 154.

Specific OPA 90-required information, including cross references to the BSEE and the USCG is provided below.

### **BSEE OPA 90 REQUIREMENTS**

In accordance with 30 CFR 254 (dated 25 March 1997), a cross reference for specific BSEE requirements is provided on the following pages. Additional information may be found in Appendix D. An *ACP/National Contingency Plan (NCP) Consistency Certification for Buccaneer Alaska Operations, LLC, Cook Inlet Exploratory Drilling Program* is also attached and signed by the authorized Buccaneer representative.

### **USCG OPA 90 REQUIREMENTS**

Information for OPA Facility Response Plans under 33 CFR 154 (revised 1 July 1999) is provided in the following pages. The overall response description is in the form of cross reference in accordance with 33 CFR 154.1030 (guidelines for marine transfer facilities).

### **ADEC REQUIREMENTS**

This plan also follows the 18 AAC 75 ODPCP format to support ADEC review. Cross references are presented in the following pages.

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## ***CROSS REFERENCE TO BSEE OIL SPILL CONTINGENCY PLAN REQUIREMENTS (30 CFR 254, SUBPART B)***

<b>Regulation Section (30 CFR)</b>	<b>Information</b>	<b>Location in This Plan</b>
254.22(a)	Identification of facility	See previous pages and Section 3.1
254.22(b)	Table of Contents	Table of Contents
254.22(c)	Record of Changes	Record of Changes
254.22(d)	Cross reference table	Cross reference
254.23(a)	Designation of Qualified Individual	Executive Summary and Section 3.3
254.23(b)	Trained spill management team	Section 1.2, Table 1.2-2, Sections 3.3, and 3.8
254.23(c)	Spill response operating team	Section 1.2, Table 1.2-2, and Section 3.3
254.23(d)	Spill response center and communications	Section 1.4
254.23(e)	Types and characteristics of substances at facility	Section 1.3, Section 3.1, and Appendix C
254.23(f)	Procedures for early detection and prevention plans	Sections 2.1 and 2.5
254.23(g)(1)	Notification procedures	Sections 1.1 and 1.2
254.23(g)(2)	Provisions for monitoring and predicting spill movement	Section 1.6 and Appendix D
254.23(g)(3)	Areas of special economic for environmental importance	Sections 1.6,3.10 and Appendix D
254.23(g)(4)	Methods to protect areas of special economic and environmental importance	Sections 1.6, 1.7, 3.10, and Appendix D
254.23(g)(5)	Deployment of personnel and equipment to the site	Section 1.5
254.23(g)(6)	Storage of recovered oil	Section 1.6 and Appendix D
254.23(g)(7)	Nearshore response and waterfowl rehabilitation	Sections 1.6, 3.10, and Appendix D
254.23(g)(8)	Procedures to store, transfer, and dispose of recovered oil and debris.	Section 1.6 and Appendix D
254.23(g)(9)	Dispersant use and ISB plans	Sections 1.7 and 3.7
254.24(a)	Inventory of oil spill response support	Sections 3.5 and 3.6 and Appendix A – Equipment List in the <i>CISPRI Technical Manual</i>
254.24(b)	Inspecting and maintaining spill response equipment	Section 3.6
254.25	Contractual agreements with Oil Spill Removal Organization (OSRO)	Section 3.8
254.26(a)	Volume of worst case discharge	Sections 2.3 and 1.6, Note 1 below and Appendix D
254.26(b)	Trajectory analysis	Sections 3.2 and Appendix D
254.26(c)	Resources of special economic or environmental importance	Sections 1.6, 3.10 and Appendix D



<b>Regulation Section (30 CFR)</b>	<b>Information</b>	<b>Location in This Plan</b>
254.26(d)(1)	Description of response equipment	Sections 1.6, 3.6, and <i>CISPRI Technical Manual</i> Appendix A – Equipment List and Tactics CI-LP-1 through CI-LP-7.
254.26(d)(2)	Personnel and equipment to deploy response equipment	Sections 1.5 and 1.6, and <i>CISPRI Technical Manual</i> , Tactic CI-LP-3
254.26(d)(3)	Oil storage and disposal equipment	Section 1.6, and <i>CISPRI Technical Manual</i> Appendix A and Tactic CI-LP-4
254.26(d)(4)	Times for procurement, mobilization, and deployment of response equipment	Sections 1.5, 1.6, and <i>CISPRI Technical Manual</i> Tactics specifically CI-LP-4
254.26(e)	Adequacy of response efforts	Sections 1.5, 1.6, 3.5, 3.6, and <i>CISPRI Technical Manual</i>
254.27	Dispersant use plan	Sections 1.7, 3.7, and <i>CISPRI Technical Manual</i>
254.28(a)	Description of ISB equipment	Sections 1.7, 3.7, and <i>CISPRI Technical Manual</i>
254.28(b)	ISB procedures	Sections 1.7, 3.7, and <i>CISPRI Technical Manual</i>
254.28(c)	Environmental effects of in situ burning (ISB)	Sections 1.7 and 3.7
254.28(d)	Guidelines for well control	Sections 1.6, 1.7, and 3.7
254.28(e)	Circumstances for using ISB	Sections 1.7 and 3.7
254.28(f)	Guidelines for the decision to ignite	Section 1.7 and 3.7
254.28(g)	Procedures for approval of ISB	Sections 1.7, 2.1, 3.7, and 3.9
254.29(a)	Training requirements	Sections 1.5, 2.1, and 3.9
254.29(b)	Exercise requirements	Section 3.9

Note 1:

The Worst Case Discharge Volumes for the *Endeavour - Spirit of Independence* are calculated as follows:

Total Fuel Transfer Failure 17 barrels (bbl)

Well Blowout [Maximum rate is 5,500 barrels of oil per day (bopd) per Section 5.1] 5,500 bbl

The worst case discharge would occur during open water conditions. CISPRI has the capabilities as demonstrated in their technical manuals, this plan, and other plans to be capable of mounting an effective response within several days that achieves a recovery rate of 10,000 to 11,000 bopd.

This recovery rate can be sustained for at least 30 days as demonstrated in Appendix D. The worst case scenario demonstrates the capacity for a minimum of 72,822 bbl of derated recovered fluid capacity.

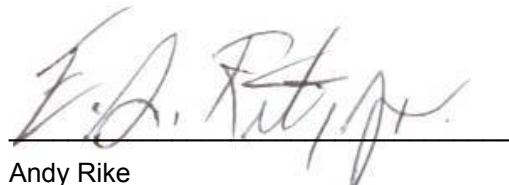
**U.S. Department of Interior, Bureau of Safety and Environmental  
Enforcement**

**ACP/NCP Consistency Certification for Buccaneer Alaska Operations,  
LLC Cook Inlet Exploratory Drilling Program**

Buccaneer hereby certifies to the BSEE that it has reviewed the NCP, and applicable Area and Subarea Contingency Plans. Buccaneer also certifies it has found the *Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program ODPCP* to be consistent with these plans.

The NCP, Area and Subarea Contingency Plan reviews included:

- *NCP as set forth in 40 CFR Part 300 (as published in Federal Regulation (FR) Volume 59, No. 178, Final Rule, 15 September 1994).*
- *Alaska Federal/State Unified Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan), Change 3, January 2010.*
- *Cook Inlet Subarea Contingency Plan, changes through December 2010.*



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Andy Rike  
Executive Vice President, Operations  
Buccaneer Alaska Operations, LLC

October 25, 2011

Date

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## ***CROSS REFERENCE TO USCG OIL SPILL CONTINGENCY PLAN/OPA FACILITY RESPONSE REQUIREMENTS (33 CFR 154)***

<b>Applicable Regulations 33 CFR 154 Subpart D</b>	<b>Applicable Regulatory Description</b>	<b>Location in This Plan</b>
154.1035(a)(4)	Table of Contents	Table of Contents
154.1035(a)(5)	Cross reference	Cross reference
154.1035(a)(6)	Record of Changes	Record of Changes
154.1035(b)	Emergency Response Action Plan	--
154.1035(b)(1)	Notification Procedures	--
154.1035(b)(1)(i)	Facility Personnel and Agencies	Sections 1.1 and 1.2 (Note: QI includes the IC and Deputy IC)
154.1035(b)(1)(ii)	Notification Form	Sections 1.1 and 1.2
154.1035(b)(2)	Spill Mitigation Procedures	--
154.1035(b)(2)(i)	Volumes by Oil Groups	--
154.1035(b)(2)(I)(A)	Average Most Probable Discharge	Section 2.3
154.1035(b)(2)(I)(B)	Maximum Most Probable Discharge	Section 2.3
154.1035(b)(2)(I)(C)	Worst Case Discharge	Section 2.3
154.1035(b)(2)(I)(D)	Worst Case Discharge (Non-Transportation)	Group III – 82,500 bbl (sweet crude oil-blowout per Section 1.6)
154.1035(b)(2)(ii)	Procedures to Mitigate or Prevent Discharges	Procedures are covered throughout the enclosed ODPCP
154.1035(b)(2)(iii)	Response Personnel and Equipment	Sections 1.1, 1.5, 3.3, 3.6, 3.7, and 3.8
154.1035(b)(3)	Facility Response Activities	--
154.1035(b)(3)(I)	Response Initiation	Sections 1.1 and 3.3
154.1035(b)(3)(ii)	Responsibilities of QI and Alternate	Sections 1.1 and 3.3 (Note: QI includes the IC and Deputy IC)
154.1035(b)(3)(iii)	Organizational Structure	Sections 1.1 and 3.3
154.1035(b)(3)(iv)	Oil Spill Removal Organization	Sections 1.1, 1.5, 3.3, 3.6, 3.7, and 3.8
154.1035(b)(4)	Fish, Wildlife, and Sensitive Areas	Section 3.10
154.1035(b)(4)(i)	Identification of Areas for Worst Case Discharge	Section 3.10
154.1035(b)(4)(ii)	Response Actions for Worst Case Discharge	Sections 1.6 and 3.10
154.1035(b)(4)(iii)	Resources for Worst Case Discharge	Sections 1.1, 1.5, 3.6, 3.7, and 3.8
154.1035(b)(5)	Disposal Plan	Section 1.6
154.1035(c)	Training and Exercises	Sections 2.1 and 3.9
154.1035(c)(1)	Training Procedures	Sections 2.1 and 3.9
154.1035(c)(2)	Exercise Procedures	Sections 2.1 and 3.9
154.1035(d)	Plan Review and Updates	Executive Summary
154.1035(e)	Appendices	Appendices (A, B, C, and D)
154.1035(e)(1)	Facility Specific Information	Sections 1.8 and 3.1
154.1035(e)(1)(i)	Description of Facility	Section 3.1

<b>Applicable Regulations 33 CFR 154 Subpart D</b>	<b>Applicable Regulatory Description</b>	<b>Location in This Plan</b>
154.1035(e)(1)(ii)	Vessel Transfers	Appendix B
154.1035(e)(1)(iii)	Location of First Valve	Section 1.8
154.1035(e)(1)(iv)	Information on Oils at Facility	Appendix C
154.1035(e)(2)	List of Contacts	Sections 1.1 and 1.2
154.1035(e)(2)(i)	QI and Alternate	Executive Summary and Section 1.1
154.1035(e)(2)(ii)	Oil Spill Removal Contractor	Sections 1.1 and 3.8
154.1035(e)(2)(iii)	Agency Contacts	Sections 1.1 and 1.2
154.1035(e)(3)	Equipment Lists and Records	Section 3.6
154.1035(e)(3)(i)	Equipment and Personnel for Average Most Probably Spill	Sections 1.5, 1.6, 3.6, and 3.8
154.1035(e)(3)(ii)	Major Equipment Listing	Section 3.6
154.1035(e)(3)(iii)	OSRO Equipment	CISPRI holds USCG OSRO Tier 3 classifications
154.1035(e)(4)	Communications Plan	Section 1.4
154.1035(e)(5)	Site-Specific Safety and Health Plan	Section 1.3

## ***CROSS REFERENCE TO ADEC REGULATIONS (18 AAC 75 ARTICLE 4)*** ***Applicability***

As described in 18 AAC 75.400(a), a person subject to AS 46.04.030 or AS 46.04.055 (j) must file an application for approval of an oil discharge prevention and contingency plan as required under 18 AAC 75.400 - 18 AAC 75.420 and meet the applicable requirements of 18 AAC 75.425 - 18 AAC 75.495. This includes an exploration or production facility, whether mobile or fixed, by the leaseholder or the operator per 18 AAC 75.400(a)(3).

### ***Application Procedure***

This plan must include a completed application for approval, on a form supplied by the department [18 AAC 75.410(a)]. **The Buccaneer ODPCP application form is included immediately behind the title page.**

### ***ODPCP Contents***

Per 18 AAC 75.425(a), an oil discharge prevention and contingency plan submitted for approval under 18 AAC 75.400 – 18 AAC 75.495 must be in a form that is usable as a working plan for oil discharge prevention, control, containment, cleanup, and disposal. A plan must contain enough information, analyses, supporting data, and documentation to demonstrate the plan holder's ability to meet the requirements of AS 46.04.030 and 18 AAC 75.400 - 18 AAC 75.495. The cross-reference table below lists where specific plan content requirements [per 18 AAC 75.425(c)(d) and (e)] are located.

<b>Applicable Regulations 18 AAC 75.</b>	<b>Applicable Regulatory Description</b>	<b>Location in This Plan</b>
<i>ODPCP Cover Page</i>		
425(c)(1)(2)(3)	<b>(c)</b> <i>The submitted plan must be accompanied by a cover page or promulgation letter that includes</i>	Cover page
	<b>(1)</b> <i>the name of the plan holder, and the covered vessel, barge, railroad, facility, or operation, followed by the words "Oil Discharge Prevention and Contingency Plan";</i>	Cover page
	<b>(2)</b> <i>the date of the plan; and</i>	Cover page
	<b>(3)</b> <i>a statement, signed by a person with appropriate authority, committing the resources necessary to implement the plan.</i>	Management Approval and Manpower Authorization
<i>ODPCP Title Page</i>		
425(d)(1)(2)(3)(4)	<b>(d)</b> <i>The plan must</i>	
	<b>(1)</b> <i>include the official plan title;</i>	Title Page
	<b>(2)</b> <i>consist of the four parts and contain the information described in (e) (1)-(e)(4) of this section;</i>	Table of Contents
	<b>(3)</b> <i>contain a complete table of contents and lists of any tables or figures, with corresponding page numbers; and</i>	Table of Contents
	<b>(4)</b> <i>be presented in the order shown in (e) of this section, or include a cross reference table that directs the reader to the appropriate information.</i>	Shown as in (e) of this section and with a cross reference table

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
<i>ODPCP Contents</i>		
425(e)(1)	<b>(1) PART 1 - RESPONSE ACTION PLAN:</b> <i>The response action plan must provide in sufficient detail to clearly guide responders in an emergency event, all information necessary to guide response to a discharge of any size, up to and including a discharge that is equal to the applicable response planning standard set out at 18 AAC 75.430 - 18 AAC 75.442; the response action plan must include the following information:</i>	Part 1 Response Action Plan
425(e)(1)(A)	<b>(A) Emergency action checklist</b> - <i>a short checklist of the immediate response and notification steps to be taken if an oil discharge occurs; it is recommended that this summary be duplicated on a wallet-size card, to be carried by the appropriate response personnel while on duty;</i>	Section 1.1.2
425(e)(1)(B)(i)(ii)	<b>(B) Reporting and notification</b> - <i>a description of the immediate spill reporting actions to be taken at any hour of the day, including (i) the title and telephone number of facility personnel responsible for making the notification; and (ii) the telephone number of each appropriate government agency to be notified if a discharge occurs;</i>	Sections 1.1 and 1.2
425(e)(1)(C)	<b>(C) Safety</b> - <i>based on applicable safety standards, a description of the steps necessary to develop an incident-specific safety plan for conducting a response;</i>	Section 1.3
425(e)(1)(D)	<b>(D) Communications</b> - <i>a description of field communications procedures, including, if applicable, assigned radio channels or frequencies and their intended use by response personnel;</i>	Section 1.4
425(e)(1)(E)(i)(ii)	<b>(E) Deployment strategies</b> - <i>a description of proposed initial response actions that may be taken, including (i) procedures for the transport of equipment, personnel, and other resources to the spill site, including plans for alternative methods in adverse weather conditions; and (ii) if the operator is not the primary spill responder, procedures to notify and mobilize the response action contractor or other responder identified in the plan, including a description of the interim actions that the operator will perform until the responder identified in the plan initiates a full response to the discharge;</i>	Sections 1.5, 1.6.8, and 1.6.15
425(e)(1)(F)(i)-(v)	<b>(F) Response scenario</b> - <i>a written description of a hypothetical spill incident and response that demonstrates a plan holder's ability to respond to a discharge of each applicable response planning standard volume within the required time frames using the resources described in the contingency plan, and that identifies the spill location, time of year, and time of day, the source and cause of the spill, the quantity and type of oil spilled, the relevant environmental conditions, including weather, sea state, and visibility, the spill trajectory, and the expected timeline for response actions, describing response actions to be taken; the response scenario must be usable as a general guide for a discharge of any size, must describe the discharge containment, control, and cleanup actions to be taken, which clearly demonstrate the strategies and procedures adopted to conduct and maintain an effective response, and if the response scenario is for an explanation or production facility, must also meet the applicable requirements of (I) of this paragraph; if required by the department, the plan holder must provide additional response strategies to account for variations in receiving environments and seasonal conditions; if the information required by this subparagraph is contained within a separate document developed by the plan holder or the plan holder's primary response action contractor identified in (3)(H) of this subsection, the plan holder may incorporate the information by reference upon obtaining the department's approval; response strategies must include</i>	Section 1.6.15: Response Scenarios (Exploration Well Blowout) Response Strategy (Fuel Transfer Spill)

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
425(e)(1)(F)(v) – (xii)	<i>(i) procedures to stop the discharge at its source and prevent its further spread;</i>	Sections 1.6.3 and 1.6.5 Section 1.6.4
	<i>(ii) a description of methods to prevent or control a potential fire hazard;</i>	Section 1.6.6
	<i>(iv) procedures and methods for real-time surveillance and tracking of the discharged oil on open water and forecasting of its expected points of shoreline contact;</i>	Sections 1.6.14, 1.6.15, and AK Unified Plan – Cook Inlet Subarea Contingency Plan
	<i>(v) for a stationary facility or operation, or a railroad, and, if requested by the department, for a vessel, a description of site-specific strategies for the protection of environmentally sensitive areas and areas of public concern identified under (3)(J) of this subsection, including, for a land-based facility or railroad, protection of groundwater and public water supplies; if identification of those areas and site-specific strategies for protection of those areas are in an applicable subarea contingency plan, the plan holder may incorporate that information by reference;</i>	Section 1.6.15: Response Scenarios and Section 1.6.8
	<i>(vii) a description of the actions to be taken to recover the contained or controlled oil using mechanical response options, including procedures and provisions for skimming, absorbing, or otherwise recovering the contained or controlled product from water or land;</i>	Section 1.6.15: Response Scenarios and Section 1.6.9
	<i>(viii) procedures for lightering, transfer, and storage of oil from damaged tanks or from undamaged tanks that might be at risk of discharging additional oil;</i>	Section 1.6.15: Response Scenarios, Sections 1.6.11, and 1.6.12
	<i>(ix) procedures for transfer and storage of recovered oil and oily water, including methods for estimating the amount of recovered oil;</i>	Section 1.6.15: Response Scenarios and Section 1.6.13
	<i>(xi) procedures and methods for the protection, recovery, disposal, rehabilitation, and release of potentially affected wildlife, including: minimizing wildlife contamination through hazing or other means, when appropriate; the recovery of oiled carcasses to preclude secondary contamination of scavengers; and the capture, cleaning, rehabilitation, and release of oiled wildlife, when appropriate; and (xii) if applicable, a description of procedures for the deployment of shoreline cleanup equipment and personnel, including cleanup and restoration methods and techniques to be used if the shoreline is impacted by the discharge;</i>	Section 1.6.15: Response Scenarios and Sections 1.6.14, 3.10.6, and 3.10.7
	425(e)(1)(G)	<b>(G) nonmechanical response options</b> - if applicable, a description of actions to be taken to obtain the necessary permits and approvals to initiate dispersant application, in situ burning, or other nonmechanical response options, the basis for determining the conditions or circumstances under which these options will be used, and how the nonmechanical response options will be implemented, including a description of all required equipment and personnel; and



Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
425(e)(1)(H)	<i><b>(H) facility, railroad, or vessel diagram</b> - a plan diagram of the facility, vessel, or operation for reference in conducting emergency response operations, with locations of response equipment and other features pertinent to the response plan clearly marked, including surrounding topography, roads, air transportation and other transportation access, location and bathymetry of adjacent water bodies, mooring areas, oil transfer locations, pipelines, control stations, drip pans and drainage of drip pans, and a representation of the distance and gradients to surface water for an operation located on land, by topographic map, aerial photographs, or other means; for a railroad tank car or locomotive, a diagram must be included for each distinct type of railroad tank car or locomotive showing locations of fuel and lubrication systems and oil storage tanks, piping, and valves;</i>	Section 1.6.15: Response Scenarios and Sections 1.8 and 3.1.2
425(e)(1)(I)(i) – (iv)	<i><b>(I) response scenario for an exploration or production facility</b> – if the facility is an exploration or production facility, a response scenario that, in addition to complying with (F) of this paragraph, includes as part of the response strategies a summary of planned methods, equipment, logistics, and time frames proposed to be employed to control a well blowout within 15 days; the plan holder shall certify that the plan holder maintains a separate blowout contingency plan; the blowout contingency plan is not part of an application required under 18 AAC 75.410 - 18 AAC 75.420, but must be made available to the department for inspection upon request under 18 AAC 75.480; a plan holder may use for development of a response scenario the July 1997 S.L. Ross oil deposition model for surface oil well blowouts, or another oil deposition model approved by the department for surface oil well blowouts; if required by the department to account for variations in seasonal conditions, a plan holder must provide a response scenario for a discharge of the applicable response planning standard volume under typical summer environmental conditions and typical winter environmental conditions; if the information required by this subparagraph is contained within a separate document developed by the plan holder or the plan holder's primary response action contractor identified in (3)(H) of this subsection, the plan holder may incorporate the information by reference upon obtaining the department's approval; for purposes of this subparagraph;</i>	Section 1.6.15: Response Scenarios and Sections 1.0 and 4.2
425(e)(2)	<i><b>(2) PART 2 - PREVENTION PLAN</b> - Under the provisions of 18 AAC 75.005 - 18 AAC 75.090, the prevention plan must include a detailed description of all oil discharge prevention measures and policies employed at the facility, vessel, or operation, with reference to the risks involved. The prevention plan may be submitted as a separate volume, and must include, at a minimum, the following information:</i>	Part 2 Prevention Plan
425(e)(2)(A)	<i><b>(A)</b> a description and schedule of regular pollution prevention, inspection, and maintenance programs in place at the facility or operation;</i>	Section 2.1
425(e)(2)(B)	<i><b>(B)</b> a history of all known discharges greater than 55 gallons (gals) that have occurred at the facility, with an analysis of the relationship, if any, between their frequency, cause, and size, and a description of actions to be taken to prevent or mitigate similar discharges in the future;</i>	Section 2.2
425(e)(2)(C)	<i><b>(C)</b> an analysis of potential oil discharges, including size, frequency, cause, duration, and location, and a description of actions taken to prevent a potential discharge;</i>	Section 2.3
425(e)(2)(D)	<i><b>(D)</b> a description of any conditions specific to the facility or operation that might increase the risk of a discharge, including physical or navigation hazards, traffic patterns, or other site-specific factors, and any measures that have been taken to reduce the risk of a discharge attributable to these conditions;</i>	Section 2.4

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
425(e)(2)(E)	<b>(E) a description of the existing and proposed means of discharge detection, including surveillance schedules, leak detection, observation wells, monitoring systems, and spill-detection instrumentation; if electronic or mechanical instrumentation is employed, detailed specifications, including threshold detection, sensitivities, and limitations of equipment must be provided;</b>	Section 2.5
425(e)(2)(F)	<b>(F)waivers - for an operation subject to a waiver, alternate compliance schedule, or existing condition of plan approval under 18 AAC 75.005 – 18 AAC 75.090 or 18 AAC 75.400 – 18 AAC 75.496, documentation of</b> <i>(i) each waiver, alternate compliance schedule, or existing condition of plan approval; and</i> <i>(ii) the approval of each waiver, alternate compliance schedule, or existing condition of plan approval;</i>	Sections 2.6 and 2.7
425(e)(3)	<b>(3) PART 3 - SUPPLEMENTAL INFORMATION:</b> The supplemental information section must provide background and verification information, including	Part 3 Supplemental Information
425(e)(3)(A)	<b>(A) facility description and operational overview - a general description of the oil storage, transfer, exploration, or production activities of the operation, including</b>	Section 3.1
	<i>(i) the number, type, and oil storage capacity of each container covered under the plan and its installation date, design, construction, and general condition;</i>	Section 3.1.2
	<i>(ii) the type and amount of oil stored in each container;</i>	Section 3.1.2 and Table 3.1-4
	<i>(v) for vessels, plans or diagrams that identify cargo, bunker, and ballast tanks, all tank capacities, cargo piping, ballast piping, winches, emergency towing equipment, power plants, manifold pipe size, containment structures and equipment, and a description of the method of containing a discharge from fuel oil tank vent overflow and fill pipes;</i>	Section 3.1.3
	<i>(vi) a description of the normal procedures for the loading or transfer of oil from or to a pipeline, facility, tank vessel, oil barge railroad tank car, or storage tank;</i>	Section 3.1.4 and Appendix B
	<i>(viii) for vessels, a description of the methods for retention and disposal of oily wastes and bilge slops;</i>	Section 3.1.5
425(e)(3)(B)	<b>(B) Receiving environment - for a land-based facility or operation (or operation on solid sea ice):</b> <i>(i) the potential routes of travel of oil discharged from the facility or operation to open water in the form of a drainage diagram or map, showing gradients and potential containment sites and features, including identification and explanation of all measures that will be taken to prevent a discharge from entering open water; and</i> <i>(ii) based on the information in (i) of this subparagraph, an estimate of what percentage of the applicable response planning standard volume set out at 18 AAC 75.430 - 18 AAC 75.436, or 18 AAC 75.442 for the facility or operation will reach open water;</i>	Not Applicable
425(e)(3)(C)	<b>(C) Command system - a description of the command system to be used in response to a discharge, including the title, address, telephone number, and affiliation by company, agency, or local government of each person, including a person identified in (1)(B) of this subsection, who by law or through employment, contract, or cooperative agreement, is responsible for responding to a discharge, and each person's functional role in the command system; this list must include command, fiscal, operations, planning, and logistics lead personnel; the command system must be compatible with the state's response structure outlined in the state master plan prepared under AS 46.04.200;</b>	Section 3.3

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
425(e)(3)(D)(i) – (v)	<p><b>(D) Realistic maximum response operating limitations</b> - a description of the realistic maximum response operating limitations that might be encountered at the facility or operation and, based on environmental and safety considerations, an analysis of the frequency and duration, expressed as a percentage of time, of limitations that would render mechanical response methods ineffective; the realistic maximum response operating limitations for a response must be defined, with a description of any additional specific temporary prevention or response measures that will be taken to reduce the environmental consequences of a discharge, including nonmechanical response options, during those periods when environmental conditions exceed this maximum; environmental conditions to be considered in this analysis must include</p> <p>(i) weather, including wind, visibility, precipitation and temperature;</p> <p>(ii) sea states, tides, and currents;</p> <p>(iii) ice and debris presence;</p> <p>(iv) hours of daylight; and</p> <p>(v) other known environmental conditions that might influence the efficiency of the response equipment or the overall effectiveness of a response effort;</p>	<p>Section 3.4, <i>CISPRI Technical Manual</i>, Appendix B</p> <p>Section 3.4</p> <p>Section 3.4</p> <p>Section 3.4</p> <p>Section 3.4</p> <p>Section 3.4</p>
425(e)(3)(E)	<p><b>(E) Logistical support</b> - identification of aircraft, vessels, and other means that may be used to transport equipment and personnel during a discharge response, including information on ownership and availability of identified means of transportation;</p>	<p>Section 3.5, <i>CISPRI Technical Manual</i>, and Tactics CI-LP-0 through CI-LP-5</p>
425(e)(3)(F)(i) – (vii)	<p><b>(F) Response equipment</b> - a complete list of contracted or other oil discharge containment, control, cleanup, storage, transfer, lightering, and related response equipment to meet the applicable response planning standard, and to protect environmentally sensitive areas and areas of public concern that are identified in (J) of this paragraph and that may be reasonable expected to suffer an impact from a spill of the response planning standard volume as described in the response strategies developed under (1)(F) and (1)(I) of this subsection, the list must include</p> <p>(i) the location, inventory, and ownership of the equipment;</p> <p>(ii) the time frame for delivery and startup of response equipment and trained personnel located outside the facility's primary region of operation;</p> <p>(iii) the manufacturer's rated capacities, limitations, and operational characteristics for each item of oil recovery equipment, including any nonmechanical response techniques;</p>	<p>Sections 1.6, 3.6 and <i>CISPRI Technical Manual</i>, Tactics CI-LP-0 through CI-LP-5, and Appendix A</p> <p>Section 3.6.1, <i>CISPRI Technical Manual</i>, Tactic CI-LP-3, CI-LP-4, and Section 1.5</p> <p>Section 3.6, <i>CISPRI Technical Manual</i>, Tactic CI-NM-0 through CI-NM-5, CI-LP-3, and CI-LP-4</p>
	<p>(iv) each vessel designated for oil recovery operations, including skimming vessels and platforms and vessels designated to tow and deploy boom;</p> <p>(v) information on additional vessels available from other sources for oil recovery operations, including, if applicable, procedures for inventorying, training personnel, and equipping vessels;</p>	<p>Tactics CI-LP-1, CI-LP-3, CI-LP-4, and Appendix A of the <i>CISPRI Technical Manual</i></p> <p>Tactic CI-LP-3, CI-LP-4, and Appendix A of the <i>CISPRI Technical Manual</i></p>

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
	<i>(vi) pumping, transfer and temporary storage, and lightering equipment for transferring oil from damaged or undamaged tanks; and</i>	Section 1.6.15: Response Scenario and Tactic CI-LP-3, CI-LP-4, and Appendix A of the <i>CISPRI Technical Manual</i>
	<i>(vii) the procedures for storage, maintenance, and inspection of spill response equipment under the immediate control of the operator when not in use, including procedures for periodic testing and maintenance of response equipment;</i>	Section 3.6 and Tactic CI-LP-3, CI-LP-4, and Appendix A of the <i>CISPRI Technical Manual</i>
425(e)(3)(G)(i) – (v)	<b>(G) Nonmechanical response information</b> -if a nonmechanical option such as dispersant use or in situ burning is proposed as a response option, the plan must include:	Sections 3.7 and 3.11.2
	<i>(i) a description of the specific mechanisms in place to assess the environmental consequences of the nonmechanical response option and to provide continuous monitoring of its environmental effects;</i>	Sections 3.7 and 3.11.2
	<i>(ii) a complete inventory of nonmechanical response equipment and supplies, including the type and toxicity of each dispersant, with procedures for storage, maintenance, and deployment;</i>	Sections 1.7, 3.7, and 3.11.2, and <i>CISPRI Technical Manual</i> , Tactic CI-NM-0 through CI-NM-5
	<i>(iii) identification of all necessary approvals, and a completed application for department approval for open burning if in situ burning is a proposed response option;</i>	Sections 1.7, 3.7, and 3.11.2, and <i>CISPRI Technical Manual</i> , Tactics CI-SA-1, CI-SA-2, and CI-SA-3.
	<i>(iv) identification of all permits, approvals, or authorizations for use of nonmechanical response options and the timeline for obtaining them; and</i>	Sections 1.7, 3.7, and 3.11.2, and <i>CISPRI Technical Manual</i> , Tactics CI-SA-1, CI-SA-2, and CI-SA-3.
	<i>(v) a plan for protecting environmentally sensitive areas identified in (J) of this paragraph, areas of public concern identified in (J) of this paragraph, and the public from any adverse effects of the nonmechanical response option;</i>	Section 1.7, 3.7, and 3.11.2, and <i>CISPRI Technical Manual</i> , Tactics CI-SA-1, CI-SA-2, and CI-SA-3.
425(e)(3)(H)	<b>(H) oil spill primary response action contractor information</b> - if a plan holder proposes to use the services of an oil spill primary response action contractor to meet a requirement of AS 46.04.030 or 18 AAC 75.400 - 18 AAC 75.495, the contractor must be registered under 18 AAC 75.500 - 18 AAC 75.580; the plan holder shall include a correct and complete list of each primary response action contractor, with name, address, telephone number, and affiliation by company, the response contractor information described in 18 AAC 75.445(i), and a description of the response equipment and services provided; the use of an oil spill primary response action contractor does not relieve the plan holder of its responsibility to provide the information required by this subsection and to meet all other applicable requirements of 18 AAC 75.400 - 18 AAC 75.495;	Section 3.8
425(e)(3)(H)	<b>(I) Training</b> - a detailed description of the training programs for discharge response personnel;	Section 3.9

Applicable Regulations 18 AAC 75.	Applicable Regulatory Description	Location in This Plan
425(e)(3)(J)(i) – (iii)	<p><b>(J) protection of environmentally sensitive areas and areas of public concern</b> - for a stationary facility or operation, or a railroad, and, if required by the department, for a vessel, identification of environmentally sensitive areas and areas of public concern that may suffer an impact from a spill of the applicable response planning standard volume; if identification of those areas and site-specific strategies for protection of those areas are in an applicable subarea contingency plan, the plan holder may incorporate that information by reference; whether prepared separately or incorporated by reference, the identification of and planned protection measures for those areas must be based on mapped predictions of discharge movement, spreading, and probable points of contact, based on expected local, seasonal, meteorologic, and oceanographic or topographic conditions; and, for each probable point of contact, must include a description of each environmentally sensitive area and each area of public concern, including</p> <p><b>(i)</b> the effect of seasonal conditions on the sensitivity of each area;</p> <p><b>(ii)</b> a discussion of the toxicity effects and persistence of the discharge, based on type of product; and</p> <p><b>(iii)</b> an identification of which areas will be given priority attention if a discharge occurs;</p>	<p>Section 3.10</p> <p>Section 3.10.2</p> <p>Section 3.10.3</p> <p>Sections 3.10.4 and 3.10.5</p>
425(e)(3)(K)	<b>(K) Additional information</b> - other information necessary to provide background for or verification of the plan contents; and	Section 3.11
425(e)(3)(L)	<b>(L) Bibliography</b> - a list of data and information sources used to determine the information contained in the plan; and	Section 3.12
425(e)(4)	<b>(4) PART 4 -- BEST AVAILABLE TECHNOLOGY REVIEW:</b> Unless application of a state requirement would be preempted by federal law, the plan must provide for the use of best available technology consistent with the applicable criteria in 18 AAC 75.445(k). In addition, the plan must	Part 4 Best Available Technology Review
425(e)(4)(A)(i)(ii)	<p>(A) identify technologies applicable to the applicant's operation that are not subject to response planning or performance standards specified in 18 AAC 75.445(k)(1) and (2); these technologies include, at a minimum,</p> <p><b>(i)</b> for all contingency plans, communications described under (1) (D) of this subsection; source control procedures to stop the discharge at its source and prevent its further spread described under (1) (F) (i) of this subsection; trajectory analyses and forecasts described under (1) (F) (iv) of this subsection; and wildlife capture, treatment, and release procedures and methods described under (1) (F) (xi) of this subsection;</p> <p><b>(ii)</b> for a terminal, a crude oil transmission pipeline, or an exploration and production contingency plan: cathodic protection or another approved corrosion control system if required by 18 AAC 75.065(h)(3); a leak detection system for each tank if required by 18 AAC 75.065(h)(4); any other prevention or control system approved by the department under 18 AAC 75.065(i)(1)(D); a means of immediately determining the liquid level of bulk storage tanks as specified in 18 AAC 75.065(j)(3) and (4); maintenance practices for buried steel piping containing oil as required by 18 AAC 75.080(b); protective wrapping or coating and cathodic protection if required by 18 AAC 75.080(b)(1)(A); and corrosion surveys required by 18 AAC 75.080(b)(2)(A);</p>	<p>Part 4 Best Available Technology Review</p> <p>Sections 4.1 to 4.4</p> <p>Sections 4.5 to 4.12</p>
425(e)(4)(B)	<b>(B)</b> for each applicable technology under (A) of this paragraph, identify all available technologies and include a written analysis of each technology, using the applicable criteria in 18 AAC 75.445(k)(3); and	Part 4
425(e)(4)(C)	<b>(C)</b> include a written justification that the technology proposed to be used is the best available for the applicant's operation.	Part 4

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<b>Applicable Regulations 18 AAC 75.</b>	<b>Applicable Regulatory Description</b>	<b>Location in This Plan</b>
425(e)(5)	<i><b>(5) Part 5 - Response Planning Standard:</b> A calculation of the applicable response planning standards set out in 18 AAC 75.430 - 18 AAC 75.440 and 18 AAC 75.442, including a detailed basis for the calculation of reductions, if any, to be applied to the response planning standards.</i>	Part 5

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## **ADEC APPROVAL**



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THE STATE  
of ALASKA  
GOVERNOR SEAN PARNELL

Department of Environmental  
Conservation

DIVISION OF SPILL PREVENTION & RESPONSE  
INDUSTRY PREPAREDNESS PROGRAM

555 Cordova Street  
Anchorage, Alaska 99501  
Main: 907.269.3094  
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August 29, 2012

File No: 305.30  
(Buccaneer Offshore CD)

Mark Landt  
Executive Vice-President  
Land & Business Development  
Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024

Subject: **Buccaneer Alaska Operations, LLC Oil Discharge Prevention and Contingency Plan for Southern Cross and Northwest Cook Inlet Prospects. Plan Number 11-CP-5097. Plan Approval.**

Dear Mr. Landt:

The Alaska Department of Environmental Conservation (department) has completed our review of your application for the above-referenced Oil Discharge Prevention and Contingency Plan (plan) dated October 2011. The department coordinated the State of Alaska's public review for compliance with 18 AAC 75, using the review procedures outlined in 18 AAC 75.455. Based on our review, the department has determined that your plan is consistent with the applicable requirements of the referenced regulations and is hereby approved.

This approval applies to the following plan:

Plan Title: **Buccaneer Alaska Operations, LLC Oil Discharge Prevention and Contingency Plan, Southern Cross and Northwest Cook Inlet Prospects.**

Documents: **Cook Inlet Spill Prevention and Response, Inc. (CISPRI) Technical Manual, as revised and updated**

Plan Holder: **Buccaneer Alaska Operations, LLC  
952 Echo Lane, Suite 420  
Houston, TX 77024**

Covered Facilities: **Exploration drilling activities for up to four offshore wells in the Southern Cross and Northwest Cook Inlet Prospects (Southern Cross #1 and #2 and Northwest Cook Inlet #1 and #2) in Cook Inlet, Alaska.**

Mr. Mark Landt  
Buccaneer Alaska Operations, LLC

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August 29, 2012

**PLAN APPROVAL:** Approval of the referenced plan is hereby granted, effective August 29, 2012. A Certificate of Approval stating that the department has approved the plan is enclosed. This approval is subject to the following terms and conditions.

#### **TERMS AND CONDITIONS**

The following items must be completed and/or received as specified to complete the plan in accordance with AS 46.04.030(e).

- 1. Notice of Changed Relationship with Response Action Contractor.** Because the plan relies on the use of response contractors for its implementation, Buccaneer Alaska Operations, LLC (Buccaneer) must immediately notify us in writing of any change in the contractual relationship with the plan holder's response action contractors, and of any event including but not limited to any breach by either party to the response contract that may excuse a response contractor from performing, that indicates a response contractor may fail or refuse to perform, or that may otherwise affect the response, prevention, or preparedness capabilities described in the approved plan.

*This condition is reasonable and necessary because there are certain risks associated with allowing a plan holder to rely in part or total upon a response contractor instead of obtaining its own response capability. The risks arise, in part, because the certainty of the contractor's response is dependent upon the continuation of the legal relationship between the contractor and the plan holder. Given this risk, the department must be promptly informed of any change of the contractual relationship between the plan holder and the response contractor, and of any other event that may arguably excuse the response contractor from performing or that would otherwise affect the response, prevention, or preparedness capabilities described in the approved plan. The department may seek appropriate modifications to the plan or take other steps to ensure that the plan holder has continuous access to sufficient resources to protect the environment and to contain, clean up, and mitigate potential oil spills. 18 AAC 75.425(e)(3)(H) and 18 AAC 75.445(i).*

- 2. Management Approval and Manpower Authorization Form.** A signed copy of the Management Approval and Manpower Authorization form must be provided in the final plan distribution or submitted to the department in accordance with 18 AAC 75.425(c)(3).

*This condition is reasonable and necessary to ensure that a statement signed by a person with appropriate authority to commit the oil discharge prevention and response resources necessary to implement the plan is submitted as required by 18 AAC 75.425(c)(3).*

- 3. Proof of Financial Responsibility.** Buccaneer has provided the department with proof of financial responsibility per the requirements of AS.46.04.040 and 18 AAC 75.205 – 18 AAC 75.290 for exploration facilities. Financial responsibility must be maintained until the department is notified in writing that the Alaska Oil and Gas Conservation Commission has determined all wells have been properly plugged and abandoned.

*This condition is reasonable and necessary to ensure that the plan holder has financial resources in the event of a spill as required by AS 46.04.040 and 18 AAC 75.205 – 18 AAC 75.290.*

- 4. Marine Structure Inspection.** Buccaneer must inspect the drill rig Endeavor – Spirit of Independence in accordance with 18 AAC 75.045(b) and submit documentation and certificates of compliance once received and prior to drilling activities.

Mr. Mark Landt  
Buccaneer Alaska Operations, LLC

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*This condition is reasonable and necessary to ensure that inspection requirements of 18 AAC 75.045(b) are met.*

5. **Blowout Contingency Plan.** A copy of the Blowout Contingency Plan (BCP) must be maintained at drilling locations and made available to the department upon request.

*This condition is reasonable and necessary to ensure that the plan holder is prepared to control a potential well blowout. The department will review the blowout contingency plan when performing site inspections and/or in Anchorage. 18 AAC 75.425(e)(1)(I), 18 AAC 75.445(d)(2), and 18 AAC 75.480.*

7. **Seasonal Drilling Restrictions.** To reduce the risk of an oil discharge and to ensure the effectiveness of planned spill response methods prior to periods when the planned response methods are rendered ineffective by environmental limitations, drilling into hydrocarbon-bearing formations for the Buccaneer offshore exploration wells must be completed by October 31<sup>st</sup> of each drilling season that the plan approval is in effect. Drilling may not commence until April 15<sup>th</sup> of the each drilling season. Buccaneer is required to isolate all potential hydrocarbon formations prior to the aforementioned deadline dates, using either:
- (1) cemented, un-perforated casing, or
  - (2) cemented, slotted, or perforated casing combined with downhole plug(s) or tubing with packer(s).

*This condition is reasonable and necessary to reduce the risk of an oil discharge by using specific temporary measures during periods when planned spill response methods are rendered ineffective by environmental limitations, in accordance with 18 AAC 75.445(f). The plan accounts for an 18-day response time, which includes both source control and cleanup. The drilling end date is consistent with Alaska Department of Natural Resources (ADNR) lease requirements and allows a grace period between the completion of cleanup and the anticipated appearance of first significant ice. First appearance of ice has been documented as November 24<sup>th</sup> in an 18-year study cited in National Oceanic and Atmospheric Administration [NOAA] HAZMAT Report 2003-01. The U.S. Army Corps of Engineers (USACE) 2001 Marine Ice Atlas for Cook Inlet, referenced in the CISPRI Technical Manual, indicates significant ice may not appear in the area of Buccaneer's drill sites until mid-December. April 15<sup>th</sup> as a start date is consistent with a documented average ice-free date of April 8<sup>th</sup>, also shown in the NOAA report.*

8. **Response Planning Standard.** Once the flow rate of an exploration well has been tested, if that flow rate exceeds 5,500 barrels per day and the facility is to continue operations, Buccaneer must refer and adhere to the requirements specified in 18 AAC 75.434(d).

*This condition is reasonable and necessary to ensure the plan holder's ability to respond to a larger volume discharge than was originally planned for in accordance with 18 AAC 75.434.*

9. **Final Copy of the Plan.** Within 30 days of this letter and prior to drilling, the plan holder must submit to the department updated versions of the approved plan, including all revisions instituted during the recent plan review. Buccaneer must send three complete plan copies to the Exploration, Production & Refineries Section. In addition, you must send an updated version of the plan to each reviewer and controlled document holder of your plan.

**EXPIRATION:** This approval expires **August 29, 2017**. After the approval expires, Alaska law prohibits operation of the facility until an approved plan is once again in effect.

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**AMENDMENT:** Except for routine updates under 18 AAC 75.415(b), before a change to this plan may take effect, the plan holder must submit an Application for Amendment to the plan with any additional information needed to evaluate the proposed amendment. This is to ensure that changes to the plan do not diminish the plan holder's ability to respond to a discharge and to evaluate any additional environmental considerations that may need to be taken into account (18 AAC 75.415).

**RENEWAL:** To renew this approval, the plan holder must submit a completed renewal application and plan to the department no later than 180 days prior to the expiration of this approval. This is to ensure that the submitted plan is approved before the current plan in effect expires (18 AAC 75.420).

**REVOCATION, SUSPENSION, OR MODIFICATION:** This approval is effective only while the plan holder is in "compliance with the plan" and with all of the terms and conditions described above. The department may, after notice and opportunity for a hearing, revoke, suspend, or require the modification of an approved plan if the plan holder is not in compliance with it, or for any other reason stated in AS 46.04.030(f). In addition, Alaska law provides that a vessel or facility that is not in "compliance with the plan" may not operate (AS 46.04.030). The department may terminate approval prior to the expiration date if deficiencies are identified that would adversely affect spill prevention, response, or preparedness capabilities.

**DUTY TO RESPOND:** Notwithstanding any other provisions or requirements of this plan, a person causing or permitting the discharge of oil is required by law to immediately contain and clean up the discharge regardless of the adequacy or inadequacy of a plan (AS 46.04.020).

**NOTIFICATION OF NON-READINESS:** Within twenty-four (24) hours after any significant response equipment specified in the plan becomes non-operational or is removed from its designated storage location, the plan holder must notify the department in writing and provide a schedule for the equipment's substitution, repair, or return to service (18 AAC 75.475[b]).

**CIVIL AND CRIMINAL SANCTIONS:** Failure to comply with the plan may subject the plan holder to civil liability for damages and to civil and criminal penalties. Civil and criminal sanctions may also be imposed for any violation of AS 46.04, any regulation issued there under, or any violation of a lawful order of the department.

**INSPECTIONS, DRILLS, RIGHTS TO ACCESS, AND VERIFICATION OF EQUIPMENT, SUPPLIES, AND PERSONNEL:** The department has the right to verify the ability of the plan holder to carry out the provisions of its plan and access to inventories of equipment, supplies, and personnel through such means as inspections and discharge exercises, without prior notice to the plan holder. The department has the right to enter and inspect the covered vessel or facility in a safe manner at any reasonable time for these purposes and to otherwise ensure compliance with the plan and the terms and conditions (AS 46.04.030[e] and AS 46.04.060). The plan holder shall conduct exercises for the purpose of testing the adequacy of the plan and its implementation (18 AAC 75.480 and 485).

**FAILURE TO PERFORM:** In granting approval of the plan, the department has determined that the plan, as represented to the department by the applicant in the plan and application for approval, satisfies the minimum planning standards and other requirements established by applicable statutes

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and regulations, taking as true all information provided by the applicant. The department does not warrant to the applicant, the plan holder, or any other person or entity: (1) the accuracy or validity of the information or assurances relied upon; (2) that the plan is or will be implemented; or (3) that even full compliance and implementation with the plan will result in complete containment, control, or cleanup of any given oil spill, including a spill specifically described in the planning standards.

The plan holder is encouraged to take any additional precautions and obtain any additional response capability it deems appropriate to further guard against the risk of oil spills and to enhance its ability to comply with its duty under AS 46.04.020(a) to immediately contain and clean up an oil discharge.

**COMPLIANCE WITH APPLICABLE LAWS:** If amendments to the approved plan are necessary to meet the requirements of any new laws or regulations, the plan holder must submit an application for amendment to the department at the above address. The plan holder must adhere to all applicable state statutes and regulations as they may be amended from time to time. This approval does not relieve the plan holder of the responsibility for securing other federal, state, or local approvals or permits, and the plan holder is still required to comply with all other applicable laws.

**INFORMAL REVIEW OR ADJUDICATORY HEARING:** Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 - 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185.

**Informal review requests** must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800 within 15 days of the permit decision.

**Adjudicatory hearing requests** must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, PO Box 111800, Juneau, Alaska 99811-1800, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived. Anyone who submits a request for an informal review or an adjudicatory hearing should also send a copy of the request to the undersigned.

If you have any questions, please contact Dianne Munson at (907) 269-3080 or via email at [Dianne.Munson@alaska.gov](mailto:Dianne.Munson@alaska.gov).

Sincerely,



Betty Schorr  
Program Manager

Attachment: Summary of Basis for Department Decision

Enclosure: Certificate of Approval, Number 12CER-032

**Mr. Mark Landt**  
**Buccaneer Alaska Operations, LLC**




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**August 29, 2012**

**Electronic cc (w/o enclosure):**

**Betty Schorr, ADEC**  
**Laurie Silfven, ADEC**  
**Steve Russell, ADEC**  
**Samantha Carroll, ADNR**  
**Patricia Bettis, ADNR**  
**Lynnda Kahn, USFWS**  
**Jody Columbie, AOGCC**  
**Jim Regg, AOGCC**  
**Bradley Dunker, ADFG**  
**Matt Carr, USEPA**  
**Steve Catalano, CIRCAC**  
**Gary Williams, KPB**  
**Lieutenant Sarah Geoffrion, USCG – Kenai Detachment**  
**MST1 Brian Schughart, USCG Sector – Anchorage**  
**MSTC Shawn Erwin, USCG Sector – Anchorage**  
**Christy Bohl, BSEE**  
**Bob Shavelson, Cook Inletkeeper**  
**Legal Director, Trustees for Alaska**  
**Steve Lombard, Cardno Enrtix**  
**Clara Crosby, UIC Umiq**  
**Harold Shepherd, Center for Water Advocacy**



	
<b>ALASKA DEPARTMENT</b> of <b>Environmental Conservation</b> Certificate of Approval for <b>Oil Discharge Prevention and Contingency Plan</b>	
<b>Certificate Number:</b> 12CER-032	<b>Plan Number:</b> 11-CP-5197
<b>Name of Plan:</b>	<b>Buccaneer Alaska Operations, LLC Oil Discharge Prevention and Contingency Plan, Southern Cross and Northwest Cook Inlet Prospects</b>
<b>Covered Facilities:</b>	<b>Exploration drilling activities for up to four offshore wells in the Southern Cross and Northwest Cook Inlet Prospects (Southern Cross #1 and #2 and Northwest Cook Inlet #1 and #2) in Cook Inlet Alaska.</b>
<b>Address:</b>	<b>Buccaneer Alaska Operations, LLC, 952 Echo Lane, Suite 420, Houston, TX 77024</b>
<b>Telephone:</b>	<b>(713) 468-1678                      Fax: (713) 468-3717</b>
<b>Region of Operation (18 AAC 75.495):</b>	<b>Cook Inlet</b>
<b>Effective Date of Approval:</b>	<b>August 29, 2012                      Expiration Date: August 29, 2017</b>
<b>This approval is subject to the terms and conditions of the applicable Alaska Department of Environmental Conservation contingency plan approval letter and continuing compliance with the requirements of AS 46.04 and 18 AAC 76.</b>	
	 <b>Betty Schorr, Approving Authority                      Date</b> <b>Program Manager, Industry Preparedness Program                      8.29.2012</b>



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- Appendix A: Blowout Contingency Plan Summary
- Appendix B: Fuel Oil and Fluids Transfer Procedures
- Appendix C: Material Safety Data Sheets for Cook Inlet Crude Oil and Diesel Fuel
- Appendix D: BSEE Addendum

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## INTRODUCTION

This Buccaneer Alaska Operations, LLC (Buccaneer) Cook Inlet Exploratory Drilling Program ODPCP (plan) includes provisions for spill prevention and response contingencies for Buccaneer exploration operations in Alaska's Upper Cook Inlet (Figure I-1).

Buccaneer's address, telephone and fax numbers, and email address are:

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Buccaneer intends to begin the first season of a multi-year offshore exploratory drilling program in the Southern Cross and Northwest Cook Inlet Prospects. Four (4) wells are to be drilled on State of Alaska Oil and Gas Leases.

Each year, drilling operations are planned to continue through the open water season when open pack ice conditions are less than 10% concentration. Initiation of operations will begin in early April and run through October in any given year. Buccaneer will not drill ahead into hydrocarbon-bearing formations or proceed with well testing and logging after October 31<sup>st</sup> of any year without ADEC concurrence. Dependent upon satisfactory progress, Buccaneer may plug and abandon (P&A), complete, or suspend operations in early November.

In the event that ADEC approval is requested to continue drilling or well testing operations beyond the 31<sup>st</sup> of October, Buccaneer would consult with several sources of information on sea ice development that include the following.

- **National Weather Service.** The Anchorage NOAA National Weather Service (NWS) provides the most reliable information for marine forecast as well as sea ice analysis and forecast, National Weather Service would be Buccaneer's primary source of information for marine forecasts, which may be accessed via the following website:  
<http://pafc.arh.noaa.gov/marfcast.php>, This site provides:
  - 24hr Surface Forecast
  - 48hr Surface Forecast
  - 96hr Surface Forecast
  - Sea-State Analysis
  - Significant Wave Forecast
  - 96hr Wind/Wave Forecast
  - 48hr Wave Period Forecast
  - 96hr Wave Period Forecast
  - 48hr 500mb Forecast
  - 96hr 500mb Forecast
- The NWS also provides a graphic analyses of sea surface temperature and ice forecasts. Sea ice analysis are available at <http://pafc.arh.noaa.gov/ice.php>. Scheduled sea ice analyses as well as five day sea ice forecasts are produced Monday, Wednesday and Friday.
  - Cook Inlet Sea Ice Analysis
  - Five (5) Day Sea Ice Forecast,
  - Sea Surface Temperature Analysis



- Buccaneer will also work with the Sea Ice Program Leader at the NWS in Anchorage, Alaska to provide timely information on sea ice concentration. The NWS is preparing a study of ice development in Cook Inlet based on air and water temperatures at Kenai (Nikiski) and Anchorage. From the study they plan on developing a temperature-based ice forecasting tool for ice development.
- **Ice Observers.** Buccaneer will initiate ice observation from onboard the rig and monitor ice development at the site as early as October 15<sup>th</sup>. Buccaneer will consult with their response action contractor, CISPRI, to ensure continued response capability in the event of ice observations. Buccaneer will also communicate with marine pilots through the Southwest Alaska Pilot's Association (SWAPA) on sea ice development and conditions. This industry would provide the best consistent real-time observations, as well as estimations of ice coverage. The NWS and U.S. Coast Guard also depend on SWAPA observations of sea ice conditions and development as well as their estimations of percent ice coverage. Buccaneer will monitor ambient air temperatures on the *Endeavour – Spirit of Independence*. Information from SWAPA will be gathered in tandem with monitoring of ambient air temperatures and regular consultation with the NWS and the U.S. Coast Guard.
- Aerial observations of ice formation will also be gathered when reports from SWAPA reports ice conditions increasing to level that may impede CISPRI response to a spill. Buccaneer will coordinate with the NWS to perform overflights with trained ice observers. This will be completed in tandem with monitoring of ambient temperatures and consultation with the NWS.
- A monitoring device will be established on the rig to provide for constant ambient air temperature readings. Buccaneer will coordinate with ADEC and AOGCC to determine the best product to forecasting weather and monitor ambient air temperature.

Information gathered by Buccaneer will be provided to ADEC in support of any request for approval to continue operations beyond October 31<sup>st</sup>.

Two of the proposed Buccaneer exploration well sites are offshore on the west side of upper Cook Inlet near Tyonek, and two wells are approximately 21.7 miles southwest, in Trading Bay near the Middle Ground Shoal. The drilling target in all wells is to test the Sterling, Beluga, Tyonek and Hemlock formations between 5,000 and 15,000 feet (ft) total vertical depth (TVD). Buccaneer proposes to conduct its exploratory drilling activity using the drill rig *Endeavour - Spirit of Independence* [rig (or its equivalent)]. Buccaneer proposes to operate the rig during two to three open water drilling seasons, generally April to November in Cook Inlet.

The drilling rig will be stocked with most drilling supplies required to complete the 2012 program. Deliveries of fuel and remaining items will be performed by support vessels and helicopters. Access to the sites will be via helicopter and support vessels.

## **OBJECTIVES**

The plan follows the ODPCP regulations of the ADEC (18 AAC 75.425) and meets the requirements of the BSEE and the USCG.

The objective of this ODPCP is to establish strategies to prevent a petroleum release and/or limit the spread of a spill, minimizing potential environmental impacts, and provide for the safety and health of personnel. Where these may conflict, safety and health of personnel will always be given primary consideration. This ODPCP will also provide Buccaneer with the background information and response planning guidelines necessary to implement an effective spill response. The following types of facilities and operations are covered by this plan:

- 
- Drilling facilities and operations
  - Well testing operations
  - Fuel oil and fluids storage operations
  - Fuel oil and fluids transfer.

Current and expected future exploration leases and bottom-hole locations will be on State of Alaska waters, and are regulated by the State of Alaska (Figure I-2). The prospect's activities are located in state waters and applicable state laws shall be complied with, in conjunction with coordinated reviews by the BSEE.

A spill response operation falls into one of three categories:

**Level I:** Defines a situation where the on-site employees require the immediate assistance of the onboard Emergency Response Team (ERT) to control and contain a spill. The ERT will be on site and on call 24 hours per day, and will be comprised of following:

1. On duty CISPRI spill technician to lead the response effort;
2. Buccaneer's Health, Safety, and Environment (HSE) field coordinator to monitor and document the effort for compliance; and
3. Onboard personnel trained in spill detection and response to conduct the initial response and cleanup. Note all onboard personnel are trained in spill detection and response.

**Level II:** A Level I response, which also requires the call-out of the ERT, and any other resources available in the Cook Inlet, including the activation of CISPRI.

**Level III:** A Level II response, which also requires the activation of all Cook Inlet resources and those available from sources other than Cook Inlet suppliers. A major response would be activated in the event of a catastrophic spill and would involve the use of a major spill response action contractor.

Both Level II and III spills may result in the activation of the Incident Management Team (IMT) and/or the ERT. Buccaneer assumes responsibility for containment and clean-up of all spills related to operations associated with the Cook Inlet exploration area. The response organization structures described in this plan are based on the Incident Command Systems (ICS) and will accommodate each level of response.

## ***CISPRI Technical Manual***

Buccaneer Alaska Operations, LLC is a member of the CISPRI Cooperative. CISPRI serves as the primary response action contractor for Buccaneer operations in Cook Inlet and, as necessary, Buccaneer may access the resources of other Cook Inlet operators through CISPRI, Mutual Aid, spill response cooperatives, and contractors. This ODPCP incorporates by reference, wherever applicable, the *CISPRI Technical Manual*.

CISPRI tactics contains a "CI" prefix before each tactic number to distinguish CISPRI tactics from those of other organizations, such as Alyeska Pipeline Service Company's Ship Escort/Response Vessel System (SERVS) or Alaska Clean Seas (ACS). Each CISPRI tactic is numbered with a key letter to identify the subject. For example, "CI-S-1" – Site Entry Procedures / Site Characterization is the first CISPRI tactic in the safety section, while "CI-OW-1" is the first tactic in the open water response section. These numbers are used to cross reference to a specific tactic to support the discussions in the Spill Response Scenario and Strategy presented in Section 1.6.15 of this plan.

## ***Plan Contents Organization***

Following is a summary of the contents of this ODPCP:

- **Management Approval and Manpower Authorization.** Provides documented approval and authorized resources as required to implement this plan.
- **Part 1 – Response Action Plan.** The response action plan provides information to guide the Spill Response Team (SRT), IMT and ERT in a response to an incident. Information includes reporting and notification procedures, basic safety and health procedures, a communications plan, deployment and response strategies, and initial response procedures. Part 1 also contains Response Scenario.
- **Part 2 – Prevention Plan.** Provides a detailed description of policies, best management practices, and prevention measures employed at the facility. Information includes identified risks, historical spills, and measures being taken to minimize potential events.
- **Part 3 – Supplemental Information.** Provides an overview of the facility operations, project-specific environmental information, and supporting response information. Part 3 also contains an additional information section including a project forms addendum subsection, information on how to use the ADEC-supported Alaska Oil Spill Permits Tool, glossary and acronyms, and conversions. Part 3 also contains a bibliography.
- **Part 4 – Best Available Technology.** Provides analyses and review of spill prevention procedures and response equipment employed during the exploration program to ensure they meet the performance standards in 18 AAC 75.
- **Part 5 – Response Planning Standard.** Provides calculations of the applicable response planning standard set out in 18 AAC 75.430 - 18 AAC 75.440 and 18 AAC 75.442, including a detailed basis for the calculation of reductions, if any, to be applied to the response planning standard.
- **Appendices.** Provide additional site-specific information, including development of blowout contingency planning, fuel transfer guidelines, and response-specific Material Safety Data Sheets (MSDS).

**Figure I-1** Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program Vicinity



August 19, 2010

BUCCANEER ALASKA, LLC

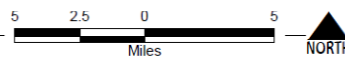
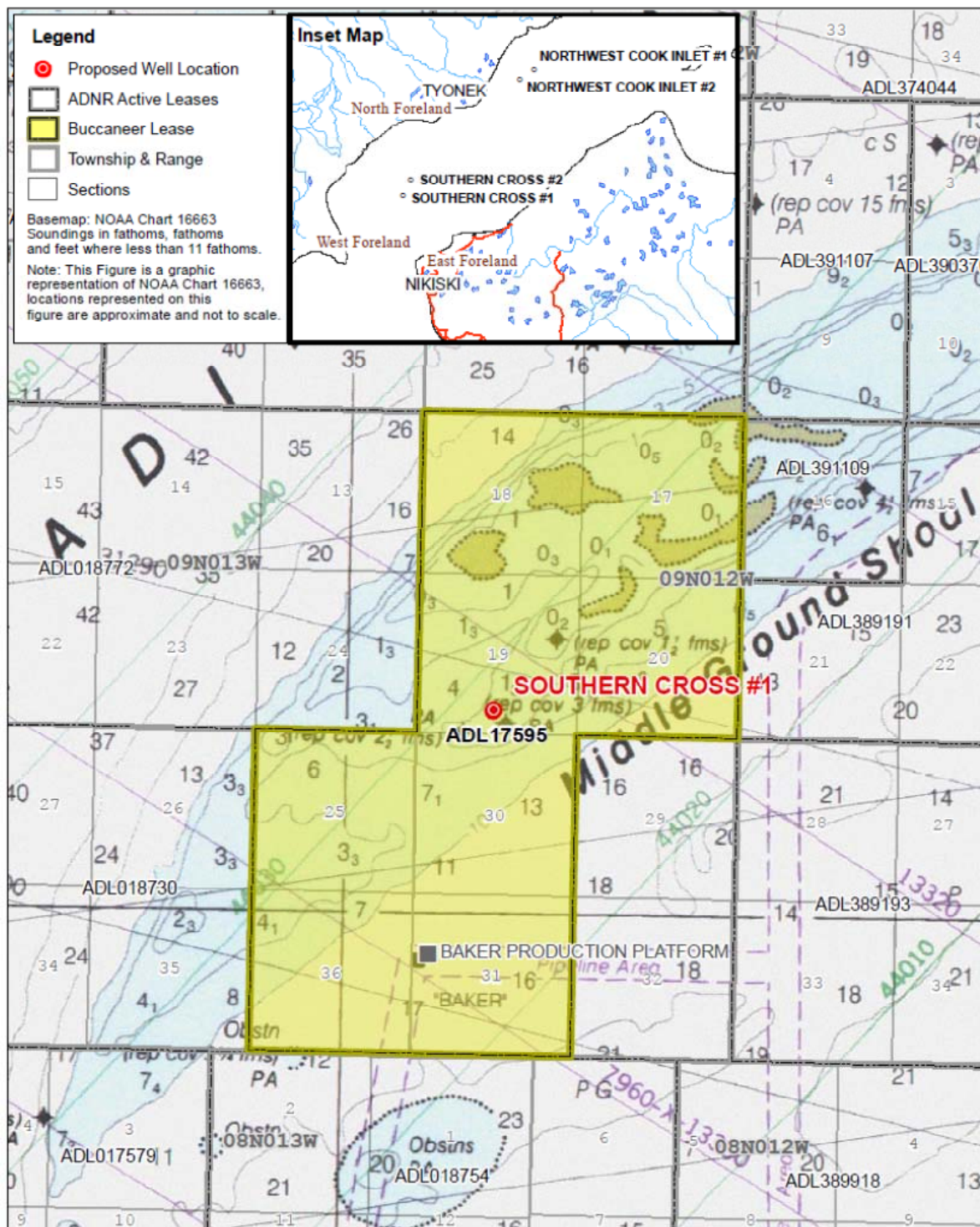
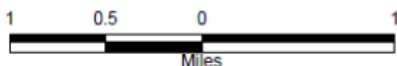




Figure I-2 Southern Cross #1 Well, ADL Location



BUCCANEER ALASKA, LLC

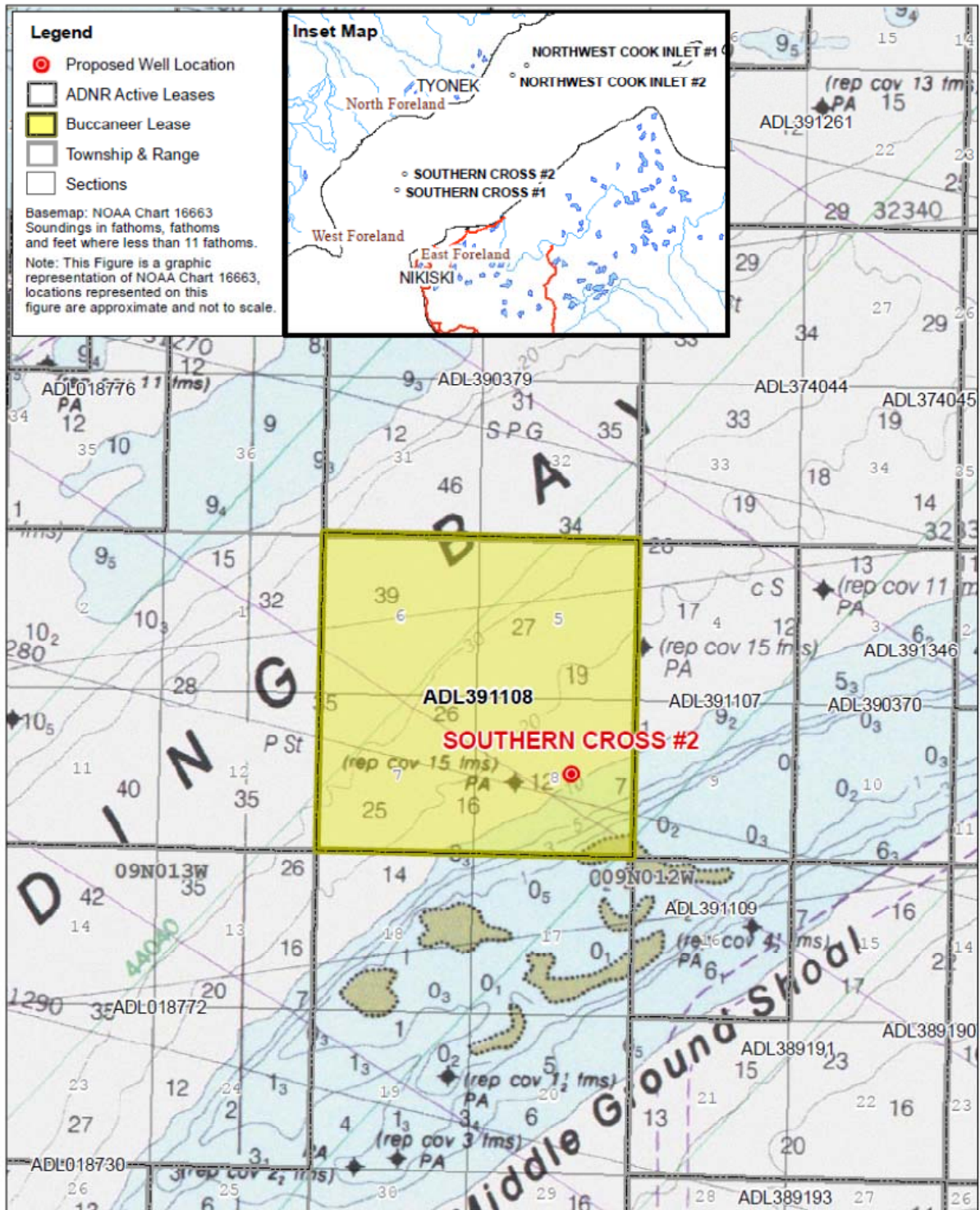


Nautical Chart of Well Location  
Southern Cross #1

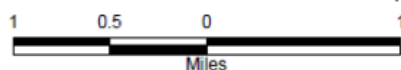
60.851225 N, 151.472622 W

August 19, 2010

Figure I-3 Southern Cross #2 Well, ADL Location



BUCCANEER ALASKA, LLC



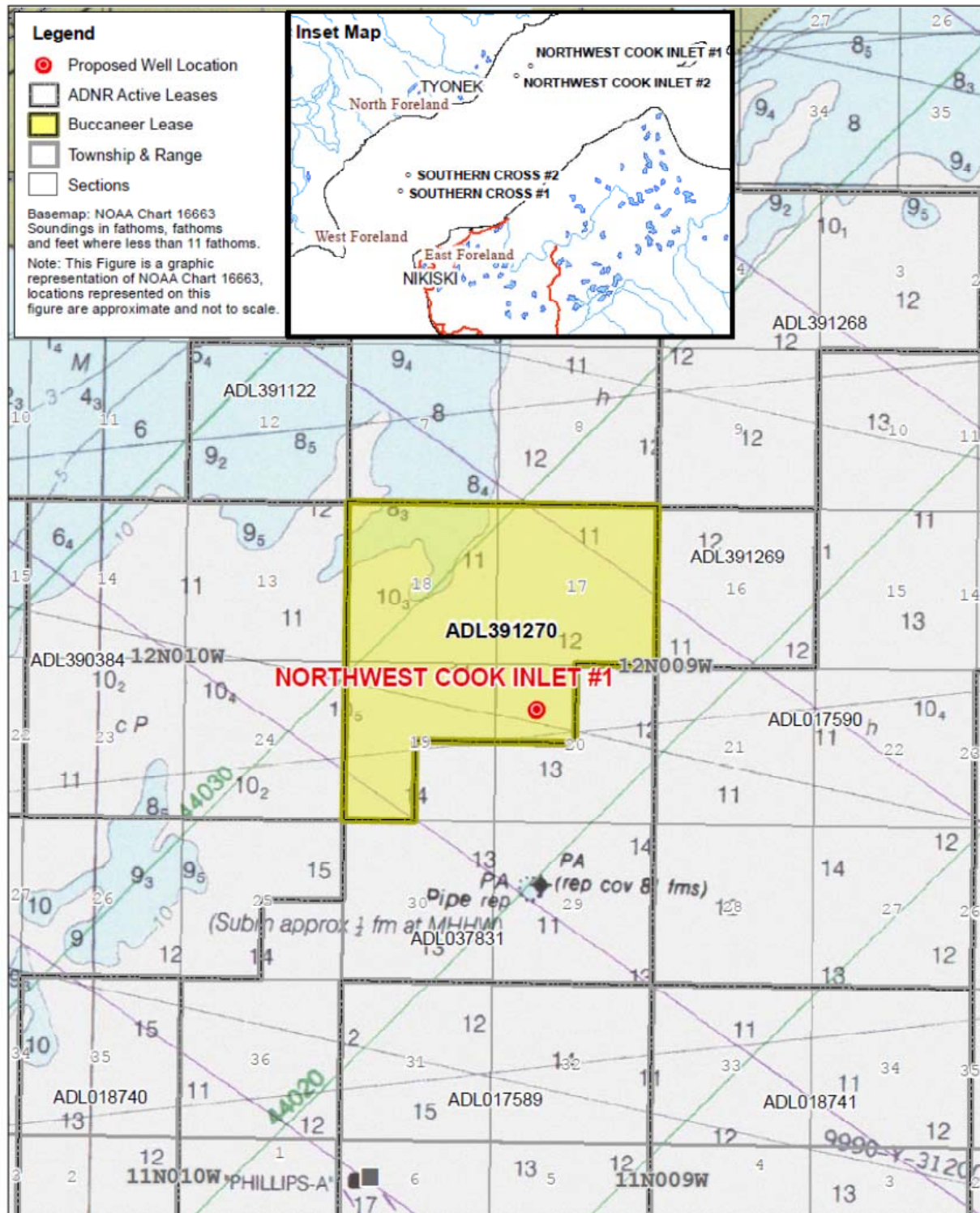
Nautical Chart of Well Location  
Southern Cross #2

60.885536 N, 151.439509 W

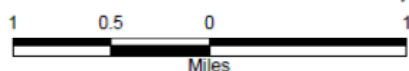
August 19, 2010



**Figure I-4 Northwest Cook Inlet #1 Well, ADL Location**



**BUCCANEER ALASKA, LLC**

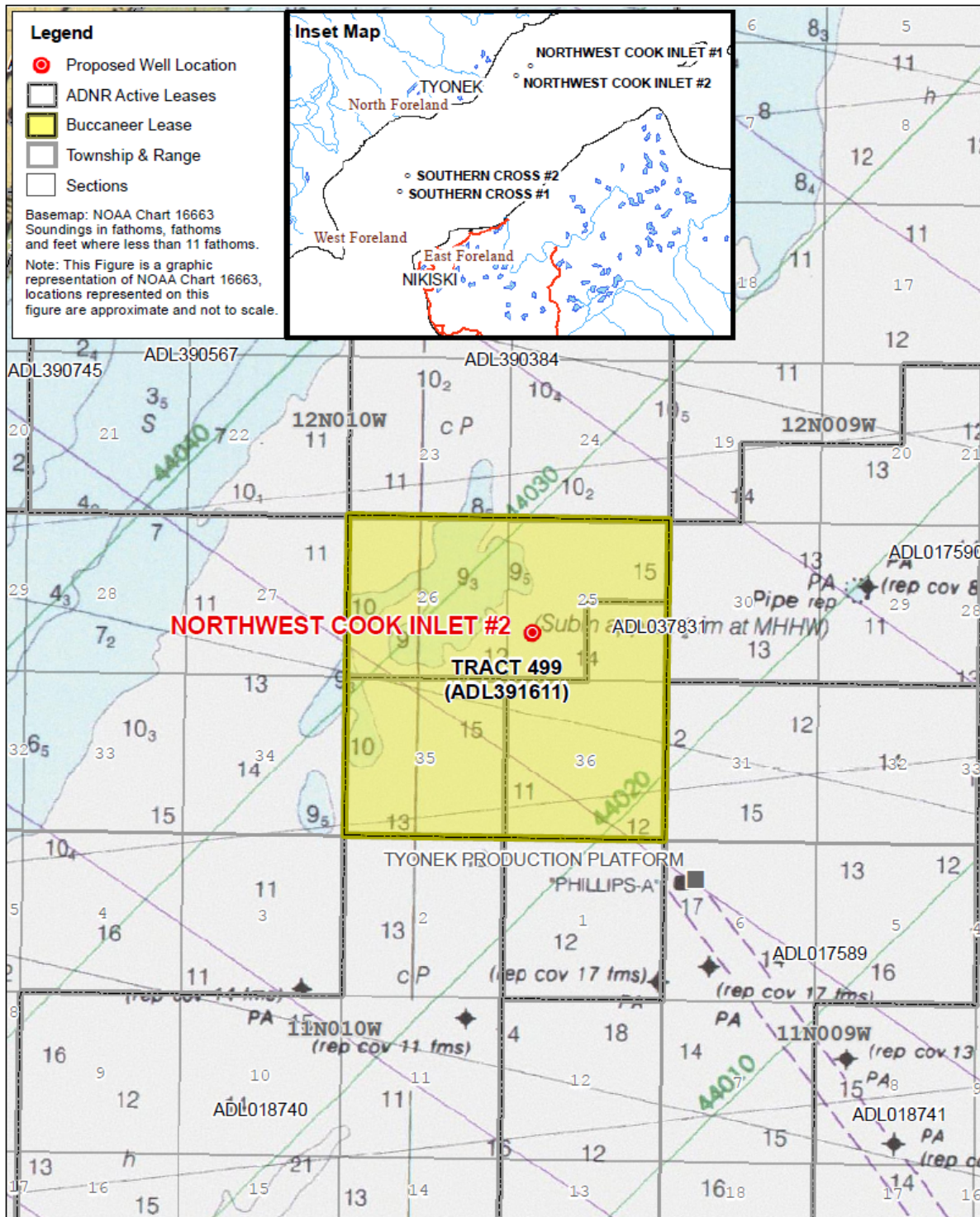


**Nautical Chart of Well Location  
Northwest Cook Inlet #1**

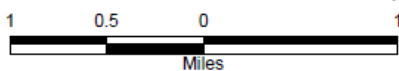
61.119309 N, 150.918401 W

August 19, 2010  
August 2012

**Figure I-5 Northwest Cook Inlet #2 Well, ADL Location**



BUCCANEER ALASKA, LLC



Nautical Chart of Well Location  
Northwest Cook Inlet #2

61.098741 N, 150.979461 W  
August 19, 2010



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## PLAN DISTRIBUTION

This plan relies upon information presented in the *CISPRI Technical Manual*. This information is not repeated in this plan. The ODPCP is distributed to Buccaneer management and staff, contractors, and regulating agencies as appropriate. The plan was prepared and is maintained by CardnoEntrix, Inc. in Anchorage, Alaska.

Company and contract personnel will become familiar with this plan and other manuals necessary for a successful response.

### ***Updating Procedures***

The plan is reviewed, and updated as necessary, when major changes occur. Below is a list of key factors that may cause revisions to the plan:

- New exploration activities – Amendment
- Changes to response planning standards – Amendment
- Change in oil spill response organization – Amendment
- Change in Qualified Individual – Update
- Changes in a National Contingency Plan or ACP that have a significant impact on the appropriateness of response equipment or response strategies – Amendment
- Change in response procedures – Amendment and/or update
- Change in ownership – Renewal

Modifications to the plan may also occur after spill response drills or incidents have been fully evaluated. In addition, controlled-copy holders are encouraged to provide comments on the plan that could lead to updates or modifications to this plan.

Any significant amendment to this plan is submitted to the appropriate agencies for review and approval prior to implementation.

Revisions to this plan are logged on a Record of Revisions. On receipt of revisions, each plan holder will:

- replace pages as instructed, and
- record the changes on the Record of Revisions form provided in the front of this document.

This process indicates the completeness of this plan, as revisions are consecutively numbered. It is the responsibility of each plan holder to ensure that updates are promptly incorporated into this plan.

### ***Coordination with Other Plans***

Other relevant contingency plans prepared by other agencies for Alaska include:

- *National Oil and Hazardous Substances Pollution Contingency Plans* as issue by the Council on Environmental Quality under direction of the Water Pollution Control Act of 1970.
- *Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases Unified Plan (Unified Plan)*, as issued by the USCG, EPA and ADEC as Change 3 in September 1999.
- Unified Plan – Cook Inlet Subarea Contingency Plan, as revised through December 2010.

Procedures outlined in this ODPCP are believed to be consistent with those as presented in the above plans. During a spill, the above plans will be available for reference in the Incident Command facility at CISPRI.

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# PART 1 RESPONSE ACTION PLAN

## 1.1 EMERGENCY ACTION CHECKLIST

### Cross References:

18 AAC 75.425(e)(1)(A)

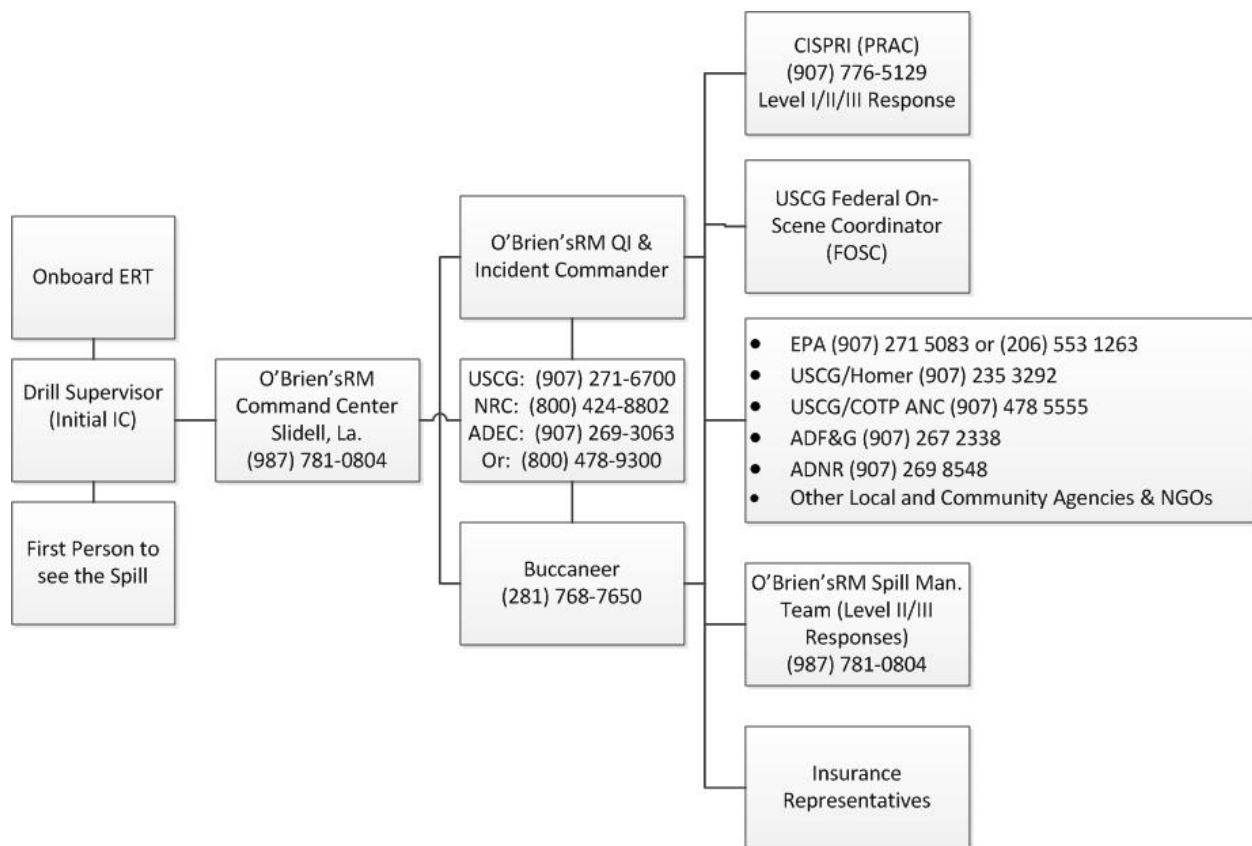
30 CFR 254.23

33 CFR 154.1035(a)(1) and (3)

33 CFR 154.1035(b)(1)(i) and (ii); (b)(2)(iii); (b)(3)(iii)(iv); (b)(4)(iii); and (e)(2)(i)(ii)(iii)

*CISPRI Technical Manual*

### 1.1.1 *Buccaneer Response Notification Flowchart Diagram*



#### Notes:

1. Drilling Supervisor is Initial IC and is responsible for ensuring that O'Brien'sRM promptly make notifications to the NRC, USCG and ADEC. O'Brien'sRM will perform required discharge notifications.
2. The Unified Command (UC) is comprised of the IC (Responsible Party), USCG FOSC, and ADEC State On-Scene Coordinator (SOSC).

ADEC: Alaska (AK) Department (Dept.) of Environmental Conservation  
ADF&G: AK Dept. of Fish & Game  
ADNR: AK Dept. of Natural Resources  
COTP: Captain of the Port  
EPA: U.S. Environmental Protection Agency  
ERT: Emergency Response Team

IC: Incident Commander  
NGO: Nongovernment Organization  
NRC: National Response Center  
QI: Qualified Individual  
USCG: US Coast Guard

FOSC: Federal On-Scene Coordinator

## 1.1.2 *Guidance on Immediate Response Checklist and Notification Steps*

Any person who causes or observes a spill will immediately report the spill to his/her supervisor. If the supervisor is not available, then the observer will notify the Buccaneer Company Representative (Buccaneer Company Man) or the ERT. It is anticipated that most spills will be “minor spills” (see Section 1.2) that can be cleaned up immediately without assistance from the ERT. Nonetheless, the ERT will be notified immediately and will monitor and document cleanup efforts. This will be done either by the onboard CISPRI spill technician and/or the Buccaneer HSE field coordinator.

**Guidance on immediate response and notification steps to be taken if an oil discharge occurs are presented in the following subsections.**

### ***Immediate Response and Notification Checklist Wallet Card (for All Personnel)***

An example of a short emergency action checklist of the immediate spill response and notification steps to be taken by all personnel is shown below in a wallet card format. Blank information will be filled prior to distribution. This will be duplicated as a laminate card that will be carried by all personnel on duty and visitors on the rig.

IMMEDIATE SPILL RESPONSE ACTIONS <u>FOR ALL SPILLS...</u>
PROTECT PEOPLE...SAFETY FIRST
NOTIFY SUPERVISOR AND ERT
STOP AND CONTAIN SPILL
RECOVER SPILLED PRODUCT
FOR BLOWOUT, START WELL CONTROL AND EVACUATE
RADIO CALL SIGNS:
<b>SUPERVISOR</b> _____
BUCCANEER COMPANY MAN _____
RIG SUPERVISOR _____
Emer. Response Team _____

Front

IMMEDIATE NOTIFICATION ACTIONS <u>FOR ALL SPILLS...</u>
NOTIFY SUPERVISOR OR BUCCANEER COMPANY MAN AND PROVIDE INFORMATION ON:
HEADCOUNT AND INJURIES
SPILL LOCATION
TYPE OF SPILL
HAS SPILL STOPPED
IS SPILL CONTAINED (FLOW RATE?)
HAS THE SPILL REACHED WATER?
VOLUME AND SPILL AREA
TIME OF SPILL
SOURCES EXTINGUISHED
OTHER ACTIONS TAKEN

Back

### 1.1.3 Emergency Action Checklists and Spill Notification Placards

#### Buccaneer Emergency Action Checklists

##### Checklist 1.1-1 Initial Spill Response (First Person at Spill)

Page 1 of 1

Answer prompts below, THEN initial and note time

NOTIFY SUPERVISOR\* or BUCCANEER COMPANY MAN\*

\* BY RADIO (CALL SIGN \_\_\_\_\_) OR INTERCOM (DIAL \_\_\_\_\_)

ANY INJURIES?

WHERE IS THE SPILL? HAS THE SPILL IMPACTED WATER?

IGNITION SOURCES EXTINGUISHED

TYPE OF SPILL? (Crude? Diesel? Other?)

HAS SPILL STOPPED?

SPILL CONTAINED?

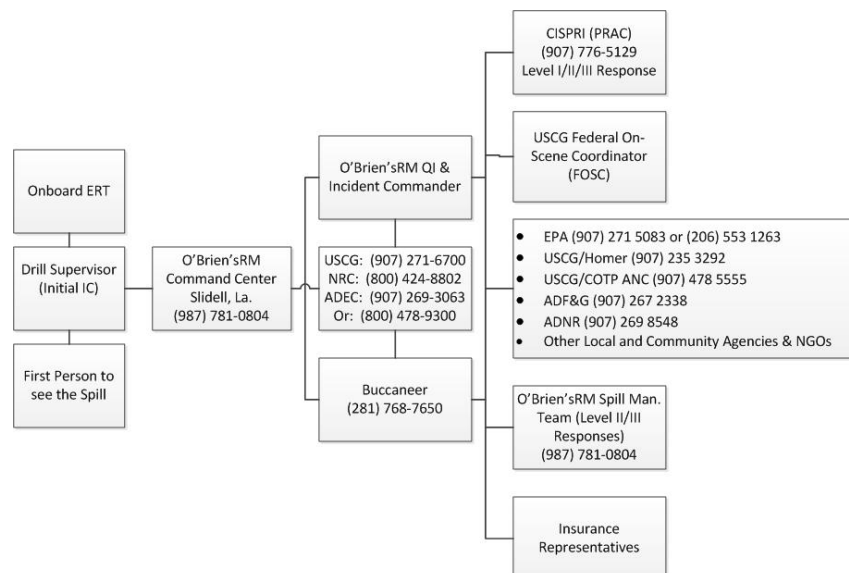
VOLUME SPILLED / AREA COVERED?

TIME OF SPILL?

IF INITIATING EVACUATION CHECK	YES	NO	AFTER MOVE TO SAFE AREA	YES	NO
WIND DIRECTION FROM _____			WIND DIRECTION FROM _____		
PERSONNEL NOTIFIED, ALARM SOUNDED			REPEAT HEADCOUNT/ANY INJURIES		
ON-SITE ERT NOTIFIED					
DRILLING DECK/TOOL PUSHER NOTIFIED RADIO CALL SIGN _____			CALL ON-SITE EMT OR KENAI MEDICAL 24-HOUR LINE: (907) 283- 4611 AND THEN ADMINISTER FIRST AID		
DRILL CAMP/CONTROL ROOM NOTIFIED			STOP ALL IGNITION AND SPILL SOURCES ...IF CAN BE DONE SAFELY AND ELECTRICAL POWER		
BUCCANEER HOME OFFICE NOTIFIED (281-768-7850)			DO NOT ENTER CONFINED SPACES		
ALL PERSONNEL ACCOUNTED FOR HEAD COUNT			AVOID EXPOSURE TO FIRE OR TOXIC HAZARDS		
			SHUT OFF ALL VALVES		

CLEAN UP SPILL (IF SAFE) BEGIN CONTAINMENT (SORBENT PADS, BERMS, ETC.)

- LIMIT ACCESS UNTIL DRILL SUPERVISOR OR BUCCANEER COMPANY MAN ARRIVES





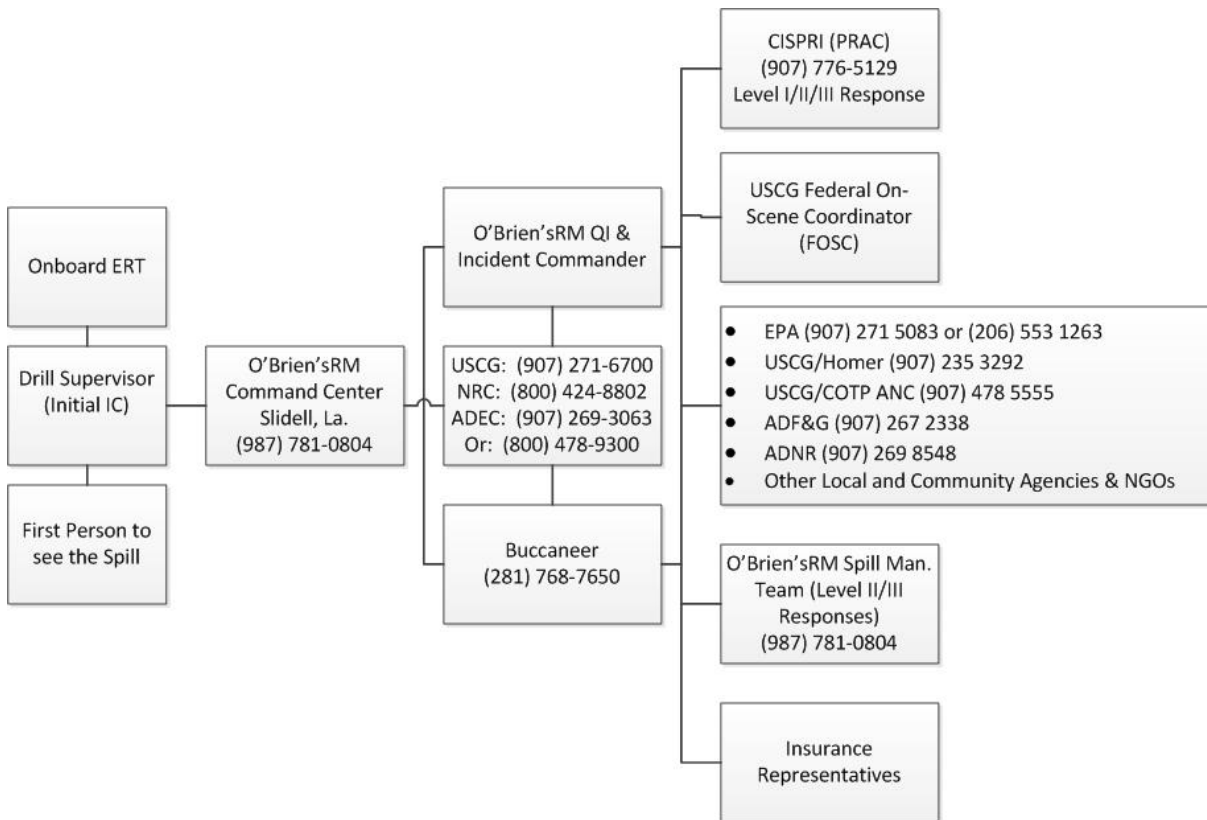
**Checklist 1.1-2 Checklist Guidance - Buccaneer Co. Man (Initial On-Scene IC)**

**Page 1 of 2**

<p><b>OBTAIN PERTINENT INFORMATION:</b></p> <p>SPILL LOCATION</p> <p>HOW SPILL HAPPENED (BLOWOUT/TANK RUPTURE/TRANSFER FAILURE)</p> <p>VOLUME SPILLED/AREA COVERED</p> <p>TYPE OF FLUID SPILLED</p> <p>TIME OF SPILL RELEASE</p> <p>HAS SPILL REACHED THE EDGE OF HULL DECK OR IMPACTED COOK INLET WATERS?          Provide an estimate of flow rate and direction</p> <p>PERSONNEL ACCOUNTED FOR</p> <p>INJURIES          If injuries have occurred. Call the on-site EMT, administer <u>FIRST AID</u>, and then call the Kenai Peninsula Hospital (24-hour): (907) 714-4536 or the Kenai Medical Center: (907) 283-4611</p>	<p>Confirm and then Initial with Time</p>
<p>NOTIFY IC - Andy Rike at (713) 703-5157 or (907) 980-5066.</p> <p>NOTIFY HSE Manager</p> <p>AVAILABLE RESOURCES IDENTIFIED</p> <ul style="list-style-type: none"> <li>List of personnel and telephone numbers (Section 1.2 Response Notification List)</li> </ul> <p><b>PREDEPLOYMENT MEETING HELD WITH REVIEW OF</b></p> <ul style="list-style-type: none"> <li>Communication systems for consistency (e.g. radio check)</li> <li>Safety</li> <li>Headcount</li> <li>Evacuation necessary/Evacuation plan being followed</li> <li>Double check Lower Explosive Level (LEL) and Oxygen (O<sub>2</sub>) levels</li> <li>What personal protective equipment is required and is it available</li> <li>Exclusion zone and decontamination required after entry</li> <li>Point out Most Environmentally Sensitive Area (MESA) and Environmentally Sensitive Areas (ESA) to Initial Response Team and emphasize avoidance of these areas</li> </ul>	
<ul style="list-style-type: none"> <li>NOTIFY ON-SITE SPILL RESPONSE TEAM AND BEGIN MONITORING for LEL, O<sub>2</sub>, benzene and H<sub>2</sub>S</li> </ul>	
<p>PASS ON INFORMATION TO BUCCANEER HOME OFFICE (303) 592-1905</p>	
<p>NOTE ADEC and NRC NOTIFICATION FORMS THAT MUST BE FILLED OUT AS PART OF THIS CHECKLIST ARE ATTACHED. ALL APPROPRIATE FORMS MUST BE FILLED OUT AND SUBMITTED ON TIME (SECTION 1.2 FOR REPORTING DEADLINES).</p>	

**Checklist 1.1-2 Checklist Guidance - Buccaneer Co. Man (Initial On-Scene IC)** **Page 2 of 2**

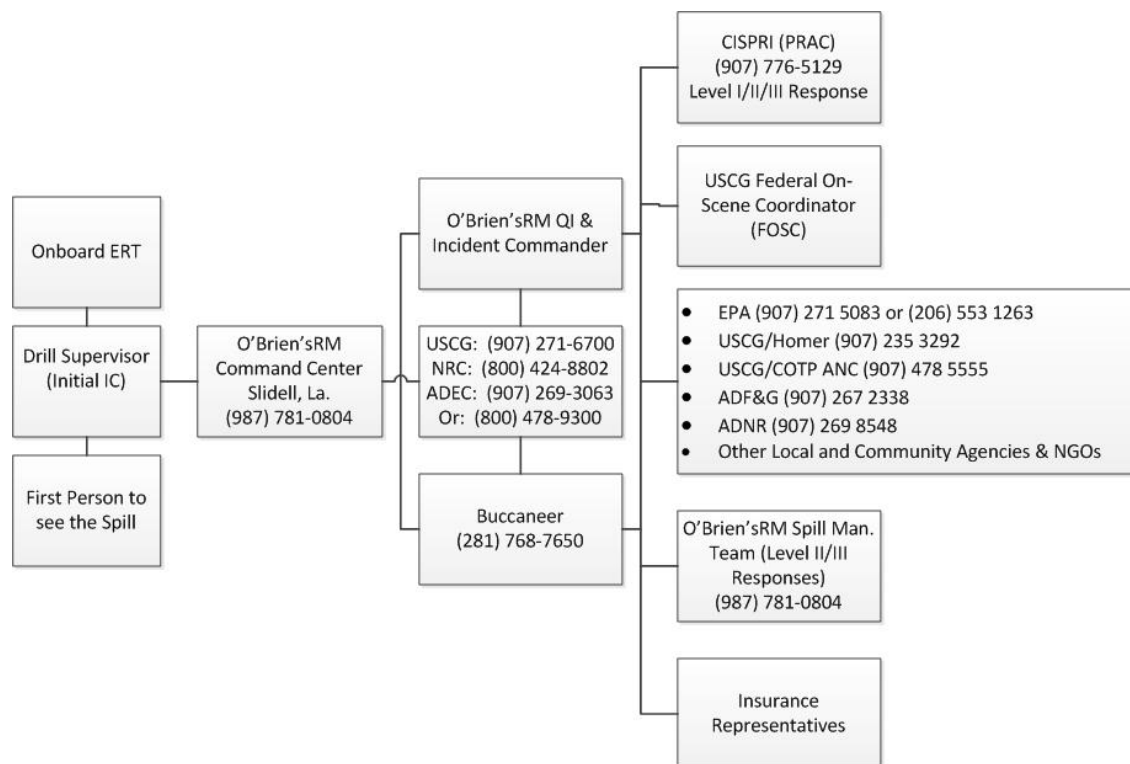
INCIDENT NAME _____		
Initial in Appropriate Column	Yes	No
<b>1. ENSURE AIR MONITORING (LEL and O<sub>2</sub>) UNDERWAY</b>		
<b>2. CONFIRM FOLLOWING HAVE BEEN NOTIFIED (as required, based on spill size)</b>		
CISPRI and O'Brien's Response Management, Inc. (O'Brien'sRM)		
DEPUTY ICS: O'Brien'sRM		
FEDERAL REGULATORY AGENCIES		
<ul style="list-style-type: none"> <li>NRC (1-800-424-8802) - always call OR submit website report: <a href="http://www.nrc.uscg.mil/nrchp.html">http://www.nrc.uscg.mil/nrchp.html</a></li> <li>EPA (907) 271-5083 or (206) 553-1263 or (800) 424-8802</li> <li>USCG/Homer (907) 235-3292</li> <li>USCG/Anchorage COTP (907) 478-5555 and (907) 271-6700</li> </ul>		
STATE REGULATORY AGENCIES		
<ul style="list-style-type: none"> <li>ADEC, Central Area Response Team (907) 269-3063 or (800) 478-9300</li> <li>ADFG (907) 267-2338</li> <li>ADNR (907) 451-2678</li> </ul>		
COMMUNITY CONTACTS		
<ul style="list-style-type: none"> <li>Cook Inlet Regional Citizens Advisory Council (CIRCAC) (907) 283-7222</li> <li>Kenai Peninsula Borough (KPB) (907) 262-4910 work or (907) 262-3654</li> </ul>		
<b>3. CONFIRM ADEC OIL &amp; HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORMS COMPLETED AND SUBMITTED to ADEC and NRC (BLANK COPIES INCLUDED IN SECTION 1.2.5)</b>		
<b>4. AVAILABLE RESOURCES IDENTIFIED</b> List of personnel/telephone numbers and equipment ( <b>See: CHECKLIST in Section 1.2 for Initial Response Team and Section 3.5 for equipment</b> )		
<b>5. PREDEPLOYMENT MEETING HELD</b>		
<b>6. CREATE OUTLINE OF SPILL LOCATION AND RESPONSE STRATEGY</b>		
<b>7. ESTABLISH INCIDENT COMMAND ROLES AND COMMAND CENTER</b>		



**Checklist 1.1-3 Buccaneer HSE (Safety Officer)**

Page 1 of 1

Initial in Correct Column:	Yes	No
INCIDENT NAME _____		
RECEIVE/DOCUMENT INFORMATION FROM OPERATIONS CHIEF		
CONFIRM WITH O'BRIEN'SRM AND INITIAL IC THAT THE FOLLOWING AGENCIES HAVE BEEN NOTIFIED. (as required, based on size)		
FEDERAL REGULATORY AGENCIES		
<ul style="list-style-type: none"> <li>NRC (1-800-424-8802) - always call OR submit web report</li> <li>Matt Carr at EPA (907) 271-5083 or (206) 553-1263 or (800) 424-8802</li> <li>USCG/Homer (907) 235-3292 and USCG/Anchorage Captain of Port (907) 478-5555 and (907) 271-6700</li> <li>Christy Bohl at BSEE (907) 334-5309 or (907) 334-5300</li> </ul>		
STATE REGULATORY AGENCIES		
<ul style="list-style-type: none"> <li>ADEC <b>Central Area Response Team</b> (907) 269-3063 or (800) 478-9300</li> <li>ADFG (907) 267-2338 (work) <b>NOTIFICATION TRIGGER:</b> "IMMEDIATE" THREAT TO WILDLIFE</li> <li>Alaska Oil and Gas Conservation Commission (AOGCC) (907) 279-1433 (Anchorage) <b>NOTIFICATION TRIGGER:</b> All spills from wells or involving any crude loss</li> <li>ADNR (907) 451-2678</li> </ul>		
COMMUNITY CONTACTS		
<ul style="list-style-type: none"> <li>KPB (907) 262-4910 (work) or (907) 262-3654 (pager)</li> <li>Cook Inlet Regional Citizens Advisory Council (CIRCAC) at (907) 283-7222</li> </ul>		
COMPLETE AND SUBMIT ADEC OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION FORMS (Section 1.2.5) to ADEC and NRC		
COMPLETE ADEC OIL & HAZARDOUS MATERIALS INCIDENT FINAL REPORT AND SUBMIT to ADEC (SECTION 1.2 of Spill Plan for COPY and for LIST OF SUBMITTEES)		



### ADEC and NRC Information Placards



The following ADEC placards and NRC information brochures will be placed in the dog house, the drill control room, camp dining room, and break rooms.

**REPORT ALL  
OIL AND HAZARDOUS  
SUBSTANCE SPILLS**

**ALASKA LAW REQUIRES REPORTING OF ALL SPILLS**  
**During normal business hours**  
contact the nearest DEC Area Response Team office:

<b>Central Alaska</b>	<b>Anchorage</b>	<b>phone:</b> (907) 269-3063 <b>fax:</b> (907) 269-7648
<b>Northern Alaska</b>	<b>Fairbanks</b>	<b>phone:</b> (907) 451-2121 <b>fax:</b> (907) 451-2362
<b>Southeast Alaska</b>	<b>Juneau</b>	<b>phone:</b> (907) 465-5340 <b>fax:</b> (907) 465-2237

**Outside normal business hours, call:  
1-800-478-9300 (International 1-907-428-7200)**



**Alaska Department of Environmental Conservation**  
Division of Spill Prevention and Response

rev. June/2010

Alaska Department of Environmental Conservation

## Discharge Notification and Reporting Requirements

AS 46.03.755 and 18 AAC 75 Article 3

Notification of a discharge must be made to the nearest Area Response Team during working hours:

Anchorage (907) 269-3063  
(907) 269-7648 (FAX)

Fairbanks (907) 451-2121  
(907) 451-2362 (FAX)

Juneau (907) 465-5340  
(907) 465-2237 (FAX)

OR

to the 24-Hour Emergency Reporting Number during non-working hours:  
1-800-478-9300 (International 1-907-428-7200)

## Notification Requirements

### Hazardous Substance Discharges

Any release of a hazardous substance must be reported as soon as the person has knowledge of the discharge.

### Oil Discharges

#### ■ TO WATER

- Any release of oil to water must be reported as soon as the person has knowledge of the discharge.

#### ■ TO LAND

- Any release of oil in **excess of 55 gallons** must be reported as soon as the person has knowledge of the discharge.
- Any release of oil in **excess of 10 gallons, but 55 gallons or less**, must be reported within 48 hours after the person has knowledge of the discharge.
- A person in charge of a facility or operation shall maintain, and provide to the Department on a monthly basis, a written record of any discharge of oil **from 1 to 10 gallons**.

#### ■ TO IMPERMEABLE SECONDARY CONTAINMENT AREAS

- Any release of oil **in excess of 55 gallons** must be reported within 48 hours after the person has knowledge of the discharge.

## Special Requirements for Regulated Underground Storage Tank (UST) Facilities\*

If your release detection system indicates a possible discharge, or if you notice unusual operating conditions that might indicate a release, you must notify the Storage Tank Program at the nearest DEC Office within 7 days:

Anchorage (907) 269-7886  
(907) 269-7679

\*Regulated UST facilities are defined at 18 AAC 78.005 and do not include heating oil tanks.

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## ALASKA STATEWIDE HAZARDOUS MATERIALS RESPONSE TEAM



### For More Information, Contact:

- ADEC (Prevention Section, 269-7683, or other DEC contact numbers provided in this brochure)
- Anchorage Hazmat Team Coordinator (267-5052)
- Fairbanks Hazmat Team Coordinator (459-1481)
- 103<sup>rd</sup> Civil Support Team (AKNG) Weapons of Mass Destruction (WMD) Response Coordinator (384-9494)
- EPA Alaska, Region 10 (271-3616)
- Valdez Hazmat Team Coordinator (835-4560)
- Kodiak Hazmat Team Coordinator (486-8040)

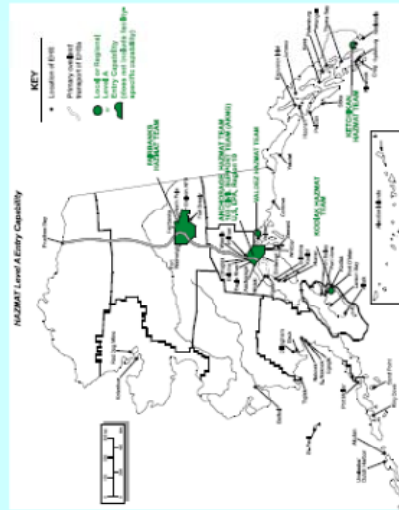
### What assistance will the Team expect from you:

- See next page for actions required by the Local On-Scene Coordinator (LOSC) in the event of a Hazmat incident
- Firefighting assets (if available)
- Local radio frequencies for coordinating emergency services
- Maps and other information about the area
- Respirator air pack refill capability (if available)
- Possible use of community facilities for command and control, decontamination, and other purposes
- Air monitoring capability (if available)

### What is the Statewide Hazardous Materials Response Team?

The Statewide Hazmat Team is composed of several teams capable of deploying to any location in the State to respond to a Hazmat release. The Team is 'Level A' capable (i.e., the highest level of capability for response). The Teams are based in Anchorage, Fairbanks, Kodiak, and Valdez and are available for callout through the Alaska Department of Environmental Conservation. The teams are available for emergency response only, and not for cleanup and recovery operations. Once the emergency phase is terminated, the teams will be returned to their location of origin.

1-11



Fairbanks Hazmat Drill – Feb 22, 2003  
 Simulated Railcar/Truck Accident

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Incident Pre-Planning and Prevention Measures	How Do You Request the Team?	What are the responsibilities of those involved in the response?
<ul style="list-style-type: none"> <li>• Be familiar with the potential Hazmat release hazards in your area (fixed facilities, transportation routes)</li> <li>• Develop and maintain your local emergency response plan in a current status. At a minimum, ensure the following procedures are included:                             <ul style="list-style-type: none"> <li>- Notifying the public</li> <li>- Securing the site</li> <li>- Evacuating or sheltering in-place</li> <li>- Requesting Hazmat assistance (including key contact numbers)</li> <li>- Identification of key response resources (equipment and personnel) in the local area</li> </ul> </li> <li>• Be familiar with the Federal/State Unified Plan and subarea plan for your area. These are available on the Alaska Regional Response Team (ARRT) website at: <a href="http://www.akrrt.org/plans.shtml">http://www.akrrt.org/plans.shtml</a></li> <li>• Periodically test your plan and modify based upon lessons learned</li> </ul>	<p>To request the team, contact the nearest DEC Area Response Team office:</p> <p><u>Central Area Response Team:</u> 269-3063 Anchorage</p> <p><u>Northern Area Response Team:</u> 451-2121 Fairbanks</p> <p><u>Southeast Area Response Team:</u> 465-5340 Juneau</p> <p>Outside normal business hours, call: 1-800-478-9300</p> <p><u>103<sup>rd</sup> Civil Support Team (AKNG)</u> for Weapons of Mass Destruction (WMD) Incidents: 428-7100 or 1-888-462-7100</p> <p>State of Alaska (contact any of the above DEC offices to report a Hazmat release)</p> <p><u>Federal Government</u> National Response Center</p>	<ul style="list-style-type: none"> <li>• <u>Responsible Party:</u> Report the release immediately to the Federal and State authorities. Notify local community of the release and hazards associated with the product, if known.</li> <li>• <u>Local On-Scene Coordinator:</u> Within local capabilities:                             <ul style="list-style-type: none"> <li>- Restrict access to the scene.</li> <li>- Call for additional assistance, if warranted. Provide as much information as possible regarding the incident.</li> <li>- Determine if general populace is at risk and either shelter in-place or evacuate the impacted area.</li> <li>- Care for any injured personnel (do not attempt to initiate rescue if not properly equipped to enter the area)</li> <li>- Meet with the Hazmat Team upon their arrival and brief the team leader on actions taken.</li> </ul> </li> </ul> <p>NOTE: The Local On-Scene Coordinator is in charge unless he/she relinquishes on-scene command to arriving federal or state authorities.</p> <ul style="list-style-type: none"> <li>• <u>Federal On-Scene Coordinator:</u> Serves as the lead agency for federal resources at the scene.</li> <li>• <u>State On-Scene Coordinator:</u> Serves as the lead agency for state resources at the scene. Coordinates general support for the Hazmat Team.</li> </ul>



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Part 1-12

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## 1.2 REPORTING AND NOTIFICATION

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### **Cross References:**

18 AAC 75.425(e)(1)(B)

30 CFR 254 (a), (b), (c), (g)(1), and (g)(1)(ii)

*CISPRI Technical Manual*

*Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan) – Introduction & Cook Inlet Subarea Contingency Plan – Part One Emergency Response Notification*

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### **1.2.1 General**

This section describes the immediate spill reporting actions and notification process to be taken at any time. The section also includes a description of the response levels, the organizational structure for a major response, titles with telephone numbers of facility personnel responsible for making notifications, and contact information of each appropriate government agency to be notified if a discharge occurs.

The contact information presented below is based on the *Cook Inlet Subarea Contingency Plan, Part One Emergency Response Notification* (December 2010) and the *CISPRI Technical Manual* (2010).

### **1.2.2 Response Levels**

#### **Minor Response**

A minor spill is defined as a situation where on-site employees do not require assistance from the ERT, and the situation is not an emergency. Note that an emergency situation exists when any of the following conditions exist:

- Safety and health of any personnel is threatened, or
- The spilled material is of an unknown nature and is potentially hazardous or toxic, or
- The release of product cannot be quickly stopped or contained.

All minor response spills, however, will be reported to the onboard ERT as a precaution. The ERT lead members will monitor the response and cleanup efforts, and document the spill as required by regulations.

#### **Major Response**

The levels described below apply only to the emergency phases of containment and initial recovery during a major response.

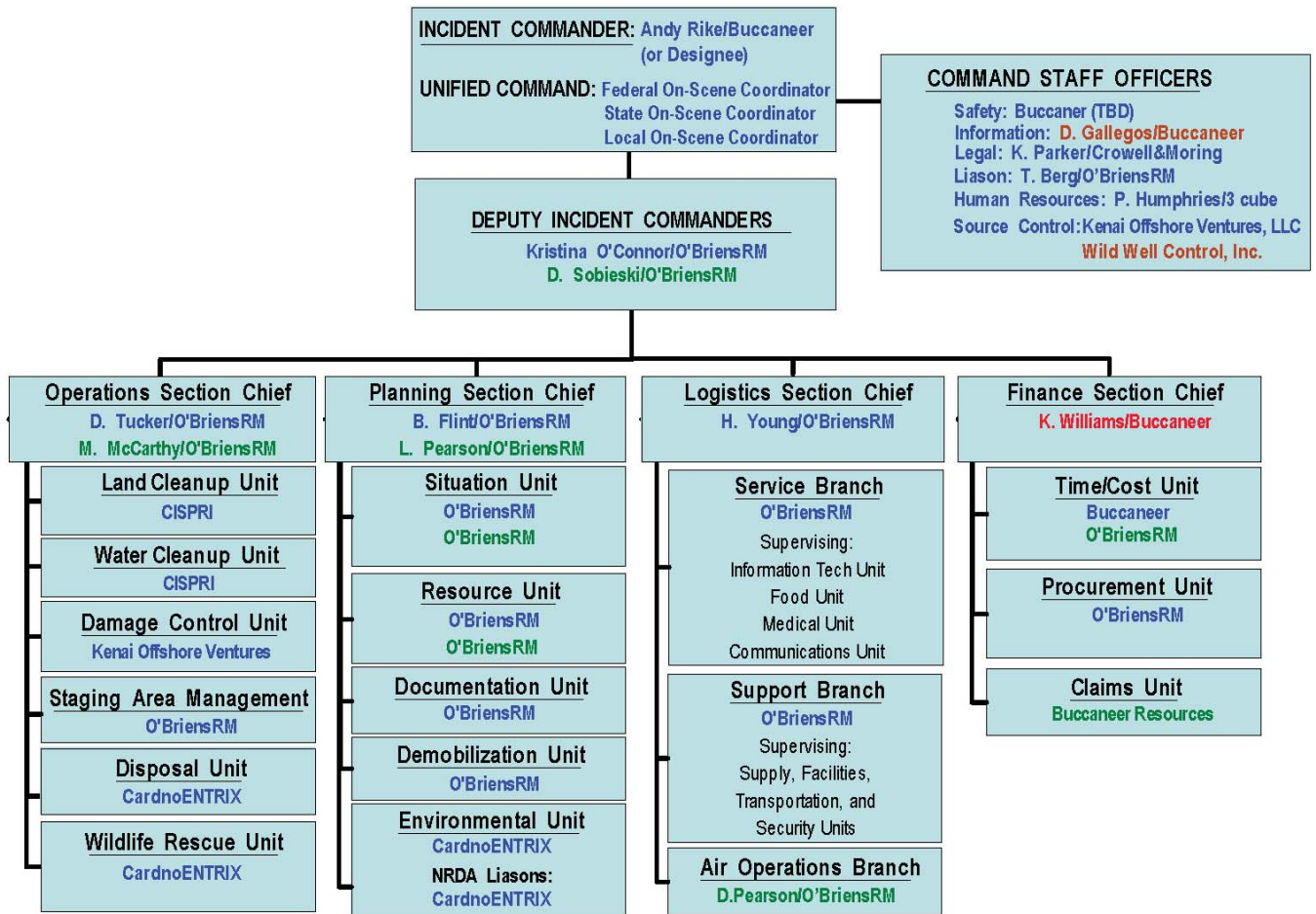
- **Level I:** Defines a situation where the on-site employees require the immediate assistance of the on-site ERT to control and contain a spill. Note that in all spills, the ERT will respond.
- **Level II:** Defines a Level I response situation, which also requires the call-out of the ERT, and any other resources available in Cook Inlet, including the activation of CISPRI and/or the request for Mutual Aid. This major response would be activated in the event of a catastrophic spill and would involve the use of spill response management and possibly well control contractors.
- **Level III:** Defines a Level II response situation, which also requires the activation of all Cook Inlet resources and those available from sources other than Cook Inlet suppliers. This major response would be activated in the event of a catastrophic spill and would involve the use of spill response management and possibly well control contractors.

### **1.2.3 Organization**

The ICS will be used in all major spills. The ICS organizational structure for a typical major response is provided in Figure 1.2-1. Lead positions and telephone numbers are identified and listed in Table 1.2-1. For detailed information call-out procedures refer to Section 1.1 Emergency Action Checklist in this plan. Section 3.3 provides a detailed description of the ICS.



**Figure 1.2-1 Incident Command System Organizational Structure**



**Notes:**

For a detailed description of the ICS, see Section 3.3 and the CISPRI Technical Manual.

**ICS Unit Personnel Location**  
 D. Tucker/O'BriensRM = Alaska (1<sup>st</sup> Callout)  
 O'Brien'sRM = Northwest (2<sup>nd</sup> Callout)  
 K. Williams/ Buccaneer = Chief Financial Officer

## 1.2.4 Notification Sequence

The notification sequence varies depending on the size of the spill and required response.

**In all spills, it is the policy of Buccaneer that employees and contractors report all spills of oil or hazardous material regardless of size to a Buccaneer representative. As such, all spills must be reported directly to the Buccaneer On-Site Company Representative (Buccaneer Company Man) and/or the Drilling Supervisor.**

Notification will generally follow the sequence described below. See also the notification diagram, checklists, guidance and reporting forms in Sections 1.1.1 and 1.1.2.

- The Buccaneer On-Site Company Representative (“Company Man”) will act as the IC for minor and possibly Level I spills, and as Initial IC in Level II/III incidents.
- The Buccaneer Company Man will report spills and incidents to the O’Brien’sRM Command Center, and shall initially direct emergency response activities for oil discharges. This effort will consist of emergency response actions to ensure crew and rig safety, prevent further discharge of oil, and contain and clean up onboard discharges of oil. While the Buccaneer Company Man is responsible for notification of the ADEC and other agencies by regulation, using the O’Brien’sRM Command Center to help in notification will allow the Company Man to focus on response.
- As noted, the Buccaneer Company Man may act as the Initial IC in a Level II/III incident until relieved; and shall be fully empowered to implement the resources described in this plan. The Buccaneer On-Site Company Representative shall be relieved of the IC position when the ICS Commander arrives on location or takes on responsibility. The IC or his/her designee will ensure that safety and health is the first consideration in all response decisions and notifications are completed as required.
- O’Brien’sRM Command Center in Slidell, Louisiana will provide the initial spill information from the Buccaneer Company Man to the ADEC, USCG, NRC, Buccaneer IC and the QI; plus the O’Brien’sRM spill management team, CISPRI, and regulatory agencies. O’Brien’sRM also will prepare an incident report (Section 1.1.2). Again, the Buccaneer Company Man will be responsible for the notification and must confirm that they have been made.
- As part of duties, the IC will ensure all notification requirements have been met (Section 1.1.2).

Additionally, the O’Brien’sRM HSE officer will complete and submit Site Safety and Control Analysis as outlined in Section 1.1.2.

### **Internal Notification Process and Response Contractors**

Notification of response contractor off-site services will be made by the IC (or designated alternate). Response contractors are listed below.

#### **Cook Inlet Spill Response, Inc. (Spill Response)**

**Mailing Address and Physical Location:** P.O. Box 7314  
Mile 26.5 Kenai Spur Highway  
Nikiski, Alaska 99635

**24-hour Phone Number:** (907) 776-5129 (24-hour)

**Fax Number:** (907) 776-2190

CISPRI, classified as an OSRO by the USCG, is registered as a Primary Response Action Contractor (PRAC) and a Non-tank Vessel Cleanup Contractor (NTVCC) with the State of Alaska. CISPRI holds the following USCG OSRO Tier 3 classifications:

- Class A through E for river environments
- Class A through D for inland environments
- Class D for ocean environments

**O'Brien'sRM (Spill Response Management)**

**Mailing Address and Physical Location:** 2000 Old Spanish Trail, Suite 210  
Slidell, Louisiana 70458  
**24-hour Phone Number:** (985) 781-0804  
**Fax Number:** (985) 781-0580

O'Brien'sRM will provide most spill management, supplemented by CardnoEntrix, Inc. and CISPRI.

**Table 1.2-1 Initial Spill Response Team / Emergency Contacts**

Title	Name/Company	Work Phone	Home or Cell Phone
Incident Commander	Andy Rike/Buccaneer	(907) 335-0600	(713) 703-1517 (Cell)
Alternate Incident Commanders	Dan Sobieski (Alt.) O'BriensRM	(985) 781-0804	24-Hour Response Line
	Kristina O'Connor (Alt.) O'BriensRM	(985) 781-0804	(907) 947-6849
Deputy Incident Commanders	Dan Sobieski (Alt.) O'BriensRM	(985) 781-0804	24-Hour Response Line
	Kristina O'Connor (Alt.) O'BriensRM	(985) 781-0804	(907) 947-6849
<b>Command Staff</b>			
Safety:	To be determined and posted	Onsite contact	
Information:	Dean Gallegos/Buccaneer	(907) 335-0600	(713) 468-3717
Legal:	Kyle Parker/Crowell&Moring	(907) 227-9564	(907) 350-9805
Liaison:	T. Berg/ O'BriensRM	(985) 781-0804	24-Hour Response Line
Human Resources:	P Humphries/TH INK	(907) 317-1330	
Source Control:	Kenai Ventures Offshore, Inc.	(907) 335-0600	
	Wild Well Control, Inc.	(281) 784-4700	24-Hour Response Line
<b>General Staff (Section Leaders)</b>			
Operations Section Chief	D Tucker/O'BriensRM	(985) 781-0804	24-Hour Response Line
	M McCarthy/ O'BriensRM	(985) 781-0804	24-Hour Response Line
Planning Section Chief	B Flint/ O'BriensRM	(985) 781-0804	24-Hour Response Line
	L Pearsons/ O'BriensRM	(985) 781-0804	24-Hour Response Line
Logistics Section Chief	H Young/ O'BriensRM	(985) 781-0804	24-Hour Response Line
Finance Section Chief	Kyle Williams/Buccaneer	(907) 335-0600	(713) 703-1517 (Cell)

**External Notification Procedures and Notification Lists**

**Primary Federal Agency Contacts**

A list of primary federal agencies that may be notified in the event of an oil spill and hazardous material spills is presented in Table 1.2-2. Appropriate agency verbal notification will be documented by maintaining a written record of all contacts, agency, person, date, and time.

**Table 1.2-2 External Notification List: Primary Federal Agency Contacts**

Agency and Telephone Number	Spill Size "Trigger"	Verbal Report	Written Report
<b>National Response Center NRC</b> (24 hr): Main: 1 (800) 424-8802 Alt: 1 (202) 267-2675 Fax: 1 (202) 267-2165	Any size threatening navigable waters. Therefore, any spill possibly reaching Cook Inlet.	Immediately	Not Required

**Table 1.2-2 External Notification List: Primary Federal Agency Contacts**

Agency and Telephone Number	Spill Size “Trigger”	Verbal Report	Written Report
<p><b>USCG Contacts:</b> Call in the following order until contact is made with Officer on Duty:</p> <p>USCG Homer Office: (907) 235-3292 Fax: (907) 235-3624</p> <p>USCG Marine Safety Office (MSO) Anchorage/COTP Office: (907) 271-6700 Fax: (907) 271-6751</p> <p>USCG Pacific Strike Team Office: (415) 883-3311 Fax: (415) 883-7814</p> <p>USCG Kodiak Office: (907) 486-5918 Fax: (907) 487-5585</p>	Any size threatening navigable waters. Therefore, any spill possibly reaching Cook Inlet.	Immediately	Two Reports: 1. Within 72 hours of spill, Provide the ADEC SPILL OR INCIDENT FORM  2. Upon completion of cleanup
<p><b>EPA Region X Alaska Operations</b> Anchorage Office: (907) 271-5083 Fax: (907) 271-3424</p> <p><b>EPA FOSC: (907) 227-9936 (cell)</b> Seattle Office (24 hr): (206) 553-1263</p>	Any spill on land, but also threatening or in surface waters. Or any spill possibly reaching Cook Inlet.	Immediately	1. If spill >1,000 gallons (gal) Provide INCIDENT FORM within 72 hours 2. If at least 2 reportable spills within 1 month, Provide INCIDENT FORM within 72 hours
<p><b>U.S. Department of the Interior (USDOI)</b> Office of Environmental Policy and Compliance (Coordinates all USDOI Agency Responses)</p> <p><b>Anchorage Office:</b> (907) 271-5011 Fax: (907) 271-4102 Cell Telephone: (907) 227-3783/3781 Emergency: (907) 333-0489 or (907) 357-0488 or (907) 345-7726</p>	As an offshore platforms, EPA reporting requirements are not applicable	Immediately	Provide INCIDENT FORM
<b>Other Federal Agency Contacts</b>			
<b>Agency</b>		<b>Telephone</b>	<b>Fax</b>
• National Oceanic & Atmospheric Administration (NOAA)		(907) 271-5006	(907) 271-3030
• NOAA, Seattle		(206) 526-4911	(907) 526-6329
• Federal Bureau of Investigation (FBI), Anchorage		(907) 276-4441	(907) 265-8400
• USFWS		(907) 786-3309	(907) 786-3495
• USFS		(907) 743-9500	(907) 743-9476
• National Park Service (NPS)		(907) 644-3510	(907) 644-3816
• NWS, Anchorage		(907) 266-5105	(907) 266-5188
• National Weather Service (NWS Weather Forecast)		(907) 936-2525	
• U.S. Army Corps of Engineers (USACE), Alaska District		(907) 753-2513	(907) 753-2748
• Federal Aviation Administration (FAA)		(907) 271-5936	(907) 276-7261
• BSEE, Anchorage		(907) 334-5200	(907) 334-5302

### Primary State Agency Contacts

A list of primary state agencies that may be notified in the event of an oil spill and hazardous material spills is presented in Table 1.2-3.

**Table 1.2-3 External Notification List: Primary State Contacts**

Agency and Telephone Number	Spill Size “Trigger”	Verbal Report	Written Report
<p><b>ADEC</b> Spill Response Area Office in Anchorage (24 hr): <b>Anchorage District</b> Telephone: (907) 269-3063 Fax: (907) 269-7648</p> <p><b>Central Area Response Team in Anchorage</b> Business hours: (907) 269-3063 Fax: (907) 269-7648 On-Duty Officer (cell): (907) 244-8126 24 hr - State Troopers: (800) 478-9300</p> <p><b>Soldotna District Office</b> Business hours: (907) 262-3401 Fax: (907) 262-2294</p> <p><b>Soldotna Office</b> (907) 262-5210</p> <p><b>Valdez Office</b> (907) 835-4698</p>	<p><b>On Water:</b> Any discharge of oil or hazardous substance</p> <p><b>Within Secondary Containment:</b> Discharge of oil &gt;55 gal</p>	<p>Immediately</p> <p>Within 48 hours</p>	<p>Within 15 days of end of cleanup of any spill</p> <p>None</p>
<p><b>ADF&amp;G</b> Anchorage: (907) 267-2541 Fax: (907) 267-2499 Juneau ADF&amp;G Habitat &amp; Restoration, Anchorage (907) 465-4275</p>	<p>If near or in wildlife refuge</p>	<p>Immediately</p>	<p>Provide copy of ADEC report on same schedule</p>
<p><b>AOGCC</b> Anchorage Office: (907) 279-1433 (24 hr)</p>	<p>All spills from wells or involving any crude loss</p>	<p>Immediately</p>	<p>Within 5 days</p>
<p><b>ADNR</b> Anchorage: (907) 269-8400 Fax: (907) 269-8901 Division of Oil and Gas (paging terminal): (907) 269-8800 Fax: (907) 269-8938 State Historic Preservation Office: (907) 269-8721 or (907) 269-8723 Fax: (907) 269-8908</p>	<p>Any spill of hazardous substance (including oil)</p>	<p>Immediately</p>	<p>Provide copy of ADEC report on same schedule</p>
<b>Other State Agency Contacts</b>			
<b>Agency</b>	<b>Telephone</b>	<b>Fax</b>	
• Department of Military & Veteran Affairs	(907) 428-7000	(907) 428-7009	
• Division of Emergency Services (24 hr)	(800) 478-2337	(907) 428-7009	
• Department of Forestry	(907) 269-8463	(907) 269-8931	
• Department of Labor: Alaska Occupational Safety & Health	(800) 770-4940	(907) 269-4950	
• Department of Law	(907) 269-5100	(907) 279-8644	
• Department of Transportation & Public Facilities	(907) 269-0770	(907) 248-1573	
• Department of Health and Social Services	(907) 465-3030	(907) 465-3068	

## Local Contacts

Table 1.2-4 provides contact information for local and tribal agencies. Table 1.2-4 also provides information on other local contacts that may be required during a spill response.

**Table 1.2-4 External Notification List - Primary Local and Tribal Contacts to be Notified of a Discharge**

Organization and Telephone Number	Telephone	Fax
<b>Boroughs</b>		
Kenai Peninsula Borough Local Emergency Planning Committee Report all spills immediately. Provide copy of ADEC report on same schedule	(907) 262-4910	(907) 714-2395
Matanuska-Susitna Borough	(907) 745-4801	(907) 745-6102
<b>Native Organizations</b>		
Cook Inlet Region Inc.	(907) 274-8638	(907) 279-8836
Cook Inlet Tribal Council	(907) 793-3200	(907) 793-3602
Alaska Inter-Tribal Council	(907) 563-9334	(907) 563-9337
<b>Spill Response Organizations</b>		
CISPRI: Nikiski Office	(907) 776-5129	(907) 776-2190
ACS: Prudhoe Bay	(907) 659-3249	(907) 659-2616
SERVS	(907) 834-6901	(907) 835-6962
<b>Other Local Agencies and Numbers</b>		
Municipality of Anchorage - Office of Emergency Management	(907) 343-1400 or	(907) 343-1441
Alaska State Troopers - Anchorage	(907) 269-5511	(907) 248-9834
Alaska State Troopers - Soldotna	(907) 262-4453	(907) 262-2889
<b>Emergency, Police and Fire Departments</b>		
	<b>911</b>	
Nikiski Fire (Station 1)	(907) 776-6400	
Kenai Police Dispatch	(907) 283-7879	
Kenai Fire Department	(907) 283-7666	(907) 283-8171
State of Alaska Fire Marshall	(907) 269-5491	(907) 338-4375
Anchorage Municipal Light & Water	(907) 279-7671	(907) 263-5828
Anchorage Water & Wastewater	(907) 564-2700	(907) 562-0702
Fort Richardson Fire Department	(907) 384-0774	
Elmendorf Fire Department	(907) 552-4644	(907) 552-1676
Cook Inlet Regional Citizens Advisory Council	(907) 283-7222	(907) 283-6102
Prince William Sound Regional Citizens Advisory Council - Anchorage	(907) 277-7222	(907) 277-4523
<b>PORT OF ANCHORAGE FACILITIES</b>		
Tesoro Anchorage Terminal #1	(907) 277-5015	(907) 278-8310
Tesoro Anchorage Terminal #2	(907) 279-1526	(907) 277-5816
Tesoro Alaska Pipeline Office	(907) 277-2713	(907) 277-2715
Flint Hills Anchorage Terminal	(907) 257-3100	
Signature Flight Support	(907) 277-4024	
Horizon / Sea-Land Service	(877) 678-7447	
Alaska Railroad	(907) 265-2300	(907) 265-2416
Port of Anchorage	(907) 343-6200	(907) 277-5636
Tote Ocean Trailer Express (TOTE)	(800) 234-8683	(907) 278-0461
<b>Surrounding Oil and Gas Operators and Service Companies</b>		
ASRC Dock Facility	(907) 776-8441	
XTO Energy, Inc.	(907) 776-5756	
Marathon Oil Company	(907) 283-6144	
Furie Operating Alaska, LLC	(907) 276-0700	
ConocoPhillips LNG	(907) 776-8166	
ConocoPhillips Tyonek Platform	(907) 776-2075	
Hilcorp	(907) 258-2301	
<b>Other Contacts</b>		

**Table 1.2-4 External Notification List - Primary Local and Tribal Contacts to be Notified of a Discharge**

Organization and Telephone Number	Telephone	Fax
Offshore Systems Kenai (OSK) Dock	(907) 776-5551	(907) 776-8836
Kenai City Dock (Summer Only)	(907) 283-9538	(907) 283-3693
Homer Harbor Master	(907) 235-3160	(907) 235-3152
Homer Electric	(800) 478-8551	(907) 235-3313
Enstar Gas	(907) 262-9334	
Alaska Regional Hospital, Anchorage	(907) 276-1131	(907) 264-2004
Providence Hospital, Anchorage	(907) 562-2211	(907) 212-3647
Air Ambulance (Life Guard)	(907) 212-3070	(402) 952-2385
<b>NEWSPAPERS</b>		
Peninsula Clarion, <i>Kenai</i>	(907) 283-7551	(907) 335-1260
Homer News, <i>Homer</i>	(907) 235-7567	(907) 235-4199
Homer Tribune, <i>Homer</i>	(907) 235-3714	(907) 235-3716
Anchorage Daily News, <i>Anchorage</i>	(907) 257-4200	(907) 257-4544
Kodiak Daily Mirror, <i>Kodiak</i>	(907) 486-3227	
Associated Press, <i>U.S.</i>	(212) 621-1500	
<b>RADIO STATIONS</b>		
KBBI, <i>Homer</i>	(907) 235-7721	
KMXT, <i>Kodiak</i>	(907) 486-3181	
KRSM, <i>Kenai</i>	(907) 283-5811	
KBYR, <i>Anchorage</i>	(907) 278-5297	(907) 272-5297
KFQD, <i>Anchorage</i>	(907) 275-2277	
KENI, <i>Anchorage</i>	(907) 522-1515	
Alaska Public Radio Network, <i>Anchorage</i>	(907) 550-8400	(907) 550-8401
<b>TELEVISION STATIONS</b>		
KTUU – NBC – Channel 2, <i>Anchorage</i>	(907) 762-9202	(907) 561-0874
KIMO – ABC – Channel 13, <i>Anchorage</i>	(907) 561-1313	(907) 561-1377
KTVA – CBS – Channel 11, <i>Anchorage</i>	(907) 273-3192	(907) 273-3189

Note: See the *Cook Inlet Subarea Contingency Plan*, Part 3 -- Resources Section for individual village and tribal contact information.

## 1.2.5 Written Reporting Requirements

All written reporting requirements, as shown in Tables 1.2-2 and 1.2-3, are the responsibility of **Buccaneer**. Reporting requirements for BSEE, USCG, and ADEC will be met through the following procedures.

### **ADEC Initial, Interim, and Final Reports**

ADEC 18 AAC 75.300 requires notification to ADEC of any hazardous material spill to state lands or waterways or any oil spill (greater than 1 gal) to state lands or any oil spill to waterways. This requirement will be met by submitting an ADEC Oil and Hazardous Substances Spill Notification form which follows this section.

After notification of the discharge has been made to ADEC, the department will, at its discretion, require interim reports until cleanup has been completed [18 AAC 75.300(d)]. A final written report must be submitted within 15 days of the end of cleanup operations, or if no cleanup occurs, within 15 days of the discharge [18 AAC 75.300(e)]. Interim and final written report requirements are specified in 19 AAC 75.

Examples of an ADEC Oil and Hazardous Substances Spill Notification Form and an ADEC Oil and Hazardous Materials Incident Final Report are included at the end of this section.

### ***NRC Online Reporting***

The NRC provides an On-Line Reporting Tool. Tool users have the ability to easily submit incident reports to the NRC. In addition, the tool will transmit an email containing the report number back to the Reporting Party. Reports taken by the NRC are based on the "Incident Type." Each Incident Type requires a different subset of information. The NRC On-Line Reporting Application "HELP" feature describes these areas in detail. All incident types are available for submission via the application.

The NRC ON-LINE REPORTING TOOL can be accessed by clicking on the following link:

<http://www.nrc.uscg.mil>

The NRC will contact the Reporting Party within 30 minutes of receiving an online report to provide an official NRC Report Number. If the IC has not received an email confirmation from the NRC within 45 minutes of submitting a report, they will be contacted by telephone.





ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
**OIL & HAZARDOUS SUBSTANCES SPILL NOTIFICATION**

ADEC SPILL #		ADEC FILE #		ADEC LC					
PERSON REPORTING			PHONE NUMBER		REPORTED HOW? Troopers    phone    fax				
DATE/ TIME OF SPILL		DATE/TIME DISCOVERED		DATE/TIME REPORTED					
LOCATION/ADDRESS		LAT.	SUBSTANCE TYPE A) CR EHS HS NC PW UNK B) CR EHS HS NC PW UNK		PRODUCT A) B)				
		LONG.							
QUANTITY SPILLED <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY CONTAINED <input type="checkbox"/> gallons <input type="checkbox"/> pounds	QUANTITY RECOVERED <input type="checkbox"/> gallons <input type="checkbox"/> pounds		QUANTITY DISPOSED <input type="checkbox"/> gallons <input type="checkbox"/> pounds					
POTENTIAL RESPONSIBLE PARTY    C-Plan Holder? YES <input type="checkbox"/> NO <input type="checkbox"/>			FACILITY TYPE						
SOURCE OF SPILL					<input type="checkbox"/> >400 GT Vessel?				
CAUSE OF SPILL (List Primary Cause first)					<input type="checkbox"/> Accident <input type="checkbox"/> Human Factors <input type="checkbox"/> Structural/Mechanical <input type="checkbox"/> Other				
CLEANUP ACTIONS									
DISPOSAL METHODS AND LOCATION									
RESOURCES AFFECTED/THREATENED (Water sources, wildlife, wells, etc.)				AIR	LAND	MARINE	FRESH	SURF. AREA AFFECTED	SURF. TYPE
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
COMMENTS									

DEC USE ONLY

SPILL NAME, IF ANY		NAMES OF DEC STAFF RESPONDING		C-PLAN MGR NOTIFIED YES <input type="checkbox"/> NO <input type="checkbox"/>
DEC RESPONSE <input type="checkbox"/> phone follow-up <input type="checkbox"/> field visit <input type="checkbox"/> took report		CASELOAD CODE <input type="checkbox"/> First and Final <input type="checkbox"/> Open/No LC <input type="checkbox"/> LC assigned		CLEANUP CLOSURE ACTION <input type="checkbox"/> NFA <input type="checkbox"/> Monitoring <input type="checkbox"/> Transferred to CS or STP
STATUS OF CASE (circle)    OPEN    CLOSED		DATE CASE CLOSED _____		
COMMENTS:				
REPORT PREPARED BY				DATE

### **1.2.6 *Buccaneer Command Center***

With the exception of minor spills, Buccaneer will use the CISPRI Command Center in Nikiski. CISPRI Command Center information is presented below.

**Mailing Address and Physical Location:** P.O. Box 7314  
51377 Kenai Spur Highway  
Mile 26.5 Kenai Spur Highway  
Nikiski, Alaska 99635

**Telephone Number:** (907) 776-5129

**Fax Number:** (907) 776-2190

**24-Hour Number:** (877) 950-7543

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## 1.3 SAFETY

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### Cross References:

18 AAC 75.425(e)(1)(C)

33 CFR 154.1035(e)(4)

*CISPRI Technical Manual, Tactics CI-S-0 through CI-S-6*

*2010 Alaska Safety Handbook (ASH)*

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### 1.3.1 General Safety Procedures

General health and safety procedures for operational activities at spill sites are covered in safety plans and procedures developed by Buccaneer, CISPRI, and response contractors in combination with those of the *CISPRI Technical Manual*.

Substances most likely to be on site and that may be spilled include crude oil, diesel fuel, and gasoline. MSDS for these substances are included in Appendix C of this plan.

### 1.3.2 General Safety Precautions During a Spill Response

General safety precautions to be implemented during a response to a spill include:

- Secure the area;
- Eliminate ignition sources where appropriate;
- Monitor wind socks and work upwind of spill, if possible;
- In all spills monitor for lower and upper explosive levels, oxygen, benzene and hydrogen sulfide (H<sub>2</sub>S)
- Obtain and use personal protective equipment, including respiratory, skin, eye, and splash protection;
- Make sure supervisors know where you are working; and
- Monitor other workers for signs of heat stress, frostbite, or hypothermia.

### 1.3.3 Personal Protective Equipment

In addition to any personal protective equipment (PPE) required by the *Alaska Safety Handbook (ASH)* or the *CISPRI Technical Manual, Tactics CI-S-0 through CI-S-6*, spill response workers will wear the following during cleanup activities.

- Safety glasses, goggles, or face shields;
- Hard hats;
- Oil resistant boots or foot gear with oil resistant protective covers and ice grippers as appropriate;
- Polyethylene or other appropriately coated Tyvek suits or rain gear to maintain the cleanliness of the worker's gear and to prevent skin contact with the oil product;
- Respirators as required by health and safety monitoring;
- Oil resistant gloves/mittens;
- Personal floatation devices as required by the specific work locations and task; and
- Other clothing for environmental conditions.

A template for a site-specific safety plan is presented in *CISPRI Technical Manual, Appendix C*. This plan, along with the same from each contractor, provides detailed information on development of an incident-specific site safety plan. These plans address requirements of state and federal safety regulations (e.g., 29 CFR 1910, 29 CFR 1904 and State of Alaska Occupational Safety and Health Regulations).

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## 1.4 COMMUNICATIONS

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### **Cross References:**

18 AAC 75.425(e)(1)(D)

30 CFR 254.23(d)

33 CFR 154.1035(e)(5)

*CISPRI Technical Manual, Tactic CI-LP-2*

*Unified Plan and Cook Inlet Subarea Contingency Plan*

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### **1.4.1 General**

The Buccaneer ODPCP must address communication requirements. Failure to properly plan, command, and control communications could impact response operations. This section describes communication systems and procedures that will be used to ensure the most efficient response operation.

### **1.4.2 Communications Plan**

Effective communications during a spill response requires that all parties know and use assigned frequencies and telephone numbers. The *CISPRI Technical Manual, Tactic CI-LP-2* provides information to complete an incident-specific Communications Plan, or ICS 205 form, delineating the use of radio channels during a response. This tactic also provides information on CISPRI's communications area, networks, equipment inventory, pre-designated frequencies, and a communication resource directory.

Use of pre-programmed and designated frequencies ensures that emergency communications are immediately established for response. As spill response efforts grow, additional frequencies and telephone numbers are added to a complete Communications Plan that is distributed to all parties. CISPRI may conduct and support response operations at locations throughout Alaska. Because some remote sites will not have any existing communication infrastructure, CISPRI is prepared to provide necessary communication equipment.

### **Communication Requirements**

Communication requirements are determined by many factors, the most important of which are the location and nature of the spill response activities, and the number of staff placed in the field. Specific requirements and pre-planned response considerations for this project are detailed in the *CISPRI Technical Manual Tactic CI-LP-2*.

### **On-Site Communications**

On-site communications are those communication links used to communicate between the various groups operating in the field. CISPRI has established four distinct radio nets which are detailed in *CISPRI Technical Manual Tactic CI-LP-2*.

### **Backup On-Site Communications**

A single failure of any hand-held radio should not cause the communication system to fail. The number of radios deployed in the field would generally be higher than the minimum required for operations. This backup capability accommodates radio recharging and loss or damage to hand-held radios on any mission.

### **Immediate Off-Site Communications**

Off-site communication links are used to communicate between the field operators and equipment vendors, contractors, agencies, and other support services. In all cases, the primary off-site communication link would be through the land-line telephone network. Options include local telephone service, local cellular service where available, or portable satellite systems.

The Communications Unit Leader will establish a communications plan that provides coverage in the field and between the field and a command post, and will provide assigned radio frequencies and telephone numbers.

### **1.4.3 Response to Minor or Moderate (Level I) Spills**

In response to minor or moderate (Level I) incidents, Buccaneer will use on-site communication systems (see below) that include intercom, cellular telephone and RigNet©, satellite telephone communications, along with Telefax (fax) machines and handheld, intrinsically safe Ultra-High Frequency (UHF) radios (with a 10-mile range).

### **1.4.4 Response to Major (Level II and III) Spills**

As spill response efforts grow, the communications plan will require additional frequencies and telephone numbers; these will not be available on-site and must be added and distributed to all parties. For this situation, the CISPRI Very High Frequency (VHF) and UHF communication systems will be employed, with an ADEC system as backup.

### **1.4.5 Communications Equipment Inventory**

Communications systems are briefly described below in Table 1.4-1.

#### **CISPRI Communications System**

**Details of the CISPRI communications resources and systems are provided in the CISPRI Technical Manual Tactic CI-LP-2.** CISPRI provides for an extensive communications network in the region, built on the basis of VHF radio coverage. Similarly, UHF radio can be linked to VHF systems via a CISPRI UHF-VHF link.

#### **ADEC Communications System**

Details of the ADEC communications system are found in the Cook Inlet Subarea Contingency Plan, Section B Resources, Part 4, Logistics, Subpart C Communications. The ADEC maintains a variety of communications equipment that may be mobilized to augment the response if necessary upon direction of the UC. The primary purpose of this network is for state agency use.

#### **Rig Communications Systems**

Rig communications also include battery-powered cellular telephone systems, VHF-FM (Frequency Modulated) marine and aircraft radios, UHF radio, and High Frequency (HF) single sideband (SSB) radio. In addition, an on-site satellite system (RigNet©) will provide a communications link with off-site resources, agencies, and company contacts. Prior to drilling, Buccaneer will work with CISPRI and ADEC to ensure that VHF radios are on the same band width and can communicate with CISPRI radios. This will be done prior to drilling operations.

### **1.4.6 Daily Operations Communications Network**

Once mobilized for spill response, CISPRI will activate its communications resources to support Buccaneer and the rig communications operations and to establish a communications base at the Operations Center.

While CISPRI vessels and equipment are enroute to the scene, they will monitor all normal operating frequencies. Communications frequencies and key contacts for CISPRI operations are provided in the Communications Plan. The *CISPRI Technical Manual* provides a list of frequencies for response in Tactic CI-LP-2 Table 3.

**Table 1.4-1 Communications Systems**

Type	CISPRI	ADEC	Rig	Notes
Telephone Circuits	ICS	Office	None	Telephone systems at ICS Command Center and ADEC office are generally sufficient to handle the volume of telephone calls associated with most spills. The reserve capacity of either system may be so small that temporary service to remote control centers cannot be quickly provided. Solutions to such potential telephone bottlenecks will include establishing satellite links to these areas.
VHF-FM Marine (156-158 MHz)	ICS & Field	Office & Field	On rig	Cleanup operations are expected to use licensed marine VHF radio equipment for inter-vessel, rig-to-shore or response personnel communications. Marine channel 16 is the international distress and hailing frequency. Marine VHF radios can also be used to warn other, non-response vessels about ongoing cleanup operations. Marine radios can be used for coordinating the cleanup operations although UHF radios are also suitable for this purpose.
VHF-AM Aircraft Radio (118-136 MHz)	ICS & Field	Office & Field	On rig	These VHF frequencies are used for ground-to-air communications, although most aircraft can also monitor VHF Marine and many UHF channels. Ground-to-air communications are very important for relaying surveillance information as well as coordinating the transport of equipment and personnel.
UHF (454/459.000 MHz)	ICS & Field	Office & Field	On rig	UHF radio systems are typically used for land-based operations, although they are also acceptable for marine use. UHF radios are often limited to just a few frequencies or channels that are preset into the units. Most UHF radios are 3- or 6-channel models with the actual frequencies being dependent on the license of the particular facility or company.
HF SSB Radio (2-20 MHz)	ICS & Field	Office & Field	On rig	For communication over long distance and in undeveloped areas, operators may consider obtaining high-frequency SSB voice radio equipment. Radio propagation by this mode changes widely over daily and yearly cycles, and is strongly influenced by changes in solar activity. Communications may be excellent with a station 50 kilometers (km) away at a given time, and barely audible a few hours later.
INMARSAT	ICS	Office		INMARSAT systems can be installed at remote locations to provide for voice and facsimile communications to standard telephone lines, almost anywhere in the world. The associated costs are high, but these systems can be invaluable in areas where other forms of communication are unavailable or inconsistent or facsimile transmissions are critical.
MSAT	ICS	Office		MSAT is a satellite system based on the world's most powerful commercial mobile satellite. MSAT has extended mobile telephone, fax and data communications to all of North America and up to 400 km offshore in coastal water.
RigNet© satellite			Control room	An onsite RigNet© satellite system will provide a communications link with off-site resources, agencies, and company contacts. RigNet© is a commercial, industry-focused system that will be installed onsite on the rig and at the Buccaneer ICS command center in Nikiski. This system can be invaluable in areas where other forms of communications are unavailable or inconsistent or facsimile transmissions are critical.

MHz = Mega Hertz



### **1.4.7 Maintenance**

A listing of communications equipment inventory is provided in Table 2 of CI-LP-2. CISPRI system maintenance is described in *CISPRI Technical Manual*, Appendix A. All radio equipment operated by CISPRI will be periodically tested according to the following schedule:

- Monthly: all rechargeable batteries will be tested and recharged.
- Quarterly: all radio and electronic equipment will receive an operational test to ensure that the equipment is working.

Additionally, all equipment used in actual spill response operations will be inspected and cleaned before being returned to storage.

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## 1.5 DEPLOYMENT STRATEGIES

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### Cross References:

18 AAC 75.425(e)(1)(E)

33 CFR 154.1035(b)(2)(iii) and b(3)(iv); (b)(4)(iii); and (e)(2)(ii)

*CISPRI Technical Manual, Tactics CI-LP-0 to CI-LP-7*

*CISPRI Technical Manual, Appendix A*

*Cook Inlet Subarea Contingency Plan*

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### 1.5.1 General

Key elements for quick deployment to a situation are timely notifications and activation, appropriate transportation infrastructure, and trained personnel deploying readily available response resources.

When a spill is identified, the Buccaneer Company Man will direct initial spill response activities. Buccaneer will employ the ICS for responding to a spill. Therefore, upon initial contact, the Buccaneer Company Man will determine whether onsite resources are capable of control, containment, and cleanup of the spill.

### 1.5.2 Utilization of On-Site and Nearby Resources

For minor spills, on-site Buccaneer, the rig operator, and CISPRI's ERT will be used to perform initial immediate response procedures to stop the flow and initiate containment, control and cleanup when safe and appropriate. For larger spills, CISPRI and O'Brien's RM personnel will replace the initial responders as they arrive on site. For any spills reaching open water or major spills, CISPRI will be deployed immediately.

### 1.5.3 Transportation to Spill Site

Transportation options are presented in the *CISPRI Technical Manual, Tactics CI-LP-0 to CI-LP-7*. Actual response and mobilization times may vary depending on a variety of factors, such as weather, personnel safety and health, and wildlife considerations. Only on-site personnel and equipment will be available to conduct spill response activities during adverse weather conditions. The realistic maximum response operating limits for CISPRI's oil spill response and the frequency and duration that may be encountered at Buccaneer's facility are presented in *CISPRI Technical Manual, Appendix B*.

### Transportation Alternatives

**Pre-staged Equipment** – Equipment that will be pre-staged on service vessels and response vessels is identified in the *CISPRI Technical Manual, Tactic CI-LP-4*.

**Air Access** – The *CISPRI Technical Manual, Tactic CI-LP-1* provides information on travel times in Cook Inlet for a variety of transportation equipment. The scenarios described in Section 1.6 of this plan illustrate deployment strategies for spill response equipment to the proposed exploration drill site. Estimated response times for the proposed exploration wellsite prospect also are included in Section 1.6.

Public airports and landing strips within the Cook Inlet Subarea, are listed in the *Cook Inlet Subarea Contingency Plan, Part 3*, as well as aircraft companies available for transportation. The rig will accommodate landing for helicopters up to the size of a Sikorsky S-61N and smaller. Typical helicopters from local, land-based air carriers may include ASTAR 350-B2, Bell 206L, and Bell 212. Air operations can be limited by weather conditions (Appendix B of the *CISPRI Technical Manual*). In general, air access is best suited for movement of personnel and for emergency movement of supplies or equipment.

### 1.5.4 Equipment Deployment

Limited response equipment staged on the rig (Section 3.6) will be deployed immediately after completing a safety and health assessment and securing the spill source. Deployment will be directed by the Initial IC and handled by the work crew on site. On-site equipment is primarily for defensive actions and recovery of small spills.

For large spills, Buccaneer has access to CISPRI equipment staged in their Nikiski warehouse that is ready to go and can be deployed in less than 1 hour. CISPRI response equipment is listed in *CISPRI Technical Manual*, Appendix A with CISPRI deployment strategies presented in the *CISPRI Technical Manual* for implementation of open water, nearshore, shoreline, and inland tactics.

Larger spills will also entail mobilization of additional resources by CISPRI from Kenai and/or Homer. *CISPRI Technical Manual*, CI-LP-1 and CI-LP-3 and the *Cook Inlet Subarea Contingency Plan (Section B Resources, Part 3)* both list vessels of opportunity, and equipment available from other response contractors.

### **1.5.5 Response Action Contractor Mobilization**

**CISPRI.** Section 1.1 describes immediate response and notification actions, which include notification of CISPRI (Section 3.8). Typical transportation times for mobilizing CISPRI response vessels with equipment to a spill site will normally be 2 to 6 hours, depending upon the vessels or equipment to be deployed. While CISPRI is mobilizing personnel and equipment to the spill site, Buccaneer personnel will determine safety and health procedures, notify government agencies and other Buccaneer personnel, and proceed with source control measures. In addition, on-site response personnel will deploy on-site spill containment equipment, if safe to do so.

**O'Brien'sRM.** Once notified, four to six persons from O'Brien'sRM will be flown to Kenai or any other selected command post site via charter aircraft, commercial airline, or will drive from Anchorage as necessary and can arrive within 6 hours (half day) of the initial notification. Within 12 hours, personnel can be mobilized from an extensive out-of-region network by commercial airline to the selected command post in Kenai (or another suitable location) as determined by the UC.

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## 1.6 RESPONSE STRATEGIES

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### Cross References:

18 AAC 75.425(e)(1)(F)

30 CFR 254.23(g), (g)(2), (g)(3), (g)(4), (g)(6), (g)(7), and (g)(8); 30 CFR 254.26 (subsection (a) to (e) and 30 CFR 254.28(d)

33 CFR 154.1035(b)(2)(i)(D); (b)(4)(ii); and (b)(5)

*Cook Inlet Subarea Contingency Plan – Section G Geographic Response Strategies*

*CISPRI Technical Manual*

*Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substance Discharges/Releases – Cook Inlet Subarea Contingency Plan – Part F Scenarios*

*Cook Inlet Subarea Contingency Plan – Section F Scenarios*

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### 1.6.1 General

The following subsections provide information on the strategies used for responding to a spill at a drill site. The information is based upon the operational, planning, and logistical tactics located in the *CISPRI Technical Manual*. In most cases, a combination of tactics from one or more of these categories will be used to accomplish the spill response objectives.

The tactics are arranged by subject as follows:

- Safety (*CI-S-0 to CI-S-6*)
- Open Water (*CI-OW-0 to CI-OW-5*)
- Nearshore (*CI-NS-0 to CI-NS-6*)
- Shoreline (*CI-SL-0 to CI-SL-8*)
- Inland (*CI-IL-0 to CI-IL-9*)
- Tracking and Surveillance (*CI-TS-0 to CI-TS-4*)
- Non-Mechanical Response (*CI-NM-0 to CI-NM-5*)
- Sensitive Area Protection (*CI-SA-0 to CI-SA-3*)
- Wildlife (*CI-W-0 to CI-W-6*)
- Waste Management (*CI-WM-0 to CI-WM-7*)
- Logistics and Planning (*CI-LP-0 to CI-LP-7*)

Each CISPRI tactic contains a “CI” prefix before each tactic number to distinguish CISPRI tactics from those of other organizations, such as SERVS or ACS. Each CISPRI tactic is then numbered with a key letter to identify the subject.

For example, “CI-S-1” -- *Site Entry Procedures/Site Characterization* is the first CISPRI tactic in the safety section, while “CI-NM-1” -- *Dispersant Treatment* is the first in the non-mechanical response section. These numbers are referenced in this ODPCP.

These strategies and along with other information described below supports the discussions in both the Response Scenario and Response Strategy presented in *Section 1.16.15*.

### 1.6.2 Response Planning Standards Review

Applicable RPS have been established for this exploration program based on guidelines within 18 AAC 75.430(c)(1) and 18 AAC 75.434(b)(1) and (2). Buccaneer has developed an RPS scenario and a response strategy to cover the spectrum of potential releases for this project. The response scenario and strategy include:

- Major spill scenario for a surface well blowout at the Buccaneer well site during a summer drilling program based upon the RPS volume of 5,500 barrels of oil per day (bopd).
- Response strategy for an oil transfer failure between the drill rig and a fuel barge (17 bbl).

Buccaneer has contracted with CISPRI to utilize their full response capabilities. CISPRI is capable and certified for the response to contain and clean up the worst case scenario: 5,500 bopd for at least 15 days. Buccaneer meets all requirements for response and is capable, through CISPRI, of responding to a discharge of the RPS volume.

### **1.6.3 Procedures to Stop Discharge**

Procedures to stop a discharge from an exploration well or fuel line loss are discussed in Section 1.6.5, 1.6.15, and also in Sections 2.1.6 and 2.1.7. Strategies for oil cleanup using mechanical recovery tactics are presented in the CISPRI Technical Manual as part of tactical strategies for open water, nearshore, shoreline, and inland tactics.

The primary procedures to stop a discharge from a fuel transfer operations or tank is to shutdown the supply source and any valves. Fuel transfer operations are monitored at all times by two persons who maintain line-of-sight communication as prescribed in the Buccaneer Fuel Oil and Fluid Transfer Manual (Appendix B). In the event of a hose or tank rupture, immediate steps also will be taken to:

- Patch/plug the source (to prevent further release) with wood wedges, boiler screws, rags, rubber sealing, sealing putty, etc.
- Prevent the spread with absorbent pads and booms (both maintained on site by ERT).

### **1.6.4 Fire Prevention and Control**

In the event of a spill, all sources of ignition must be eliminated, provided it is safe to do so. In addition, accidental ignition must be prevented during a spill response by using explosion-proof equipment and non-sparking tools where necessary. Fire extinguishers and emergency shutdown controls are maintained on the drill rig. CISPRI also stores and transports fire pumps for use and deployment aboard supply vessels which consist of TT-600 Fire Pump. These pumps are stored at CISPRI for rapid mobilization to the rig and would require the supervision of a T&T BISSO firefighting/salvage master for use.

Fire prevention and control are also discussed as part of safety in *CISPRI Technical Manual*, Tactics CI-S-1 to CI-S-6.

### **1.6.5 Blowout Control and Well Control Procedures**

A catastrophic loss of well control (blow out) during exploration drilling resulting in the discharge of large volumes of liquid hydrocarbons is an extremely remote likelihood. This has been confirmed by numerous studies by, for example, the former federal Minerals Management Service and current Bureau of Ocean Energy, relying on worldwide exploration drilling data, including data from activities in the Gulf of Mexico, North Slope and Cook Inlet. Nevertheless, in compliance with applicable state law and in an abundance of caution, a blowout contingency plan (BCP) prepared by Wild Well Control, Inc. is maintained by Buccaneer for the Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Well Drilling Program and will be modified for Buccaneer's offshore oil exploration program. Consistent with the requirements of 18 AAC 75.425(e)(1)(I) and 18 AAC 75.445(d)(2), Buccaneer will provide ADEC access to the BCP. The BCP will be made available to ADEC for inspection, and a copy will be kept in Buccaneer's Kenai office and on the jackup drill rig. If loss of well control results in an uncontrolled flow of fluids at the surface, control will be regained as detailed in the BCP. In the event well control is not maintained or controlled by conventional methods, the BCP provides an assessment of various methods of well control including surface control measures and relief well drilling. Conventional methods of well control during drilling operations are further described in Section 2.1.6. Measures to be taken to regain well control are summarized below.

Planning and proper prevention control is the preferred method of averting a blowout from occurring. Section 2.1.6 outlines these preventive and recovery measures to minimize hydrocarbon spill potential. In the event a blowout does occur, Buccaneer, with help from Wild Well Control, Inc., is prepared to handle and suppress a blowout. If well control is lost, resulting in an uncontrolled flow of fluids at the surface, control will be regained as described in the BCP.

Measures available to maintain, control, and kill a well blowout are presented and prioritized as follows::

- 1) Hydrostatic pressure from drilling fluids;
- 2) Blowout preventer;
- 3) Well capping; and
- 4) Relief well.

Buccaneer would use well capping as the primary well control measure in the event of a blowout. Surface control is accepted by industry and government as a BAT method for source control of an exploration well blowout (Section 4.2, “Source Control”). These measures would be implemented subsequent to standard well control practices described in the following topic, *Surface Control Options* within this section.

Buccaneer would also execute efforts to drill a relief well, including rig acquisition and mobilization, concurrent with implementation of surface control techniques.

A thorough evaluation of the situation is necessary to determine the best course of action. There are three primary considerations in developing a response to a blowout, based on the specific well conditions:

- Access to the well/site that ensures personnel safety;
- Well status, including the location of the release and if ignition has occurred; and
- The best method for quickly regaining well control and minimizing pollution.

### Surface Control Options

If well control is lost during drilling operations, the primary measure to regain control of the well would be to provide control at the surface. Historically, regaining control at the surface is fast and successful compared to the time required to drill a relief well. Loss of surface control maximizes the pressure drop across the formations. Under these conditions, reservoir formations flow to equalize pressure, resulting in increased flow at surface. While surface control can be regained through natural bridging, additional mechanical methods may be employed. The exact surface control methods used will depend on the situation and will determine the exact timeline. (Well ignition, either accidental or deliberate, will also significantly affect the timeline for regaining well control using surface control methods.) Potential mechanical surface-control methods include:

- Pumping mud or cement downhole to kill it;
- Replacing the failed equipment if control was lost due to equipment failure;
- Plugging leaks in surface equipment and enabling circulation and;
- Removing the existing surface blowout preventer (BOP) (and possibly other wellhead equipment) and replacing them with a well capping stack.

Each of these methods may require removal of equipment around the rig, or the rig itself, to minimize damage, ensures personnel and environmental safety, and allows access to the well head.

The critical path prior to choosing a specific method for regaining surface control is:

- Mobilize emergency response personnel and equipment;
- Conduct a site assessment;
- Develop safe access and work plans; and
- Divert uncontrolled fluids for collection and handling to create a safe working environment and minimize environmental impact.

The above preparation activities would be expected to take approximately 3 to 4 days. After preparation, actual control methods could be implemented.

### Well Capping Estimated Timeline

In the event of loss of well control using drilling fluids and failure of the BOP, Buccaneer would implement surface control measures to cap the well. Under most cases it is anticipated that well capping, may be completed within 15 days of the loss of well control. Well capping in Cook Inlet would be most effectively completed using one of several commercial diving contractors that have experience and are familiar with existing Cook Inlet oil operations. These divers may be deployed to submerged portions of the casing as

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needed. The time required to complete the capping process would be dependent upon the amount of debris around the casing.

Mobilization of equipment is estimated to be completed within three days. As operations allow, the following general actions and objectives would be conducted. These actions may occur simultaneously or run concurrent with other operations.

1. Debris removal from around the blowing well to provide access to the operations – estimated 4 days.
2. Removal of the BOP from the top of the casing – estimated 3 days.
3. As necessary remove damaged or excess pipe in the hole using abrasive cutters – estimated 3 days.
4. Attach a new valve over the outside of the casing using a crane, secure the valve to the casing, and close the valve – estimated 4 days.

## Experience and Service Companies

Following the Iraq-Kuwait war (1993), the techniques and experience for handling blowouts with surface control has improved. Operators established relationships with well control specialist companies to assist in the intervention and resolution of any well control emergency. These companies are notified immediately if any well control situation has the potential for escalation.

Buccaneer has an operating agreement with Wild Well Control, Inc. to provide services to assist in the intervention and resolution of well control emergencies. Such services include, but are not limited to firefighting (FIFI) equipment and services, specialty blowout control equipment and services, directional drilling services, high-pressure pumping services, and specialty fluids, chemicals and additives. Wild Well Control, Inc. will be notified immediately in the event of any well control situation that has the potential to escalate.

## Well Capping Equipment

Buccaneer and other companies have available in Alaska equipment that would be support well capping or other surface control operations. Specialized well capping equipment is summarized in Table 1.6-1. Equipment not in Alaska would be mobilized within 24 to 48 hours.

**Table 1.6-1 Available Well Control Equipment**

Component(s)	Well Capping Usage	Location	Mobilized
Firefighting Systems	Supplemental fire and heat suppression at surface	On rig	<0.5 hours
Wild Well FIFI Package	Firefighting Equipment Packages contain: <ul style="list-style-type: none"> <li>• Athey wagon with booms and accessory tools.</li> <li>• Firefighting Pumps capable of pumping over 4,000 gallons per minute.</li> <li>• Pipe/Hose Container with several hundred feet of flexible hose and other components.</li> <li>• Blowout Tool Box Portable Monitor Sheds.</li> <li>• Marine Manifold for offshore applications</li> </ul>	Houston, TX	24 to 48 hours
Crimp Tool	Sized device used to pinch tubulars to seal internal flow	Houston, TX	24 to 48 hours
Abrasive Cutter	High-pressure cutting tool to sever leaking BOPs, rig structures	Houston, TX	24 to 48 hours
Capping Stack	High-pressure BOP stacks (to replace leaking, damaged or severed primary BOPs)	Houston, TX	24 to 48 hours
Crane*	Capable of lifting 25,000-pound loads	Various within South-Central AK	12 to 48 hours
Miscellaneous Equipment	Hoses, valves, containment boom absorbent, hand tools	Various within South Central AK	12 to 24 hours
<p>Note. Wild Well Control maintains multiple sets of equipment and firefighting packages. These can be quickly mobilized from Houston and flown directly to Nikiski. These packages are in connexes that can then be loaded on to CISPRI or other contracted barges or landing craft for transport. Additionally, these connexes can also be unloaded with equipment transported by helicopter sling load. Helicopters capable of these “picks” are available in Kenai and/or Anchorage.</p>			

## Blowout Well Ignition

Ignition of a blowout will be a decision made by Buccaneer management in conjunction with regulatory agencies only after assessing the probability of implementing successful surface control, potential damage to the rig, reviewing potential safety hazards, addressing pertinent environmental considerations, and obtaining necessary agency approvals. One potential justification for the ignition of a blowout would be a gas blowout where the hydrocarbons included toxic components (e.g., hydrogen sulfide). In such instances, the blowout may be ignited to control the toxic gases while preparations are being made to kill the well. Once well-kill preparations are in place, the fire could be put out and kill operations would commence. Emergency systems to allow for this procedure include plumbing the flare into a choke manifold, diverting to flare, and then igniting via pilot purging.

## Permits

In the event of a well blowout, a series of federal, state, and local permits would be required to support the response effort. As part of overall oil spill preparedness, CISPRI and/or its subcontractors hold a series of training certificates and permits authorizing a variety of cleanup-related activities, including bird and mammal hazing, and mammal stabilization. For a large number of all permits required, Buccaneer will access the “Alaska Oil Spill Permits Tool” at <http://www.dec.state.ak.us/spar/perp/permits/index.htm>. This web-based tool provides streamlined access to over 40 documents, reducing time needed to mount an effective response. For bird and mammal hazing permits, this permit tool provides access to the Alaska Regional Response Team checklist, which should provide the necessary information to resource agencies to determine whether it is appropriate to issue a hazing permit or not.

To initiate relief well operations, Buccaneer would submit Sundry notices and an “Application for Permit to Drill”. Approvals may be handled by email or an initial phone call, with written follow-up being required. AOGCC.Forms, available in pdf and excel formats, are available on-line: <http://doa.alaska.gov/ogc/forms/forms.html>.



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## Well Control Specialists

Wild Well Control, Inc. has been retained as the well control specialists that will be called in event of a blowout. Wild Well Control, Inc. (Corporate Office in Houston, Texas) is a global emergency response company that specializes in offering prevention, response and restoration capabilities to the global needs of the oil and gas industries. Through its well control program, the company operates an integrated, full-service, emergency-response company with the in-house ability to provide the fastest response time.

Once notified, Wild Well Control, Inc. will charter an aircraft and three specialists will travel to the Kenai area, arriving in approximately 12 hours. These individuals will make the first assessment and then will determine the necessary equipment and personnel. All equipment and personnel needed to combat an “unobstructed” well are located either in Deadhorse, Alaska or in Houston, Texas. Once the equipment list is compiled, equipment not in the Cook Inlet area will be flown to Kenai, in less than 24 hours on a C-130 Hercules-type and/or Boeing 747-type aircraft.

Other than the actual well-kill operations, Buccaneer will provide all coordination, support services, and communication with State, local, and federal government agencies.

## Relief Well

The following relief well drilling discussion includes estimated timelines. Relief well drilling involves numerous factors and unknown variables. The times provided are estimates, based on industry drilling practices and experience of the Buccaneer operators. Relief well drilling may take longer than estimated.

## Relief-Well Rig Mobilization and Locations

Relief-well rig-mobilization plans would be initiated concurrent with other surface control measures subsequent to a confirmed well-control situation. In accordance with standard oil industry practice other operators would commit the necessary rigs and resources to combat a well control incident if a Buccaneer-operated or partner’s rig is unavailable. Operator cooperation and sharing of resources may be a necessity when rigs, equipment, and other services are in short supply.

Equipment necessary to support drilling of a relief well would be mobilized from the nearest available location.

## Relief Well Timing

The drilling of the relief well could begin as soon as the rig-up was complete. Assuming the site is accessible (March through December only), the planned range of time for completing a relief well is 120 to 150 days with the following elements:

- Contract/mobilize a relief well rig: 60 to 75 days
- Set rig on site: 10 to 15 days
- Drill relief well: 50 to 60 days

## **Discharge Tracking**

See the response scenario in Section 1.6.15 for specific discharge tracking procedures. Discharge tracking is discussed in detail in the *CISPRI Technical Manual*, Tactics CI-TS-1 through CI-TS-4.

Discharge tracking will be accomplished primarily through visual observation. Visual observations will be performed on land, by boat, or by helicopter or aircraft overflights to delineate the spill area. Tracking will also be accomplished by tracking buoys and infrared sensors. The combination of visual observations, computer modeling, and electronic tracking of oil will not only provide for positioning of response assets to maximize oil recovery, but allow for implementation of sensitive area protection strategies to preclude oil impact.

Guidelines for air overflights and Shoreline Cleanup Assessment Team (SCAT) observations are available via CISPRI and on the web at [www.response.restoration.noaa.gov/shor\\_aid/sore\\_aid.html](http://www.response.restoration.noaa.gov/shor_aid/sore_aid.html). NOAA guidelines for on-water observations are at [www.response.restoration.noaa.gov/job\\_aid/intro.html](http://www.response.restoration.noaa.gov/job_aid/intro.html).

### 1.6.6 Protection of Sensitive Areas

Sensitive areas near the project are identified based on those presented in Section G, Geographic Response Strategies (GRS), Part 3 Site Specific GRSs in the *Cook Inlet Subarea Contingency Plan*, and in *CISPRI Technical Manual*, Tactic CI-SA-2.

Specific procedures for protecting these sensitive areas are described in the response scenario in Section 1.6.15 of this plan, *CISPRI Technical Manual*, Tactics CI-SA-0 through CI-SA-3, and in *Part G -- Geographic Response Strategies* in the *Cook Inlet Subarea Contingency Plan*.

Table 1.6-2 provides a listing of GRS established for Central Cook Inlet (CCI).

**Table 1.6-2 Summary of Sensitive Areas of Major Concern with Established GRS in Central Cook Inlet**

GRS	Location	GRS	Location
CCI-01	Anchor River	CCI-02	Stariski Creek
CCI-03	Deep Creek	CCI-04	Ninilchik River
CCI-05	Clam Gulch	CCI-06	Kasilof River
CCI-07	Kenai River	CCI-08	East Foreland
CCI-09	Gull Island	CCI-10	Chinitna Bay
CCI-11	Crescent River	CCI-12	Tuxedni River
CCI-13	Polly Creek	CCI-14	Little Jack Slough
CCI-15	Drift River	CCI-16	Big River
CCI-17	Kustatan River	CCI-18	McArthur River
CCI-19	Chuitna River	CCI-20	Swamp Creek
CCI-21	Middle River	CCI-22	Swanson River

In the response scenarios, Buccaneer has established priority cleanup areas to ensure a timely and efficient cleanup. During a spill from a blowout, the Environmental Unit Lead will coordinate with resource agencies to develop detailed protection strategies and incident-specific protection priorities. In evaluating the sites that must be protected, Buccaneer will apply criteria developed by the Alaska Regional Response Team (ARRT) Sensitive Areas Working Group, which consists of representatives from state and federal agencies and the private sector.

### 1.6.7 Containment and Control Strategies

Specific containment and control procedures are presented in the response scenario and strategy in Section 1.6.15. Containment and control strategies are based primarily on physical and mechanical controls such as berms, barriers, sumps, trenches, and boom. Options for containment and control are discussed in the *CISPRI Technical Manual* as part of the tactical strategy for open water, nearshore, shoreline and inland tactics. Options are also presented in GRS for the eastern Central Cook Inlet zone. Berms, barriers, sumps, trenches, and boom may be used in the event that shoreline cleanup is needed and approved.

### 1.6.8 Recovery Strategies

See the response scenario and strategy in Section 1.6.15 for specific recovery procedures. Strategies for oil cleanup consist of mechanical recovery. Recovery strategies are discussed in the *CISPRI Technical Manual* as part of tactical strategy for open water, nearshore, shoreline and inland tactics (CI-OW-0 through Tactics CI-OW-1, CI-OW-3, and CI-OW-5; CI-NS-0 through CI-NS-6-2; CI-IL-2; CI-IL-5 through CI-IL-7; and CI-IL-9-1).

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### **1.6.9 Lightering, Transfer, and Storage of Oil from Tanks**

Specific lightering, transfer, and storage of oil from tank used in spill response recovery are presented as part of the response scenario and strategy in Section 1.6.15.

Depending on the spill situation, oil may need to be removed from another tank and transferred to temporary storage. Options for transfer and temporary storage include use of trash pumps, Fast tanks, tanker trucks, and lined structures and containers. These options are discussed in the *CISPRI Technical Manual*, Tactics CI-OW-4, CI-OW-5, CI-LP-4, and CI-LP-5.

Temporary storage would include barge or tankers of opportunity, Fast tanks, tanker trucks, lined structures and containers, and tanks at Nikiski.

### **1.6.10 Damaged Tank Transfer and Storage**

Oil from tanks onboard the rig can be transferred to service boats or fuel barges for transfer to shore. Additional information is provided in Section 1.6.9. Transfer would follow procedures described in Buccaneer's Fuel Oil and Fluid Transfer Procedures (Appendix B), and would use tactics as appropriate that are listed Section 1.6.9.

### **1.6.11 Recovered Oil Transfer and Storage Strategies**

The transfer and storage of recovered oil is presented as part of the response scenarios in Section 1.6.15. Options for transfer are discussed in the *CISPRI Technical Manual*, Tactics CI-OW-4 and CI-OW-5. Temporary storage would include CISPRI barges, barge or tankers of opportunity, Fast Tanks, tanker trucks, lined structures and containers, and storage tanks staged at the OSK dock, Kenai Pipeline (KPL) Dock, or the Port of Anchorage.

### **1.6.12 Temporary Storage and Ultimate Disposal**

See the response scenario and strategy in Section 1.6.15 for specific temporary storage locations(s), construction of the storage areas, and disposal procedures. Temporary storage, disposal and/or recycling are described in detail in the *CISPRI Technical Manual*, Tactics CI-WM-1 through CI-WM-4.

State and federal agencies with jurisdiction must approve disposal of oil and contaminated materials from spill recovery operations. At the time of the spill, the Operations Section Chief, in consultation with the Environmental Unit Leader, determines the reuse, recycling, or disposal method best suited to the state of the oil, the degree of contamination of recovered debris, and the logistics involved in these operations. Application for agency approvals are completed before the determined method of disposal is implemented. An initial determination must be made regarding the classification of the waste as exempt, hazardous, or non-hazardous. This classification can be made on a case-by-case basis. The Environmental Unit Leader provides assistance in determining the classification if the status of the waste material is in question. In general, the following guidelines apply:

Spilled material that comes out of a well, either during drilling or workover operations, is exempt and therefore non-hazardous. Spilled material that did not come out of a well may not be exempt and may need to be tested and characterized.

Spills that occur from filling a tank (e.g., vehicle, storage.) are non-exempt. These spilled materials must be tested and classified prior to disposal.

### **1.6.13 Wildlife Protection**

Wildlife protection strategies may entail, in order of priority:

- Containment and controls to limit the spread and area influenced by the spill and response operations.
- Hazing of birds and mammals

- Capture and relocation of wildlife at direct threat.

These options are discussed in the *CISPRI Technical Manual, Hazing (CI-W-1), Capture and Rehabilitation (CI-W-2 through CI-W-5), and Permitting (CI-LP-7)*. Specific forms/permits for wildlife response actions also are provided in the *Unified Plan, Annex G – Wildlife Protection Guidelines* and online through the website for the Alaska Oil Spill Permits Tool for wildlife response: [http://dec.alaska.gov/spar/perp/permits/pba\\_wrp.htm](http://dec.alaska.gov/spar/perp/permits/pba_wrp.htm). Further information is provided in the response scenario and response strategy (Section 1.6.15).

### **1.6.14 Shoreline Cleanup**

Any spill that reaches the shoreline and requires cleanup will be performed by CISPRI. Complete descriptions of methods for shoreline protection and possible beach cleanup are presented in *CISPRI Technical Manual, Tactics CI-SL-0 through CI-SL-8* and in GRS for the Central Cook Inlet Zone in the *Cook Inlet Subarea Contingency Plan*. The response scenario in Section 1.6.15 employs specific shoreline cleanup procedures.

### **1.6.15 Spill Response Scenarios and Strategies**

Spill response scenarios are used to illustrate the manner in which response actions may unfold during an incident. An RPS scenario is presented for the proposed exploration activities. For purposes of the RPS scenario a well blowout occurs while drilling during open water with up to 10 percent ice concentration. The blowout scenario was developed based upon ADEC requirements (18 AAC 75.434) that establish a discharge rate of 5,500 bopd for the duration of 15 days as the RPS for an exploration facility. In addition to the summer blowout scenario, a response strategy is presented to address response actions for a spill resulting from a fuel cargo transfer failure. This strategy is developed to satisfy the USCG and Homeland Security response plan requirements of 33 CFR 154 and the assumptions for the discharge are based upon 33 CFR 154.1029(b).

The scenario and strategy descriptions include procedures for the following ADEC 18 AAC 75.425(e)(1)(F) requirements, as applicable:

- Stopping discharge at source
- Preventing or controlling fire hazards
- Surveillance and tracking of oil; forecasting shoreline contact points
- Exclusion procedures
- Spill containment and control actions
- Spill recovery procedures
- Lightering procedures
- Transfer and storage of recovered oil/water; volume estimating procedure
- Plans, procedures, and locations for temporary storage and disposal
- Wildlife protection plan
- Shoreline cleanup plan

The scenarios have been prepared using reference to tactics from the *CISPRI Technical Manual*. The tactics found in the manual provide for location, owner, and capacities of response equipment, personnel materials, support vessel, oil storage, transfer, and disposal equipment. Details in the scenarios and strategies are provided to demonstrate capability to respond to a spill using available equipment. This equipment may be replaced by functionally similar equipment in the future.

Response times and sequences are for illustration only. These illustrations do not limit the discretion of the persons in charge of spill response to modify the sequence or take additional time as deemed necessary. For example, ISB could be used in a spill response to reduce the quantity of oil; however, the response scenario does not callout this tactic to help meet the RPS. In all spill response incidents, safety and health will remain the top priority. Response performance as illustrated in the response scenarios cannot be guaranteed. Weather, malfunctions, and human performance can compromise efficiency and

effectiveness. Actual responses will differ from theoretical, desktop planning models, which are not performance standards or guarantees of performance.

## **Response Scenario – Well Blowout During Summer**

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## SCENARIO – BUCCANEER SUMMER BLOWOUT

The following scenario depicts typical response activities during an oil spill response.

The Buccaneer jackup oil exploration platform encounters an uncontrolled well release and is unable to control the flow from the platform. Based upon ADEC requirements, 5,500 bopd will be used as the RPS for 15 days. Total discharge will be 82,500 bbl. CISPRI has the capability, as demonstrated in their technical manuals, this plan, and other plans to mount an effective response that can be sustained for at least 30 days.

Once the oil breaches containment on the platform, it flows off the platform, landing on water beneath the platform and begins to move north on the flood tide. With a nominal wind, the oil may be sprayed downwind as much as 50 to 100 yards from the platform.

### RESPONSE TYPE:

### TYPE / AMOUNT:

Open-Water Response

Cook Inlet crude oil / 5,500 bopd

### SOURCE:

Blowout of offshore well releasing 5,500 bbl the first day and each subsequent day for 14 days thereafter. As the oil impacts the waters surrounding the rig, the primary drivers for the slick movement will be the currents, winds and tides of Cook Inlet. The trajectory of the oil slick at Hour 72 (without the benefit of recovery operations) is provided in Figure 1.6-1.

<b>TIME:</b>	08:00	<b>WIND:</b>	8 - 10 knots (kt) SW
<b>SEASON:</b>	Summer, July	<b>TEMPERATURE:</b>	50°F
<b>VISIBILITY:</b>	>10 miles	<b>LOCATION:</b>	Middle Ground Shoal
<b>WATER TEMP.:</b>	48° F	<b>SEAS:</b>	Calm
<b>TIDES:</b>	Flood		

### ASSUMPTIONS:

- The discharge originates from an out-of-control exploration well.
- Emulsification is possible and could be as much as 25%.
- Daylight aerial overflights will be multi-purpose: oil tracking and/or mapping, shoreline assessments, and wildlife observation input. Nighttime overflights will include infrared sensors to track and map oil.
- Site characterization results allow safe response operations.
- Task Force leaders have authority to assign response resources arriving on scene as necessary to meet conditions.
- Once small on-water storage devices (barges) arrive on scene, they are placed into a rotational cycle. These mini-barges are filled and lightered, replaced, and transported for off-loading to facilitate oil recovery options.
- Open water response operations will be conducted on a 24-hour basis using CISPRI tactics, as defined in the *CISPRI Technical Manual*, Tactics CI-OW-1 and CI-OW-5. Skimmer efficiencies and nameplate capacities are provided in Appendix A of the *CISPRI Technical Manual*.
- Equipment mobilization and deployment times accounted for in the scenario are supported by the *CISPRI Technical Manual*, Tactics CI-LP-1(A), CI-LP-1(B), CI-LP-3 and CI-LP-4.
- Decanting of free water will be conducted throughout the recovery operations as per *CISPRI Technical Manual*, Tactics CI-WM-1, CI-WM-2-2, CI-WM-3 and CI-LP-7.
- For the purposes of planning, the scenario assumes small quantities of oil escape offshore recovery task forces near the North Forelands. Contract resources make up and support SCAT and shoreline cleanup teams, which are activated on Day 2. Proposed shoreline clean up techniques as provided in *CISPRI Technical Manual*. Tactics CI-SL-1 and CI-SL-5 are approved for implementation.



### **SUPPORTING ACTION TAKEN:**

- Site characterization will take place immediately upon arrival on scene.
- The USCG and the FAA will be requested to establish a “safety zone” and “no-fly” zone around the platform as blowout conditions can change rapidly.
- CISPRI oil spill response vessel (OSRV) acts as the on-scene forward vessel and provides continuous information to the Incident Command Post (ICP).
- Command Center mobilizes overflights with regulatory agencies, CISPRI and Buccaneer representatives. Additional overflights will be scheduled as necessary to track and map the spilled oil as well as assess possible shoreline and wildlife impacts.
- Agency notification requirements are made consistent with Section 1.2.4. Notification of natural resource trustees with a request for guidance regarding wildlife activities.

### **PROCEDURES TO STOP A DISCHARGE:**

The Buccaneer activates Wild Well Control, Inc. to implement procedures to cap the well or drill a relief well (Section 1.6.5). Buccaneer coordinates with AOGCC for well control.

### **FIRE PREVENTION AND CONTROL:**

The rig is shut in and all ignition sources extinguished at the beginning of the release. T&T BISSO firefighting equipment is stored at CISPRI for rapid deployment onto the Offshore Supply Vessels (OSVs). Although CISPRI personnel and resources are available to assist with shipboard firefighting efforts if they are not involved in spill response operations, the use of the equipment requires a firefighting/salvage master available through CISPRI’s agreement with T&T BISSO. CISPRI OSVs have sufficient deck space to accommodate shore-based firefighting equipment and may be deployed if safety and toxicity parameters are met.

### **DISCHARGE TRACKING:**

Discharge tracking is addressed in the *CISPRI Technical Manual*, Tactics CI-TS-0 through CI-TS-4.

### **PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:**

Tactics providing for sensitive area protection are described in *CISPRI Technical Manual*, Tactic CI-SA-0 through CI-SA-3. Specific GRS are implemented if spill trajectories or tracking indicate potential impact (Figure 1.6-1).

### **24 HOUR OPERATIONS:**

As described in the *CISPRI Technical Manual* Tactics, provisions are available to enable 24-hour response operations. Using overflights, infrared cameras (both ship-mounted and hand-held devices in a helicopter), and on-scene vessel lighting to track the oil location, CISPRI will maintain contact with the largest concentrations of oil as described in *CISPRI Technical Manual*, Tactic CI-TS-0 through CI-TS-4.

<b>CONTAINMENT AND CONTROL STRATEGIES:</b>	
Strategies for Containment and Control of on-water spill response are included in <i>CISPRI Technical Manual</i>	
<b>TACTICS:</b>	<b>EQUIPMENT:</b>
<p><b><u>Open Water:</u></b></p> <ul style="list-style-type: none"> <li>• Site Characterization (CI-S-1)</li> <li>• High Volume Skimming (CI-OW-1)</li> <li>• Lightering and Storage Platforms (CI-OW-5)</li> <li>• Concentration Booming (CI-OW-1, CI-NS-1, and CI-NS-2)</li> </ul>	<ul style="list-style-type: none"> <li>• Air monitoring equipment</li> <li>• OSV <i>Perseverance</i> with 8-rope Foxtail skimmer, two 220 bbl oil/water separators, 2,000 ft containment boom</li> <li>• OSV <i>Champion</i> with 8-rope Foxtail, two 220 bbl tanks and 249 bbl capacity barge</li> <li>• OSV <i>Resolution</i> with 8-rope Foxtail, two 220 bbl tanks</li> <li>• CISPRI Barge <i>Responder</i> (12,405 bbl)</li> <li>• Barge 141 (59,421 bbl)</li> <li>• Motor Vessel (M/V) <i>Resolution</i> with two Lori side-collectors and two 249 bbl barges</li> <li>• Cook Inlet Capable (CIC) vessels CIC #1 and CIC #2 with one 100 bbl barge and one 249 bbl barge, respectively</li> <li>• One Class 8 towing vessel (tug)</li> <li>• Six Class 3 vessels for boom towing</li> <li>• M/V <i>Moriah</i> with 4-rope skimmer and one 100 bbl barge</li> </ul>
<p><b><u>Nearshore/GRS</u></b></p> <ul style="list-style-type: none"> <li>• Protective Booming (CI-NS-3 through CI-NS-6)</li> <li>• Skimming (CI-NS-5)</li> <li>• On-Water Storage (CI-NS-5)</li> </ul>	<ul style="list-style-type: none"> <li>• M/V <i>Tern</i> (Support/GRS/Nearshore)</li> <li>• 2000 ft inland water boom</li> <li>• Anchor sets</li> <li>• Skiffs</li> </ul>
<p><b><u>Shoreline Cleanup</u></b></p> <ul style="list-style-type: none"> <li>• SCAT (CI-SL-1)</li> <li>• Manual or Vacuum Removal (CI-SL-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Four Class 3 Vessels</li> <li>• Skiffs</li> <li>• Sorbents / Hand Tools</li> </ul>
<p><b><u>Safety</u></b></p> <ul style="list-style-type: none"> <li>• Ongoing safety oversight (CI-S-2, CI-S-3, CI-S-4)</li> </ul>	<ul style="list-style-type: none"> <li>• M/V <i>Seal</i></li> <li>• Air monitoring equipment</li> <li>• PPE</li> <li>• Site Safety Plans and Safety Briefings (<i>CISPRI Technical Manual, Appendix C</i>)</li> </ul>
<p><b><u>Wildlife</u></b></p> <ul style="list-style-type: none"> <li>• Hazing (CI-W-1)</li> <li>• Capture and Rehabilitation (CI-W-2 through CI-W-5)</li> <li>• Permitting (CI-LP-7)</li> </ul>	<ul style="list-style-type: none"> <li>• Class 1 / 2 Vessel (Support/Command)</li> <li>• Propane cannons and other hazing equipment</li> <li>• Capture nets and boxes, transport cages</li> <li>• Class 6 Vessels</li> <li>• Sea Otter Rehabilitation Center (SORC) Assembly / Bird Center activation</li> <li>• Marine Wildlife Rescue Team (MWRT) activation (CI-LP-3)</li> </ul>
<p><b><u>Decon/Disposal/Demobilization</u></b></p> <ul style="list-style-type: none"> <li>• Decon Plan - designation of zones (CI-S-4)</li> <li>• Setup of vessel decon stations (CI-S-5)</li> <li>• Disposal Sites - selection and setup (<i>CISPRI Technical Manual, Appendix D</i>)</li> <li>• Permitting (CI-LP-7)</li> <li>• Temporary and long-term storage sites (CI-LP-3, CI-LP-4, CI-LP-7, <i>CISPRI Technical Manual Appendix D</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Decon Kits (gloves, wash tubs, sorbent, brushes)</li> <li>• PPE</li> <li>• Lined dumpsters, ore bins, pit Liners, etc.</li> <li>• Drums, small tankage for fluid storage</li> <li>• Temporary storage pit materials</li> <li>• Small vessel, on-land, decon station with pressure washers</li> </ul>

### **RECOVERY STRATEGIES:**

- Safety of workers from accident or exposure takes precedence over all recovery activities.
- Implement open water and contingency task forces for most effective response. The contingency task forces will be located behind the open waters task force to collect any residual oil outside of primary collection efforts.
- Minimize spread of oil.
- Institute use of concentration booming to increase swath width in capturing oil. Class 3 vessels can be used to tow 600-ft of Ro-boom in a gated U-boom configuration to concentrate oil.

### **RECOVERED OIL TRANSFER AND STORAGE:**

- Oil will be initially collected and stored aboard the recovery vessels or associated storage barges and then transferred to a large storage barge (CISPRI Barge *Responder*).
- The large storage barges will be emptied to on-shore oil storage tanks at the Chevron facility (25,000 bbl - Anchorage), or Tesoro Refinery/KPL (over 150,000 bbl - Nikiski). CISPRI Barge *Responder* has fixed onboard pumps and proper connections for vessel-to-dock transfers.
- Buccaneer negotiates agreement with KPL Dock to receive the recovered oil/water from the spill response operations. The recovered fluids will be stored in onshore storage tanks until an accounting process is completed. Fluids then separated with recovered oil being handled as crude oil. Water to be properly disposed.
- Oiled sorbents, Tyvek suits, and other consumables will be double-bagged onboard the vessels and stored in appropriate lined boxes until they can be transferred ashore.
- Oiled debris, etc. will be stored on-deck of vessels or barges, in open-hopper barges, or other appropriate sites. These areas will be properly lined. The debris will then be transferred to lined tanks, bins, pits, etc. on shore.
- Shoreline cleanup sorbents and debris are transferred to staging areas using contract vessels and personnel per CI-LP-3.

### **DECONTAMINATION/DEMOBILIZATION:**

- Response equipment, personnel, vessels, etc. will be decontaminated and returned to their base locations as soon as their use is no longer necessary. Planning for this process will commence as soon as critical response equipment resources are mobilized to the spill site.
- Both onshore (CISPRI yard) and on-water sites (boomed locations as agreed upon by the UC) will be established to decontaminate response equipment and vessels prior to their final demobilization from the spill. Onshore sites will be properly lined. Operations will be conducted as per UC guidance. Oil will be separated from the water via sorbent material, a separation system, or other selected method.
- If staging area becomes too crowded, additional decon sites can be set up in warehouse at OSK Dock or at CISPRI facility.

### **EQUIPMENT MAINTENANCE AND REPAIRS:**

- Due to the duration of this scenario, CISPRI would establish a site at/near the staging area for the purpose of maintaining/repairing spill response equipment or vessels.

### **TEMPORARY STORAGE AND ULTIMATE DISPOSAL:**

- Recovered oil will be sold as crude oil as soon as oil accounting agreement is reached with ADEC.
- Buccaneer will secure Temporary Waste Storage Permits for oily debris and submit a Waste Management Plan with emphasis on local incineration of oily absorbents and debris.
- Temporary on-land sites for debris (dumpsters, pits, ore bins, etc.) will be lined to hold oiled debris with proper permitting in place.

### **WILDLIFE PROTECTION:**

- Special consideration is given to the wildlife in the area.
- Specific wildlife protection requirements are incorporated by tactic from CISPRI. Wildlife tactics and equipment will target wildlife populations in the region. Mobile units may be established, tactics and equipment will be species-specific.
- Marine mammal populations in the region include harbor seals at West Forelands, Beluga whales at Redoubt Bay.
- Certain species of shore birds are present in the Trading Bay area during the summer months. Contact should be limited because hatchlings have left the nest and discharged product would be at the lower tidal stages.
- Anadromous streams in the area will be given first priority and GRS will be implemented as required.
- During the response, the UC will be in constant communication with the ADF&G and the ICS Environmental Unit for guidance in providing additional measures to minimize commercial fishery impacts.
- Actions are established and supervised by ADF&G, USFWS and other appropriate resource trustees.
- Activation of bird hazing, capture, and rehabilitation personnel and facilities occurs with their being put on standby, and then activated, if required.

**RESPONSE ACTIVITIES – Buccaneer Energy Spill Response Team**  
**Day One**

<b>COMMAND</b>	<b>PLANNING SECTION</b>	<b>LOGISTICS SECTION</b>	<b>OPERATIONS SECTION</b>
<p><b>IC</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Establish UC</li> <li>✓ Establish goals &amp; objectives</li> </ul> <p><b>Liaison</b></p> <ul style="list-style-type: none"> <li>✓ Complete agency notification</li> <li>✓ Establish community notification &amp; identify contacts</li> </ul> <p><b>Public Affairs</b></p> <ul style="list-style-type: none"> <li>✓ Prepare initial news release</li> <li>✓ Set up media conference</li> <li>✓ Set up Joint Information Center</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>✓ Conduct initial Site Characterization</li> <li>✓ Provide initial Site Safety Plan</li> <li>✓ Prepare detailed Safety Plan</li> <li>✓ Field Safety Oversight</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>✓ Establish security at Command Post, spill site, staging areas, etc.</li> <li>✓ Check credentials of all spill site personnel to ensure appropriate levels of training</li> </ul>	<p><b>Planning Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Activate Planning Section units</li> <li>✓ Prepare Meeting Schedule</li> <li>✓ Commence work on Long Range Plan</li> <li>✓ Prepare Incident Action Plan for next 12-hour period</li> <li>✓ Commence planning for waste management, decontamination and demobilization</li> </ul> <p><b>Environmental Unit</b></p> <ul style="list-style-type: none"> <li>✓ Identify/Prioritize Sensitive areas based on resources at risk</li> <li>✓ Prepare Wildlife Plan</li> <li>✓ Prepare appropriate permits (ISB, Dispersant, etc.)</li> <li>✓ Prepare Request for Decanting</li> </ul> <p><b>Resources Unit</b></p> <ul style="list-style-type: none"> <li>✓ Display response equipment /personnel</li> <li>✓ Establish short-term plan</li> </ul> <p><b>Documentation Unit</b></p> <ul style="list-style-type: none"> <li>✓ Document all spill activities</li> </ul> <p><b>Staging Areas and Technical Specialists</b></p> <ul style="list-style-type: none"> <li>✓ Natural Resource Damage Assessment (NRDA) (if appropriate)</li> <li>✓ SCAT (If applicable)</li> <li>✓ Spill Trajectory – prepare and update</li> </ul>	<p><b>Logistics Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Arrange for overflights</li> <li>✓ Establish Staging Areas at CISPRI Warehouse, OSK Dock and wherever appropriate</li> <li>✓ Mobilize Immediate Response Team (IRTs)</li> <li>✓ Mobilize Short Notice Response Team (SNRT) [see CTM CI-LP-1(B)]</li> <li>✓ Provide meals and services</li> <li>✓ Establish Communications Plan</li> <li>✓ Order portable lights</li> <li>✓ Activate contract for infrared sensor expert</li> </ul>	<p><b>Operations Section Chief</b></p> <p><b>Mobilize:</b></p> <ul style="list-style-type: none"> <li>✓ CISPRI OSRV</li> <li>✓ OSV <i>Champion</i></li> <li>✓ OSV <i>Resolution</i></li> <li>✓ CISPRI <i>Resolution</i></li> <li>✓ CISPRI Skimming Equipment</li> <li>✓ CISPRI containment boom</li> <li>✓ CISPRI barges</li> <li>✓ CISPRI personnel</li> <li>✓ IRT personnel</li> <li>✓ Contract personnel (SNRTs)</li> <li>✓ Contract vessels</li> </ul> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>✓ Information for Initial Briefing</li> <li>✓ ICS-204 (Field Assignments)</li> </ul> <p><b>Supervise</b></p> <ul style="list-style-type: none"> <li>✓ Aircraft overflights</li> <li>✓ Equipment deployment</li> <li>✓ Staging area</li> <li>✓ Wildlife activities</li> <li>✓ Decon activities</li> <li>✓ Demobilization activities</li> </ul> <p><b>Initiate Requests for</b></p> <ul style="list-style-type: none"> <li>✓ Decanting</li> <li>✓ Personnel</li> <li>✓ Additional response equipment</li> <li>✓ Overflights</li> <li>✓ Infrared expertise</li> <li>✓ others as required</li> </ul>

<b>MAJOR SPILL RESPONSE RESOURCES TABLE</b>	OPEN WATER T.F. #1	NEARSHORE T.F. # 1	WILDLIFE	DISPOSAL	SAFETY	SHORELINE CLEAN UP	TOTALS
<b>EQUIPMENT LIST</b>							
<b>Offshore Task Force</b>							
CISPRI OSRV with 8-rope Foxtail Skimmer, two 220 bbl oil/water separators	1						1
OSV <i>Resolution</i> with 8-rope Foxtail skimmer, and CISPRI Barge <i>Responder</i>	1						1
OSV <i>Champion</i> with 8-rope Foxtail skimmer, Two 220 bbl tanks	1						1
CISPRI <i>Resolution</i> with two Lori side-collectors	1						1
M/V <i>Moriah</i> with 4-rope skimmer		1					1
CIC #1 and CIC #2		2					2
M/V <i>Tern</i>		1					1
Class 3 Vessels for Towing Boom	6						6
Class 8 Towing Vessel (Tug)	1						1
Barge 141	1						1
Personnel	55	5					60
<b>Wildlife</b>							
Class 2 Vessel #1			1				1
Skiff for capture/ hazing			2				2
Personnel			12				12
<b>Onshore Waste Handling and Decon</b>							
Personnel				1/4			1/4
<b>Safety/Logistics</b>							
M/V <i>Seal</i>					1		1
Personnel					3		3
<b>Shoreline Cleanup (Day 3 to 4)</b>							
Class 3 Vessels for transport and support						4	4
SCAT						4	3
Cleanup Crew Personnel						12	2

- Note: Personnel totals are split between Supervisors / Workers

TIME:	RESPONSE TIMELINE
0 hr	<p>CISPRI is notified of an oil spill created by a well blowout from an offshore oil production platform in the area of Buccaneer Southern Cross #1 Platform with a potential of up to 5,500 bopd.</p> <p>CISPRI begins mobilization for a large-scale open water response.</p> <ul style="list-style-type: none"> <li>• Buccaneer notifies their IC, SRT, and initiates callout of additional resources.</li> <li>• CISPRI activates its primary OSRV, the OSV <i>Perseverance</i>. The OSRV transits to the OSK Dock to load out CISPRI Spill Techs, the Safety Officer, and additional response equipment (i.e. two-220 bbl O/W Separators). The crew is tasked to ensure vessel is ready for response (e.g., warm up hydraulics, additional operator sets).</li> <li>• CISPRI vessels M/V <i>Moriah</i>, CIC #1 and CIC #2 are activated from their staging areas on the OSK dock. These assets are to be launched via crane. The vessels are mobilized with responders on board.</li> <li>• All available IRTs are mobilized.</li> <li>• Contracts are activated for the OSV <i>Resolution</i>, OSV <i>Champion</i> and a Class 8 towing vessel (tug).</li> <li>• The OSV <i>Resolution</i> is mobilized to the OSK Dock to load out pre-staged recovery systems and additional recovered fluid storage containers.</li> <li>• The CISPRI Barge <i>Responder</i>, anchored at the mooring buoy in Nikiski Bay, is hooked up by the OSV <i>Resolution</i> and transits to the spill site.</li> </ul> <p>A Class 8 towing vessel (tug) is mobilized from Anchorage/Homer and transits to the spill site. Estimated time of arrival (ETA) is Hour 24. At hour 24, the Class 8 tug is assigned to support the recovered fuel lightering operations (Barge <i>Responder</i> and Barge 141).</p> <p>Six Class 3 vessels are activated and depart Homer enroute to spill site. ETA is Hour 9.</p>
+1	<p>CISPRI's OSRV is en route to the spill scene. It has been assigned Task Force Leader for the Open Water Task Force.</p> <p>CISPRI command center is activated.</p> <p>Staging areas established at CISPRI facility and OSK Dock.</p> <p>The CISPRI Vessel Administrator has been ordered to commence a full-scale assessment of CISPRI's fleet of contracted vessels to determine which are readily available.</p> <p>IRTs and SNRTs begin to arrive at CISPRI command center.</p> <p>An overflight has been ordered to provide the UC with direct knowledge of the size and complexity of the oil spill.</p>
+1.5	<p>USCG and FAA have been requested to issue appropriate Notice to Mariners and Notice to Airmen for safety zones around the spill area.</p> <p>An emergency response plan is being developed to provide cleanup capability according to the following priorities:</p> <ol style="list-style-type: none"> <li>1. Open water spill response.</li> <li>2. Wildlife protection/hazing/capture.</li> </ol> <p>Overflight en route to locate and map oil locations, and search for shoreline and wildlife impacts.</p> <p>The CISPRI Vessel Administrator has been instructed to call out six Class 3 vessels. The vessels are to be tasked as follows:</p> <p>Class 3 vessels will serve as boom towing for concentration booming for skimming platforms. CISPRI vessel M/V <i>Seal</i> will be the Safety/Logistics vessel. It will transit to the spill site from Kenai River moorage with one IRT and one SNRT and take on safety personnel from OSRV. CISPRI OSRV arrives on scene and begins initial site characterization.</p>

TIME:	RESPONSE TIMELINE
+2.0	<p>CISPRI vessels M/V <i>Moriah</i>, CIC #1 and CIC #2 are activated from their staging on the OSK dock and launched via crane. The vessels are mobilized with responders on board.</p> <ul style="list-style-type: none"> <li>• M/V <i>Moriah</i> departs with a three person crew and 100-bbl barge for the spill site.</li> <li>• CIC #1 departs with three personnel aboard and a 100-bbl barge.</li> <li>• CIC #2 departs with three personnel and a 249-bbl barge.</li> </ul> <p>OSV <i>Champion</i> arrives at OSK and begins load out of its pre-staged skimming system, two 220 bbl oil/water separators and one 8-rope Foxtail skimming system.</p> <p>The CISPRI OSRV reports that air monitoring results indicate a safe working atmosphere and Level D PPE is established for the spill. Periodic air monitoring will be conducted to monitor on-scene conditions.</p>
+2.5	<p>CISPRI OSRV deploys its recovery equipment. The M/V <i>Seal</i> arrives on scene to provide safety/monitoring.</p> <p>OSV <i>Champion</i> departs OSK Dock enroute to spill location with pre-assigned recovery package, 4 personnel and two 220 bbl oil/water separators (440 bbl storage).</p>
+3	<p>CISPRI M/V <i>Resolution</i> departs OSK with two 249-bbl barges.</p> <p>CISPRI M/V <i>Moriah</i>, CIC #1 and CIC #2 (CIC # 1 with a 100-bbl barge and CIC #2 with a 249-bbl barge) depart OSK Dock for the spill site.</p> <p>CISPRI OSRV begins recovery with one 8-rope Foxtail at a derated 100 bbl per hour (bbl/hr) of recovered fluids. The CISPRI OSRV has 440 bbl available storage. When the CIC #2 arrives on scene, it will lighter oil/water separators to 249 bbl barge and transit to CISPRI Barge <i>Responder</i> to lighter. This will be a continuous rotation throughout the response.</p>
+3.5	<p>OSV <i>Champion</i> arrives on scene and maintains standby status pending spill assessment further direction.</p>
+4	<p>OSV <i>Resolution</i> arrives at OSK Dock for its preassigned recovery package, consisting of one 8-rope Foxtail, two 220 bbl oil/water separators and 4 personnel.</p> <p>Class 2 Vessel #1 departs Homer for OSK Dock for personnel and equipment to standby for wildlife recovery and protection (ETA +8 hours).</p>
+4.5	<p>CIC #2 arrives on scene with 249 bbl barge and begins lightering from CISPRI OSRV. The CIC #2 will rotate lightering operations for duration of spill with the Barge <i>Responder</i> and the Barge 141.</p> <p>M/V <i>Moriah</i> (4-rope Foxtail) arrives on scene and is directed to begin deployment of its response equipment.</p>
+5	<p>OSV <i>Resolution</i> departs OSK Dock enroute to pick up CISPRI Barge <i>Responder</i> and transit to spill site (ETA +3 hours).</p> <p>M/V <i>Resolution</i> is on scene with two 249 bbl barges. M/V <i>Resolution</i> begins recovery operations and lightering to one of the 249 bbl barges.</p> <p>M/V <i>Moriah</i> is on scene skimming and recovering fluids to a 100 bbl barge.</p> <p>CIC #1 arrives with a 100 bbl barge and remains on standby in vicinity of M/V <i>Moriah</i>. Upon arrival of Barge <i>Responder</i>, CIC #1 begins lightering rotation of 100 bbl barges for duration of spill. CIC #1 shuttles barges filled by the M/V <i>Moriah</i> to the Barge <i>Responder</i> for lightering.</p> <p>M/V <i>Tern</i> is on scene and standing by for GRS or nearshore support instructions.</p>
+8	<p>OSV <i>Resolution</i> arrives on scene with Barge <i>Responder</i> and sets anchor for barge in vicinity for easy lightering.</p> <p>Trajectory modeling and assessment shows oil impact to shoreline will be unlikely as the free oil recovery assets target the leading edge of the slick. The M/V <i>Tern</i> will remain on standby in the event trajectory modeling or overflights indicate status change and landfall locations to shuttle personnel, equipment, etc.</p>



TIME:	RESPONSE TIMELINE
<b>+9</b>	<p>Six Class 3 vessels arrive at the spill scene. The Class 3 vessels configure with CISPRI OSRV and <i>M/V Resolution</i> to tow gated U-boom in configuration.</p> <p>The CSIPRI OSRV, OSV <i>Resolution</i>, <i>M/V Resolution</i>, and <i>M/V Moriah</i> are on scene skimming and lightering to <i>Barge Responder</i>.</p> <p>OSV <i>Champion</i> and two Class 3 vessels are directed to remain on standby at spill site pending determination of spill containment and recovery efforts.</p>
<b>+10</b>	<p>Waste handling site established at OSK Dock. Pit liners, timbers, lined tanks, etc. are on-hand or on order.</p> <p>Overflight occurs at least once per shift to verify locations of thickest oil in nearshore and offshore zones.</p>
<b>+12</b>	<p>Class 2 Vessel #1 arrives on scene and is on standby for wildlife recovery and protection.</p>
<b>+15</b>	<p>OSV <i>Champion</i>, is staged within close proximity to recovery operations in the event additional skimming capacity is needed. This asset does not deploy skimmers as the recovery capacity of the other assets exceed the volume rate of the release.</p> <p>At hour 15, the OSV <i>Champion</i> is assigned to transit with the empty Barge 141 “on hip” or alongside and return to spill location to provide for on-water storage. The OSV and Barge return by hr 24.</p>
<b>+13 – 36</b>	<p>Oil recovery and lightering to the <i>Barge Responder</i> will continue.</p>
<b>+24</b>	<p>Barge 141 arrives on-scene by OSV <i>Champion</i>. The Barge 141 relieves the <i>Barge Responder</i> when it reaches capacity.</p> <p>Class 8 tug relieves OSV <i>Champion</i>. OSV <i>Champion</i> is positioned nearby on stand-by and available for recovery operations throughout the response.</p> <p>A rotation cycle is established using the <i>Responder</i> and <i>Barge 141</i> to provide for recovered fluid storage. The Class 8 tug manages the rotation cycle by towing the barge to the Tesoro facility to lighter. As one barge is filled and relieved for lightering, the other barge replaces it.</p>
<b>+36</b>	<p><i>Barge Responder</i> is full. Barge 141 replaces the <i>Barge Responder</i> for oil recovery storage. The Class 8 tug will take <i>Barge Responder</i> under tow and proceed to Tesoro facility for lightering. Barge will then undergo decon procedures and return to the spill site at approximately Hour 60 and remain on standby for lightering as needed.</p>
<b>+36 – Day 12</b>	<p>Oil recovery and lightering to Barge 141 will continue, with the CISPRI OSRV, OSV <i>Resolution</i>, <i>M/V Resolution</i> and <i>M/V Moriah</i> skimming platforms already in place, and a monitoring/safety vessel (<i>M/V Seal</i>). CISPRI OSRV and OSV <i>Resolution</i> skim in configuration with Class 3 vessels towing U-boom. The combined recovery capacity of the skimming platforms exceeds the rate of release (229 bbl/hr). The barges continue their rotation cycles to provide for interim storage of recovered fluids.</p> <p>On Day 2, additional contract vessels (4) are mobilized and assigned to support SCAT and shoreline cleanup teams as needed. Contract personnel to fill these roles are mobilized in the event shoreline impacts occur per CI-LP-3. Two SCAT teams begin on daylight of Day 3. Cleanup crews are mobilized to selected recovery North Forelands sites on Day 4. The OSV <i>Champion</i> is positioned as a staging platform to shoreline cleanup crews and SCAT teams near the North Forelands. At this location, the vessel may also provide additional skimming support if it were to be needed.</p>
<b>Approx. Day 12</b>	<p>Barge 141 is full and will transit to Tesoro facility with the tug to lighter. <i>Barge Responder</i> replaces the Barge 141 for oil recovery storage. Barge returns to standby status until the <i>Barge Responder</i> needs to be relieved to offload at the Tesoro facility.</p>
<b>Day 12– Day 14</b>	<p>Oil recovery and lightering to the <i>Barge Responder</i> will continue with skimming platforms in place.</p>
<b>Day 15</b>	<p><i>Barge Responder</i> is full and replaced by Barge 141. Oil recovery operations continue with skimming platforms in place until the blowout is controlled and the situation resolved.</p>

**Note:** Although mobilization and full deployment for recovery operations are not underway for the first 12 hours, the derated recovery capacity is more than sufficient to recover the planning volume released during the first 24 hours. The second day and beyond, skimming for 24 hours each day, recovery capacity exceeds the 5,500 bopd released in this scenario. Evaporation has not been taken into account as shown in NOAA's Automated Data Inquiry for Oil Spills (ADIOS2).

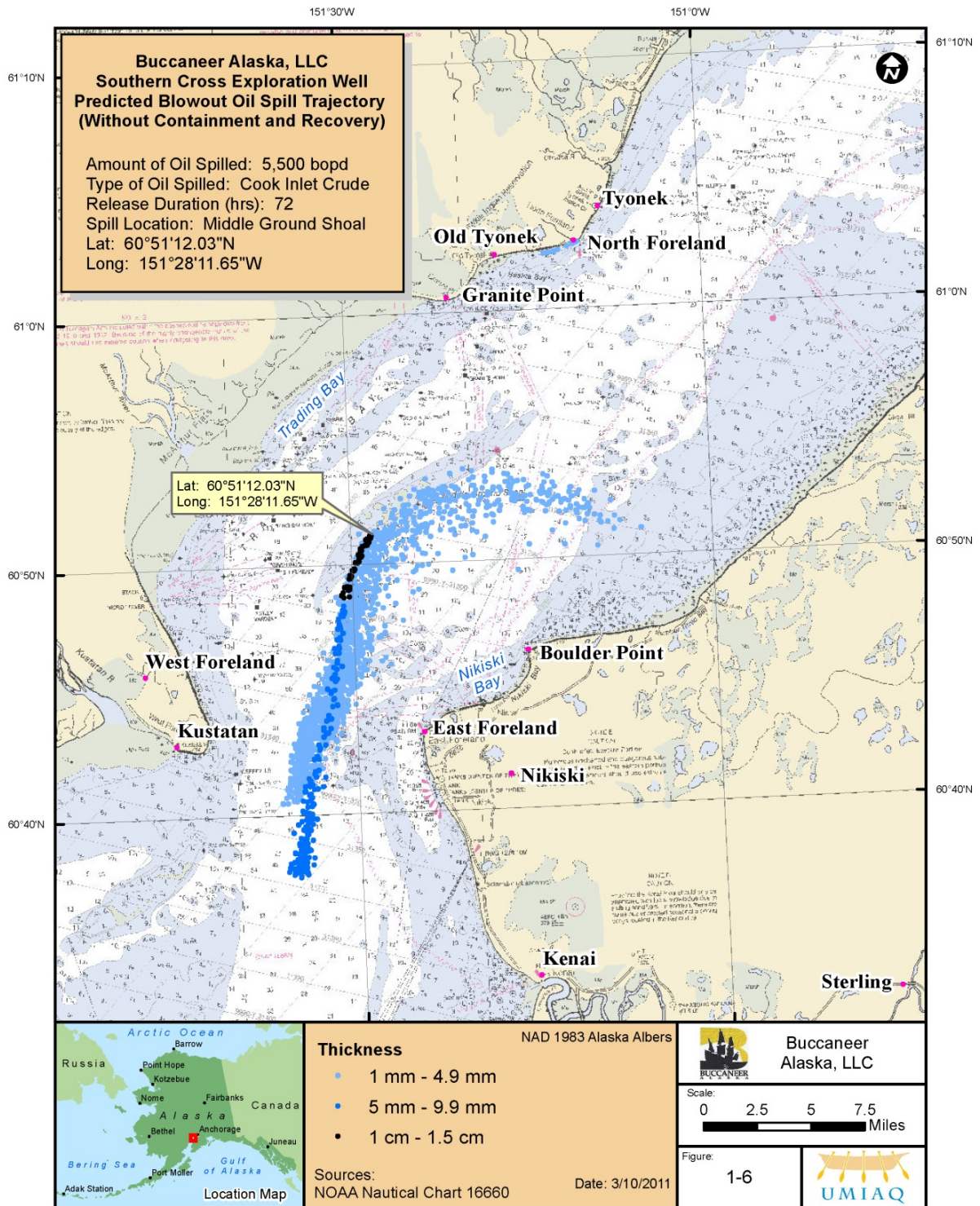


Figure 1.6-1 Predicted Oil Spill Trajectory

<b>RESPONSE ACTIVITIES – Buccaneer Spill Response Team</b>			
<b>DAY TWO – DAY FIFTEEN</b>			
<b>UNIFIED COMMAND ACTIVITIES:</b>			
<b>COMMAND</b>	<b>PLANNING SECTION</b>	<b>LOGISTICS SECTION</b>	<b>OPERATIONS SECTION</b>
<p><b>Incident Commander</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand Command Post as necessary</li> <li>✓ Maintain UC</li> <li>✓ Revise goals and objectives as circumstances dictate</li> </ul> <p><b>Liaison</b></p> <ul style="list-style-type: none"> <li>✓ Establish and maintain Community notification and identify contacts</li> </ul> <p><b>Public Affairs</b></p> <ul style="list-style-type: none"> <li>✓ Ongoing media contact and public updates</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>✓ Ongoing field safety oversight</li> <li>✓ Ongoing revision of Health and Safety plan as appropriate</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>✓ Maintain security at the Command Post and Staging Areas as required</li> </ul>	<p><b>Planning Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand as required                             <ul style="list-style-type: none"> <li>* Documentation Unit</li> <li>* Resources Unit</li> <li>* Situation Status Unit</li> <li>* Environmental Unit</li> <li>* Long-Term Planning Unit</li> </ul> </li> <li>✓ Maintain meeting schedule</li> <li>✓ Revise and update Long-Term Plan</li> <li>✓ Update and revise Incident Action Plan for next 12-hour period.</li> </ul> <p><b>Environmental Unit</b></p> <ul style="list-style-type: none"> <li>✓ Develop long term contractor recovery action plan</li> <li>✓ Institute Waste Management Plan</li> </ul> <p><b>Resources Unit</b></p> <ul style="list-style-type: none"> <li>✓ Maintain display of response equipment/personnel</li> </ul> <p><b>Documentation Unit</b></p> <ul style="list-style-type: none"> <li>✓ Continue documentation of all spill activities</li> </ul>	<p><b>Logistics Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand Command Post</li> <li>✓ Arrange for continued overflights</li> <li>✓ Establish additional Staging Areas if needed</li> <li>✓ Mobilize additional IRT &amp; SNRT personnel</li> <li>✓ Continue to provide meals and services</li> <li>✓ Maintain Long-Range Communications Plan</li> <li>✓ Order equipment as requested</li> </ul>	<p><b>Operations Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Continue mobilization of equipment as required in the field</li> <li>✓ Maintain equipment while in the field</li> </ul> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>✓ ICS-204 (Field Assignments)</li> </ul> <p><b>Supervise</b></p> <ul style="list-style-type: none"> <li>✓ Recovery Operations</li> <li>✓ Aircraft Deployments</li> <li>✓ Staging Area</li> <li>✓ Disposal Activities</li> </ul>

<b>Southern Cross #1 Platform Blowout – Skimmer Recovery Capacity</b>																				
<b>Hour</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10 – 12</b>	<b>13 - 16</b>	<b>17 20</b>	<b>21 - 24</b>	<b>25 - 28</b>	<b>29 – 32</b>	<b>33 – 36</b>	<b>37 – 40</b>	<b>41 – 44</b>	<b>45 - 48</b>	
CISPRI OSRV with 8-rope	Arrives on scene																			
Foxtail and two 220 bbl oil/water separators	100			300			300			300	400	400	400	400	400	400	400	400	400	400
CIC #2	CIC #2 arrives on scene at hr 4.5 with one 249-bbl barge to provide lightering rotation with Barge <i>Responder</i>																			
M/V <i>Seal</i>	Arrives on scene to provide ongoing safety and personnel support throughout duration of incident																			
OSV <i>Champion</i> with 8-rope Foxtail	Arrives on scene at hour 3.5 and maintains standby as other assets meet recovery capacity needs.																			
And two 220 bbl oil/water separators and Barge 141	Tasked to transit with Barge 141 from Nikiski to site, departs at Hour 15 and returns to spill site by Hour 24																			
Class 8 Tow Vessel	Arrives on scene to replace OSV <i>Champion</i> for large lightering barge support																			
OSV <i>Resolution</i> with 8-rope Foxtail and Barge <i>Responder</i>	Arrives on scene with Barge <i>Responder</i> Hour 24 Barge <i>Responder</i> reaches capacity and is replaced by Barge 141																			
				100			300			400	400	400	400	400	400	400	400	400	400	400
M/V <i>Resolution</i> with two Lori side-collectors	Arrives on scene with two 249 bbl barges																			
			480			720			720	960	960	960	960	960	960	960	960	960	960	960
M/V <i>Moriah</i> with 4-rope Foxtail	Arrives on scene with one 100 bbl barge at 4.5 hr and begins skimming at hr 5.																			
			40			60			60	80	80	80	80	80	80	80	80	80	80	80
CIC #1	CIC #1 arrives on scene with one 100 bbl barge to provide lightering rotation with Barge <i>Responder</i> and Barge 141																			
Six Class 3 Fishing Vessel (F/V)	Arrives on scene to provide U-boom configuration for major skimming platforms																			
Totals (bbl/hrs)	100			820			1,180			1,380	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840	1,840
Total (bbl)	100			920			2,100			3,480	5,320	7,160	9,000	10,840	12,680	14,520	16,360	18,200	20,040	20,040

Day 1 – Day 2 Total: 20,040 bbl

<b>Southern Cross #1 Platform Blowout</b>													
<b>Day 3 - 15</b>	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
CISPRI OSRV with 8-rope Foxtail and two 220 bbl oil/water separators	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
CIC #2	CIC #2 continues with one 249 bbl barge to provide lightering rotation with Barge 141 and Barge <i>Responder</i>												
M/V <i>Seal</i>	Continues to provide ongoing safety and personnel support throughout duration of incident												
Class 8 Tow Vessel	Continues lightering barge support for Barge 141 and Barge <i>Responder</i> . Day 12 Barge 141 is replaced by Barge <i>Responder</i> Barge 141 and Barge <i>Responder</i> operate on rotation cycle for storage and lightering of recovered liquids												
OSV Resolution with 8-rope Foxtail and Barges 141/ <i>Responder</i>	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400
M/V <i>Resolution</i> with two Lori side-collectors	Continues oil recovery operations with two 249 bbl barges												
	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
M/V <i>Moriah</i> with 4-rope Foxtail	Continues oil recovery operations with one 100 bbl barges												
	480	480	480	480	480	480	480	480	480	480	480	480	480
CIC #1	Continue to provide lightering rotation with Barge 141 and Barge <i>Responder</i>												
Six Class 3 F/V	Continues to provide U-boom configuration for major skimming platforms												
Totals (bbl / day)	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040	11,040
Total (bbl)	31,080	42,120	53,160	64,200	75,240	86,280	97,320	108,360	119,400	130,440	141,480	152,520	163,560
<b>Grand Total Day 1 – Day 15 Derated Skimming Capacity = 163,560 bbl</b>													

Note: Although mobilization and full deployment for recovery operations are not underway for the first 12 hours, the derated recovery capacity is more than sufficient to recover the planning volume released during the first 24 hours. The second day and beyond, skimming for 24 hours each day, recovery capacity exceeds the 5,500 bopd released in this scenario. Evaporation has not been taken into account as shown in NOAA's Automated Data Inquiry for Oil Spills (ADIOS2).

## Spill Scenario



### • Oil Type

**COOK INLET, DRIFT RIVER TERMINAL**

**Location = DRIFT RIVER TERMINAL, ANCHORAGE, AK**

**Synonyms = none listed**

**Product Type = crude**

**API = 34.1**

**Pour Point = -20 deg C**

**Flash Point = unknown**

**Viscosity = 4.9 cSt at 38 deg C**

**Adhesion = unknown**

**Aromatics = unknown**

### • Wind and Wave Conditions

**Wind Speed = 8 knots from 226 degrees**

### • Water Properties

**Temperature = 48 deg F**

**Salinity = 32 ppt**

**Sediment Load = 5 g/m3 (ocean)**

**Current = 2.8 knots towards 29 degrees**

### • Release Information

#### · Continuous Release

**Time of Release = July 14, 0700 hours**

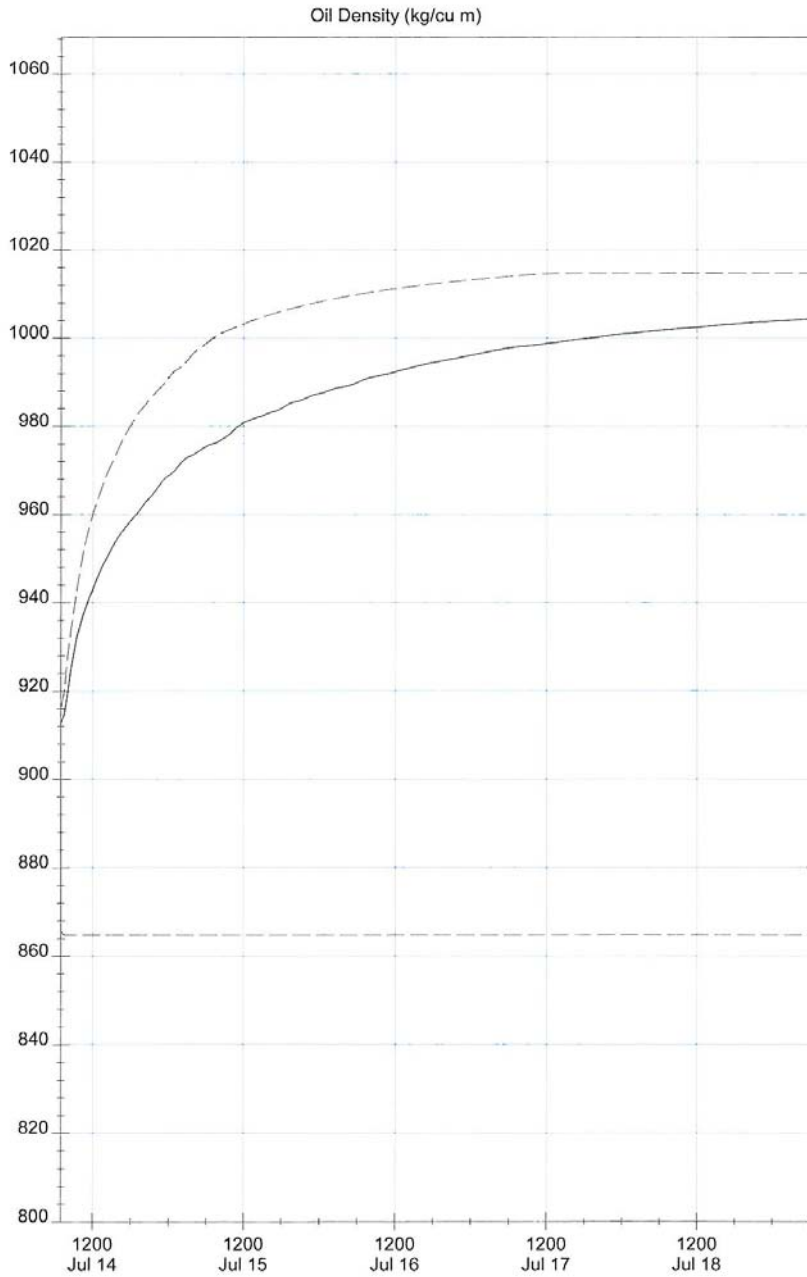
**Spill Rate = 229 bbl/hr**

**Duration of Release = 5 days**

September 09, 2010

**Spill Scenario**

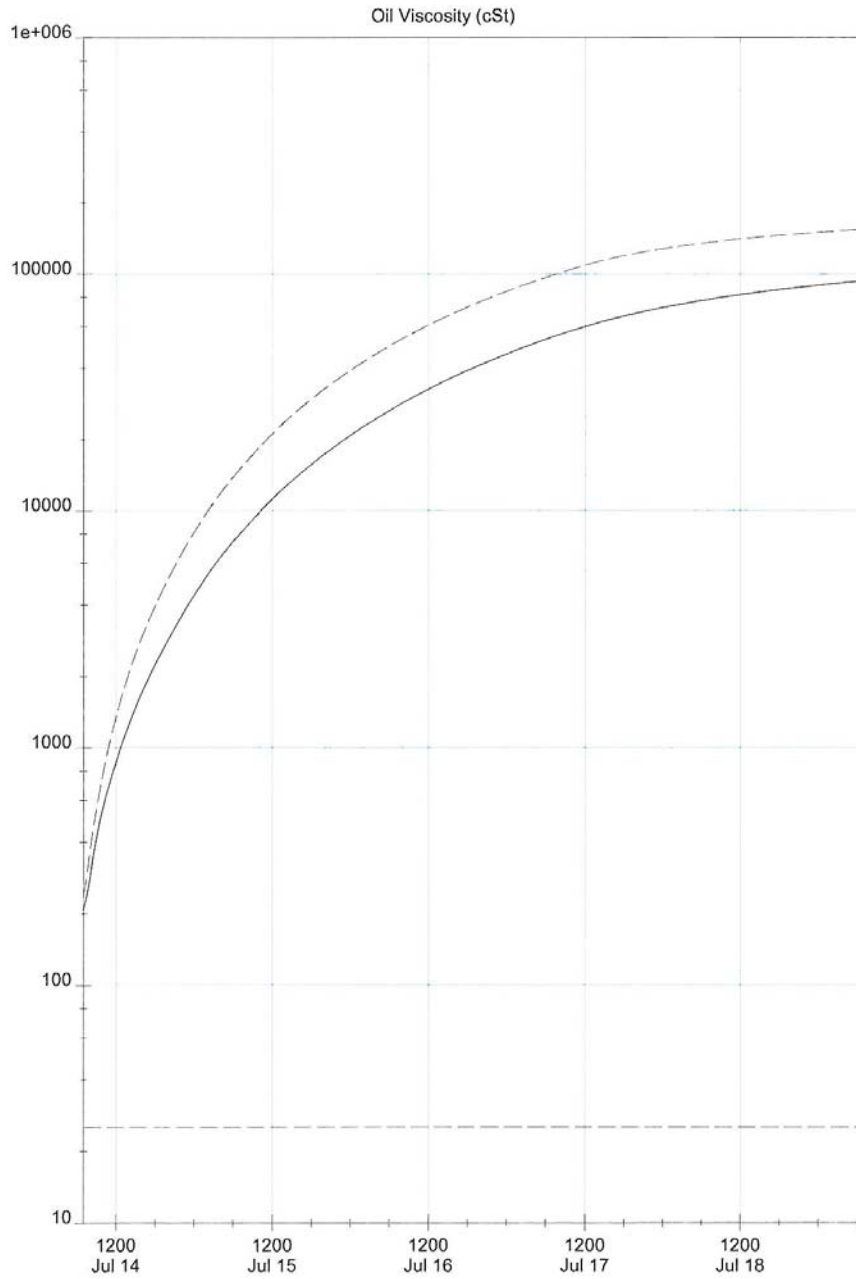
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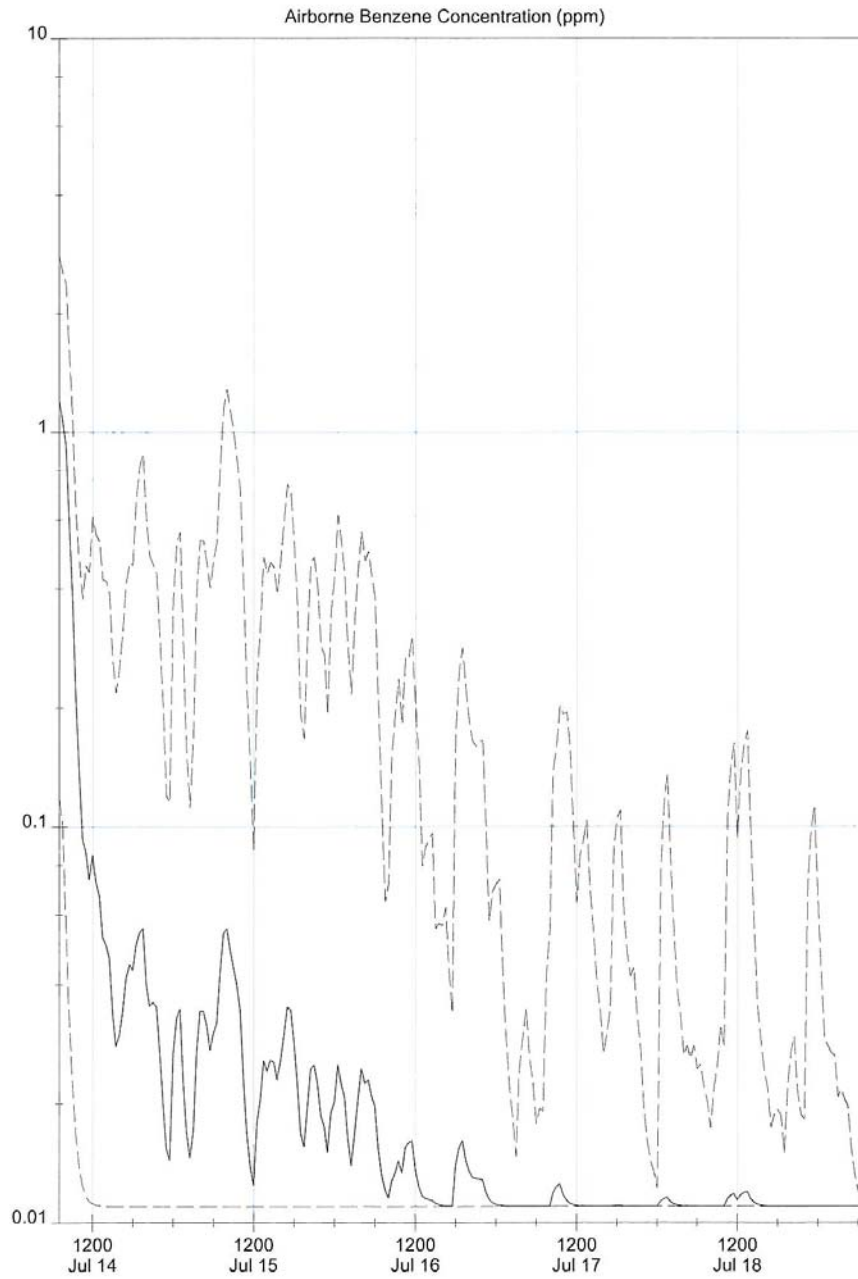


Spill Scenario



September 09, 2010

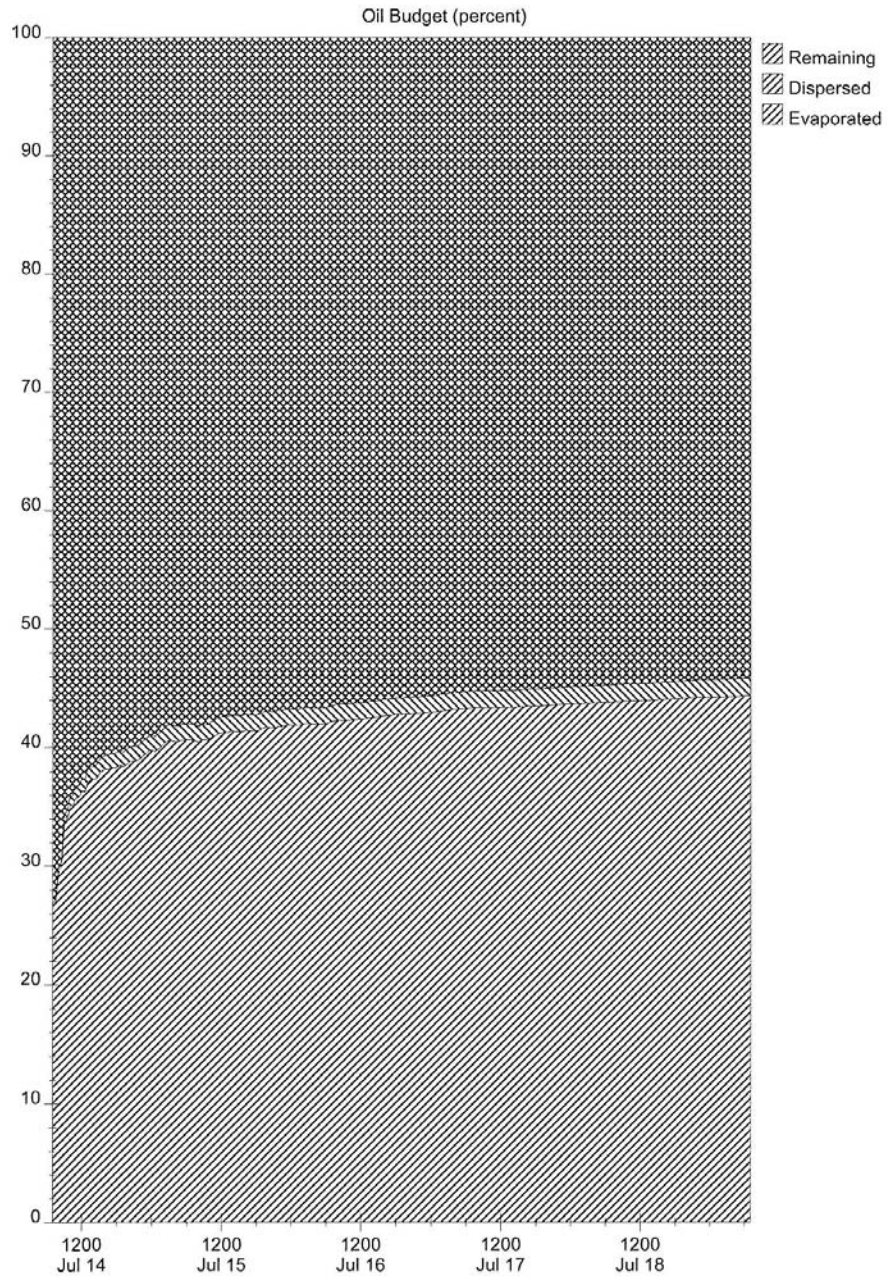
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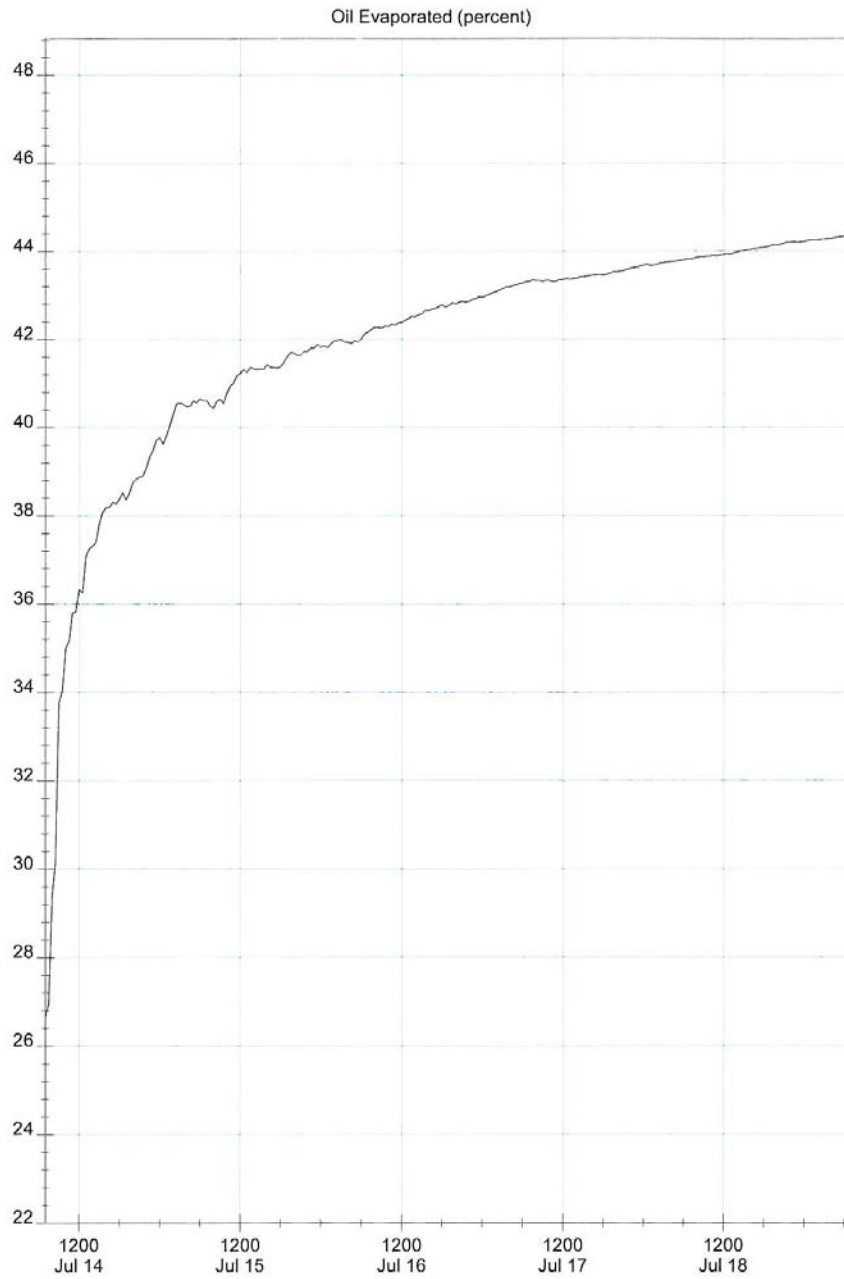
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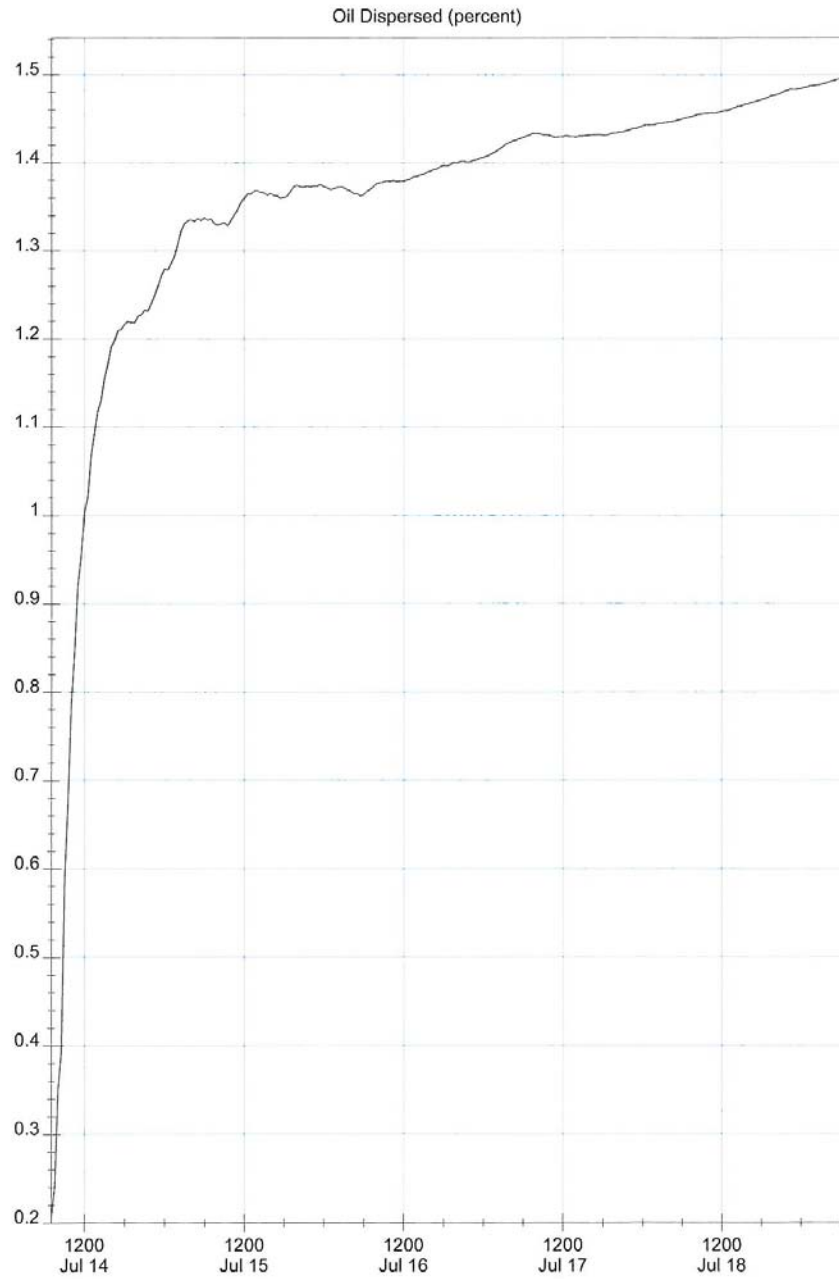
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**Spill Scenario**




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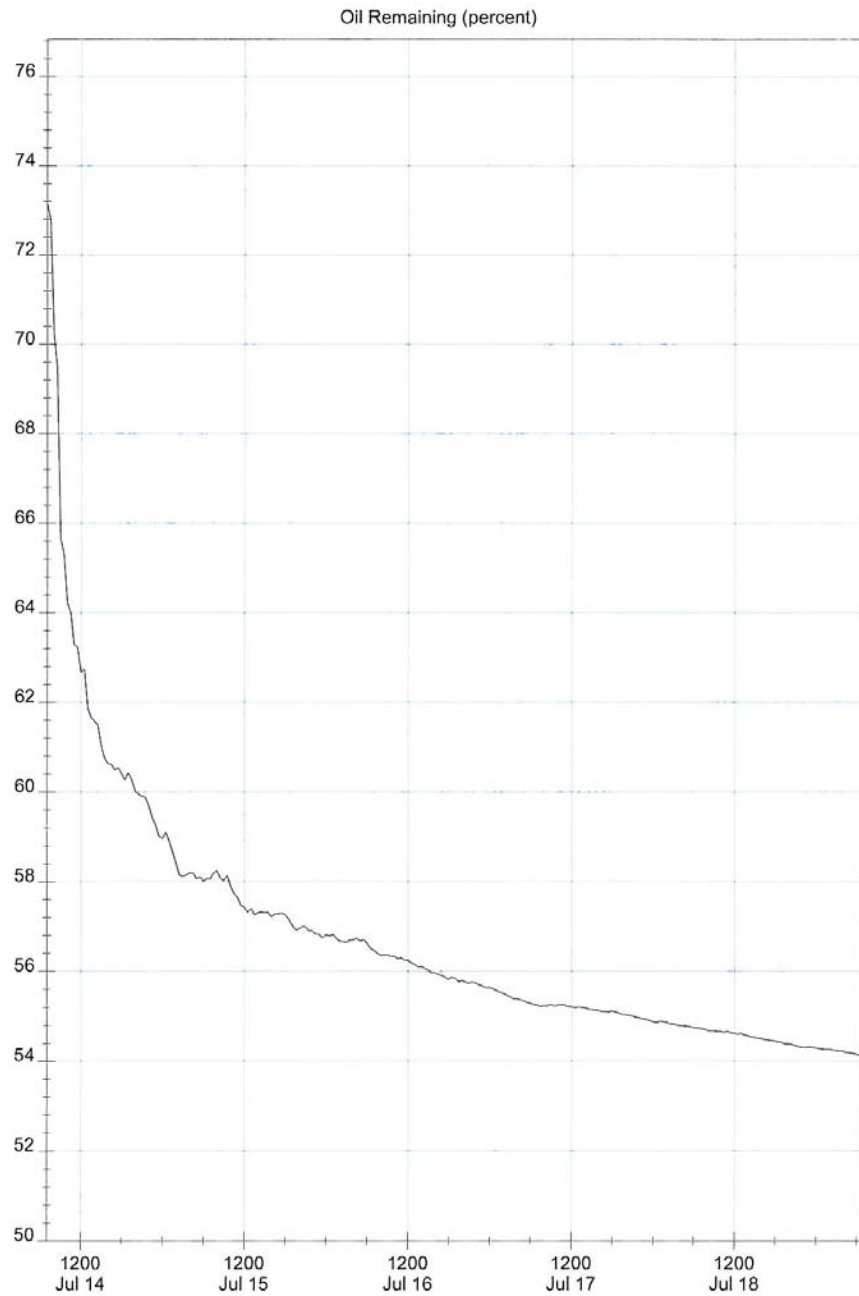
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## **Response Scenario – Fuel Transfer Failure**



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## Fuel Transfer Failure Strategy: 17 bbls

Buccaneer's Fuel Oil and Fluid Transfer Procedures (Appendix B) were developed to reduce the potential for a fuel transfer failure. If the event a fuel spill does occur, The following response strategy presents possible methods and equipment that could be used in a response to a hypothetical diesel spill during a cargo transfer from a fuel barge to the drilling platform in July. This strategy is developed to satisfy the USCG and Homeland Security response plan requirements of 33 CFR 154 and the assumptions for the discharge are based upon 33 CFR 154.1029(b). The strategy format is generally based upon that used in the RPS scenario.

The transfer failure is based upon transfer lines and equipment generally used in Cook Inlet capable of transferring 928.6 bbl/hr or 650 gal per minute (gpm). The total volume is calculated from the fluids in the transfer line plus the discharge of the pump prior to shutdown. For the proposed configuration, the fluids are transferred through a 100 linear foot (lf) fuel line that is 4-inches in diameter and discharging for 1 minute at the rate of about 650 gpm before the system is completely shutdown, resulting in a release volume of approximately 17 bbl.

This volume was calculated using the following equation:

$$\begin{aligned} \text{Failure volume} &= \text{volume of fluids in the transfer line} + \text{discharge of a pump prior to shutoff} \\ \text{Failure volume} &= (V_{tl} \times L) + (D_{ps} \times T_{sd}) \end{aligned}$$

Where:

$V_{tl}$	= gal per lineal foot (g/lf) of 4-inch diameter line	= $0.0408 \times (4)^2$ g/lf
$L$	= lineal ft (lf) of arctic grade fuel line	= 100 lf
$D_{ps}$	= pump discharge rate in gallons per minute	= 650 gpm
$T_{sd}$	= time until discharge is shutdown	= 1 minutes

Therefore:

$$\begin{aligned} \text{Failure volume} &= (0.652 \text{ g/lf} \times 100 \text{ lf}) + (650 \text{ gpm} \times 1 \text{ minute}) \\ &= \sim 65.2 \text{ gal} + 650 \text{ gal} \\ &= \sim 715.2 \text{ gal} \\ &= \sim 17 \text{ bbl} \end{aligned}$$

The strategy illustrates what might happen under a given set of conditions using selected spill response strategies and tactics. The strategy is presented for planning purposes only. In an actual event, the response actions would be adjusted to ensure personnel safety and maximize recovery efforts based upon conditions at the time of the spill.

## STRATEGY – Fuel Transfer

The following scenario depicts typical response activities during an oil spill response in moderate sea conditions.

At approximately 0900 on July 15, a diesel transfer line failed between the drilling platform and the fuel barge during transfer of fuel to the drilling platform.

The estimated 17 bbl of fuel spilled is the combined amount of what escaped until it was detected and stopped plus residual in the hose.

### RESPONSE TYPE: TYPE / AMOUNT:

Open Water Response	Diesel #2 / 17 bbl
---------------------	--------------------

### SOURCE:

Ruptured transfer line on the drilling platform to fuel supply barge.

<b>TIME:</b>	9:00 a.m.	<b>WIND:</b>	5 knots (kt) E wind
<b>SEASON:</b>	Summer, July	<b>TEMPERATURE:</b>	50°F
<b>VISIBILITY:</b>	>10 miles	<b>LOCATION:</b>	Middle Ground Shoal 60.851225N, 151.472622W
<b>WATER TEMP:</b>	48° F	<b>SEAS:</b>	Calm
<b>TIDES:</b>	5:00 am 21.69 ft 11:45 am -3.49 ft 6:00 pm 21.11 ft 11:59 pm 2.68 ft	<b>SUNRISE / SUNSET:</b>	5:01 am / 11:21 pm

### ASSUMPTIONS:

The cause of the spill has no impact on the size or duration of the spill event.  
No injuries are associated with the spill.  
Site characterization results permit safe response operations.  
Response focus will be on thick concentrations of diesel, with less emphasis on the leading edge or sheen.  
Task Force Leaders have authority to assign response resources arriving on-scene as necessary to meet current conditions.  
Small on-water storage devices (bladders, barges, etc.) are placed into rotational cycles. As these assets are filled, they are transported for lightering when full.  
UC activities will not reflect standard/scheduled meetings, etc.; but will focus on individual activities specific to the spill.  
Open water response operations will be conducted on a 24-hour basis using CISPRI tactics, as defined in the *CISPRI Technical Manual*, Tactic CI-OW-1, CI-NS-1-1, and CI-NS-2. Skimmer efficiencies and nameplate capacities are provided in Appendix A of the *CISPRI Technical Manual*.  
Equipment mobilization and deployment times accounted for in the scenario are supported by the *CISPRI Technical Manual*, Tactics CI-LP-1(A), CI-LP-1(B), CI-LP-2, CI-LP-3 and CI-LP-4.  
The *Seal* and *Tern* are mobilized to deploy the current buster and provide for concentration booming.  
With an outgoing and extreme low tide, the vessels work with the current to maximize containment.

### SUPPORTING ACTION TAKEN:

Site characterization will take place immediately upon call-out because the CISPRI OSRV will be in the vicinity during transfer operations.  
Barge and platform operators provide the first on-scene information to the Command Post.  
Command Center mobilizes an initial overflight with regulatory agencies, CISPRI and Responsible Party.

ADEC and the USCG notify the Natural Resource Trustees for direction regarding wildlife activities.	
<b>PROCEDURES TO STOP A DISCHARGE:</b>	
Barge tankerman and platform operator shut in their respective fuel transfer manifolds.	
<b>FIRE PREVENTION AND CONTROL:</b>	
Initial site characterization will include LEL testing and will be completed by CISPRI personnel prior to commencing any spill response actions. CISPRI will not deploy personnel and equipment into an area with an LEL > 0.	
<b>DISCHARGE TRACKING:</b>	
Discharge tracking is addressed in the <i>CISPRI Technical Manual</i> , Tactics CI-TS-0 through CI-TS-4.	
<b>PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:</b>	
Tactics providing for sensitive area protection are described in <i>CISPRI Technical Manual</i> , Tactic CI-SA-0 through CI-SA-3. Specific GRS are implemented if spill trajectories or tracking indicate potential impact. Spill size and duration indicates a very low probability of impact to sensitive areas or wildlife.	
<b>24 HOUR OPERATIONS:</b>	
As described in the <i>CISPRI Technical Manual</i> tactics, provisions are available to enable 24-hour response operations. Using overflights, infrared cameras (both ship-mounted and hand-held devices) and on-scene vessel lighting to track the slick location, CISPRI will maintain contact with the largest concentrations of product as described in <i>CISPRI Technical Manual</i> , Tactic CI-TS-0 through CI-TS-4.	
<b>CONTAINMENT AND CONTROL STRATEGIES:</b>	
Strategies for Containment and Control of on-water spill response are included in <i>CISPRI Technical Manual</i> , Tactic CI-OW-1, CI-NS-1-1 and CI-NS-2.	
<b>TACTICS</b>	<b>EQUIPMENT</b>
<p><b><u>Open Water / Nearshore</u></b></p> <ul style="list-style-type: none"> <li>• Site Characterization (CI-S-1)</li> <li>• High Volume Skimming (CI-OW-1, CI-NS-1-1)</li> <li>• Concentration Booming (CI-OW-1, CI-NS-1-1, and CI-NS-2)</li> </ul>	<ul style="list-style-type: none"> <li>• Air monitoring</li> <li>• CISPRI OSRV with 8-rope Foxtail skimmer, two 220 bbl oil/water separators</li> <li>• M/V <i>Moriah</i> with 4-rope Foxtail skimmer and one 100 bbl barge and CIC #1.</li> <li>• <i>Seal / Tern</i> with Current Buster</li> </ul>
<p><b><u>Onshore/GRS</u></b></p> <ul style="list-style-type: none"> <li>• Protective Booming (CI-NS-3 through CI-NS-6)</li> <li>• Skimming (CI-NS-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment not needed as spill size and duration do not impact sensitive areas or shorelines.</li> </ul>
<p><b><u>Safety</u></b></p> <ul style="list-style-type: none"> <li>• Ongoing safety oversight (CI-S-2, CI-S-3, and CI-S-4)</li> </ul>	<ul style="list-style-type: none"> <li>• Air monitoring and PPE</li> <li>• Site Safety Plans</li> <li>• Safety Briefings</li> </ul>
<p><b><u>Wildlife</u></b></p> <ul style="list-style-type: none"> <li>• Hazing (CI-W-1)</li> <li>• Capture and Rehabilitation (CI-W-2 through CI-W-5)</li> <li>• Permitting (CI-LP-7)</li> </ul>	<ul style="list-style-type: none"> <li>• Although resources and equipment are activated to manage wildlife hazing, capture and rehabilitation, the spill's type, duration, and cleanup preclude the need for their mobilization and deployment. No wildlife is observed to be oiled or needs to be hazed.</li> </ul>
<p><b><u>Decon/Disposal/Demobilization</u></b></p> <ul style="list-style-type: none"> <li>• Decon Plan – Site Control (CI-S-4), Personnel Decontamination (CI-S-5) Site Health and Safety Plan (Appendix C)</li> </ul>	<ul style="list-style-type: none"> <li>• Decon Kits (gloves, wash tubs, sorbent, brushes)</li> <li>• PPE</li> </ul>

- Setup of vessel decon stations (CI-WM-5)
- Disposal Sites - selection and setup (*CISPRI Technical Manual, Appendix D*)
- Permitting (CI-LP-7)
- Temporary and long-term storage sites (CI-LP-3, CI-LP-4, CI-LP-7, *CISPRI Technical Manual Appendix D*)

- Lined dumpsters, ore bins, pit liners, etc.
- Drums, small tankage for fluid storage
- Temporary storage pit materials
- Small vessel, on land, decon station with pressure washers

**RECOVERY STRATEGIES:**

- Safety of workers from accident or exposure takes precedence over all recovery activities.
- Implement open water task force for most effective response containment and recovery. Implement nearshore and onshore/GRS task forces only if necessary.
- Minimize spread of oil.
- The OSRV deploys it ODI skirt, outrigger, and 8-rope foxtail skimming system.
- The Moriah and CIC #1 work in J-boom configuration to contain and recover slicks and windrows.
- Employ concentration booming using the current buster as described in *CISPRI Technical Manual, Tactic CI-NS-2*.
- Place Wildlife Task Force on standby and mobilize when needed to respond to reports of affected wildlife.
- Mitigate shoreline impact with emphasis on environmentally sensitive areas.
- Implement protective strategies when GRS sites are identified as risk.

**RECOVERED OIL TRANSFER AND STORAGE:**

- Oil will be initially collected and stored aboard the CISPRI OSRV and associated storage barge in tow by M/V *Moriah*.
- Recovered fluids storage is available onshore at Tesoro facilities or possibly pumped to a tank onboard the platform.
- Oiled sorbents, Tyvek suits, and other consumables will be double-bagged onboard the vessels and stored in appropriate lined boxes until they can be transferred ashore for disposal.
- Oiled debris, etc. will be stored on deck of vessels or barges, in open-hopper barges, or other appropriate sites. These areas will be properly lined. The debris will then be transferred to lined tanks, bins, pits, etc. onshore.

**DECONTAMINATION/DEMobilIZATION:**

- Response equipment, personnel, vessels, etc. will be decontaminated and returned to their base locations as soon as their use is no longer necessary. Planning for this process will commence as soon as critical response equipment resources have been mobilized to the spill site.
- Both onshore and on-water sites will be established to decontaminate response equipment and vessels prior to their final demobilization from the spill. Onshore sites will be established with properly lined containment. Operations will be conducted as per UC guidance. Oil will be separated from the water via sorbent material, a separation system, or other selected method.
- If staging area becomes too crowded, additional decon sites can be set up in warehouse at OSK Dock or at CISPRI facility.

**TEMPORARY STORAGE AND ULTIMATE DISPOSAL:**

- UC will secure Temporary Waste Storage Permits for oily debris and submit a Waste Management Plan with emphasis on local incineration of oily absorbents and debris.
- Temporary on-land sites for debris (dumpsters, pits, ore bins, etc.) will be lined to hold oiled debris with proper permitting in place.
- Responsible Party negotiates agreement with KPL Dock to receive the recovered oil/water from the spill response operations. The recovered fluids will be stored in onshore storage tanks until an

accounting process is completed with ADEC's approval. Recovered fluids will be separated with diesel processed for beneficial re-use and water to be properly disposed.

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### **WILDLIFE PROTECTION:**

- Special consideration is given to the wildlife in the area.
- Actions are established and supervised by ADF&G, USFWS and other appropriate resource trustees.
- The UC remains in constant communication with the ADF&G and the Environmental Unit for guidance in providing additional measures to minimize impacts to commercial fisheries and priority protection sites.
- Activation of bird hazing, capture, and rehabilitation personnel and facilities occurs with their being put on standby, and then mobilized, if required
- Wildlife tactics and equipment will target wildlife populations in the region. As necessary, mobile units may be established, tactics and equipment will be species-specific.
- Marine mammal populations in the region include harbor seals at West Forelands and Beluga whales at Redoubt Bay.
- Certain species of shore birds are present in the Trading Bay area during the summer months. Contact should be limited because hatchlings have left the nest and discharged product would be at the lower tidal stages.
- Anadromous streams in the area will be given first priority and GRS will be implemented as required.

<b>RESPONSE ACTIVITIES</b>			
<b>Buccaneer Spill Response Team</b>			
<b>COMMAND</b>	<b>PLANNING SECTION</b>	<b>LOGISTICS SECTION</b>	<b>OPERATIONS SECTION</b>
<p><b>IC</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Establish UC</li> <li>✓ Establish goals &amp; objectives</li> </ul> <p><b>Liaison</b></p> <ul style="list-style-type: none"> <li>✓ Complete agency notification</li> <li>✓ Establish community notification &amp; identify contacts</li> </ul> <p><b>Public Affairs</b></p> <ul style="list-style-type: none"> <li>✓ Prepare initial news release</li> <li>✓ Set up media conference</li> <li>✓ Set up Joint Information Center</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>✓ Conduct initial Site Characterization</li> <li>✓ Provide initial Site Safety Plan</li> <li>✓ Prepare detailed Safety Plan</li> <li>✓ Field safety oversight</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>✓ Establish security at Command Post, Spill Site, Staging Areas, etc.</li> <li>✓ Check credentials of all spill site personnel to ensure appropriate levels of training</li> </ul>	<p><b>Planning Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Activate Planning Section units</li> <li>✓ Prepare meeting schedule</li> <li>✓ Prepare Incident Action Plan for next operating period.</li> <li>✓ Commence planning for waste management, decontamination and demobilization</li> </ul> <p><b>Environmental Unit</b></p> <ul style="list-style-type: none"> <li>✓ Identify/Prioritize Sensitive Areas based on resources at risk</li> <li>✓ Prepare Wildlife Plan</li> <li>✓ Prepare appropriate permits (<i>ISB</i>, dispersant, etc.)</li> <li>✓ Prepare Request for Decanting</li> </ul> <p><b>Resources Unit</b></p> <ul style="list-style-type: none"> <li>✓ Display response equipment /personnel</li> <li>✓ Establish short-term plan</li> </ul> <p><b>Documentation Unit</b></p> <ul style="list-style-type: none"> <li>✓ Document all spill activities</li> </ul> <p><b>Staging Areas &amp; Technical Specialists</b></p> <ul style="list-style-type: none"> <li>✓ Natural Resource Damage Assessment (NRDA) (if appropriate)</li> <li>✓ SCAT (If applicable)</li> <li>✓ Spill Trajectory – prepare and update</li> </ul>	<p><b>Logistics Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Arrange for overflights</li> <li>✓ Establish Staging Areas at CISPRI Warehouse, OSK Dock and wherever appropriate</li> <li>✓ Mobilize IRTs</li> <li>✓ Mobilize SNRTs</li> <li>✓ Provide Meals and Services</li> <li>✓ Establish Communications Plan</li> <li>✓ Order portable lights</li> <li>✓ Activate contract for infra-red sensor expert</li> </ul>	<p><b>Operations Section Chief</b></p> <p><b>Mobilize:</b></p> <ul style="list-style-type: none"> <li>✓ CISPRI OSRV</li> <li>✓ M/V <i>Moriah</i></li> <li>✓ Class 5 towing vessels</li> <li>✓ CISPRI Skimming Equipment</li> <li>✓ CISPRI Containment Boom</li> <li>✓ CISPRI Barges</li> <li>✓ CISPRI Personnel</li> <li>✓ CISPRI IRTs</li> <li>✓ Contract Personnel (SNRTs)</li> <li>✓ Contract vessels</li> </ul> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>✓ Information for Initial Briefing</li> <li>✓ ICS-204 (Field Assignments)</li> </ul> <p><b>Supervise</b></p> <ul style="list-style-type: none"> <li>✓ Aircraft overflights</li> <li>✓ Equipment deployment</li> <li>✓ Staging area</li> <li>✓ Wildlife activities</li> <li>✓ Decon activities</li> <li>✓ Demobilization activities</li> </ul> <p><b>Initiate Requests for</b></p> <ul style="list-style-type: none"> <li>✓ Decanting</li> <li>✓ Personnel</li> <li>✓ Additional response equipment</li> <li>✓ Overflights</li> <li>✓ Infrared expertise</li> <li>✓ other as required</li> </ul>

MAJOR SPILL RESPONSE RESOURCES TABLE	OPEN WATER T.F. #1	WILDLIFE	DISPOSAL	SAFETY	TOTALS
<b>Offshore Task Force</b>					
CISPRI OSRV with 8-rope Foxtail Skimmer, two 220 bbl oil/water separators	1				1
M/V <i>Moriah</i> with 4-rope and mini-barge	1				1
CIC #1	1				1
Current Buster	1				1
<i>Tern</i>	1				1
<i>Seal</i>	1				1
Personnel	15				15
<b>Onshore Waste Handling and Decon</b>					
Personnel			1/4		1 / 4
<b>Safety/Logistics</b>					
Personnel				3	3

Notes:

- 1) Personnel totals are split between Supervisors / Workers
- 2) Personnel totals do not include crews of contracted vessels.

TIME:	RESPONSE TIMELINE
<b>0 hr</b>	Upon discovery of the transfer hose rupture, the platform operator secures the valves on the platform and the barge tankerman secures the manifold on the barge. They in turn initiate their emergency shutdown procedures and spill response notifications and deployments. CISPRI OSRV is standing by during the transfer operation and initiates on-site air monitoring and site characterization. It is estimated the total volume released from the hose is 17 bbl of diesel fuel, of which about 1 bbl has stayed on the barge deck, and the remainder went into Cook Inlet.
<b>+0.5</b>	Fuel barge tankerman conducts a quick damage assessment. Crew is directed that personal safety is paramount. Watch for slippery decks while working. Begin deployment of sorbent pads onto fluids spilled on the barge deck.
<b>+1</b>	Site assessment is complete and the results reported to the IC indicating that it is safe for vessel and cleanup operations in all areas. Command authorizes operations in the vicinity of the barge and platform, and in areas affected by the spill. CISPRI OSRV deploys the outrigger and ODI Collection skirt down current of the fuel barge to capture fuel spilled into open water using tactic CI-OW-1. There are 440 bbl of onboard storage. CISPRI Command Center is activated with office personnel. IRT and SNRTs are mobilized and will report within the hour to the CISPRI Command Center.



	<p>An overflight of the spill has been arranged and will depart upon the arrival of the Responsible Party's representative.</p> <p>GRSs will be reviewed and initiated if required based on information gathered by the Environmental Unit from on-site personnel on the platform and vessels. It is unlikely GRS will be implemented during this event.</p> <p>The spill trajectory will be southward. Capable of 20 knots, the Seal and Tern with the current buster depart Nikiski Bay to the scene. The <i>Seal</i> and <i>Tern</i> are tasked to boom and concentrate oil for recovery by the <i>M/V Moriah</i>.</p>
<b>+1.5</b>	Responsible Party representative has arrived and an overflight is commenced. <i>M/V Moriah</i> with 4 - rope Foxtail departs the OSK Dock with a 100 bbl barge in tow.
<b>+2.0</b>	<p>The UC has assembled at the CISPRI Command Post and awaits information results from overflight and other field observations. The CISPRI Operations Manager and Agency representatives are in the process of conducting an overflight of the spill scene and areas of potential impact.</p> <p>In conjunction with running the ADIOS2 Program, the Planning Section prioritizes environmentally sensitive areas in the East Forelands area (CCI-08). The MWRT is notified and placed on standby while a determination of hazing and wildlife recovery requirements is conducted. No GRSs or wildlife protection measures are determined to be necessary because the size and estimated duration of the spill.</p> <p>The Seal and Tern arrive on scene and deploy the current buster. The vessels work with the tide to minimize oil entrainment and to maximize oil concentration for skimming. Oil collected in the current buster is recovered by skimming platforms.</p>
<b>+3</b>	CISPRI OSRV conducts skimming operations with the 8-rope Foxtail with a 100 bbl/hr derated recovery capacity. Recovered fluids are stored onboard.
<b>+4</b>	Crew has completed cleaning barge deck and temporarily storing all contaminated sorbents in sealed bags. Equipment is cleaned as needed throughout the response.
<b>+5</b>	<i>M/V Moriah</i> arrives on scene and works downcurrent with the CIC #1 in a J-boom configuration. In tandem, with the OSRV, the <i>Moriah</i> works to contain and recover oil using the 4-rope Foxtail skimmer. The skimmer has a de-rated 20 bbl/hr skimming capacity. Recovered fluids are stored in the 100 bbl barge.
<b>+6</b>	<p>By hour 6, approximately 8 bbl of oil have evaporated according to estimates generated by Automated Data Information for Oil Spills (ADIOS2), not counting one barrel cleaned up on the barge.</p> <p>The CISPRI OSRV and <i>M/V Moriah</i> have recovered all diesel fuel on the water.</p> <p>All skimming equipment is released because remaining sheen is not observed. All equipment will go through decontamination and then returned to service.</p>
<b>+7</b>	<p>Sorbents and/or viscous materials will be bagged and stored for final disposal. All oiled Tyvek and gloves will be gathered and properly disposed.</p> <p>Final reports are being written and will be forwarded to appropriate agencies as soon as completed. All recovered liquids are transferred to into the CISPRI OSRV for interim storage. Fuel transfer to the vessel has restarted.</p>

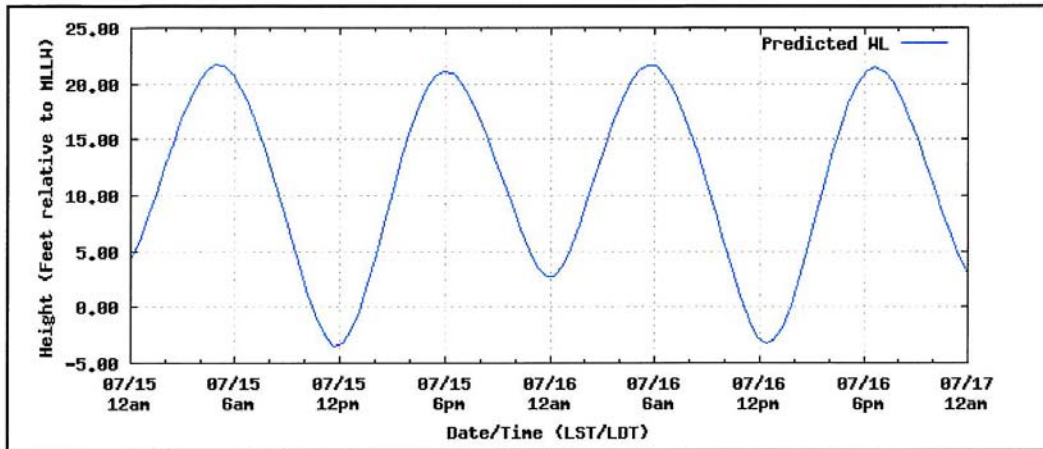
<b>Buccaneer Drilling Platform Fuel Transfer Spill Recovery Capacity</b>								
<b>Day 1 – Hour</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
CISPRI OSRV with 8-rope Foxtail and tow separators	On-scene Site Characterization	100	100	100	100	100	Stand down / Decon	
M/V <i>Moriah</i> with 4-rope Foxtail and 100-bbl barge					20	20	Stand down / Decon	
<b>Recovery Capacity (boph)</b>		100	100	100	120	120		
<b>Grand Total Recovery Capacity (bb)</b>						<b>540</b>		

boph = barrels of oil per hour



[Help](#)

**NOAA/NOS/CO-OPS**  
**Daily Tide Prediction for NIKISKI,AK**  
**StationId 9455760**  
**From: 2011/07/15 - 2011/07/16**  
**Units: Feet Time Zone: LST/LDT Datum: MLLW**



Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

**High/Low Tide Predictions**

Station Name: NIKISKI,AK	Source: NOAA/NOS/CO-OPS
Parameter: Daily	Prediction Type: Harmonic
Product: Tide Prediction	Datum: MLLW
Start Date & Time: 2011/07/15 12:00AM	Height Units: Feet
End Date & Time: 2011/07/16 11:59PM	Time Zone: LST/LDT

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2011/07/15	Fri	05:00 AM	21.69 H	11:48 AM	-3.49 L	06:00 PM	21.11 H	11:59 PM	2.68 L
2011/07/16	Sat	05:44 AM	21.69 H	12:27 PM	-3.32 L	06:38 PM	21.42 H		

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## Spill Scenario

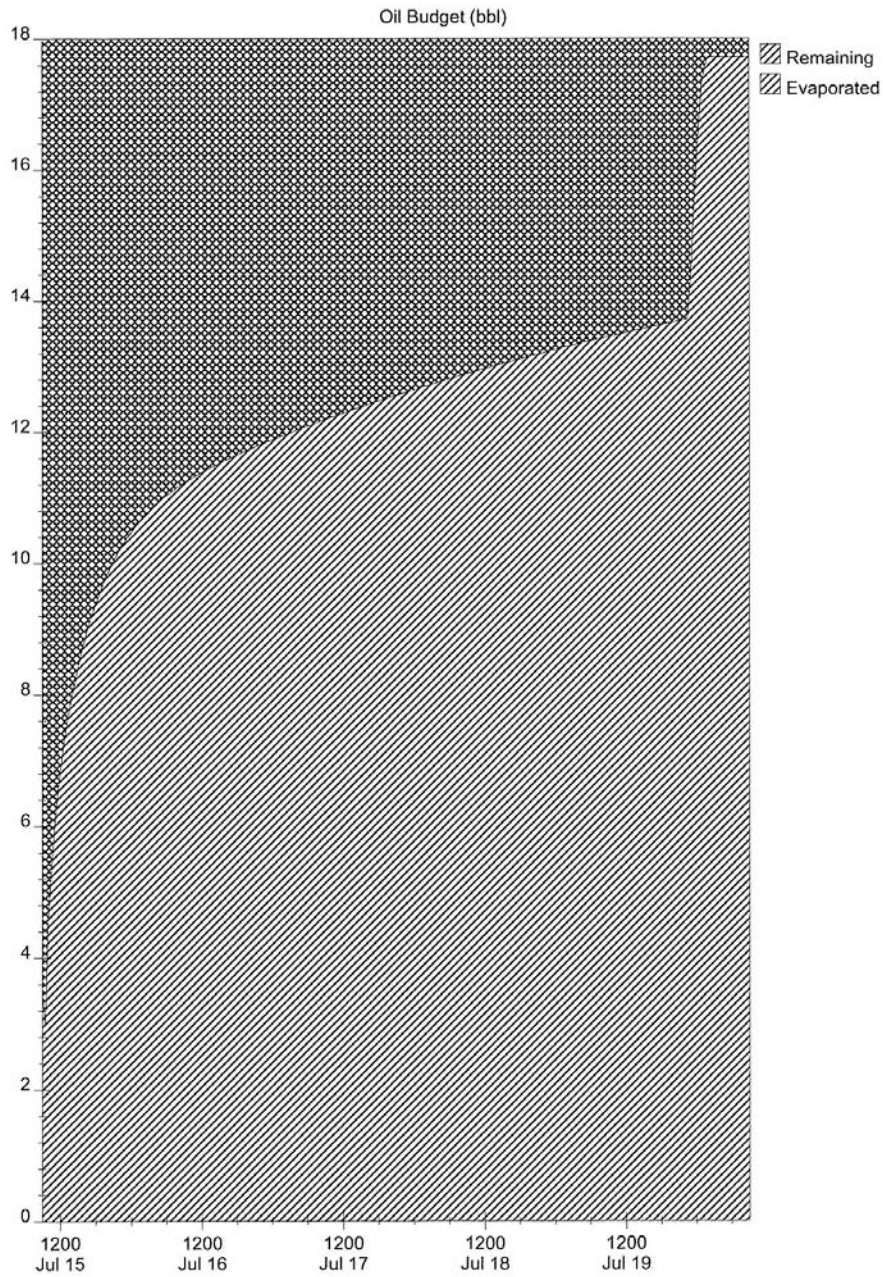
ADIOS® 2.0 

- **Oil Type**
  - DIESEL FUEL OIL (ALASKA)**
  - Location = none listed**
  - Synonyms = none listed**
  - Product Type = refined**
  - API = 38.8**
  - Pour Point = -36 deg C**
  - Flash Point = 40 deg C**
  - Density = 0.841 g/cc at 0 deg C**
  - Viscosity = 4.0 cP at 0 deg C**
  - Adhesion = 0.02g/m<sup>2</sup>**
  - Aromatics = 24 weight %**
- **Wind and Wave Conditions**
  - Wind Speed = 5 knots from 90 degrees**
- **Water Properties**
  - Temperature = 48 deg F**
  - Salinity = 32 ppt**
  - Sediment Load = 5 g/m<sup>3</sup> (ocean)**
  - Current = 2.8 knots towards 180 degrees**
- **Release Information**
  - **Instantaneous Release**
    - Time of Release = July 15, 0900 hours**
    - Amount Spilled = 17 bbl**

October 12, 2010

**Spill Scenario**

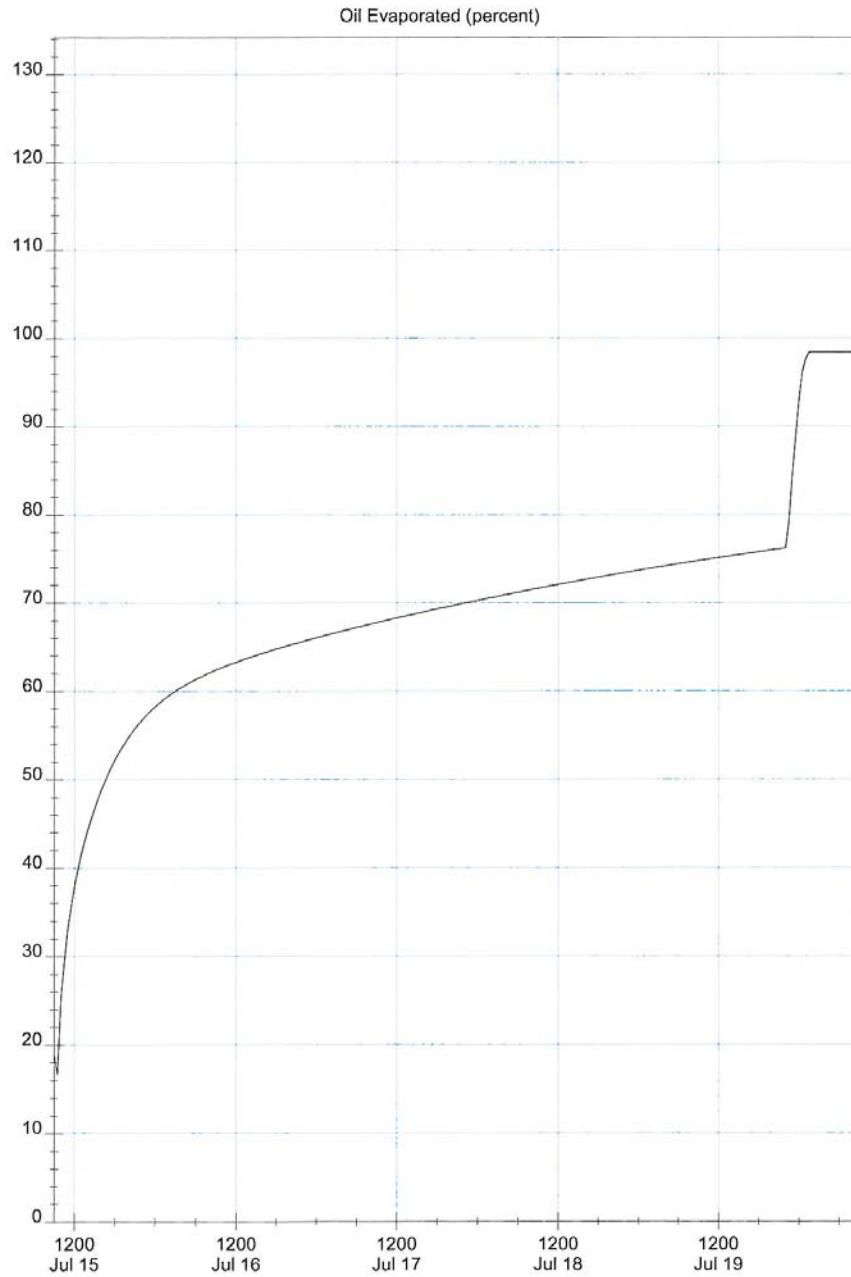
ADIOS® 2.0 



October 12, 2010

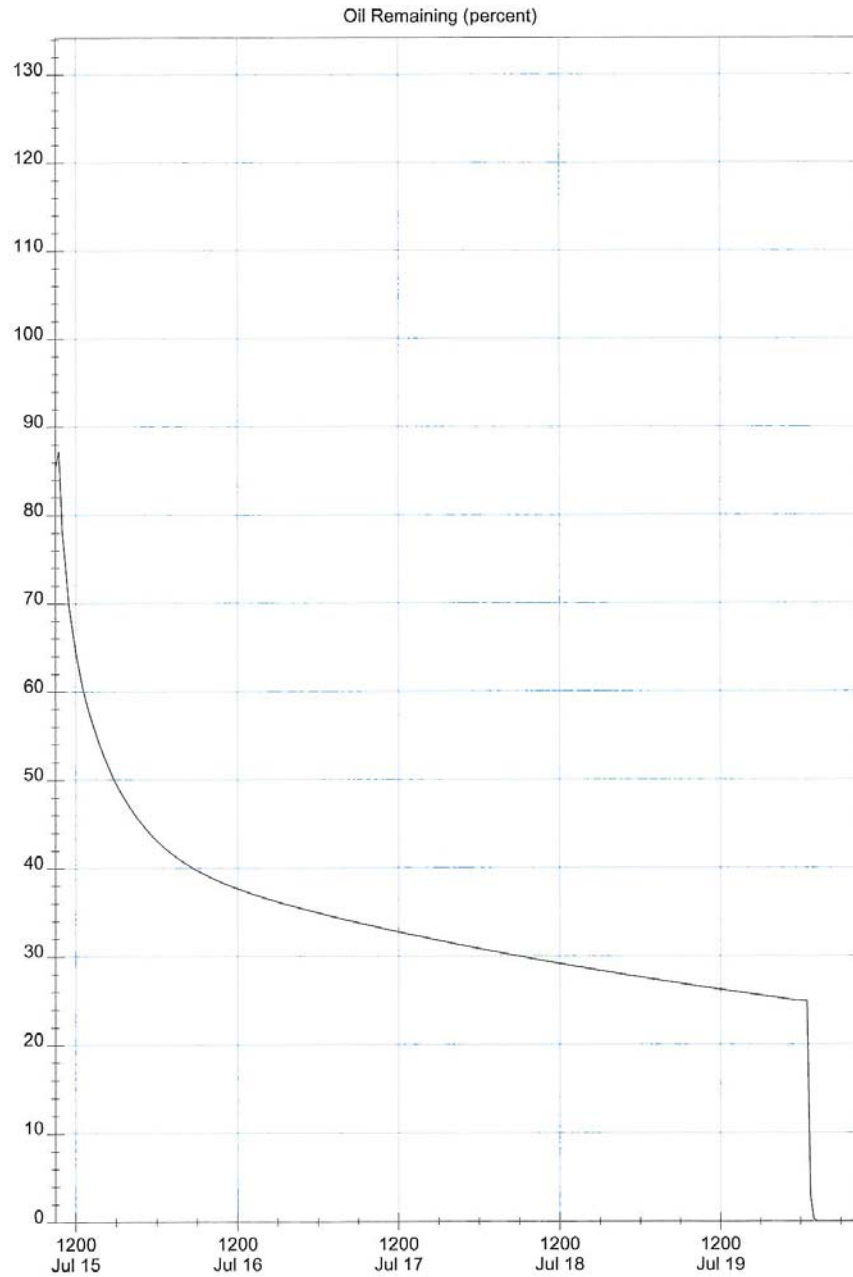


**Spill Scenario**



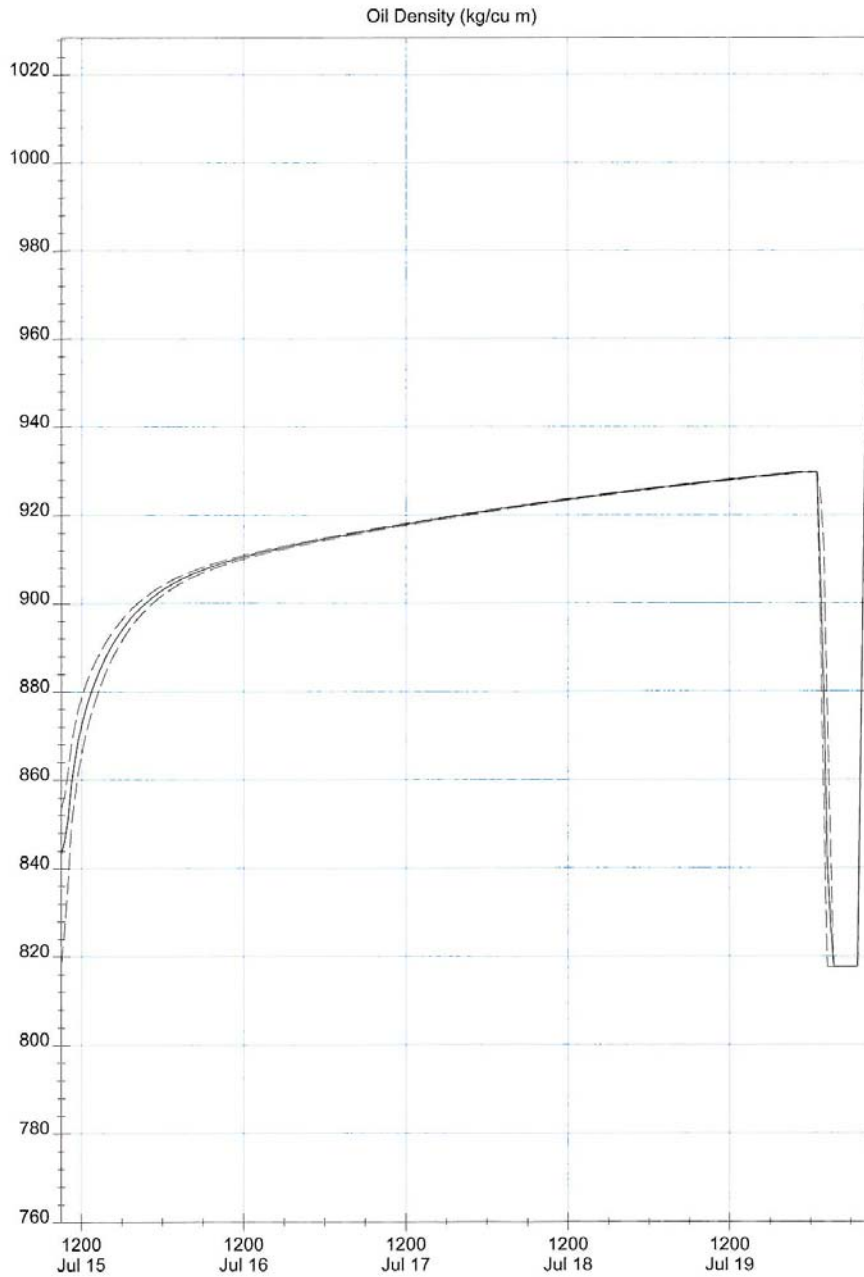
October 12, 2010

**Spill Scenario**



October 12, 2010

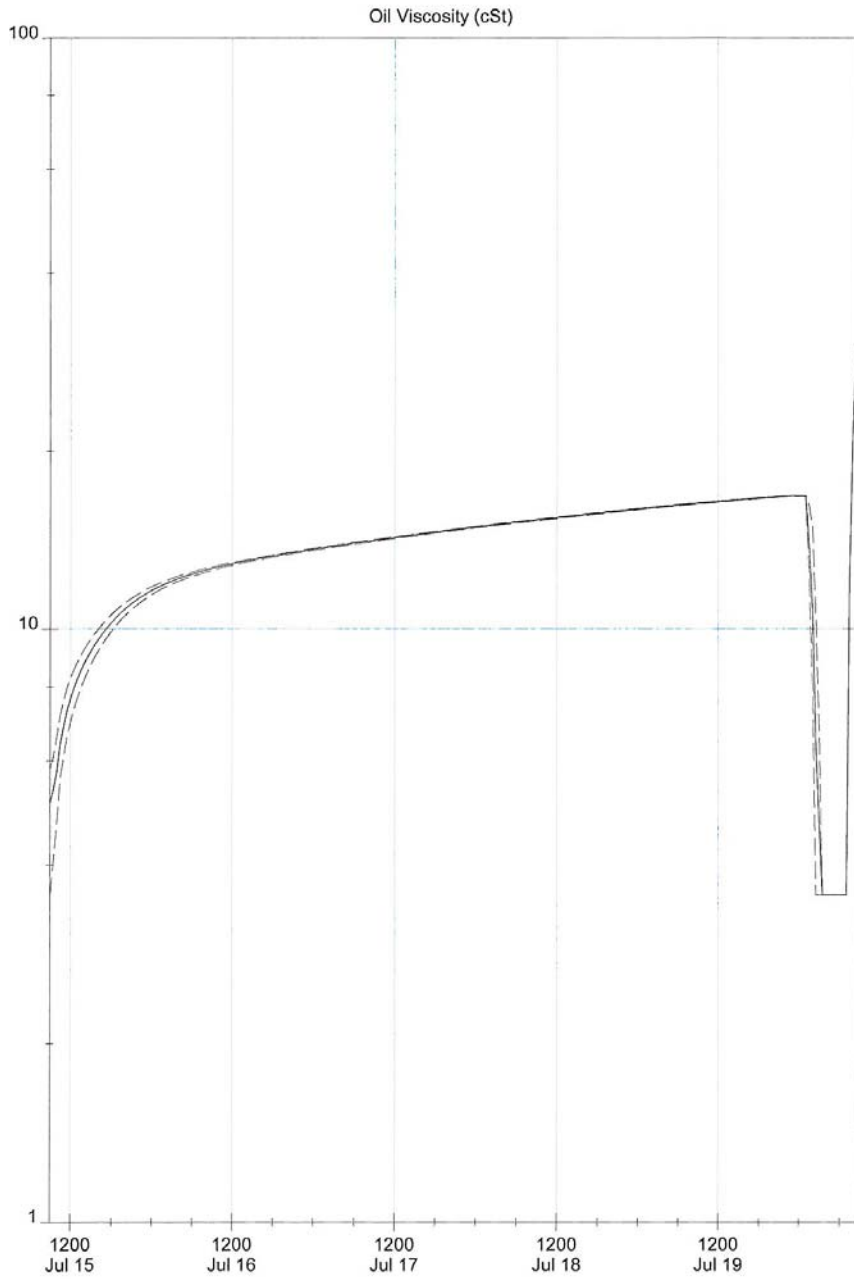
Spill Scenario



October 12, 2010

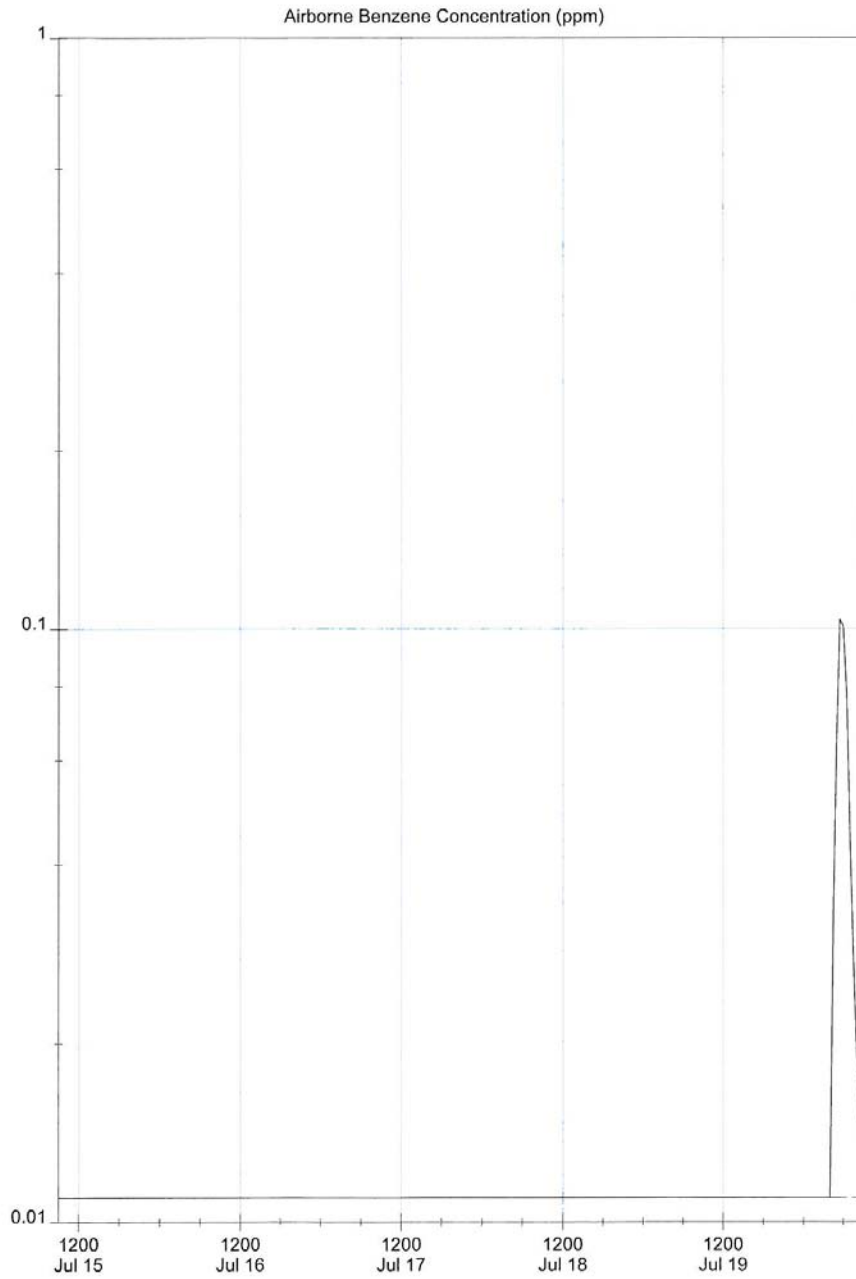


**Spill Scenario**



October 12, 2010

**Spill Scenario**



October 12, 2010

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## 1.7 NON-MECHANICAL RESPONSE OPTIONS

### Cross References:

18 AAC 75.425(e)(1)(G)

30 CFR 254.23(g)(9) and 30 CFR 254.28(a), (b), (c), (d), (e), (f), and (g)

*CISPRI Technical Manual, Tactics CI-NM-0 through CI-NM-5*

*In Situ Burning Guidelines for Alaska (2008).*

*Unified Plan, Annex F – Chemical Countermeasures: Dispersants, Chemical Agents, and Other Spill Mitigating Substances, Devices or Technology*

The following subsections provide information on the strategies used for responding to incidents and supports discussions in the Spill Response Scenario and Strategy (Section 1.6.15).

### 1.7.1 Non-Mechanical Response Options

Buccaneer may use the non-mechanical response options of ISB or dispersants when mechanical response methods prove ineffective and application of these options can further minimize environmental damage. Additional information that includes direction on the permitting process as well as operational considerations for non-mechanical response is provided in Tactics CI-NM-0 through CI-NM-5, and is hereby adopted by reference.

### 1.7.2 Decision Criteria, Obtaining Permits and Approvals

The application of dispersant and use of ISB are considered secondary to mechanical recovery techniques, requiring extensive permitting prior to use, and must first meet the decision criteria. A brief summary of the decision criteria is presented in Table 1.7-1. Detailed guidance is provided in ADEC's *In Situ Burning Guidelines for Alaska (2008)*. These guidelines can be found at: <http://www.dec.state.ak.us/spar/guidance.htm>, and are hereby adopted by reference.

**Use of non-mechanical response options will not be conducted without consultation and approval from federal and state on-scene coordinators.**

**Table 1.7-1 Decision Criteria for Using Non-mechanical Response Options**

ISB Decision Criteria	Dispersant Use Decision Criteria
Mechanical recovery is impractical or ineffective, and shorelines are threatened	Mechanical recovery is impractical or ineffective, and shorelines are not threatened
Burning would augment the oil elimination capacity of mechanical recovery	Dispersant use would augment the oil elimination capacity of mechanical recovery
Present and forecast wind conditions would carry the smoke plume away from populated areas	Adequate supplies of dispersant are available
A successful test burn was conducted	Oil is in a zone preapproved for dispersant use
Oil thickness greater than 1.2 inch and if applicable, oil-water emulsions is 50% or more	A successful dispersant test was conducted
Wave heights < 6 ft with winds < 20 knots	

Tactic CI-NM-0 of the *CISPRI Technical Manual* provides direction on how non-mechanical response is managed. Buccaneer will access the web-based Alaska Oil Spill Permits Tool via the following link: <http://www.dec.state.ak.us/spar/perp/permits/index.htm> to apply for necessary local, state and federal permits.

Once a permit is in place, the Operations Section Chief determines the best application method, the resources to be mobilized, and the application will begin. Continued use of non-mechanical response techniques requires communication with the UC regarding its effectiveness.

### ***1.7.3 Implementation Procedures***

If Buccaneer's IC decides to use ISB and/or dispersants, and obtains the necessary authorization (**consultation and approval from federal and state on-scene coordinators**), CISPRI will implement the application. CISPRI has the capability and training to safely implement both ISB and dispersant application as described in tactics CI-NM-0 through CI-NM-5.

### ***1.7.4 Required Equipment and Personnel***

CISPRI maintains the equipment and personnel, or contracts, to provide for dispersant application and to implement ISB (*CISPRI Technical Manual*: Tactic CI-NM-1, CI-NM-2, CI-NM-3, CI-NM-5, CI-LP-3 and Appendix A) that includes helo-torches and fire boom. CISPRI also has vessels equipped with spray nozzles as well as spray buckets for helicopters for distributing COREXIT 9500 or COREXIT 9527 dispersant, and has contracted with NOAA for tracking of the same.

## 1.8 FACILITY DIAGRAMS

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### **Cross References:**

**18 AAC 75.425(e)(1)(H)**

**30 CFR 254.22(a)**

**33 CFR 154.1035(e)(1)**

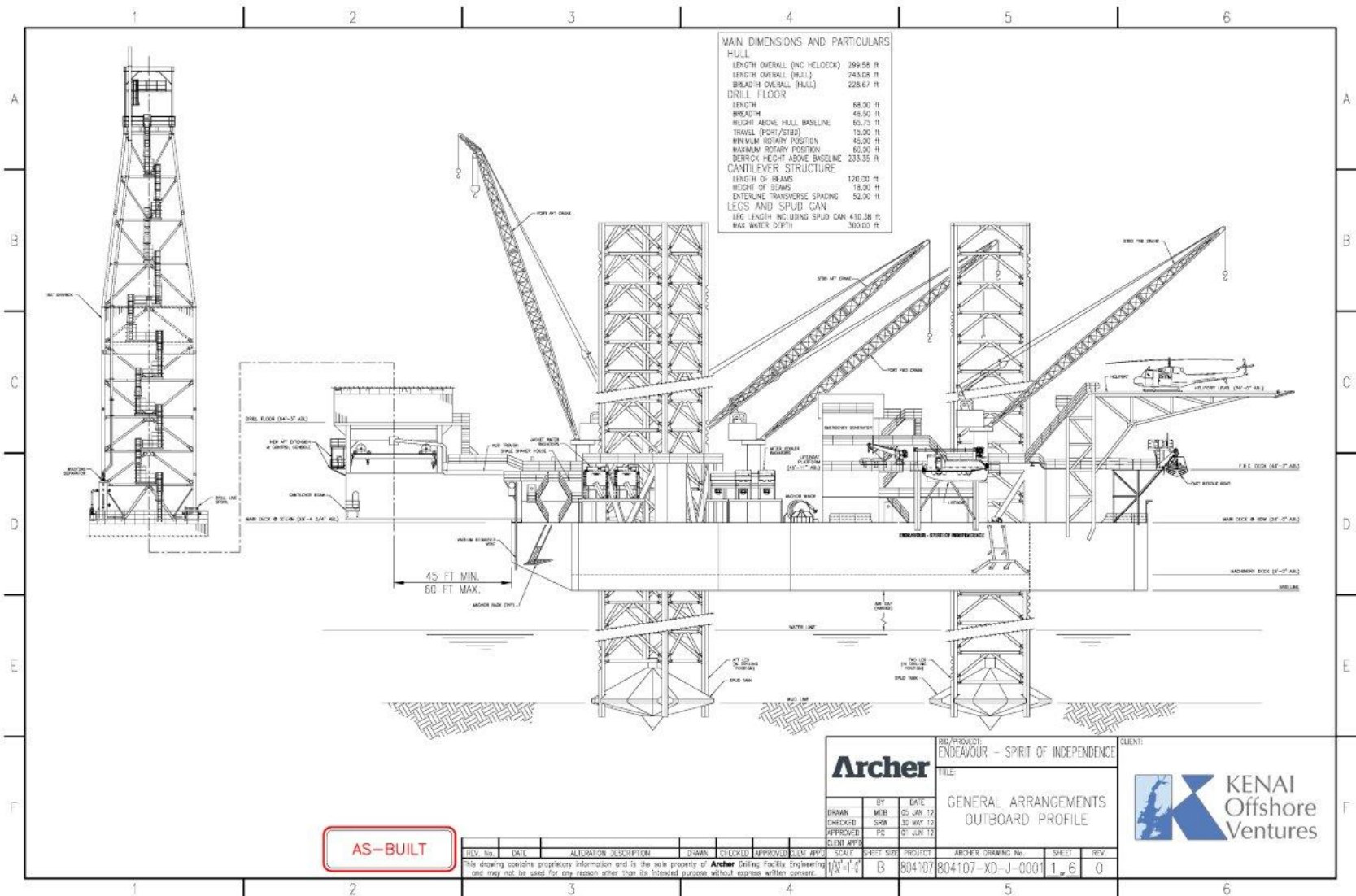
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The following existing facility diagrams are provided for the Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program.

- *Endeavour - Spirit of Independence* – Rig Profile View (Figure 1.8-1)
- *Endeavour - Spirit of Independence*– Rig Plan Views (Figure 1.8-2 through Figure 1.8-5)

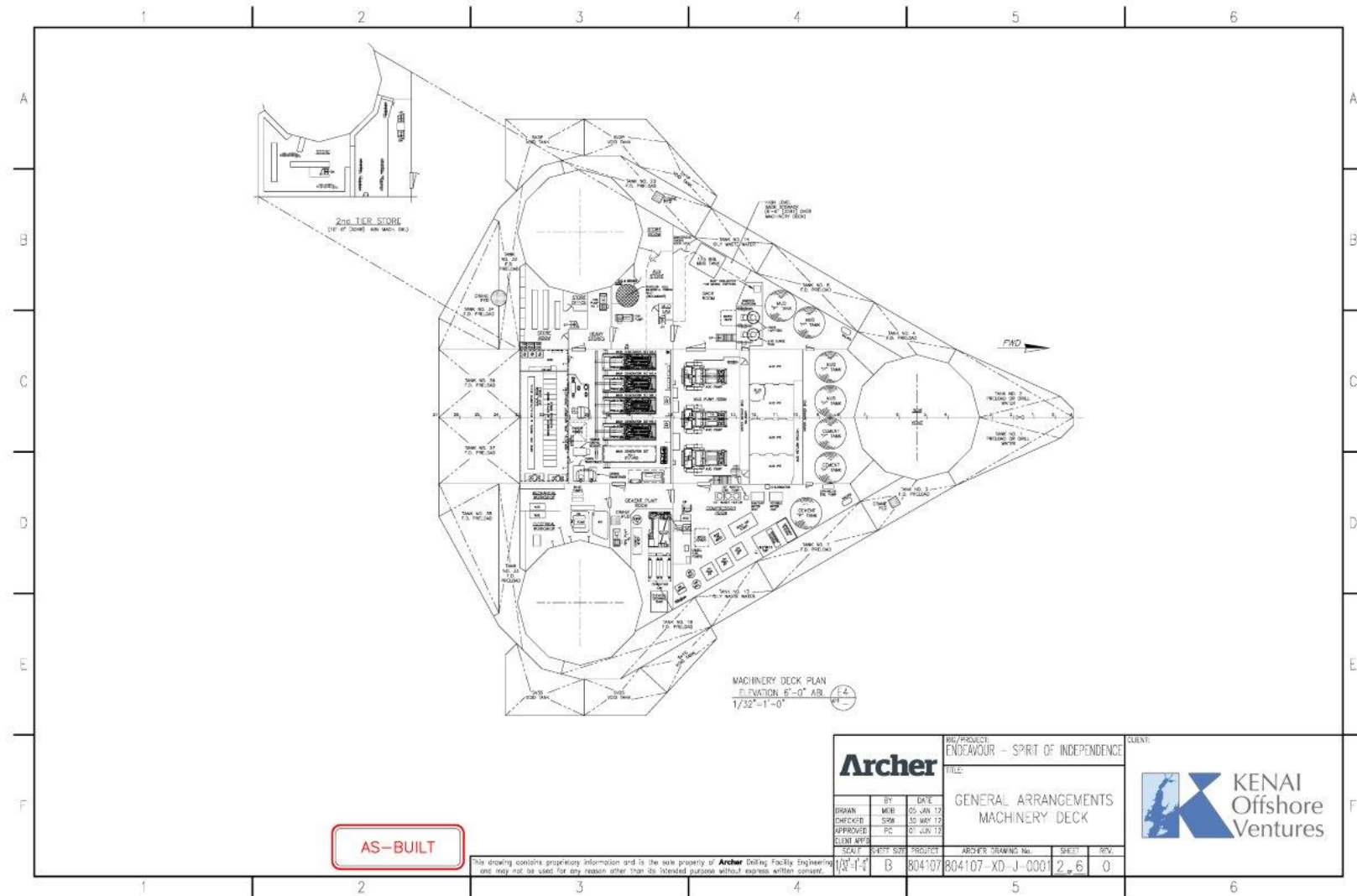
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Figure 1.8-1 Endeavour - Spirit of Independence– Rig Profile View

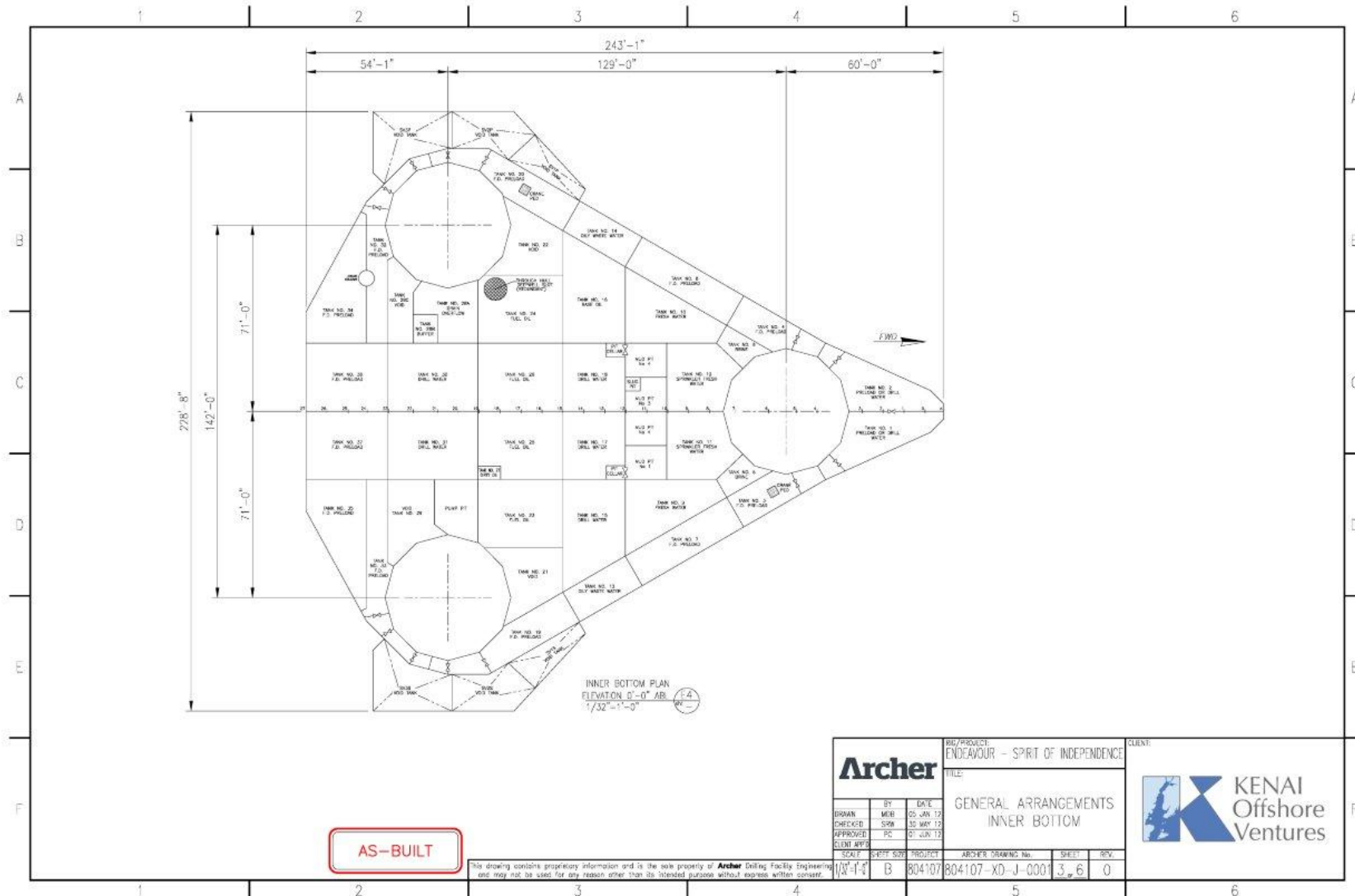




**Figure 1.8-2 Endeavour - Spirit of Independence – General Arrangements Machinery Deck**



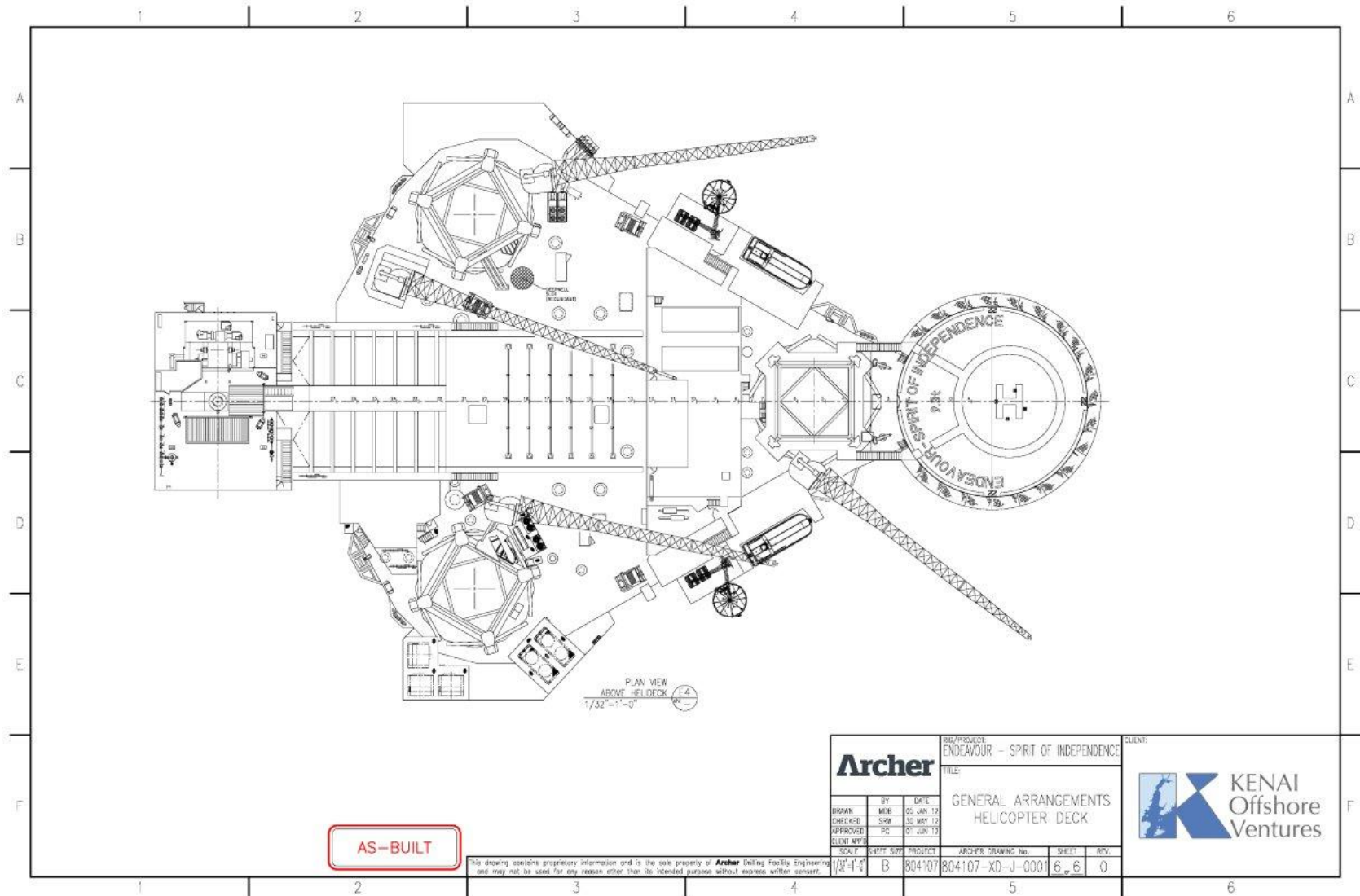
**Figure 1.8-3 Endeavour - Spirit of Independence – General Arrangements Inner Bottom**



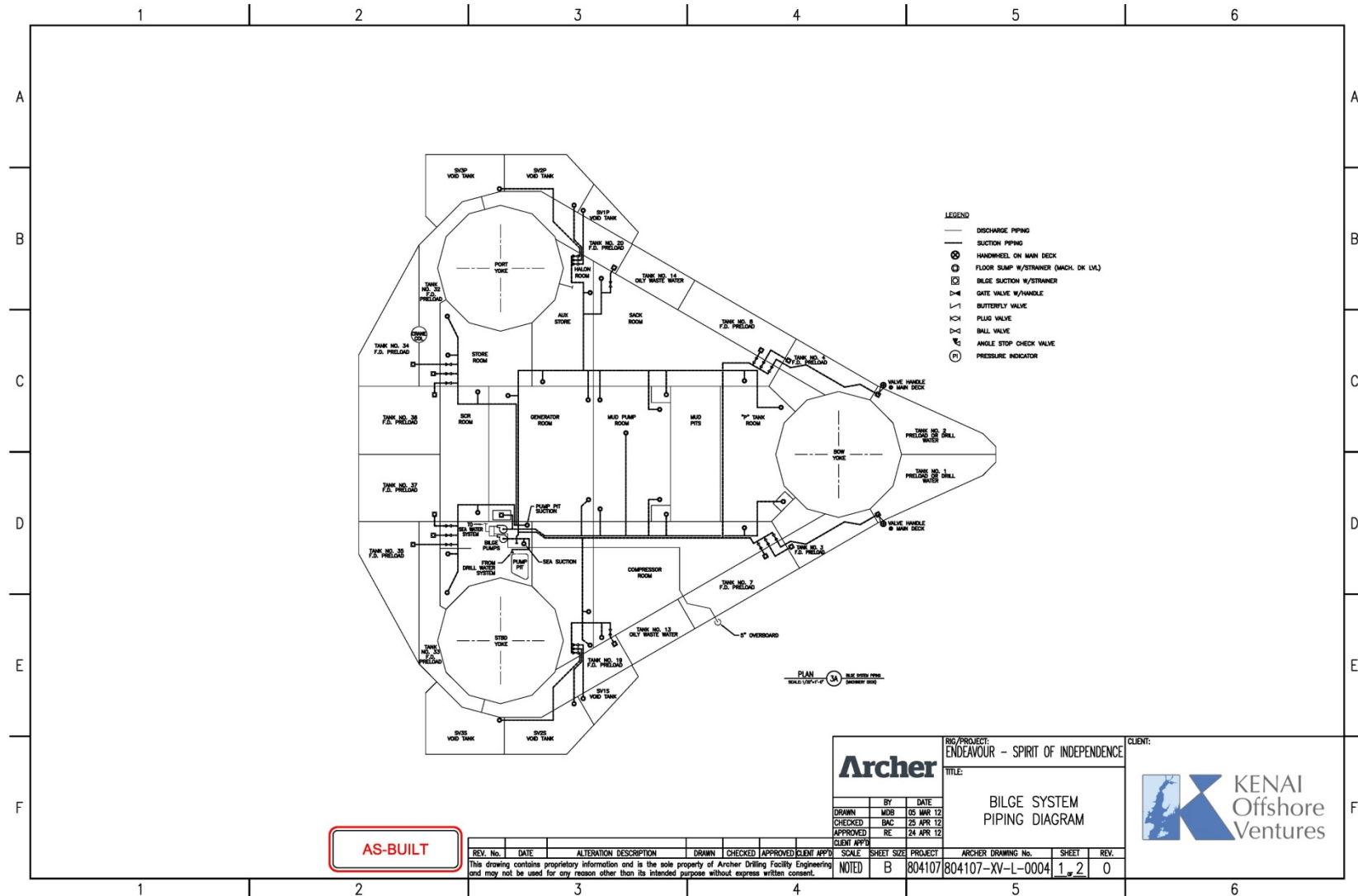
**Figure 1.8-4 Endeavour - Spirit of Independence – General Arrangements Main Deck & Accommodations**



**Figure 1.8-5 Endeavour - Spirit of Independence– General Arrangements Helicopter Deck Level**

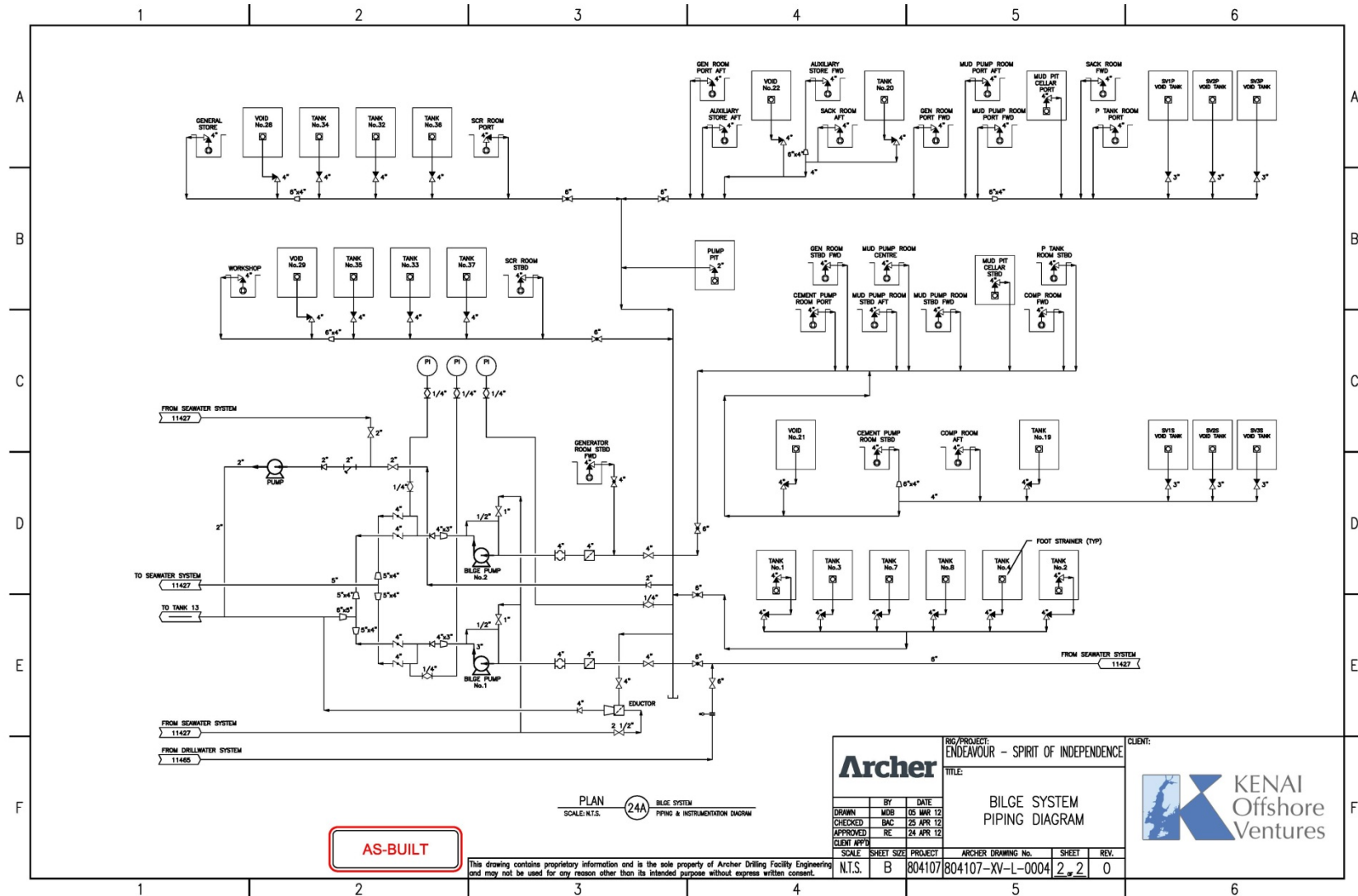


**Figure 1.8-6 Endeavour - Spirit of Independence– Bilge System Piping Diagram**





**Figure 1.8-7 Endeavour - Spirit of Independence– Bilge System Piping and Instrumentation Diagram**



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# PART 2 PREVENTION PLAN

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## 2.1 PREVENTION, INSPECTION AND MAINTENANCE PROGRAMS IN PLACE

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### **Cross References:**

18 AAC 75.425(e)(1)(F) and (e)(2)(A)

18 AAC 75.020

18 AAC 75.025

18 AAC 75.045

18 AAC 75.065(a), (d), (e), (h), (j) and (k)

30 CFR 254.23(f) and 30 CFR 254.29(a)

33 CFR 154.1035(c)(1) and (2)

20 AAC 25

**International Association of Drilling Contractors (IADC) Guidelines**

*Endeavour - Spirit of Independence Fuel Transfer Procedures*

*CISPRI Technical Manual*

*2010 Alaska Safety Handbook (ASH)*

*Unified Plan and Cook Inlet Subarea Contingency Plan*

---

Buccaneer considers spill prevention a critical part of company operations. Regular maintenance, inspections, and accurate record keeping by trained personnel are an integral part of this program. ADEC will be notified of any spills and records shall be retained for spills over 55 gal for the life of the facility.

### **2.1.1 Prevention Training Programs**

Spill prevention training for all Buccaneer and contract personnel will focus on Alaska's pollution prevention regulations and this ODPCP. Buccaneer will review and approve the health and safety plans and spill prevention plans of their contractors prior to allowing them to start work.

General procedures for prevention of injury, property loss/damage, spill incidents, and environmental damage are contained in the ASH, Buccaneer health and safety plans as well as the rig-specific safety plan that will be maintained on site and available to all employees. Buccaneer's program provides the training summarized in Table 2.1-1 for employees and contractors directly engaged in the inspection, maintenance, and operation of oil storage tanks and fuel transfers associated with drilling operations. Buccaneer's plan will focus on general procedures for the prevention of injury, property loss/damage, spill incidents and environmental damage that are included in the 2010 ASH. Buccaneer Health, Safety and Environment (HSE) Department will maintain records of employee and contractor training in support of the programs listed in Table 2.1-1 for a minimum of five years. All participants sign and date the training documentation when the training is received consistent with the requirements of 18 AAC 75.020.

**Table 2.1-1  
Spill Prevention Matrix**

Prevention Program	Personnel	Qualification	Training Objective	Frequency
Routine visual facility inspections	Buccaneer / contractor <sup>1</sup>	HSE Training	Facility integrity, maintenance, spill detection, surface liner use, site safety	I/O
Monthly visual pipe inspection	Buccaneer / contractor <sup>1</sup>	HSE Training	Pipe and support integrity, valve and connection integrity, protection from damage	I/O
Routine tank inspection (once per week minimum)	Buccaneer / contractor <sup>1</sup>	HSE Training	Tank and valve integrity, proper labeling, secondary containment integrity and effectiveness (including drain valve operation and water or debris management)	I/O
Fuel transfer procedures	Buccaneer / contractor <sup>1,2</sup>	HSE Training	Proper transfer procedures, safety procedures	I/O
ODPCP training	Buccaneer / contractor <sup>1,2</sup>	HSE Training	Spill reporting and notification, chain-of-command during an incident	I/A
API 570 inspection	Inspection Contractor	API 570 Certification	Pipe integrity	I/R
API 653 inspection	Inspection Contractor	API 653 Certification	Tank integrity	I/R

- A Annual refresher
- API American Petroleum Institute
- I Initial hire or initial certification
- O Annual demonstration of competence
- R API recertification every three or six years depending upon employment history
- 1 Personnel who perform or are responsible for inspections include HSE Specialist, CISPRI Technician, and Drill Site Manager.
- 2 Personnel who conduct bulk fuel transfers include the CISPRI Technician, HSE Specialist qualified person-in-charge of transfers, and fuel truck operators.

### Drilling Personnel IADC Well Capping Training

The primary prevention-training program for drilling personnel is a comprehensive, 40-hour minimum, well control course following AOGCC-approved International Association of Drilling Contractors (IADC) guidelines. This is required for all drillers, floormen, motormen, and derrickmen. Renewal of the five-day basic course is required every two years.

The IADC well control program includes classroom and simulator instruction on all types of BOP equipment, causes of kicks and blowouts, kick-killing procedures, warning signs of kicks, kick detection, shut-in procedures, and above all, personnel safety and health. In addition to IADC training, the following list of additional training will be provided to all drilling personnel:

- Safety and Health Orientation/Personal Protective Equipment (Refresher – each drilling season)
- Confined Space Entry (Refresher – None)
- Lockout/Tagout of Hazardous Energy Sources (Refresher – None)
- Hazard Communication Standard (Refresher – each drilling season)
- Hydrogen Sulfide Gas (Refresher – None)
- Safety and Health and Accident Prevention (Refresher – each drilling season)
- ICS – Basic Overview (Refresher – tabletops, exercises, drills for Buccaneer drilling supervisors only)
- Hazardous Waste Operations and Emergency Response (HAZWOPER) Level 1 (Refresher – yearly)
- First Aid/Cardio Pulmonary Resuscitation (CPR) Training (Supervisors only) (Refresher – every 2 years)

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## 2.1.2 Training Requirements

All rig personnel are trained for spill detection and response. Buccaneer will review and approve the health and safety plans and spill prevention plans of their contractors prior to allowing them to start work. Additionally, several more trained personnel (Buccaneer Drilling Supervisor and one CISPRI spill technician) that are trained and qualified to provide an immediate response in the event of a spill will be on site at any given time. The *CISPRI Technical Manual*, Appendix E describes the training program for Member Company IRTs and CISPRI Technicians. These first responders will possess the following additional minimum training qualifications or knowledge that addresses the following:

- 40-hour HAZWOPER (8-hour refresher/year), including hazard communication (HAZCOM)
- Skilled Spill Technical Training/Experience (Refresher – only if technician has not performed the duties of a spill technician for in the past 12 months)
- Drill Rig Orientation (Refresher – each drilling season)
- *Buccaneer Alaska Operations, LLC Southern Cross and Northwest Cook Inlet Prospects ODPCP* (Refresher – each drilling season)
- Manifest training – annual class and/or refresher

All personnel associated with fuel delivery, transfer, and handling will be trained and knowledgeable of Industry Best Management Practices related to fuel transfer and handing, drum labeling, secondary containment guidelines and the use of liners/drip trays.

The Buccaneer HSE Department will maintain a database of the courses successfully completed by each Buccaneer employee, a brief description of the course, and the date completed. Current training records for an individual are available through the immediate supervisor or by contacting the Training Department. Buccaneer maintains their own records for training which include:

- Equipment operation to prevent spills
- Equipment maintenance to prevent spills
- A designated accountable position for spill prevention
- Spill prevention briefing

## 2.1.3 Substance Abuse Programs

### General Policies

The use, possession, distribution or sale of unauthorized drugs or substances by company employees is prohibited while on company premises or while engaged in company business. Employees reporting for work with unauthorized drugs or substances in their bodies are in violation of this policy.

The consumption or possession of alcohol on company premises is prohibited. Reporting to work while under the influence of alcohol is prohibited.

Alcohol and illicit drug use are prohibited at all Buccaneer drilling operations. If any personnel are found to be in possession or under the influence of alcohol or illegal drugs, immediate dismissal from assigned duties is required. Subcontractors are notified of Buccaneer's policy on alcohol and drug use prior to arriving at the drilling location.

New employees with Buccaneer, the rig operator, and CISPRI also are tested prior to hire. All positions (including subcontractors) are required to participate. After initial hire, 5 percent of employees and/or subcontractors are randomly drug tested using the urinalysis method. Frequency of testing is 5 percent of the total employees; therefore, the total number of tests per employee per year will vary.

## Definitions and Guidelines

**Unauthorized Drugs** – For the purposes of this policy, the term “unauthorized drugs” shall mean any substance other than an authorized substance, which is, or has the effect on the human body of being, a narcotic, depressant, stimulant, hallucinogen or cannabinoid, their precursors, derivatives or analogues, and includes, but is not limited to, those substances scheduled as controlled substances pursuant to the Federal Controlled Substances Act. Possession and use of prescription drugs not assigned to an individual is also prohibited.

**Authorized Substances** – Substances having a physiological, psychological or biochemical effect which are lawfully prescribed or which are available without a prescription, which are lawfully obtained by an employee and which the employee possesses and uses in the appropriate manner, in the dosages and for the purposes for which the substances were prescribed or manufactured, are considered “authorized substances” for the purposes of this policy.

**Company Premises** – Company premises include, but are not limited to, company-owned, rented, used, or leased property, including lodging furnished or paid for by the company; company work site locations; or company-owned, rented, or leased vehicles, aircraft, vessels or equipment.

**Medication/Substance Reporting** – It is the employees’ responsibility to notify their immediate supervisor in writing when taking any prescription or non-prescription medicine or substance which may impair their judgment or performance or otherwise adversely affect the normal functions of their mental faculties or physical abilities.

**Employee Assistance and Rehabilitation** – Rehabilitation referral assistance is available through local Human Resources or Health Services for any employee who feels the need for assistance in dealing with a problem.

**Personal Search** – Without limitation, the company reserves the right to conduct unannounced personal searches of employees, including, but not limited to, their personal effects, lockers, baggage, desks, lunch boxes, containers, purses, billfolds, pockets, socks, shoes, and parcels which are located on company premises; their private vehicles, if parked on company premises; and their quarters, if furnished or paid for by this company.

Entry upon the company’s premises by employees will be deemed to constitute consent by the employee to personal searches. Note: All baggage of personnel boarding the transport helicopter may be searched. Any person refusing such searches shall be denied boarding. The company intends to use searches when it reasonably believes the policy has been violated and periodically for purposes of deterrence and detection.

**Laboratory Testing** – The company intends to use laboratory testing to detect or confirm violations of the policy. Laboratory testing includes but is not limited to, urinalysis, breath analysis, and blood analysis. Laboratory testing may be undertaken when the company reasonable believes that the employee may have violated the policy. Employees in positions requiring ADOT and FAA physical examinations will be required to submit to laboratory testing at the time they undergo their periodic ADOT or FAA examinations.

**Cooperation** – Employees are expected to cooperate in the enforcement of the company’s policy including providing consent to the company to conduct personal searches and laboratory testing authorized by the policy.

**Criminal Offenses** – An employee charged with or under investigation in connection with a drug-related or alcohol-related criminal offense may be requested to undergo testing. Convictions may result in disciplinary action.

**Discipline** – Any violation of the company’s drug and alcohol policy, including a refusal to consent to personal searches and laboratory testing, will subject the employee to discipline including discharge for the first offense. Moreover, employees determined to be distributing, selling or discovered in the act of using unauthorized drugs on company premises or while engaged in company business will be discharged. In all other circumstances, it is within the company’s sole discretion to determine whether to continue an employee’s employment when it has determined that the employee has violated this policy.

## **2.1.4 Medical Programs**

### **First Aid**

Buccaneer will have an Emergency Medical Technician III (EMT-III) manning an onboard clinic on the rig. Paramedics are also available in Anchorage and Kenai for treatment of more serious injuries and to aid with transport to a hospital.

### **Pre-Employment Examinations**

All site personnel are required to have a pre-employment physical screening. All positions (including subcontractors) are required to participate. The pre-employment examination includes screening for heart, vision, hearing, and coordination. All site personnel must be physically capable of performing the job they were hired to perform. Frequency of testing is upon initial hire and when personnel are injured or a problem on the job is observed. Drilling contractors will also require specific medical criteria for employees to perform as a toolpusher, driller, derrickman, motorman, and floorman.

## **2.1.5 Security Program**

Access to the rig will be via helicopter or boat and will be controlled through the control room as well as by shore security at the Nikiski dock or other point of departure. The control room will record personnel present in operating areas. This program provides for security and safety of personnel while moving to and from the site and while at the site.

As the drilling sites are remote, offshore locations, access is limited. The drilling supervisor strictly controls any transit and access to the sites. For proprietary and safety reasons, access to the rig will be restricted to authorized and regulatory personnel only.

## **2.1.6 Well Control (Blowout Prevention) and Emergency Shutdown**

All well control discussions presented in this section are aimed at preventing spills (blowouts where hydrocarbons spill to the surface) from occurring during drilling operations. Recovery measures that can be utilized to regain well control in the event of loss control are summarized in Sections 1.6.3 and 1.6.5. The potential for spills is discussed in Section 2.2.

### **Drilling Assurance**

Drilling and completion fluids provide primary well control during drilling, workover or completion operations. These fluids are designed to exert hydrostatic pressure on the wellbore that exceeds the pore pressures within the subsurface formations. This prevents undesired fluid flow into the wellbore. Surface-mounted BOP equipment provides secondary well control. In the event that primary well control is lost, this surface equipment is used to contain the influx of formation fluid and then safely circulate it out of the wellbore.

The wellhead, associated valves and control systems provide blowout prevention during production of the wells. These systems provide several layers of redundancy to ensure pressure containment is maintained. In the event of a major release of hydrocarbons or a blowout, the response to the situation may involve utilization of a drill rig or other well-work equipment to regain source control.

## Well Control During Planning

Well control begins during the well planning phase. Bottom-hole pressure data from other wells in the area are reviewed to ascertain the expected bottom-hole pressure at the proposed well location. Seismic data also provide information for prediction of over-pressured formations below surface.

Engineers use the bottom-hole pressure predictions to design a drilling mud program with sufficient hydrostatic head to overbalance the formation pressures from surface to total well depth. Other factors influencing the mud weight choice are: shale conditions, fractures, lost circulation zones, under-pressured formations, and stuck-pipe prevention. The well casing program is designed to allow for containment and circulation of formation fluid influxes out of the wellbore without fracturing open formations.

All planning is performed in accordance with AOGCC regulations. The operator's policies and recommended practices are, at a minimum, equivalent to AOGCC regulations, Title 20 – Chapter 25 as applicable.

## Well Control During Drilling

The potential for loss of well control (LWC) exists during surface hole drilling, a shallow gas blowout can occur when a small, high-pressure volume of trapped gas is encountered. This causes a rapid unloading of the wellbore fluids (mud) and gas at surface in a very short time. A diverter, installed at the wellhead, is used to divert the shallow gas kick away from the drill rig. A shallow gas blowout will not contain liquid hydrocarbons but would constitute a major personnel safety risk if it occurred.

During drilling operations below the surface hole, there also is potential for LWC as a result of an influx from the reservoir or other zones. During these operations there is a surface BOP in place. After taking an influx into the well, the BOP is used to close in the well, providing a method of controlling the release of fluids.

## Drilling Below the Surface Hole

All surface-mounted BOPs meet the standards as defined in 20 AAC 25.035 as a minimum. The BOP is installed after the surface casing is run and cemented. Note that the surface casing is the first string of casing to be run after drilling out from underneath the conductor. The surface casing is set at a depth that allows for sufficient formation strength to provide an anchor for the BOP. BOP consists of:

- A minimum of three 13 5/8-inch, 10,000 pounds per square inch (psi) WP ram-type preventers
- One 13 5/8-inch annular preventer
- Choke and kill lines that provide circulating paths from/to the choke manifold
- A two-choke manifold that allows for safe circulation of well influxes out of the wellbore
- A hydraulic control system with accumulator back-up closing capability as defined in 20 AAC 25.035, as a minimum

Once installed, the BOP will be tested as required by AOGCC and according to 20 AAC 25 requirements.

Automatic and manual monitoring equipment is installed to detect abnormal variation in the mud system volumes and drilling parameters. If an influx of formation fluid is taken into the wellbore, the BOP is used to immediately shut in the well.

Each well is drilled according to a location specific, detailed well plan. While drilling, the well is constantly monitored for fluid influx. The mud weight (the primary well control mechanism) is monitored and adjusted to meet actual wellbore requirements. Too low a mud weight may under-balance the well, and could result in an influx of formation fluids. Too high a mud weight may result in lost circulation to a weak formation, which can then lead to an under-balanced condition. Good oilfield practices ensure that the proper mud weight is used to provide the proper well control for the conditions encountered.

If an influx of formation fluid (kick) occurs, secondary well-control methods are employed. Constant monitoring of the total fluid circulating volume and other drilling parameters ensures that a kick is quickly detected. The well annulus is shut in using the BOP. The drill pipe is shut in by installation of a surface mounted valve. This contains the influx and any associated build up of surface pressure. It also prevents further influx of formation fluid into the wellbore. Surface pressures are allowed to stabilize and are then measured. These pressure readings enable the calculation of the new “kill” weight mud density that will be required to regain primary well control. A standard well-kill procedure is implemented to circulate the kill weight mud and safely remove kick fluids from the hole. Mud-gas separators and degassers are used to remove any gas from the mud as it is circulated out of the hole. After this procedure is completed, the well is opened up and the fluid levels are monitored. Drilling operations resume when monitors are normal.

BOP test drills are performed on a frequent basis to ensure the well will be shut in quickly and properly. The Drilling Supervisor, Toolpushers, Drillers, Derrickmen and Mud Engineers have IADC-certified training (renewed periodically) in well control.

Backup systems and procedures are available for surface control of a kick if the above procedure fails to provide the required control. Surface pressures in the annulus and drill pipe provide the required information to determine conditions downhole. “Bullheading” formation fluids in the wellbore back into the formation may be required and can be accomplished by pumping down both the annulus and the drill pipe at the same time and forcing the fluids back into the formation. The well is then circulated with kill-weight mud. If it is necessary to bleed off annulus pressure, the choke can be adjusted to control pressures. Another technique employed for an underground blowout situation (uncontrolled flow of formation fluids from one formation into another) is the dynamic kill procedure. This entails pumping the kill fluid at a rate high enough to overcome the loss zone and stop the flow. Depending on the situation, other variations of these basic techniques can be used. Although very unusual, a kick that cannot be killed by normal procedures sometimes occurs. In this case, the use of more detailed procedures is required.

### **2.1.7 Fluid Transfer Procedures**

Specific fuel transfer procedures are provided in Appendix B.

#### **Fuel Oil Transfers on the Rig (Transfers Onboard)**

The main fuel tanks have high-level alarms and will be strapped with steel tape daily. The main fuel tanks are integral to the rig and should not leak. The mud and day tanks do not have overfill protection devices, but the day tanks do have sight glasses and are inspected daily.

#### **Fluid Transfers from/to Barges to/from the Rig**

Diesel will be transferred offshore from fuel barges to the rig; formational waters and well test fluids will be transferred from temporary storage tanks (double-walled ISOTANKS) onboard the rig to fuel barges.

The maximum volume of diesel fuel transferred from the fuel barge to the rig at any time will be about 90 percent of the largest onboard tank. The maximum volume of formational waters or test fluids transferred from the rig to a fuel barge will be about 90 percent of its largest onboard, internal storage tank. A CISPRI response vessel capable of responding to either volume will either be standing by during fluid transfers.

Specific fuel transfer procedures are discussed in the *Buccaneer Fuel Oil and Fluids Transfer Manual* and checklists, located in Appendix B. No fuel transfers will occur during emergency weather conditions or alarms without the direct approval of the Maintenance Superintendent. A CISPRI response vessel capable of responding to either volume will be standing by on site during a fluid transfer. Specific operations performed by the rig crew in concert with the barge crew will include:



- Assigning a transfer team leader. The Drilling Supervisor will be responsible for assigning a team leader to supervise fluid transfers. The team lead will assign and communicate all personnel involved in the transfer their duties and responsibilities. The team leader also will ensure all equipment, storage tanks and transfer lines to be used are operational and liners and pads are in place. Additionally, the team leader will be responsible for safety.
- Measuring available volume (taking into account expansion) and inspecting for leaks. The main bulk storage fuel tanks will be strapped with steel tape prior to fuel transfers.
- Taking part in a pretransfer conference to identify potential problems and then completing a Pre-Transfer, General Considerations and Ship-to-Ship Transfer checklist (*Buccaneer Fuel Oil and Fluids Transfer Manual*, Appendix B). This describes communications procedures, start-up and topping-off procedures, and assures that persons involved in the transfer have a common understanding of the transfer process.
- Confirming the CISPRI response vessel is on site and prepared to respond prior to transfer.
- Transferring only during daylight hours.
- At a minimum, a two-man team will be positioned to continuously monitor the loading hose and the main diesel tank (or the loading hose and the fuel barge hold) with appropriate radio communications and/or line-of-sight. At least one team member will be able to immediately shut off transfer operations and fuel in all lines must be evacuated prior to disconnect.
- Reducing transfer rates at the beginning and end of the transfer operations (per ADEC regulatory requirements).

### 2.1.8 Oil Storage Tanks

All liquid level determination and overflow protection for all tanks will be accomplished by visual inspection of the tank levels by an individual and high level alarms. Procedures for transferring liquid are found in Section 2.1.7 and the BAT for this procedure is analyzed in Section 4.1.8.

The rig has a number of tanks for storage of diesel fuel, crude oil testing, waste oil and drilling fluids. The tanks are listed in Table 3.1-4. Major oil storage tanks (10,000 gal or greater) that are used on this project will meet the applicable industry standard and inspections required by 18 AAC 75.065, 18 AAC 75.066, and 18 AAC 75.075. Section 3 also contains information and locations of tanks used in support of drilling operations.

- Fuel will be stored in the main inner bottom fuel tanks and transferred to generators on as-needed basis. These tanks are integral to the rig structure as depicted in Figure 1.8.3. The MODU is subject to American Bureau of Shipping (ABS) ABS and USCG regulations. The tanks are maintained, inspected and comply with ABS MODU codes for the vessel's class. The rig inspection, which included the tank inspection, was completed in early 2012 with certification following in July of 2012. The ABS MODU inspection requires ABS to witness and supervise an ultra-sonic thickness (UT) testing of the tanks every 5 years to ensure no significant loss of wall thickness.

Interim to these five (5) year inspections, additional inspections are required in which a band around the vessel, and additional randomly selected sites, undergo additional UT testing by a qualified ABS Inspector. The inspection is expanded if corrosion or damage is found within the test area. The scope of the ABS MODU inspections include all areas of the vessel including the oil storage tanks, top deck, sideshell and bottom plating.

The MODU will also receive a visual inspection by ABS in 1 year. The next date is scheduled for July 2013. This satisfies the requirements of her flagging state (Singapore), International Maritime Organization (IMO), International Convention for the Prevention of Pollution From Ships (MARPOL), and USCG requirements for her class.

- Welded, temporary, double-walled steel tanks (ISOTANKS) may be used for on-site storage of well testing. At this time specific tanks have yet to be selected. Upon determination of the specific tanks to be used for the project, and prior to use, Buccaneer will amend the plan to provide identifying number/designation, capacity, construction date and specifications, application, the date and type of the last applicable inspection, and any other information required for tanks greater than 10,000 gal. Tank inspection records would be maintained for the service life of the tank.
- Diesel fuel is also stored in a 104 bbl tank for the emergency generator.
- All tanks will be equipped with overfill and leak detection as identified in Table 3.1-4. The main fuel tanks are equipped with sight glass, fuel level indicator, fuel electric alarm switch and float operator, and a high-level shut-off valve.
- With the exception of tanks integrated into the rig structure, tanks will be double-walled or within secondary containment that provides at least 110 percent containment of the capacity of the tank. The tanks used for well testing operations will be continuously monitored to prevent overfilling the tanks with fluids (crude oil, gas liquids, and/or water) from the well. Containment for the integrated rig tanks would be provided by the rig structure.
- Waste oil also is stored in a main inner tank subject to the same integrity inspection criteria as the MODU fuel oil tanks.

Buccaneer will notify ADEC in the event of a major repair or alteration, as defined by the applicable standard.

### **2.1.8.1 Other Liquid Tanks**

Other liquid storage tanks within the rig include drill water, fresh water and seawater ballast. These tanks are protected by a secondary containment area that is formed by the rig structure (Section 2.1.9).

### **2.1.9 Description of Secondary Containment Areas**

When used for well testing, ISOTANKS will be double-walled with secondary containment for valves and piping. These may be used as temporary well testing tanks and may be staged on the rig drill deck or on a barge. Containment capacity will be equal to or greater than 110 percent of the volume of the internal tank.

#### **2.1.9.1 On Deck Containment**

The *Endeavour – Spirit of Independence* is a controlled discharge configured MODU. For the main deck, the total containment capacity is 104,181 gallons. This capacity was calculated in consideration of the displacement of the leg wells, living quarters, anchor winches and air tuggers. Appropriate physical containment and control systems are provided to prevent an oil discharge from reaching the waters of Cook Inlet. The secondary containment system consists of 8-inch coaming around the periphery of the hull.

The rig has 8-inch coaming/containment around the perimeter of the rig and leg wells, 8-inch coaming around tank vents and 6-inch coaming around anchor winches and air tuggers. With the contiguous coaming around all tank vents and equipment, should there be a tank overflow it would be readily contained and cleaned up. The rig has also been upgraded with a new controlled drain system that collects upper pipe deck and drill floor water. See Figure 1.8 -6 and Figure 1.8-7 for Bilge System Diagrams.

The secondary containment capacities of the decks and sump are as follows:

- Anchor winches = 169 gallons
- Air tugger = 51 gallons

The drill floor drains are tied into the newly installed controlled discharge system which drains into the buffer tank that is fitted with a baffle to allow the water to flow into the over-flow tank. The water is pumped to the Oily Water Waste Tank (Tanks 13 and 14) via an Oily Water Transfer pump. The sump is equipped with an oil/water gravity separator manual pump and a high liquid level shutdown. Oil separated from the sump is pumped to waste oil container for shipment to approved disposal. Clean storm water will be pumped back to the mud pits and used as make-up water or discharged overboard consistent with the rig's NPDES permit. The Upper Pipe Deck containment capacity is calculated to be 5281 gallons. The upper pipe deck is tied into the controlled drain system provided by the buffer and drain overflow tank.

Buffer Tank (Tank #28 has been converted for the controlled drain system): 4819 gallons

- Drain Overflow Tank: 16,188 gallons
- Tank Vents for Tanks #13, #14, #16, #27 and Day Tank: - approximately 20 gallons each.

These prevention measure will be further described in the rig's SOPEP, currently under development.

### **2.1.9.2 Main Fuel Tanks**

The main fuel tanks and all associated piping and valves are contained in the interior of the rig (Figure 1.8-3). The rig's tanks integrity are inspected consistent with the ABS MODU inspection criteria and includes UT testing. The tanks are also equipped with overfill alarms, leak detection alarms and secondary containment by virtue of their location within the interior of the rig. The tanks also contain overflow protection in the form of integrated secondary containment around the fuel ports.

### **2.1.10 Facility Piping Corrosion Control and Leak Detection Programs**

Not applicable, there is no facility piping; this is an exploratory operation.

### **2.1.11 Emergency Tow, Escort, and Support Vessel Programs**

All tugs and barges and support vessels shall have Financial Responsibilities coverage through their individual companies as well as ODPCPs and Security Plans.

A heavy-lift vessel will haul the rig to Cook Inlet from its current location and arrive in late February or early March where it will be staged in lower Cook Inlet. Two to three tugs will tow it to the first proposed well location, between well locations thereafter, and finally back to warm staging for winter in ice-free lower Cook Inlet. All tugs and barges will depart the location prior to drilling operations.

### **2.1.12 Vessel Inspection and Maintenance Programs**

#### **Maintenance Program**

The rig has routine internal inspections and maintenance that focus on monitoring mechanical integrity and are documented daily by written reports.

Maintenance during drilling operations is performed according to a computerized maintenance program with records kept in the electronic maintenance database. The mechanical integrity of the drill rig is upheld through the planned maintenance program which is initiated following rig refurbishment. For malfunctioning or corroded materials, the maintenance department is notified and personnel are assigned the repair task by either the Chief Engineer or the Maintenance Supervisor. Equipment is inspected based on frequency intervals indicated in the maintenance program and in accordance with manufacturer and industry recommendations. For example, cranes are inspected daily per regulatory requirement, while the BOP gantry crane hydraulic system is inspected weekly due to sporadic use.

*Endeavour* will be inspected by the USCG prior to leaving Singapore and then again before entering Alaska waters.

Vessel licenses and certificates for both are kept in an up-to-date status and either displayed under glass onboard or are kept readily available for review. It is the responsibility of the rig owner to keep the following certificates current for the following agencies:

**USCG:**

- Certificate of Financial Responsibility (Water Pollution)
- Letter of Compliance Inspection Foreign Mobile Offshore Drilling Unit
- 33 CFR 141-148
- 46 CFR 107-109
- Security Plan

**American Bureau of Shipping:**

- International Load Line Certificate
- Loading and Environmental Criteria (LEC) Certificate for *Adriatic*
- Certificate of Classification for Hull
- Barge Classification Certificate
- Crane Certificates – Annual and Quadrennial
- Oil Pollution (MARPOL) Prevention Certificate

### **2.1.13      *Crude Oil Pipeline***

Not applicable, there is no crude oil piping as this is an exploratory operation.

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## 2.2 DISCHARGE HISTORY

### Cross References:

18 AAC 75.425(e)(2)(B)

Contaminated Sites Program Database Search at [http://www.dec.state.ak.us/spar/csp/db\\_search.htm](http://www.dec.state.ak.us/spar/csp/db_search.htm)

Spills Database Online Query at <http://www.dec.state.ak.us/spar/perp/search/Search.asp> FY07 to FY03

Response Summaries at <http://www.dec.state.ak.us/spar/perp/response.htm>

*Unified Plan and Cook Inlet Subarea Contingency Plan, Background Section, Part 3*

### 2.2.1 Recent Cook Inlet Navigable Waters Oil Spill History

Numerous situations exist for possible spills to occur due to the volume of oil product transported in the region. Presented below is a brief synopsis of significant or notable spills (greater than 55 gal) in the region from 1987 to present based upon ADEC database queries.

Date	Incident
02 July 87	Tank/Vessel (T/V) <i>Glacier Bay</i> in Kenai area: up to 210,000 gal of Alaska North Slope (ANS) crude oil released
22 June 88	Pickworth Dock at Anchorage: about 300 gal refined product released
05 Aug 88	Spill in Upper Cook Inlet: approximately 100 gal of heavy product released
02 Nov 88	M/V <i>Alaska Constructor</i> in Trading Bay: explosion resulted in spill of about 10,000 gal gasoline and 30,000 gal of diesel fuel
14 Nov 88	Marathon Spark Platform: about 23,000 to 46,000 gal of Cook Inlet crude oil released
12 Dec 88	T/V <i>Oriental Crane</i> , near Nikiski: about 7,600 gal of Bunker C fuel oil spilled
31 Jan 89	Amoco Platform Anna in Upper Cook Inlet: about 4,600 gal of crude oil released
19 Aug 89	M/V <i>Lorna B</i> in Upper Cook Inlet: vessel sank with 80,000 gal diesel fuel onboard; no recovery
17 Dec 90	T/V <i>Coast Range</i> : approximately 700 gal of crude oil released
01 Aug 91	Port Graham fuel facility: unknown quantity of diesel fuel
13 Aug 91	M/V <i>Atlantic Seahorse</i> : about 4,000 gal diesel released
26 Apr 92	ARCO King Salmon Platform: about 336 to 420 gal crude oil released
28 Aug 92	F/V <i>Loon</i> along outer Kenai coast: about 1,500 gal diesel fuel released
05 Dec 95	Tesoro Tank Farm (Nikiski): about 2,900 gal of crude oil released due to a mechanical failure where some of the product escaped secondary containment and entered Cook Inlet
06 Mar 97	Steelhead Platform: structural mechanical leak released about 9,000 gal diesel
06 Feb 99	T/V <i>Chesapeake Trader</i> , between Nikiski and Homer: 420 gal of crude oil spilled
01 Oct 02	Trading Bay facility: tube failure resulted crude oil release of 525 gal
25 July 05	Anna Platform: valve failure on inlet line to oil/water separator; 2 bbl released
2 Feb 06	T/V <i>Seabulk Pride</i> grounding: 75 gal of petroleum product spilled to water
15 Jan 09	M/V <i>Monarch</i> sinking: Estimated 22,000 gal of diesel fuel and lube oil unaccounted for and potentially released to water
31 Oct 09	Trading Bay: valve failure released 504 gal of crude and 336 gal of produced water

### ***2.2.2 Buccaneer Oil Spill History***

Buccaneer drilled an onshore natural gas exploration in late spring 2011 within the City of Kenai on Mental Health Trust Land leases. A review of the ADEC database tracking reportable spills found no history of releases.

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## 2.3 POTENTIAL DISCHARGE ANALYSIS

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### **Cross References:**

18 AAC 75.425(e)(2)(C)

30 CFR 254.26(a)

33 CFR 154.1035(b)(2)(i)(A) to (C)

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### **2.3.1 General**

Potential spill sources associated with exploration drilling activities can be loosely grouped into minor operational spills, major tank failures, or well blowouts. The cause, potential for occurrence, and maximum possible discharge of liquid hydrocarbons (including crude oil) that might be expected from various sources are described below and summarized in Table 2.3.1.

### **2.3.2 Minor Operational Spills**

Minor operational spills can result from a wide variety of causes including hose/line failures, tank overflows, and equipment leaks. Based on the size and flow rates of fueling and other transfer equipment, spills of this nature are typically less than 50 gal (1.2 bbl) of diesel or 10 gal (0.25 bbl) of petroleum oil lubricants (POLs).

Spills of this size have occurred during drilling of exploration wells, but are usually detected immediately (such as in the case of overfilling a fuel tank) during routine inspections, and because the operations area is confined and contained (Section 3.1). Very small spills (such as equipment leaks) may go undetected for longer periods of time, but these are contained on site and the release source stopped by on-site personnel as soon as they are detected.

### **2.3.3 Major Spills**

Other than a blowout, the only sources for major spills would be from:

- Fuel or fluid transfer line failure of up to 715 gal (~17 bbl)
- Failure of an on deck 8,000-gal (190 bbl) ISOTANK on the rig
- Failure of a day tank or emergency fuel tank of <420 gal (10 bbl) on the rig

### **2.3.4 Fluid Transfer Line Failure**

The total volume of a fluid transfer line failure was estimated based on fluids in the transfer line plus the discharge of a pump prior to shutoff. The estimate applies to lines and equipment generally used in Cook Inlet.

For the proposed configuration, we calculated fluids are transferred through a 100-ft fuel line that is 4-inches in diameter discharging for 1 minute at a rate of about 650 gpm before the system is completely shutdown, resulting in a volume of about 17 bbl. Calculations used to derive this volume are presented in Section 1.6.15, Fuel Transfer Response Strategy.

### **2.3.5 Well Blowout**

A well blowout would be the source of the largest potential spill. For planning purposes, a blowout rate of 5,500 bopd is assumed to continue for 15 days until it is brought under control by surface well-control methods (Section 5.1, Response Planning Standard).



### 2.3.6 Potential Areas for Spills

Table 2.3-1 provides potential spill sources, types of failures that could occur, estimates of spill sizes, and appropriate secondary containment measures.

**Table 2.3-1  
Analysis of Potential Discharge**

Activity	Cause	Fluid	Size (bbl)	Duration	Actions to Prevent Potential Discharge
<b>Drilling</b>					
Surface Hole: shallow gas blowout	Uncontrolled flow from wellbore	Gas condensates	82,500	15 days	BOP equipment, overbalance drilling plus IADC Well Capping training for drilling crew
Downhole: blowout drilling unknown reservoir with unknown pressure	Uncontrolled flow from wellbore	Crude oil, gas condensates	82,500	15 days	BOP equipment, overbalance drilling plus IADC Well Capping training for drilling crew
Downhole: blowout tapping primary reservoir	Uncontrolled flow from wellbore	Crude oil, gas condensates	82,500	15 days	BOP equipment, overbalance drilling plus IADC Well Capping training for drilling crew
<b>Tank Rupture</b>					
On deck ISOTANK rupture	Puncture from a crane or flange failure	Test fluids	<190	Minutes to hours	Proactive tank inspection program and barricaded tanks to prevent. Secondary containment, drains to bilges/oily water separators and main deck edge coaming to contain. IRT to respond.
On-deck day tank or storage tank rupture	Puncture from a crane or flange failure	Diesel fuel	<10	Minutes to hours	Proactive tank inspection program and barricaded tanks to prevent. Secondary containment, drains to bilges/oily water separators and main deck edge coaming to contain. IRT to respond.
<b>Transfer Failure</b>					
Fuel barge to integral bulk storage tanks	Overflow, fuel line failures, leaks, etc.	Diesel	17	1 Minute	Transfer procedures in place to prevent; secondary containment drains to bilges/oily water separators and main deck edge coaming to contain. IRT to respond.
From ISOTANK or integral bulk storage tank to fuel barge	Overflow, fuel line failures, leaks, etc.	Test fluids or formational waters	17	1 Minute	Transfer procedures in place to prevent; secondary containment drains to bilges/oily water separators and main deck edge coaming to contain. ERT to respond.
Between day tanks	Overflow, fuel line failures, leaks, etc.	Diesel or POLs	<1.2	5.5 Minutes	Transfer procedures in place to prevent; secondary containment drains to bilges/oily water separators and main deck edge coaming to contain. ERT to respond.

**Notes.**

The well test fluid transfer failure volume is based on the total volume of fluids in the transfer line plus the discharge of a pump prior to shutoff. For the proposed configuration, we calculated fluids are transferred through a 100 ft fuel line that is 4-inches in diameter discharging for 1 minute at a rate of 650 gpm until the system is completely shutdown, resulting in a release volume of 17 bbl.

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## 2.4 CONDITIONS THAT INCREASE DISCHARGE RISK

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### Cross References:

18 AAC 75.425(e)(2)(D)

*Marine Ice Atlas for Cook Inlet, Alaska*

*CISPRI Technical Manual, Appendix B*

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### 2.4.1 General

The realistic maximum response operating limitations (RMROL), or those limitations to oil spill response encountered as a result of environmental and safety considerations, that may occur in the Cook Inlet area are identified and discussed in Appendix B of the *CISPRI Technical Manual* and in the *Marine Ice Atlas for Cook Inlet, Alaska* (USACE ERDC/CRREL). The frequency and duration of adverse weather and environmental conditions that could limit response operations and additional prevention or response measures to reduce environmental consequences are also presented.

This section describes Cook Inlet area conditions specific to Buccaneer operations that can increase the risk of discharge as well as the efforts to contain and recover oil. This section also details actions taken to eliminate or minimize identified risks.

Salient conditions include:

- Weather
- Sea states, tides and currents
- Frequency and severity of storms
- Ice type and concentrations
- Daylight
- Sabotage or vandalism
- Earthquakes

Conditions that could impact Buccaneer's drilling operations and spill response are summarized in Tables 2.4-1 through 2.4-6, along with measures that will be used to mitigate them.

### 2.4.2 Weather

The weather of Cook Inlet is in the transitional zone between the Alaskan Interior (cold winters, warm summers, low precipitation, and moderate winds) and Alaskan maritime (mild winter, cool summers, high precipitation and high winds). The Kenai data is fairly representative of general climate conditions expected in Buccaneer's Southern Cross and Northwest Cook Inlet Prospects. The *CISPRI Technical Manual*, Appendix B and the *Marine Ice Atlas for Cook Inlet, Alaska* (USACE ERDC/CRREL) should be referenced for limitations to response operations due to adverse climatic conditions.

During drilling, Buccaneer will receive daily weather reports from the U.S. Weather Bureau and NOAA. Reporting frequency will increase in the event of a major spill.

**Table 2.4-1  
 Climate Conditions Increasing Discharge Risk and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
<p><b>Temperature</b> - Cold temperatures pose the greatest threat to personnel and equipment during drilling and spill response. Nonetheless, heat also may cause gases to expand and increase the likelihood of discharge.</p>	<p><b>Engineering</b> – The rig can accommodate possible Cook Inlet temperature fluctuations. Arctic-grade hose and/or insulating/heat tracing is employed on sensitive lines.</p> <p><b>Operational</b> – Drilling/service operations will be curtailed when cold temperatures (exacerbated by icing) reach –30°F.</p>
<p><b>Winds</b> – Winds in the project area are strongly influenced by the mountains surrounding Cook Inlet. From May through October, wind direction is from the south-southwest with mean speeds ranging up to 7.2 kt. From, September through early December (end of drilling season) and then again in April, wind direction is from the north-northwest with mean speeds ranging up to 5.1 kt.</p> <p>Extreme winds are generally out of the northeast or south. High winds (&gt;27 kt with a period of &gt;5 seconds) occur about &lt;1 percent of the time, on a yearly average. The high winds will:</p> <ul style="list-style-type: none"> <li>• Hamper drilling operations</li> <li>• Hamper or fully stop mechanical and non-mechanical response operations Conditions may cause an oil slick to segregate into parallel rows and/or prevent boom recovery and vessel response to a major spill.</li> <li>• Hamper or fully stop transportation</li> <li>• Help generate wind chill which can then impact response personnel</li> </ul>	<p><b>Engineering</b> – The rig has been designed and constructed to withstand a 38 ft high wave with up to 86.9-kt winds. Larger spill response vessels that have more protection from the elements will be used in high winds.</p> <p><b>Operational</b> – First and foremost, safety will be paramount during drilling, service and response operations.</p> <ul style="list-style-type: none"> <li>• Drilling operations will be curtailed in high winds, and will cease in &gt;27-kt winds unless an emergency arises.</li> <li>• General service operations will cease in &gt;27-kt winds.</li> <li>• Fuel transfers will cease in 15-kt winds.</li> <li>• Response tracking will continue in high winds. This is because an oil spill trajectory is about 97% dependent on tidal surface current and only 3% on wind-generated surface currents. Therefore, tracking can continue via NOAA-provided current information.</li> <li>• If wind-generated currents cause an oil slick segregating into parallel rows, then response will be repositioned to take advantage of concentrations.</li> <li>• Adequate PPE and other clothing will be worn in adverse conditions.</li> </ul>
<p><b>Fog (visibility)</b> – Rain, fog and low cloud cover can reduce on water visibility and hinder or even stop spill responses as follows:</p> <ul style="list-style-type: none"> <li>• Visual Flight Rules (VFR) constraints of cloud ceiling of &lt;300 ft and &lt;1 nautical mile will preclude helicopters from responding.</li> <li>• Visibility of &lt;0.5 nautical mile will limit response to radar-equipped, oil recovery, storage, and transportation (ORST) barges only.</li> </ul>	<p><b>Operations</b> – The drilling supervisor will, in consultation with CISPRI and USCG, curtail drilling operations in periods of prolonged fog. All CISPRI response vessels (other than open skiffs) are radar equipped. Additionally, radar will be checked prior to a vessel being placed into service.</p> <p>If possible, vessels also will anchor to prevent drifting while skimming.</p>

### 2.4.3 *Sea States, Tides and Currents*

Cook Inlet waters are generally well protected with strong tidal currents. Tides in Cook Inlet are classified as mixed with strong diurnal and semidiurnal components. The sea states, tides and currents are described in the *CISPRI Technical Manual*, Appendix B.

The rig is designed and constructed to withstand 48 ft wave heights and the environmental conditions expected to be encountered in Cook Inlet.

**Table 2.4-2  
Sea State, Tide and Current Conditions Increasing Discharge Risk and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
<p>Tidal fluctuations range up to 30 ft. Surface currents are tidal in nature. Current direction is to the north-northeast during incoming tides and south-southwest during outgoing with maximum mean currents of about 2.8 kt.</p> <p>Circulation is influenced by the presence of tidal rips in the East Forelands vicinity; oil spilled will accumulate in these tidal rips.</p>	<p><b>Engineering</b> – The rig has been designed/constructed to withstand Cook Inlet currents.</p> <p><b>Operations</b> – CISPRI response will focus on tidal rips.</p>

### 2.4.4 *Frequency and Severity of Storms*

Severe weather conditions and storms can severely impact spill response efforts. The drill rig and CISPRI response vessels can withstand storm conditions.

**Table 2.4-3  
Frequency and Severity of Storm Conditions Increasing Discharge Risk and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
<p>Severe weather conditions and severe storms can severely impact spill response efforts.</p>	<p><b>Engineering</b> – the rig has been designed/constructed to withstand a 48-ft high wave and up to 86.9-kt winds.</p> <p><b>Operations</b> – Based on NOAA and USCG information, drilling will be curtailed during severe storms. The drilling supervisor will make the decision after consulting CISPRI and the USCG.</p>

### 2.4.5 *Daylight*

Appendix B of the *CISPRI Technical Manual* provides information on the hours of daylight and related impacts to response operations.

**Table 2.4-4  
Daylight Conditions and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
<p>As expected, daylight increases safety and efficiency during spill response operations. Daylight available for spill response varies from about 6 hours on 1 December to 19 hours on 1 July.</p>	<p><b>Engineering</b> – Use intrinsically safe generators, extension cords and lightsets during darkness.</p> <p><b>Operations</b> – Analyze and organize all drilling and spill response operations to allow the most efficient use of daylight.</p>

## 2.4.6 Ice Type and Concentrations

Buccaneer’s drilling season will be limited by pack ice conditions in upper Cook Inlet. Information used to define pack ice conditions is found in the *Marine Ice Atlas for Cook Inlet, Alaska* (US Army Corps of Engineers ERDC/CRREL Report TR-010-10, May 2001).

Buccaneer intends to drill during open water conditions <10% pack ice. Pack ice is as any area of sea ice other than fast ice (sea ice which forms and remains attached “fast” to the shore).

Open Water Ice conditions are summarized below in Table 2.4-5. Additional information on “Sea Ice Conditions” and related impacts to response operations are provided in Appendix B of the *CISPRI Technical Manual*.

**Table 2.4-5  
 Ice Conditions and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
Open Water Season: 7 April to 25 November	
<p><b>Open water in upper Cook Inlet.</b>                      Cook Inlet data on “ice-out” and “ice-in” dates includes information collected over a 17-year period at an oil platform about 10 miles north of the East Forelands. The mean date for ice-out (start of open water) in upper Cook Inlet is 7 April. The mean date for ice-in (end of open water) is 25 November.</p>	<p><b>Operations</b> - First, do not drill prior to 1 April, and then check ice conditions with NOAA and USCG prior to moving the rig onsite.</p>

## 2.4.7 Volcanoes

Appendix B of the *CISPRI Technical Manual* provides information on volcanic conditions and related impacts to response operations.

## 2.4.8 Sabotage or Vandalism

The potential for sabotage or vandalism is slight. The most likely contact (though of low probability) is from special interest groups, but their agenda is typically a passive form of protest.

**Table 2.4-6  
 Sabotage or Vandalism Conditions and Mitigation Measures**

Condition	Proposed Mitigation and Control Measures
<p>The potential for sabotage or vandalism is slight. The most likely contact (though of low probability) is from special interest groups, but their agenda is typically a passive form of protest.</p>	<p><b>Engineering</b> – The construction of the rig will deter any potential sabotage or vandalism. The deck of the rig is at least 50 ft above mean sea level.</p> <p><b>Operations</b> – Security, constant vigilance, and special interest training by Buccaneer and its contractors will help prevent any damage at the drill sites.</p>

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## 2.5 EXISTING AND PROPOSED DISCHARGE DETECTION PROCEDURES

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### Cross References:

30 CFR 254.23(f)

18 AAC 75.425(e)(2)(E)

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### 2.5.1 *General*

The primary means of spill detection will be visual. Personnel will be cautioned to be especially alert during operations that might result in a spill, such as fuel transfers and drilling. During drilling, operators will monitor the drilling equipment instrumentation and will stop if an unsafe condition arises.

Specifically, the rig operator will have primary responsibility for conducting routine inspections (once per shift or as otherwise noted) of their equipment and the site. The inspection includes:

- Inspect all engine fuel day tanks and associated fuel lines and valves for freedom of fuel flow and leaks
- Check fuel supply lines from bulk storage tanks for leakage. Ensure that temporary supply lines laid for miscellaneous use, such as BOP accumulator, camp tank, hot air heaters, boilers, etc., are intact and all control valves are functional and in the correct operating position, ensure that no ice blockage exists from accumulated water.
- Inspect all bulk storage fuel tanks. Ensure that all vents are open, all bottom valves are functional and in the correct operating position. Report fuel volumes as directed. Bottom tank valves will be left closed at all times fuel is not being transferred. Blind flanges shall blank off bottom tank valves not connected to piping or bull plugs at all times.
- Coordinate the transfer of all fuel to, from, or on the rig with the Buccaneer drilling supervisor to ensure that "Hot Work" is not being done near the transfer location, which could provide a source of ignition (report each transfer to the driller).
- Ensure that all transfer valves are left in the closed position and that all transfer hoses and lines remain intact after each transfer (follow transfer procedures outlined in Section 2.1.7).
- Verify that equipment maintenance is kept up to standards and that proper on-site procedures are being followed
- Visually inspect the mechanical condition of tankage, lines, and pumps.
- Verify for correct positioning of flow line valves
- Verify proper operation of relief valves (weekly).
- Inspect for fluid levels in drip pans and containment pits.
- Inspect for condition of drains (ensure clean and unfrozen).
- Check for general condition and cleanliness of rig.
- Inspect spill removal equipment and material.
- Check snow removal status.

### 2.5.2 *Storage Tank Overfill Protection*

#### ISOTANKS

ISOTANKS that may be used during well testing on the rig will not have automatic fluid-level control devices. Tank levels will be monitored and controlled manually consistent with the *Buccaneer Fuel Oil and Fluids Transfer Manual*. These controls will be relied on to protect against tank overfill.

## Day Tanks

Day tanks are internal and any leaks will proceed to the deck and then to bilges where the bilge alarm would notify of any influx. The day tanks will have site glass for monitoring the level of the fuel. Additionally, the day tanks for the diesel engines and heaters are located within the rig or the support equipment. These tanks are provided with drip pans at all pipe couplings and the tank vents are piped back to their respective storage tank to further reduce the probability of potential spills resulting from tank overfilling.

## Testing of Overfill Prevention Devices

The main diesel fuel tanks and mud tanks have high-level alarms and are strapped with steel tape daily. Overfill protection device on drilling waste storage and fuel tanks greater than 10,000 gal will be tested before transfer liquids. Additionally, these tanks are located inside of the structure and on top of internal decking. Minor leaks would be detected by direct observations around the base of the tank during routine inspections.

### **2.5.3 Well Control Systems**

Surface control during drilling is provided by the BOP assembly (Sections 2.1.1 and 2.1.6). Overbalanced drilling will provide subsurface control. Detection of a spill will be by direct observation. Automated control systems and visual monitoring of instrumentation are used to control flow rates, pressures, and distribution. Various systems in exploration operations are continuously monitored with micro-processor based control systems, with rounds documented daily, and incidents recorded using the incident report and investigation process implemented by drill operators and approved by Buccaneer.

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## 2.6 EXCEPTIONS APPLIED TO RESPONSE PLANNING STANDARD

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### **Cross References:**

18 AAC 75.430(b))

18 AAC 75.425(e)(1)

18 AAC 75.434(b)(1) and (2)

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### **2.6.1 *Exception to RPS Volume***

Exception to the RPS volume is not requested at this time.



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## 2.7 COMPLIANCE SCHEDULE AND WAIVERS

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### **Cross References:**

**18 AAC 75.425(e)(2)(G)**

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Waivers to compliance are not requested at this time.

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# PART 3 SUPPLEMENTAL INFORMATION

## 3.1 FACILITY DESCRIPTION AND OPERATIONAL OVERVIEW

### Cross References:

18 AAC 75.425(e)(3)(A)

30 CFR 254.22(a) and 30 CFR 254.23(e)

33 CFR 154.1035(a)(2);(e)(1)(i)

*Cook Inlet Subarea Contingency Plan – Section G Cook Inlet Geographic Response Strategies*

### 3.1.1 Facility Ownership and General Site Description

Buccaneer is an Alaskan limited liability company with offices in Alaska. It is wholly owned by Buccaneer Energy, Ltd based in Sydney, Australia with an operating office in Houston, Texas. Buccaneer plans to conduct a multi-year offshore drilling program in upper Cook Inlet at the four well locations listed in Table 3.1-1 beginning in June 2012. Exploration leases for the Southern Cross and Northwest Cook Inlet Prospects are owned by Buccaneer. Buccaneer is the operator of the exploration project and permittee of record.

Buccaneer's prospects are located within state waters in upper Cook Inlet, north of the East Forelands (Figure 3.1-1), about 1 to 15 miles west and/or north of Nikiski. Well locations and drilling time frames are summarized below.

**Table 3.1-1  
 Proposed Well Location Information**

Well Name	Projected Drilling Date	State Oil and Gas Lease	Legal Description, Seward Meridian	Geodetic Position, Latitude/Longitude
Southern Cross #1	2011	ADL 17595-2	Township 9N, Range 12W, Section 19	60° 51' 12.03323" N / -151° 28' 11.64709" W
Southern Cross #2	2012	ADL 391108	Township 9N, Range 12W, Section 8	60° 53' 7.92809" N / -151° 26' 22.23094" W
Northwest Cook Inlet #1	2011	ADL 391270	Township 12N, Range 9W, Section 20	61° 7' 9.51176" N / -150° 55' 6.24277" W
Northwest Cook Inlet #2	2012	ADL 391611	Township 12N, Range 10W, Section 25	61° 5' 55.46583" N / -150° 58' 46.05897" W

Buccaneer proposes to operate the *Endeavour - Spirit of Independence*(or similar) drill rig during two to three open water drilling seasons, which generally run from April through October of each year in Cook Inlet.

At the end of each drilling season, the rig will be moved south to warm storage in Lower Cook Inlet from December through March each year or used by other industry operators.

**Figure 3.1-1 Southern Cross and Northwest Cook Inlet Prospects**



### Facility Description

Drilling will be from the *Endeavour - Spirit of Independence*(Figure 3.1-2) or similar drill rig. General information on this drill rig is presented in Table 3.1-2. In the event the rig, this plan shall be updated with rig-specific information. Facility diagrams are also shown in Section 1.8.

**Table 3.1-2  
Rig Description**

Rig Basics		Rig Construction/Refurbishment Details	
Rig Name:	<i>Adriatic XI</i>	Classification:	ABS
Rig Manager:	Transocean Ltd.	Rig Design:	LeTourneau Class 116-C- <i>ADRIATIC XI</i>
Rig Owner:	Transocean Ltd.	Built By:	UIE Scotland Shipyard
		Delivery Year:	1983
Competitive Rig:	Yes	Last Dry Dock:	UIE Scotland Shipyard
		Refurbishment:	1985, 2004, 2012
Rig Type:	Jackup	Flag:	Panama
Jackup Type:	Independent Leg Cantilever	<b>Operating Parameters</b>	
Rig Design:	LeTourneau Class 116-C	Max Water Depth:	300 ft
Rated Water Depth:	300 ft	Max Drilling Depth:	25,000 ft
Drilling Depth:	25,000 ft	Leg Penetration:	35 ft
<b>Capacities</b>		Transit Speed:	4 kt average tow speed
Max Towing Variable:	4,238.21 kips	Design Conditions:	48 ft wave in 300 ft wave depth 100 miles per hour (mph) winds
Normal Jacking:	4,217.93 kips	<b>Operating Systems</b>	
Emergency Jacking:	7,129 kips	BOP:	13-5/8" Cameron 10,000 psi
Drilling:	8,890 kips (at max hook load)	BOP Handling:	2 x tandem hoists for 13-5/8"
Liquid Mud:	2,017 bbl	Control System:	Koomey type 80, 30,000 psi
Bulk Mud:	5,680 cubic feet (cu ft) total	Choke & Kill:	10,000 psi x 3-1/16"
Bulk Cement:	4,260 cu ft total	Diverter:	49-1/2 inches 1600 psi WP
Sack Material:	1,400 sacks	<b>Main Dimensions/Draft/Displacement</b>	
Drillwater:	115,330 bbl	Length:	299.67 ft
Potable Water:	1,493 bbl	Breadth:	228.67 ft
Fuel Oil:	3,392 bbl	Depth of platform:	26 ft
Pipe Racks:	6,162 square ft (sq ft)	Legs:	347.50 ft
<b>Rig Equipment Details</b>		Spud Tanks:	46 ft diameter
Derrick:	Continental Emsco 160 ft high with 1,604,167 pounds (lbs).	Leg Spacing:	Longitude 129 ft; Transverse 142 ft
Drawworks:	National Oilwell 1625 DE 3,000 Hp	Ocean Transit Draft:	15.82 ft
Rotary Table:	National D-495 49 <sup>1/2</sup> 1,000 Hp	Field Transit Draft:	49.60 ft
Mud Pumps:	3 x National Oilwell 12-P-160 triplex each driven by two GE 752 Hi-	Cantilever Reach:	60 ft aft stern



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	Torque DC traction motors, rated to 5,000 pounds per square inch (psi), 1,600 Hp	Transit Displacement:	5,745 tons
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**Figure 3.1-2** *Endeavour - Spirit of Independence*

The rig drills through a rotary table on a separate cantilevered drilling deck (Figure 3.1-2). Maximum drill depth is 20,000 ft below mudline. There is sufficient storage capacity for at least 130 days of continual operations and two 16,000-ft wells without re-supply. The nominal operating water depth range is from 16 to 300 ft. The rig can house up to 90 people.

Service facilities on the rig include:

- Ballast systems
- Sewage treatment
- Air systems
- Fire-fighting systems
- Fuel systems
- Heli-deck
- Camp accommodations
- Heating and ventilation
- Electrical systems
- Sea water systems
- Tank vents
- Bilge systems
- Bulk handling systems (chemicals, cement, barite, etc.)
- Fresh water systems
- Controlled drain system

Because of the relevance to potential oil discharges, the fuel and bilge systems are described in Table 3.1-3. Additional tank specifications also are found in Section 2.1.8.

**Table 3.1-3  
 Fuel and Bilge Water Systems**

Location	Description
<b>Fuel Systems</b>	
Main bunker and fuel transfer	The main bunker and transfer fuel system consists of four large storage tanks (ranging from 410 to 779 bbl) and pumps that allow fuel to be received into primary storage and then subsequently delivered to generators as required. This system has been fitted with a full recirculation system that will return fuel overflow from the camp and rig utilities fuel systems back to main storage.
Emergency generator	The emergency generator fuel system is made up of a tank located next to the generator in the quarter's area that will provide 18 hours' fuel supply to the emergency generator. The tank is filled by way of the centrifuge from the camp utilities settling tank and overflow returns to that settling tank.
<b>Bilge Systems</b>	
Pump room oily bilge	The oily bilge system allows bilge water in the pump room to be processed to a dirty oil tank, located next to the main fuel tanks. Oil and water collected in this dirty oil tank are then processed by way of the oily water separator, which is capable of 15 parts per million (ppm) effluent discharge.

**Deck Drainage**

The rig is equipped 8-inch coaming (containment) around the perimeter of the rig and leg wells, 8-inch coaming around tank vents, and 6-inch coaming around anchor winches and air tuggers to prevent a discharge from reaching the waters of Cook Inlet. A newly installed controlled drain system provides for collection of contaminated fluids from the drill floor. This system routes water from the upper pipe deck and the drill floor through sumps into the buffer tank that is fitted with a baffle to allow the water to flow into the over-flow tank. The water is pumped to the oily water waste tank via an oily water transfer pump. The sump is equipped with an oil/water gravity separator manual pump and a high liquid level shutdown. Oil separated from the sump is pumped to waste oil container for shipment to approved disposal. Clean

storm water will be pumped back to the mud pits and used as make-up water or discharge consistent with the rig's NPDES.

As per 18 AAC 75.305(a)(3), ADEC spill reporting information placard in Section 1 will be posted in the rig supervisor's office. This placard contains the necessary notification requirements and telephone numbers to call in the event of a spill.

### 3.1.2 Storage Tanks and Containers

Bulk storage tanks (regulated tanks over 10,000 gallons) on the rig are summarized in Table 3.1-4; internal tanks are shown in Figure 3.1-3.

The rig has a variety of storage tanks integral to the unit primarily located on internal decking. These tanks are constructed of steel with welded seams. The design of the day tanks incorporates high-level and low-level alarms. Tanks without alarms will be inspected regularly to detect potential sources or causes of leaks. Secondary containment for the storage tanks is provided by the rig construction.

**Table 3.1-4**

**Regulated tanks over 10,000 gallons**

Tank No.	Description	Product Type	Capacity (bbbl)	Fabrication/Installation Date	Construction Standard	Inspection and Maintenance Standard	Last /Next External Inspection*	Last / Next Internal Inspection
Main Fuel Tanks <sup>3</sup>								
23S	Welded Steel	Diesel	869	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
24P	Welded Steel	Diesel	828	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
25S	Welded Steel	Diesel	821	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
26P	Welded Steel	Diesel	871	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
Additional Tankage <sup>3</sup>								
13	Welded Steel	Waste Oil	362	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
14	Welded Steel	Waste Oil	362	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017
16P	Welded Steel	Base Oil	923	1982	ABS Class <sup>1</sup> 1979 IMO MODU Code	ABS Classed	July 2012 / July 2013 <sup>2</sup>	July 2012 / July 2017

<sup>1</sup>ABS - Special Hull Survey No. 6 - Completed in early 2012. Work completed for ABS Reactivation, Periodic and Special Surveys and MODU Certification will be awarded in July 2012. This includes testing of the Oily Water Separator and Bilge System.

<sup>2</sup>The next external inspection is an annual hull survey scheduled for July 2013.

<sup>3</sup>Liquid level and overfill protection provided by visual inspection and manual gauging.

#### Well Testing

The rig may utilize a number of 190.5-bbl double-walled ISOTANKs during well testing. All tanks, lines, and related testing equipment will be monitored constantly throughout well testing. Lines and tanks inspected for leaks hourly with questionable equipment will be immediately replaced. The testing area

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will also be illuminated to improve monitoring, and the ISOTANKs generally will be filled to <60 percent capacity, but never >90 percent capacity.

**Figure 3.1-3 Internal Tanks on the Rig**

Plan showing tanks on main deck, renumbered Figure 1.8-2

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### **3.1.3 *Vessel Plans and Diagrams***

Refer to Section 1.8 for rig diagrams.

All fuel oil tank vents and fill locations are contained with 8-inch coaming as described in Section 2.1.9.

### **3.1.4 *Transfer Procedures***

The rig will be refueled by barge at the onset of each drilling season and thereafter as needed. Once drilling operations commence, fuel will be transferred from the main tanks to secondary tanks for continued operation of the rig. Onboard fuel transfer procedures are discussed also in Section 2.1.7. A fluids transfer manual is included in Appendix B of this plan.

### **3.1.5 *Disposal of Oily Waste***

The rig is fitted with three waste oil tanks. They are located as follows:

- 86-bbl oily bilge/waste oil tank within internal decking
- Two waste oil day tanks in engine room
- Waste oil collected in the engine room can be transferred by way of a transfer pump to the large waste oil tank. From there the oil can be disposed of onshore.

Oiled absorbents and other oil-soaked debris will be disposed of off site.



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## 3.2 RECEIVING ENVIRONMENT

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### **Cross References:**

**18 AAC 75.425(e)(3)(B)**

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The facility is an offshore platform. The requirements of 18 AAC 75.425(e)(3)(B) apply to land-based facilities or operations.

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## 3.3 COMMAND SYSTEM

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### Cross References:

18 AAC 75.425(e)(3)(C)

30 CFR 254.23(a), (b) and (c)

33 CFR 155.1035(b)(2)(iii); (b)(3)(i) and b(3)(iv)

U.S. Coast Guard Incident Management Handbook dated October 2006

Alaska Incident Management System (AIMS) Guide for Oil and Hazardous Substance Response

Unified Plan - Annex B Unified Response Organization

Unified Plan and Cook Inlet Subarea Contingency Plan -Section G Geographic Response Strategies

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### 3.3.1 General

All emergency response situations will use the ICS. **Buccaneer is ultimately responsible to ensure appropriate spill response actions. Buccaneer will use CISPRI as the primary spill response contractor for Cook Inlet and O'Brien'sRM as the spill response management team.** Both contractors use the ICS. This ICS organization will promote effective response to a variety of oil spills.

Once an oil spill is detected, the drill supervisor will initiate callout of response contractors as outlined in Part 1.1 of this plan by notifying the O'Brien'sRM 24-hr emergency response Command Center in Slidell, Louisiana who in turn activates qualified personnel to man the IMT and fill the role of IC. Because of expertise and experience, Buccaneer has empowered personnel from the O'Brien'sRM Alaska office to act as both QI and IC during spill response. Again, however, Buccaneer is ultimately responsible for response efforts.

O'Brien'sRM follows the provisions and guidelines set forth in the *U.S. Coast Guard Incident Management Handbook* dated October 2006. This handbook provides an easy reference job aid for responders with position descriptions and checklist to facilitate functional responsibilities for a variety of situations. The document is available for download at the following link: <http://www.uscg.mil/hq/nswfweb/docs/FinalIMH18AUG2006.pdf>.

Key ICS team functions and roles are listed in Figure 3.3-1. Names and telephone numbers of lead positions also are listed. In a major emergency, the ICS organization described in Figure 3.3-1 will take over.

### 3.3.2 Incident Management Team

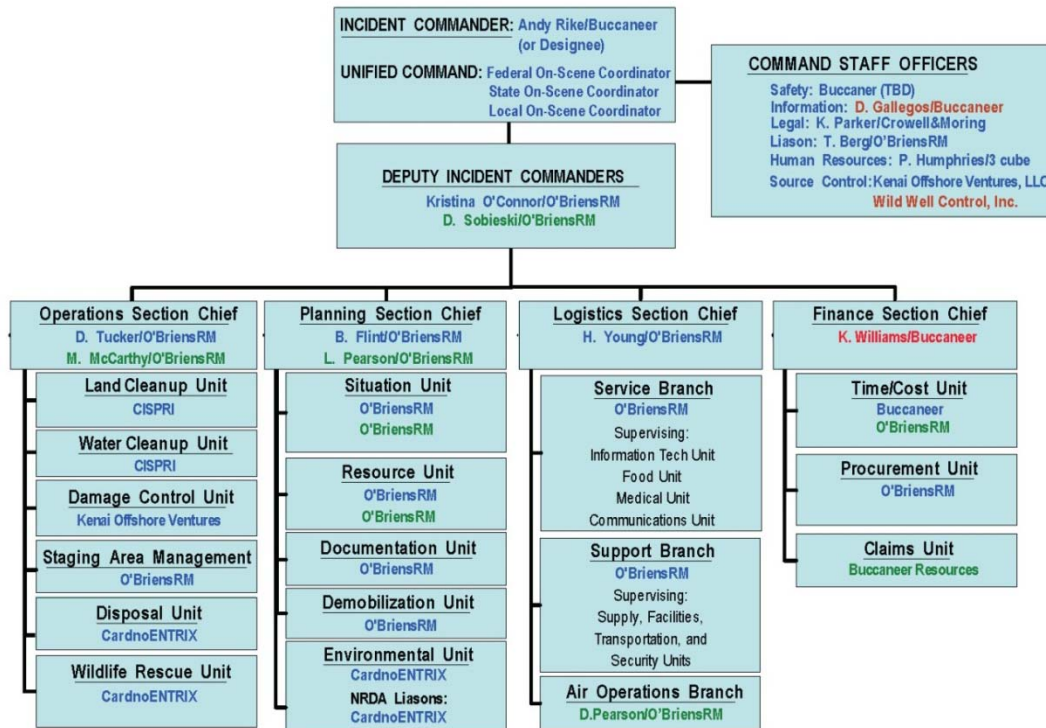
O'Brien'sRM will provide an IC from their Alaska office, who will activate the UC, mobilize the IMT, and will be responsible for overall management of the response. The functional positions identified in Figure 3.3-1 and further defined within the *U.S. Coast Guard Incident Management Handbook* shall be activated and manned by O'Brien'sRM and Alaska-based Buccaneer personnel as appropriate to meet response needs. O'Brien'sRM maintains a manned 24-hour response office and is capable of manning all IMT positions within the required time frames. Empowered by Buccaneer, the O'Brien'sRM IC will lead the IMT, which includes:

- IC
- Deputy ICs
- Command Staff
- General Staff

Each of the above is described in detail later in this section.

The overall responsibility of the IMT is to make decisions on how best to control the source of a spill, contain, clean up, and restore the environment.

**Figure 3.3-1 Buccaneer Incident Command System**



Notes:  
For a detailed description of the ICS, see Section 3.3 and the CISPRI Technical Manual.

**ICS Unit Personnel Location**  
D. Tucker/O'BriensRM = Alaska (1<sup>st</sup> Callout)  
O'BriensRM = Northwest (2<sup>nd</sup> Callout)  
K. Williams/Buccaneer = Chief Financial Officer

**Initial Spill Response Team/Emergency Contacts**

Title	Name/Company	Work Phone	Home or Cell Phone
Incident Commander	Andy Rike/Buccaneer	(907) 335-0600	(713) 703-1517 (Cell)
Alternate Incident Commanders	Dan Sobieski (Alt.) O'BriensRM	(985) 781-0804	24-Hour Response Line
	Kristina O'Connor (Alt.) O'BriensRM	(985) 781-0804	(907) 947-6849
Deputy Incident Commanders	Dan Sobieski (Alt.) O'BriensRM	(985) 781-0804	24-Hour Response Line
	Kristina O'Connor (Alt.) O'BriensRM	(985) 781-0804	(907) 947-6849
<b>Command Staff</b>			
Safety:	To be determined and posted	Onsite contact	
Information:	Dean Gallegos/Buccaneer	(907) 335-0600	(713) 468-3717
Legal:	Kyle Parker/Crowell&Moring	(907) 227-9564	(907) 350-9805
Liaison:	T. Berg/ O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
Human Resources:	P Humphries/TH INK	(907) 317-1330	
Source Control:	Kenai Ventures Offshore, Inc. Wild Well Control, Inc.	(907) 335-0600 (281) 784-4700	24-Hour Res ponse Line
<b>General Staff (Section Leaders)</b>			
Operations Section Chief	D Tucker/O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
	M McCarthy/ O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
Planning Section Chief	B Flint/ O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
	L Pearsons/ O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
Logistics Section Chief	H Young/ O'BriensRM	(985) 781-0804	24-Hour Res ponse Line
Finance Section Chief	Kyle Williams/Buccaneer	(907) 335-0600	(713) 703-1517 (Cell)

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## ***Incident Commander***

Andy Rike/Buccaneer will fill the position of IC to supervise the IMT. The IC is responsible for overall management of all incident-related activities. O'Brien'sRM specializes in the management of all kinds of incidents worldwide. The O'Brien'sRM Anchorage office maintain a current administrative list of individual contact information and ability to deploy. This list can be provided by O'Brien'sRM to ADEC upon request. The list helps ensure there are enough O'Brien'sRM personnel available at any given time to fill the IC positions required to manage a Level II or III response.

IC roles and responsibilities include the following:

- Conduct briefings by using ICS Form 201, or equivalent (Checklist 1-2 in Part 1.1)
- Activate Buccaneer's IMT
- Activate CISPRI, O'Brien'sRM, and other oil spill response organizations as necessary
- Manage incident operations
- Authorize implementation of IAPs by using ICS Forms 200 to 206, ICS 215, ICS 220 and ICS 224 as needed
- Ensure spill notification to all authorities
- Coordinate staff activity
- Approve and release additional resources
- Approve demobilization plan
- Obligate funds required to effectuate response activities
- Coordinate with federal, state and local agencies in the UC (if activated)

Based on the above responsibilities, the IC also meets the requirements of a Qualified Individual (QI) identified in applicable USCG federal regulations.

## ***Alternate ICs***

Personnel authorized to commit Buccaneer in the capacity of Alternate IC or as Alternate Qualified Individual (in accordance with the OPA 90) include the following individuals:

- Dan Sobieski/O'BriensRM 24-Hour Response: (985) 781-0804
- Kristina O'Connor/O'Brien'sRM 24-Hour Response: (985) 781-0804

## ***Deputy IC***

With the exception of minor spills, Buccaneer believes that oil spill response efforts are complex in nature and will ultimately include the active involvement of outside parties (i.e. federal, state, or local on-scene coordinators).

Identified Deputies include:

- Dan Sobieski/O'Brien'sRM 24-Hour Response: (985) 781-0804
- Kristina O'Connor/O'Brien'sRM 24-Hour Response: (985) 781-0804

Each Deputy IC will assume primary responsibility for one aspect or more of the tactical response operations, management of the IMT staff, or to serve as the primary contact person for outside parties. Each Deputy also will advise the IC on how to carry out his responsibilities more effectively.

## ***COMMAND STAFF***

Buccaneer IMT Command Staff includes the following sub-functions and their responsibilities.

- **Safety Officer** will monitor safety conditions, provide the IC with advice on all safety matters, and support safety personnel involved in tactical response organizations

- 
- **Information Officer Dean Gallegos (907-305-0600)** will be responsible for serving as the point of contact for the media or other non-governmental organizations seeking information about the nature and status of incident and response operations.
  - **Liaison Officer Teresa Berg (985-781-0804)** will be responsible for serving as the point of contact for, and providing information to government agencies and community organizations not directly involved in response operations.
  - **Legal Officer Kyle Parker (907-227-9564)** will be responsible for providing legal advice to the IC and other members of the IMT, and for coordinating Incident Investigations. The legal office also will review media releases, environmental permits, contracts and documents, and conduct natural resource damage assessment negotiations.
  - **Source Control (Wild Well Control, Inc. at 281-784-4700)** will be activated to supplement the Kenai Ventures Offshore drilling company in the event of source control incidents. The Source Control Officer will provide advice to the IC, and if directed, will conduct source control.
  - **Human Resources Officer Pilar Humphries (907-317-1330)** will be responsible for addressing human resources needs and issues.

### ***General Staff***

The General Staff is first divided into branches, and these branches, in turn, are subdivided into units. Sections, branches and corresponding unit responsibilities are described below and shown in Figure 3.3-1. Most if not all of the branch and unit leaders will be from the Alaska offices of O'Brien'sRM and Buccaneer.

### ***Operations Section - Chiefs Dan Tucker and Mary McCarthy at 985-781-0804***

Essentially, Operations will be responsible for supervising the work of section personnel and response action contractors, as well as maintaining logs of unit activities (ICS 214) and staging areas. The Operations Section Chiefs also will, with the assistance from CISPRI, direct containment, exclusion and cleanup operations. The section also will support tactical and source control response operations, and develop IAPs.

**Operations Units** include:

- **Land Cleanup** will be responsible for cleanup operations on the beaches of Cook Inlet. The Land Cleanup Unit will coordinate closely with the Water Cleanup Unit.
- **Water Cleanup Unit** will be responsible for spill containment and recovery in Cook Inlet. Specifically, this will include all marine operations, including all facets mechanical and non-mechanical response.
- **Damage Control Unit** will secure the release site, including removal of any structures and debris, and making repairs.
- **Staging Area Management (SAM) Unit** will be responsible for establishing and then managing all activities within the staging areas. SAM also is responsible for tracking and accounting for all people, equipment, and material entering or exiting the designated staging areas.
- **Disposal Unit** will be responsible for coordinating the on-site activities of personnel engaged in collecting, storing, manifesting, transporting, and disposing of waste materials generated during response activities.
- **Wildlife Rescue Unit** will be responsible for minimizing wildlife loss during spill responses by contracting and overseeing specialists that may include the International Bird Rescue Research Center (IBRRC) and polar bear monitors. Activities will include establishing and maintaining a central wildlife processing center, and overseeing and coordinating private wildlife care groups, including those employed by Buccaneer and/or CISPRI. Note that wildlife rescue will follow Wildlife Protection Guidelines for Alaska found in Annex G in of AK Unified Plan.

### ***Planning Section - Chiefs Bob Flint and Leslie Pearson at 985-781-0804***

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**The Planning Section will be responsible for collecting, evaluating, and distributing operational information about the oil spill.** The Planning Section also will manage and supervise the following:

- Status of equipment and personnel resources assigned to response operations
- Preparation of the IAP for each operational period
- Preparation of a General Plan (if appropriate)
- Preparation of incident-specific plans
- Provision of a wide range of environmental services including permitting, waste disposal, wildlife, etc.
- Assignment of Technical Specialists
- Documenting and filing of all response operations information, and maintaining logs of unit activities (ICS 214)
- Submitting all documentation to the Documentation Unit upon completion of the response
- Demobilization operations.

The Planning Section contains five units, as shown on Figure 3.3-1, and will have a number of technical specialists to assist in evaluating the spill situation and forecasting additional personnel and equipment requirements. Each unit also is described below along with responsibilities.

**Planning Section Units** include the following.

- **Situation Unit** will be responsible for the collection and evaluation of information about the current and possible future status of the spill and spill response operations. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated blowout trajectory, and impacts on natural resources. This responsibility includes providing information to Geographic Information System (GIS) Specialist(s) for the creation of maps to depict the current and possible future situation and the preparation of reports for the Planning.
- **Resource Unit** will be responsible for maintaining the status of all resources (primary and support) at an incident. Resource Status (RESTAT) achieves this through development and maintenance of a master list of all resources, including check-in/out, status, current location, en route, assigned, available, out-of-service, etc. This unit is also responsible for preparing parts of the IAP (ICS 203 and 204) and compiling the entire plan in conjunction with other members of the IGS, (e.g., Situation Unit, Operations, Logistics) and determines the availability of resources.
- **Documentation Unit** will be responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: initial briefing, IAP(s), incident reports, communication logs, injury claims, situation status reports, photographs, etc. Thorough documentation is critical to post-incident analysis. Some of these documents may originate in other sections. This unit ensures each section is maintaining and providing appropriate documents. Incident files are stored for legal, analytical, and historical purposes. The Documentation Unit also provides duplication and copying services. The Documentation Unit records the meetings, prepares meeting notes and prepares a chronology of major incident events, per parent organization policies and procedures.
- **Environmental Unit** will be responsible for collection, evaluation, and dissemination of all environmental issues concerning the oil spill. The Environmental Unit gives advice and direction on environmental aspects of spill and cleanup procedures. It coordinates the efforts of the Wildlife response and GRS efforts, and assists the Planning Chief in providing information to assess the extent of environmental impacts and environmental advice on cleanup options.

Assessment of the extent of environmental impacts will be accomplished by implementing a NRDA approach that will be supervised by a NRDA Liaison. NRDA Liaisons will be responsible for the exchange of information between and coordination of NRDA activities and spill response activities. This can be beneficial in preventing natural resource injury or losses, avoiding duplication of data gathering and allowing for efficient use of available personnel and equipment. Most NRDA activities occur outside of the ICS. The appropriate place within the ICS for emergency response information



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exchange and coordination to occur is the Environmental Unit. However, the Lead Administrative Trustee for NRDA does have access to the Liaison Officer on the Command Staff if necessary.

The Environmental Unit is responsible for collection, evaluation, dissemination, and use of information about the incident, including information about natural resources. This is often a logical place for the liaison between trustee NRDA work and incident response. The trustee liaison is provided by the lead administrative resource trustee or other personnel designated to serve this function. The person within the Environmental Unit responsible for working with the lead administrative trustee may be the Scientific Support Coordinator or other personnel designated to serve this function. Because most of the NRDA activities are conducted outside the ICS, it is extremely important for the person, within the Environmental Unit working with the lead administrative trustee, to communicate the NRDA operations and response operations to the lead administrative trustee.

**Demobilization Unit** will, with assistance from Logistic Section personnel, develop a demobilization plan, and then assist all general staff in accomplishing an orderly, safe and cost effective demobilization of all resources.

### ***Logistics Section – Chief Henry Young at 985-781-0804***

**The Logistics Section is responsible for providing all facilities, transportation, communications, services, and material for the spill.** The unit will help develop and implement IAPs, and activate and supervise Branches and Units within the Logistics Section. Overall responsibilities also include:

- Assigning work locations and preliminary work tasks to Section personnel
- Notifying Resource Unit regarding Logistics Section units activated (including names and locations of assigned personnel)
- Briefing Branch Directors and Unit Leaders
- Participating in preparation of an IAP, and providing input into other plans for communications, medical, traffic, and vessel routing.
- Identifying service and support requirements for planned and expected operations.
- Coordinating and processing requests for additional resources.
- Advising on current service and support capabilities and estimating future requirements.
- Receiving Demobilization Plan from Planning Section, and then recommending release of units based on Demobilization Plan.
- Maintaining logs of unit activities (ICS 214).
- Submitting all documentation to the Documentation Unit upon completion of the response

The Logistics Section contains several components with multiple units, as shown on Figure 3.3-1. Each main component and subunits also are described below along with identified personnel and responsibilities.

**Logistics Section Branches and Units** include the following.

- Service Branch will be responsible for the management of all service activities at the incident, and supervises the operations of the Information Technology, Medical, Food and Communication Units. This includes ordering personnel and supplies, maintaining an inventory, and servicing equipment for each unit.
  - The Information Technology (IT) Unit is responsible for providing information technology support at all incident facilities. This support includes computer hardware/software installation, maintenance, and trouble-shooting; installation/ maintenance of local area/wide area networks; website support (hardware, software installation and maintenance); and ensuring appropriate information security measures are in place.
  - The Food Unit is responsible for determining feeding requirements at all incident facilities; menu planning; determining cooking facilities required; food preparation; serving; providing potable water; and general maintenance of the food service areas.

- 
- The Medical Unit is primarily responsible for the development of the Medical Emergency Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records.
  - The Medical Unit may also assist Operations in supplying medical care and assistance to civilian casualties at the incident, but is not intended to provide medical services to the public. The Communications Unit is responsible for providing equipment and procedures for communications (within and external to the spill) by developing plans for the effective use of incident communications equipment and facilities; installing and testing communications equipment; supervising the incident Communications Centers; and distributing communications equipment to incident personnel. - Maintaining and repairing communications equipment.
  - Support Branch will be responsible for development and implementation of logistics plans in support of IAPs as well as providing transportation, personnel, equipment, facilities, and supplies to support operations. The Support Branch Directors supervise the Supply, Facilities, Transportation, and Security Units.
    - The Supply Unit is primarily responsible for ordering personnel, equipment and supplies; receiving, and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.
    - The Transportation Unit is responsible for coordination and direction of all air, water (probably not required during winter timeframe) and ground transportation required to support response activities.
    - The Security Unit is responsible for the provision of the safeguards needed to protect personnel and property from loss or damage, and to implement site control. The Facilities Unit is primarily responsible for the layout and activation of incident facilities, and provides sleeping and sanitation facilities for incident personnel and manages base and camp operations.
  - **Air Operations** are primarily responsible for preparing the air operations portion of the IAP. The IAP reflects agency restrictions that have an impact on the operational capability or utilization of resources such as night flying or hours per pilot. After the IAP is approved, air support is responsible for implementing the plan.

### ***Finance Section – Chief Kyle Williams at 907-335-0600***

**The Finance/Administration Section is responsible for all financial and cost analysis aspects of the response and for supervising members of the Finance/Administration Section.**

**Finance Section Chiefs will include Buccaneer staff. Overall responsibilities include:**

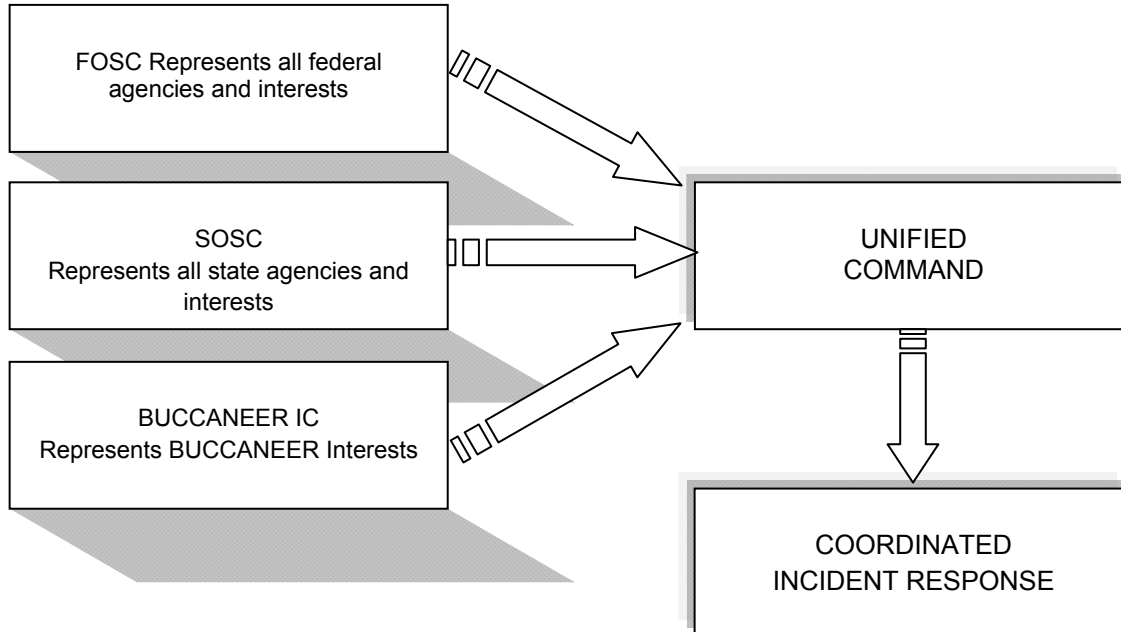
- Meeting with and assisting and cooperating agency representatives as required
- Providing input in all planning sessions on financial and cost analysis matters
- Maintaining contact with Buccaneer's administrative offices on finance matters
- Ensuring time records are transmitted
- Participating in all demobilization planning
- Ensuring that all obligation documents initiated at the incident are properly prepared and completed
- Briefing administration personnel on all incident-related business management issues needing attention and follow-up prior to leaving the incident per parent organization's policies and procedures
- Maintaining a unit log of activities (ICS 214)
- Submitting all documentation to the Documentation Unit upon completion of the response

**The Finance Section** includes the following units.

- 
- Time/Cost Unit is responsible for equipment and personnel time recording, collecting all cost data, performing cost effectiveness analyses, and providing cost estimates and cost saving recommendations. This unit is also responsible for maintaining time records for rental equipment.
  - Procurement Unit is responsible for administering all financial matters pertaining to vendor contracts and service agreements.
  - Claims Unit is responsible for the overall management and direction of all Compensation for Injury Specialists and Claims Specialists assigned to the incident.

### 3.3.3 Unified Command System

When implemented, the UC will be made up of the IC (or his designee), and representatives from the USCG, as FOSC and ADEC, as the SOSC.



This will be done as a method for integrating federal, state and local agencies with the IMT to organize local, state and federal agencies into a team that can perform duties as a unified effort. The UC consists of three key On-Scene Coordinators: FOSC, SOSC, and IC that share decision-making authority.

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## 3.4 REALISTIC MAXIMUM RESPONSE OPERATING LIMITATIONS

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### **Cross References:**

18 AAC 75.425(e)(3)(D)

*CISPRI Technical Manual, Appendix B*

*Unified Plan*

*Unified Plan and Cook Inlet Subarea Contingency Plan*

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### **3.4.1 General**

Environmental conditions can sometimes limit response work. Some limitations are based on safety and health, and other limitations concern equipment effectiveness.

The *CISPRI Technical Manual, Appendix B* provides detailed descriptions and analysis on how adverse weather and environmental conditions in Cook Inlet could possibly limit CISPRI response operations. These are adopted by reference. Five factors were considered in spill planning to account for periods when conditions may limit response. These factors are:

- Weather
- Sea state, tides and currents
- Ice and/or debris presence
- Hours of daylight visibility
- Volcanoes

While the rig can operate in any Cook Inlet conditions (due to design and construction), Buccaneer will modify drilling operations up to and including stopping bit advancement when CISPRI cannot respond due to RMORLs.

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## 3.5 LOGISTICAL SUPPORT

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### **Cross References:**

18 AAC 75.425(e)(3)(E)

30 CFR 254.26(e)

*Unified Plan and Cook Inlet Subarea Contingency Plan, Section A: Resources, Part 4 Logistics*

*CISPRI Technical Manual, Tactics CI-LP-0 to CI-LP-7*

*CISPRI Technical Manual, Appendix A*

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### **3.5.1 General**

CISPRI will coordinate transportation services for CISPRI-controlled resources as directed by ICS. CISPRI logistics personnel, in conjunction with the O'Brien'sRM Logistics Section, typically will develop a transportation plan.

Mobilization and transport of CISPRI resources from storage locations and personnel to the spill will be accomplished using contractors and vendors providing transport services in two areas: ground- and vessel transport. To a lesser degree, air transport will be used.

Details of CISPRI logistical support are presented in the logistics and planning tactics in the *CISPRI Technical Manual*. The CISPRI logistical support information also contains specifications on the various components of the CISPRI equipment, as well as information on CISPRI's significant Contracted Vessel (CV) Program, which allows CISPRI to access and use a variety of vessel types for spill response. Program crew training and management of the contract vessel fleet also are described.

Finally, Appendix A in the *CISPRI Technical Manual* provides a catalog of CISPRI equipment, including photographs and descriptions, of the CISPRI response equipment inventory.

The ICS Logistics Section Chief (Section 3.3 of this plan) is responsible for providing facilities, transportation, communications, services, and material in support of the incident. The Logistics Services Branch may include Communications, Information Technology, Medical, and Food Units. Similarly, the Support Branch may entail transportation, personnel, equipment, facilities, and supplies.

Logistical support for spill response is provided through response contractors with support, as needed, from Buccaneer. CISPRI will provide most, if not all, of the needed response support through existing resources and their subcontractor base established in the operating agreements.

Depending on the severity of a situation, federal/state logistics functions may also be integrated into the response. Examples of these functions include ordering, tracking, and servicing government resources, arranging for transportation and lodging for government response staff, providing communications to government oversight staff (field monitors), and performing other logistics-related functions specifically in support of the government oversight role. These governmental functions may become an integral part of the overall Logistics Section should Buccaneer establish a UC agreement with government agencies during a response.

### **Ground Transportation**

The east side of Cook Inlet is accessible by secondary road or highway. In many of the areas equipment is pre-staged such as at Homer, Swanson River, and the Port of Anchorage. The pre-staged equipment is listed in Tactic CI-LP-4 in the *CISPRI Technical Manual*. Travel distances to the main facility locations are displayed in Figure 3 of Tactic CI-LP-1(A). Local transportation (trucking) companies are listed in Tactic CI-LP-3.



CISPRI also maintains resources for remote responses, such as along pipeline right-of-ways. CISPRI has an inventory of available snowmachines with sleds, and all-terrain vehicles (ATVs) with trailers (Tactic CI-LP-4).

## Vessel

Travel time for vessels to and from Cook Inlet locations are listed in *Tactic CI-LP-1(A)* in the *CISPRI Technical Manual*. Locations include the OSK Dock in Nikiski (CISPRI’s main load-out dock), KPL Dock, Drift River Terminal, Trading Bay, West Forelands, Port of Anchorage, North Forelands, Kachemak Bay-Homer and the Kennedy Entrance.

Barge platforms may be made available through one of the logistical support contractors listed in Table 3.5-1.

**Table 3.5-1 Logistical Support - Barge Contractors**

Company	Location	Contact Phone Number
Anderson Tug & Barge Company	Seward	907 224-5506
Bering Marine Corporation	Anchorage	907 248-7646
Cook Inlet Marine	Homer	907 235-8086
Cook Inlet Tug & Barge	Anchorage	907 277-7611
Crowley Marine Services	Anchorage	907 278-4978
Cruz Marine LLC	Palmer	907 746-3144
Pacific Pile and Marine	Anchorage	907 276-3873

### 3.5.2 Air Transportation

Personnel and equipment may also be mobilized and transported to the site via air support. CISPRI maintains contracts with commercial providers for air transportation, including fixed-wing and helicopter operations. Illustrations of airstrips and their relation to the Buccaneer project area are provided in *Cook Inlet Subarea Contingency Plan – Section A: Resources, Part 4 Logistics*. Additional assets and travel times are identified in the *CISPRI Technical Manual, Tactic CI-LP-1(A)*

The rig can accommodate helicopter landings. Fixed-wing aircraft could be used to shuttle response equipment closer to the exploration site for helicopter or boat transport to the site.

### 3.5.3 Inspection

CISPRI has a rigorous inspection and maintenance program of their vessels and equipment. Additionally, all CISPRI vessels meet USCG requirements and are operated by USCG-licensed personnel.

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## 3.6 RESPONSE EQUIPMENT

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### **Cross References:**

18 AAC 75.425(e)(3)(F)

30 CFR 254.28(a) and (b)

33 CFR 154.1035(b)(2)(iii) and b(3)(iv); (b)(4)(iii); and (e)(3)(ii)

30 CFR 254.26(e)

30 CFR 254.26(d)(1)

*Cook Inlet Subarea Contingency Plan – Section A: Resources, Part 2 Equipment*

*CISPRI Technical Manual*

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### **3.6.1 Equipment Lists**

Cook Inlet operator spill response equipment is available through CISPRI. A current complete list and capabilities of Cook Inlet area spill equipment is provided in *CISPRI Technical Manual*, Appendix A. Relevant numbers and types of equipment are called out and tabulated in the Response Scenario in Section 1.6.

Additional Cook Inlet spill response resources are also described in the *Cook Inlet Subarea Contingency Plan – Section A: Resources, Part 2 Equipment*. Buccaneer can access this equipment through CISPRI as part of mutual aid agreements. All service vessels will be equipped with external FIFI systems, and a fast rescue boat will also be located on the rig to help in deploying boom.

### **3.6.2 Maintenance and Inspection of Response Equipment**

Response equipment will be maintained in such a manner that it can be rapidly deployed for immediate use. The on-site response equipment will be routinely inspected and tested. CISPRI performs routine inspection and maintenance as described in the *CISPRI Technical Manual Appendix A*.

CISPRI is classified as an OSRO by the USCG and registered as a PRAC, and a NTVCC with the State of Alaska. CISPRI holds the following USCG OSRO Tier 3 classifications:

- Class A through E for river environments
- Class A through D for inland environments
- Class D for ocean environments

CISPRI has fulfilled equipment maintenance and testing criteria that these classifications require.

Response equipment is maintained by CISPRI in such a manner that it can be deployed rapidly for immediate use. CISPRI utilizes a computerized system to manage their equipment inventory and preventative maintenance program. This maintenance system tracks monthly preventative maintenance tasks. Documentation is available at CISPRI.

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## 3.7 NON-MECHANICAL RESPONSE OPTIONS

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### **Cross References:**

**18 AAC 75.425(e)(3)(G)**

**30 CFR 254.23(g)(9) and 30 CFR 254.28(a)(b)(c)(d)(e)(f) and (g)**

**33 CFR 154.1035(b)(2)(iii) and b(3)(iv); and (b)(4)(iii)**

***CISPRI Technical Manual, Tactics CI-NM-1 to CI-NM-5***

***Unified Plan -- Annex F Chemical Countermeasures: Dispersants, Chemical Agents, and Other Spill Mitigating Substances, Devices or Technology***

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Detailed non-mechanical response information is provided in the *CISPRI Technical Manual*, Tactics CI-NM-1 to CI-NM-5. Summary descriptions of proposed non-mechanical response options (ISB and chemical dispersants) are presented in Section 1.7. Requisite permit applications and guidelines descriptions, and instruction on how to access the permits, are included in tactic CI-LP-7 of the *CISPRI Technical Manual*.

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## 3.8 RESPONSE CONTRACTOR INFORMATION

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### **Cross References:**

18 AAC 75.425(e)(3)(H)

30 CFR 254.23(b)

*CISPRI Technical Manual, Tactic CI-LP-6*

33 CFR 154.1035(b)(2)(iii) and b(3)(iv); and (b)(4)(iii) and (e)(2)(ii)(iii)

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### **3.8.1 Response Contractors**

In addition to on-site personnel, Buccaneer maintains oil spill response service contracts with CISPRI as a primary response action contractor. If additional resources are required, they will be accessed through Master Service Agreements maintained by CISPRI. Buccaneer also has a signed agreement with the O'Brien'sRM to support the spill management team.

### **3.8.2 Statements of Contractual Terms**

Buccaneer's Statement of Contractual Terms (SOCT) with CISPRI for Cook Inlet offshore response is provided below along with the O'Brien'sRM agreement.

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STATEMENT OF CONTRACTUAL TERMS

1

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445 (i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Cook Inlet Area Operations

PLAN HOLDER: Buccaneer Alaska Operations, LLC

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Buccaneer Alaska Operations, LLC the oil discharge prevention and contingency plan holder (hereinafter "PLAN HOLDER), and Cook Inlet Spill Prevention & Response, Inc the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter "CONTRACTOR"), executed on \_\_\_\_\_, and the original of which is located at Anchorage, Alaska as evidence of the PLAN HOLDER's access to the containment, control and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 - 18 AAC 75.495.

The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (C) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) respond to a Department-conducted discharge exercise required of the PLAN HOLDER; and
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.



STATEMENT OF CONTRACTUAL TERMS

2


I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

  
Signature \_\_\_\_\_ Date 8/7/2012

Title: Vice President

For: Buccaneer Alaska Operations, LLC  
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

  
Signature \_\_\_\_\_ Date 8-9-12

Title: GENERAL MANAGER

For: Cook Inlet Spill Prevention & Response, Inc.  
CONTRACTOR

1

STATEMENT OF CONTRACTUAL TERMS

AS REQUIRED UNDER AS 46.04.30, AS 46.04.035 and 18 AAC 75.445 (i)(1) in fulfillment of a requirement for registration of primary response action contractors and for approval of an Oil Discharge Prevention and Contingency Plan.

PLAN TITLE: Cook Inlet Area Operations  
PLAN HOLDER: Buccaneer Alaska Operations, LLC

This statement is a certification to the Alaska Department of Environmental Conservation summarizing the contract between Buccaneer Alaska Operations, LLC the oil discharge prevention and contingency plan holder (hereinafter "PLAN HOLDER"), and O'Brien's Response Management, Inc. the oil spill primary response action contractor or a holder of an approved oil discharge prevention and contingency plan under contract (hereinafter "CONTRACTOR"), executed on \_\_\_\_\_, and the original of which is located at Anchorage, Alaska as evidence of the PLAN HOLDER's access to the containment, control and/or cleanup resources required under standards at AS 46.04.030 and 18 AAC 75.400 - 18 AAC 75.495.

The PLAN HOLDER and the CONTRACTOR attest to the Department that the provisions of this written contract clearly obligate the CONTRACTOR to:

- (A) provide the response services and equipment listed for the CONTRACTOR in the contingency plan;
- (B) respond if a discharge occurs;
- (C) notify the PLAN HOLDER immediately if the CONTRACTOR cannot carry out the response actions specified in this contract or the contingency plan;
- (C) give written notice at least 30 days before terminating this contract with the PLAN HOLDER;
- (E) respond to a Department-conducted discharge exercise required of the PLAN HOLDER; and
- (F) continuously maintain in a state of readiness, in accordance with industry standards, the equipment and other spill response resources to be provided by the CONTRACTOR under the contingency plan.

STATEMENT OF CONTRACTUAL TERMS

I hereby certify that, as representative of the PLAN HOLDER, I have the authority to legally bind the PLAN HOLDER in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

 8/7/2012  
Signature Date

Title: Vice President

For: Buccaneer Alaska Operations, LLC  
PLAN HOLDER

I hereby certify that, as representative of the CONTRACTOR, I have the authority to legally bind the CONTRACTOR in this matter. I am aware that false statements, representations, or certifications may be punishable as civil or criminal violations of law.

 8/9/2012  
Signature Date

Title: EXECUTIVE VICE PRESIDENT

For: O'Brien's Response Management, Inc.  
CONTRACTOR

## 3.9 TRAINING

### Cross References:

18 AAC 75.425(e)(I)(G)  
 18 AAC 75.007(d)  
 18 AAC 75.425(e)(3)(I)  
 30 CFR 254.23(c) and 29(a) and (b)  
 33 CFR 154.1035(c)(1)(2)  
 29 CFR 1910.120  
*CISPRI Technical Manual, Appendix E*  
*Spill Tactics for Alaska Responders (STAR) Manual*  
*Unified Plan - Annex H*  
*Cook Inlet Subarea Contingency Plan – Section A: Resources*

### 3.9.1 General

Training for oil response personnel is required by two primary agencies: federal Occupational Safety and Health Administration (OSHA) and the ADEC. In general, these two agencies require Buccaneer, as operator of the rig, to appropriately and regularly train all onsite personnel in company and state pollution prevention measures applicable to duties.

Relevant OSHA regulations are published in 29 CFR 1910.120 – HAZWOPER. Required OSHA HAZWOPER training for cleaning up a spill are summarized in Table 3.9-1. Emergency response training requirements for responding and containing a spill are summarized in Table 3.9-2.

**Table 3.9-1**  
**OSHA 29 CFR 1910.120 Hazardous Waste Operations Training Requirements**

Definition	Initial Training	Refresher Training	Certified by
<b>General Site Workers</b>			
Laborers and equipment operators	40-hours off site 3 days on job training	Annual – 8 hours	Initial – Instructor Annual – Instructor
<b>Occasional Site Workers</b>			
Occasionally onsite working in limited tasks	24-hours off site 1 day on job training	Annual – 8 hours	Initial – Instructor Annual – Instructor
<b>Low-hazard, Level D Workers</b>			
Low hazard jobs requiring Level D PPE (no respirators) with no emergencies	24-hours off site 1 day on job training	Annual – 8 hours	Initial – Instructor Annual – Instructor
<b>Supervisors</b>			
Supervises all above employees	40-hours off site 3-day HAZMAT site safety coordinator 1 day on job training	Annual – 8 hours	Initial – employer Annual – employer
<b>Emergency Response</b>			
Responds to emergencies	40-hours off site 3 days on job training 3-day HAZMAT site safety coordinator 1 day on job training	Annual, included in 8-hour rehearsal of emergency response plan	Initial – employer Annual – employer

Note: Employers can show by documentation/certification that an employee’s work history and/or training has resulted in equivalent training do not need to provide initial training to the employee.

**Table 3.9-2  
 OSHA 29 CFR 1910.120 Emergency Response Training Requirements**

Definition	Initial Training	Refresher Training	Certified by
<b>First Responder Awareness Level</b>			
Discoverer of release who is trained to notify proper authorities	Training or proven experience in specific competencies (2 to 6 hours for new employees)	Annual refreshed	Initial – not required Annual – employer
<b>First Responder Operations Level</b>			
Responds to release in a defensive manner (e.g., containment) without trying to stop release	First Responder Awareness Level plus 8 hours of training or equivalent experience in competencies listed in 29 CFR 1910.120(q)(6)(ii)[A]-[I]	Annual refreshed	Initial – employer Annual -- employer
<b>HAZMAT Technician</b>			
Responds to stop the release	24 hours in First Responder Operations experience plus experience in competencies listed in 29 CFR 1910.120(q)(6)(ii)[A]-[I]	Annual refreshed	Initial – employer Annual -- employer
<b>HAZMAT Specialist</b>			
Responds to stop the release/supports HAZMAT technicians, knows hazardous substances	24 hours as HAZMAT Technician plus proven experience in competencies listed in 29 CFR 1910.120(q)(6)(IV)[A]-[I]	Annual refreshed	Initial – employer Annual – employer
<b>On-Scene IC</b>			
Assumes control of the incident beyond the first responder awareness level	24 hours in First Responder Operations experience plus competencies listed in 29 CFR 1910.120(q)(6)(IV)[A]-[F]	Annual refreshed	Initial – employer Annual – employer

### 3.9.2 Training Policies

Each contractor involved in drilling and/or spill response efforts will supervise, perform and document their own training related to their assigned responsibilities.

All on-site facility personnel will be informed of pollution control laws, and regulations, and will receive annual training in operations and maintenance procedures designed to prevent oil and hazardous substance discharges to the rig and Cook Inlet.

### 3.9.3 General Training

Buccaneer employees will serve in management positions during drilling operations and also during a major spill response effort. In their anticipated response roles, Buccaneer personnel will focus primarily on environmental compliance, pollution prevention, safety and health oversight, documentation, and financial/legal oversight. Accordingly, Buccaneer’s training efforts will focus on these aspects of the response.

O’Brien’sRM will supervise the primary response actions carried out by CISPRI. Both have established training programs that focus on these areas; and CISPRI training is discussed later in this section.

Operations and maintenance training will be performed by the rig operator along with Buccaneer’s drilling superintendent. The toolpusher is responsible for training personnel in the proper methods of equipment and facility maintenance and repair. The Buccaneer drilling supervisor will also participate in on-site well control drills; BOP tests, and spill prevention procedures that are performed by Inlet Drilling personnel.

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### **3.9.4 Specific Buccaneer Spill Response Training**

This section outlines specific Buccaneer goals and objectives for spill response training as follows:

- All persons involved in spill response shall be trained in the requirements of this plan.
- Upon initial arrival on the drill rig, all personnel will be briefed to assure adequate understanding of this plan and safety.
- Additional site safety briefings and meetings will be conducted weekly to reinforce prevention and safety, and to inform personnel involved in spill response of new precautionary measures. Recent spill events will be discussed to identify root causes and corrective measures will be formulated to stop similar events. The briefings will be conducted by the Buccaneer HSE, or designee.
- Annual refresher spill response procedures training will be accomplished before drilling starts. This refresher will outline response procedures and discuss “lessons learned” from each previous season. The refresher also will include a session where all personnel will first be asked to identify problems with the spill plan, spill response, and equipment issues, and then asked how these problems can be solved.
- Drilling personnel and other specialists will have required licenses, certificates and training to perform their job. Additional ICS training will be provided that may be useful for spill response.

### **3.9.5 CISPRI Training Programs**

CISPRI’s aggressive training program for Oil Spill Response Technicians is detailed in Appendix E of the *CISPRI Technical Manual*. This training, when combined with deployment exercises, provides response personnel with the knowledge, skills and experience necessary to activate safe and effective spill response operations. Field training is regularly conducted to measure the effectiveness of the training and to improve the overall readiness of CISPRI as a spill response organization.

CISPRI develops the training schedule semi-annually and bases it on:

- Equipment deployments to meet the National Preparedness for Response Program (NPREP) with emphasis on open water (both summer and winter), nearshore, shoreline, and onshore tactics. Training is generally held in sites where equipment is staged.
- Other training required by regulation or company decision (e.g., confined space entry and rescue, HAZWOPER refresher, small boat operations, barge tankerman)
- Training to ensure contracted response vessels are compliant.
- Geographic Response Strategies evaluation.
- Joint-training with other spill cooperatives.
- Table 3.9-3 also presents elements of the contents, duration, and frequency of response training that CISPRI and Buccaneer personnel complete.
- Additional annual and bi-annual training includes:
  - Safety Tactics.
  - Respirator Training and Fit-Testing.
  - Portable Fire Extinguisher
  - Confined Space Entry
  - Basic Boating Skills and Seamanship (1-day course).
  - Other Sources of Trained Spill Response Personnel

In addition to the CISPRI, other trained personnel resources are available to meet response scenarios. These resources are identified in Tactic CI-LP-1(B) and CI-LP-3.

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### **3.9.6 Other Sources of Trained Spill Response Personnel**

*CISPRI's Technical Manual*, Tactics CI-LP-0 through CI-LP-5 provides information on CISPRI's resources available to respond to a spill. Tactic CI-LP-3 addresses mobilization of contractors and other resources and identifies both contracted and non-contracted response personnel resources. These contracted spill response personnel meet the training requirements of *CISPRI Technical Manual*, Appendix E.

### **3.9.7 Qualified Individual Training**

Buccaneer has employed O'Brien'sRM as the Qualified Individual and Alternate Qualified Individual identified in the plan. At a minimum, personnel designated by O'Brien'sRM to fulfill the QI function will annually review this ODPCP and provide Buccaneer with written verification of this training.

As a QI and Alternate QI(s), they are familiar with OSHA HAZWOPER and have received a level of training equal to 24 hours oil spill responders. Annual HAZWOPER Refresher Training of 8 hours also must be completed.

The QI will have adequate knowledge, and sufficient training or experience, to demonstrate competence in the following areas:

- Implementing this ODPCP so that resources can be committed during an incident
- Obliging funds to carry out the necessary or directed response activities, and the knowledge of persons or offices to contact
- Acting as a liaison between Buccaneer and the FOSC and SOSC
- Ability to assess the need for additional resources, and to make the appropriate notifications (call-outs) and contractual arrangements

QIs also have been retained by Buccaneer based on their knowledge of the following:

- Access to local information
- Notification procedures
- General response procedures, terms, activities
- U.S. oil spill planning and response systems
- Pre-designated FOSCs
- National Contingency Plan
- Regional contingency plans
- Cook Inlet Subarea contingency plans
- State authorities
- Oil spill response organization and their operational capabilities
- Procedure to activate/notify CISPRI
- Public and government relations
- OSHA standards for Emergency Response Operations
- Logistics and finance
- Communications

### **3.9.8 ICS Training**

ICS training for Buccaneer will be conducted by O'Brien'sRM. Key Buccaneer personnel involved in the ICS will be involved in the following specific training activities:

- Regulatory compliance training including familiarization with the ODPCP requirements and other regulatory requirements at the start of each operation (such as drilling at a new prospect).
- Annual training on corporate safety, health, and environmental policies and procedures.
- ICS training including spill drills, exercises, and deployments.
- Other specialized training which may be offered under the O'Brien'sRM ongoing training program.

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### **3.9.9 Spill Management Team Training**

Table 3.9-3 presents general contents, duration, and frequency of ICS training that O'Brien'sRM personnel complete. Key O'Brien'sRM personnel involved in the ICS will be involved in the following specific training activities:

- Regulatory compliance training including familiarization with the ODPCP requirements and other regulatory requirements at the start of each operation.
- Annual training on O'Brien'sRM corporate safety, health, and environmental policies and procedures.
- ICS training including spill drills, exercises, and deployments.
- Other specialized training which may be offered under the O'Brien's RM ongoing training program.

At a minimum, O'Brien'sRM Spill Management Team members will possess 24- or 40-hour OSHA HAZWOPER training, as appropriate. Additional training, such as implementation of this plan and Spill Management Team tabletop drills will be provided as it applies to the specific functions of each team member. O'Brien'sRM maintains an extensive nationwide roster of qualified personnel to serve in ICS organizational roles based upon response experience and training history. Records of employee qualifications and training are available from O'Brien'sRM upon request.

Each O'Brien'sRM team member that is assigned a position in the response organization presented in Section 3.3 (Incident Command System) will be trained in those duties and responsibilities outlined in the designated job assignment. This training will be accomplished through participation in exercises and drills, appropriate resident training courses, attendance at actual spill events, and/or other means as deemed appropriate to ensure and maintain a competent level of expertise in the designated job. In addition, the command staff and all division chiefs shall be thoroughly indoctrinated in the responsibilities of the Incident Command System.



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<b>Table 3.9-3 Summary of Buccaneer and CISPRI Training Programs</b>													
Class Attendee	Compliance Spill Prevention	HAZWOPER 24-hr	HAZWOPER 40-hr	Cold Water Survival	First Aid/ CPR	Intro to ICS	ICS Sections				Table Top		Level II
							Command	Plans	Logistics	Operations	Level I Drill	Level II Exercise	Limited Deployment
<b>Rig Personnel</b>													
Drilling Supervisor													
Inlet Drilling Crew													
<b>Incident Management Team</b>													
IC													
Deputy ICs													
Safety Officer													
Public Info. Officer													
Liaison Officer													
Legal Officer													
Operations Section Chief													
CISPRI Op. Coordinator													
Land Cleanup Unit Leader													
Water Cleanup Unit Leader													
Damage Control Unit Leaders													
Environmental Unit Leader													
Staging Area Management													
Disposal Unit Leader													
Wildlife Rescue Unit Leader													
Planning Section Chief													

**Table 3.9-3  
 Summary of Buccaneer and CISPRI Training Programs**

Class Attendee	Compliance Spill Prevention	HAZWOPER 24-hr	HAZWOPER 40-hr	Cold Water Survival	First Aid/ CPR	Intro to ICS	ICS Sections				Table Top		Level II
							Command	Plans	Logistics	Operations	Level I Drill	Level II Exercise	Limited Deployment
CISPRI Planning Coordinator													
Situation Unit Leader													
Resource Unit Leader													
Documentation Unit Leader													
Demobilization Unit Leader													
Finance Section Chief													
CISPRI Finance Coordinator													
Time/Cost Unit Leader													
Procurement & Claims Leaders													
Logistics Section Chief													
CISPRI Logistics Coordinator													
Service Branch Director													
Information Tech Unit Leader													
Food & Medical Unit Leaders													
Air Operations													
Communications Unit Leader													
Support Branch Director													
Facilities/Trans. Unit Leaders													
Supply/Security Unit Leaders													

**Table 3.9-3  
 Summary of Buccaneer and CISPRI Training Programs**

Class Attendee	Compliance Spill Prevention	HAZWOPER 24-hr	HAZWOPER 40-hr	Cold Water Survival	First Aid/ CPR	Intro to ICS	ICS Sections				Table Top		Level II
							Command	Plans	Logistics	Operations	Level I Drill	Level II Exercise	Limited Deployment
Class Duration	2 to 6 hrs	8-hr annual refresher	8-hr annual refresher	8 hrs/ 3 years	4 to 8 hrs	4 to 8 hrs	4 to 8 hrs	4 to 8 hrs	4 to 8 hrs	4 to 6 hrs	8 hrs	4 to 12 hrs	



### **3.9.10 Training Records**

All new training for Buccaneer personnel will be recorded and maintained for a minimum of five years at the Anchorage office. Contractor spill responder's records and CISPRI personnel records are kept on file at CISPRI in Kenai.

### **3.9.11 Exercises**

CISPRI has adopted the NPREP for its exercise schedule and format. Each of CISPRI's Member Companies receives NPREP credit for each field deployment that CISPRI undertakes, and CISPRI is careful to ensure that these field deployments are carefully scheduled and documented so as to meet the intent of the program.

External exercises involve efforts outside of Buccaneer to test the interactions between Buccaneer and the response community. The external exercises also test the plan and the coordination between Buccaneer and the response community including: the OSRO CISPRI; state, federal, and local agencies; and local community representatives.

The requirements of 18 AAC 75.485 provide that the ADEC may conduct discharge exercises to test this contingency plan or individual components of this plan. Additional external exercises include area exercises and government-initiated unannounced exercises per NPREP exercise guidelines. Components that are tested through the NPREP exercise are summarized in Table 3.9-4.

**Table 3.9-4  
 Required NPREP Exercises**

<b>NPREP Exercise</b>	<b>Components</b>
Organizational Design	<ul style="list-style-type: none"> <li>• Includes training on 24 hr notifications and reporting to NRC</li> <li>• Staff mobilization</li> <li>• Ability to operate within the response management system described in the plan</li> </ul>
Operational Response	<ul style="list-style-type: none"> <li>• Discharge control and assessment of discharge</li> <li>• Containment of discharge, recovery of spilled material and disposal of product</li> <li>• Protection of economically and environmentally sensitive areas</li> </ul>
Response Support	<ul style="list-style-type: none"> <li>• Communications, transportation, and personnel support</li> <li>• Equipment maintenance, procurement, and documentation</li> </ul>

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## 3.10 ENVIRONMENTAL PROTECTION

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### Cross References:

18 AAC 75.425(e)(3)(J)

30 CFR 254.23(g)(3), (g)(4), (g)(7) and 30 CFR 254.26(c)

33 CFR 154.1035(b)(4)(i) and (b)(4)(ii)

*CISPRI Technical Manual, Tactics CI-SA-0 to CI-SA-3*

*CISPRI Technical Manual, Tactics CI-W-0 to CI-W-7*

*Unified Plan - Annex G, AK Wildlife Protection Guidelines*

*Cook Inlet Subarea Contingency Plan - Part D Sensitive Areas Section and Part G Geographic Response Strategies*

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### 3.10.1 General

The following sections are intended for use during the initial phase of a spill to assist in ascertaining and listing the location and presence of spill-sensitive biological and cultural resources, services, and users in Cook Inlet. The list of sensitive areas prioritizes resources into designations of major, moderate and lesser concern. These designations are for consideration in initial spill response activities, not for extended cleanup.

Specific sensitivities, priorities, and response strategies for the Cook Inlet region are in the following resources.

- *Cook Inlet Subarea Contingency Plan - Part D Sensitive Areas Section and Part G Geographic Response Strategies;*
- *Cook Inlet Subarea Contingency Plan - Introduction to Part G Geographic Response Strategies;*
- *AK Unified Plan; Annex G - Alaska Wildlife Protection Guidelines; and*
- *CISPRI Technical Manual, Tactic CI-SA-1, CI-SA-2, and CI-SA-3.*

The following websites also provide information on resources at risk:

- ADF&G – [www.state.ak.us/local/akpages/FISH.Game/adfghome.html](http://www.state.ak.us/local/akpages/FISH.Game/adfghome.html)
- ADNR – [www.dnr.state.ak.us/](http://www.dnr.state.ak.us/)
- ADEC Prevention and Emergency Response – Subarea Plan Maps – [www.asgdc.state.ak.us/maps/cplans/subareas.html](http://www.asgdc.state.ak.us/maps/cplans/subareas.html)
- NOAA – Environmental Sensitivity Index Maps – [www.nosdataexplorer.noaa.gov/nosdataexplorer](http://www.nosdataexplorer.noaa.gov/nosdataexplorer).
- USF&WS – The Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan, Annex G) – [www.akrrt.org/UnifiedPlan/G-Annex.pdf](http://www.akrrt.org/UnifiedPlan/G-Annex.pdf).

### 3.10.2 Seasonal and Physical Constraints

#### Seasonal Considerations

In the unlikely event that a well blowout occurs, it is possible for escaped liquid hydrocarbons to be released to the surface of Cook Inlet waters. Most constraints affecting response would be seasonal and weather-related. Adverse weather conditions and factors that would impact response are described in Sections 2.4 and 3.4.

#### Physical (Shoreline Geomorphologic) Considerations

The physical interactions of oil with the Cook Inlet shoreline are also important considerations because of the effects on containment and cleanup procedures, environmental persistence, and the ultimate fate of stranded oil. The initial deposition along a shoreline will depend on the type and volume of oil washed



ashore, environmental conditions during deposition, and the physical features (geomorphology) of the shore. This can result in accumulations ranging from sheens and stains on rocks to several inches of product mixed with water (emulsified). Table 3.10-1 provides a qualitative ranking of concerns with respect to shoreline geomorphology. Ranking by major, moderate, and lesser concern is for consideration during initial spill response, not extended cleanup.

**Table 3.10-1  
 Relative Rank of Shoreline Geomorphology Concerns in the Cook Inlet Region**

Major Concern	Moderate Concern	Lesser Concern
Marshes	Gravel beaches	Uniform fine sandy beaches
Sheltered tidal flats	Poorly graded sand and gravel beach	Exposed rocky shore
Sheltered rocky shores	Poorly graded coarse sandy beaches	Exposed wave-cut platforms
High density kelp and Eelgrass beds	Exposed tidal flats	

### 3.10.3 Seasonality and Toxicity Effects on Environmentally Sensitive Areas

The proposed exploratory wells covered under this plan are for oil and gas. Crude oil has a potentially wide range of physical and toxicological characteristics. A summary of crude oil characteristics is provided in a MSDS for reference in Appendix C. The physical properties of Cook Inlet crude oil, and how it behaves when spilled in the environment, can be obtained from Environment Canada (Canadian equivalent of the EPA) via the Internet at [www.etcentre.org/spills](http://www.etcentre.org/spills).

Most plants and animals are more susceptible to harm during early periods in their life cycles. Plants also are more susceptible during the spring. Exposure to wildlife in the East Forelands during a spill will include both terrestrial and marine species. Waterfowl and other avian species could also be impacted, as they will be migrating through the area during drilling.

### 3.10.4 Sensitive Areas of Major Concern

Sensitive areas of major concern with established GRS located in central Cook Inlet are summarized in Table 1.6-2. *CISPRI Technical Manual* Tactic CI-SA-2-2 provides additional details and a location map for each of the sites listed. Reference materials that are available for use by Buccaneer’s IMT at CISPRI are found in Tactics CI-SA-1 and CI-SA-2.

Specific details provided in the *Cook Inlet Subarea Contingency Plan* - Part D Sensitive Areas Section and Part G Geographic Response Strategies provide comprehensive information on sensitive areas and related resources in the central Cook Inlet area. Dependent upon the trajectory any of the GRS listed in Table 1.6-2 may be implemented with those close to the Buccaneer Prospect area Middle River, McArthur River, Swanson River East Forelands, Kenai River, and Kasilof River. being closely monitored for implementation. During a response, Buccaneer’s Environmental Unit will coordinate with state and federal resource trustees to develop a list priority protection sites,

#### Sensitive Wildlife

**Fish.** Rivers and streams draining into the Cook Inlet subarea are among the most productive in the world. Major freshwater systems include Kenai and Kasilof Rivers on the east side of Cook Inlet. Most flowing waters and many of the lakes support populations of anadromous or resident fish species. Resident fish species include Dolly Varden, rainbow trout and steelhead. Anadromous fish species include salmon, Pacific herring, forage fish, Pacific halibut, and groundfish. Shellfish include Dungeness crab, and king crab, Tanner crab and razor clams.

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**Birds.** The wildlife resources most at risk from a spill in the Cook Inlet region are birds. There is a tremendous utilization of Cook Inlet wetlands by shore birds and sea birds during Buccaneer's proposed drilling season. Important bird species/groups include trumpeter swans, geese, snow goose, Tule white-fronted goose, diving ducks, and sea ducks. Most seabirds are found concentrated in lower Cook Inlet.

**Marine Mammals.** Spill response activities which could impact marine mammals will be coordinated closely with the USFWS and National Marine Fisheries Service (NMFS). Species potentially in the central Cook Inlet area during drilling include Harbor seals, Minke whales and migratory pods of killer whales (lower Cook Inlet), Beluga whales, and sea otters.

**Endangered or Threatened Species.** Federally listed threatened and endangered species are protected under the Endangered Species Act. Spill response activities that could impact a listed species will be coordinated with the USFWS and NMFS.

Endangered species possibly present in the upper Cook Inlet area during Buccaneer's proposed drilling season are limited to stellar's eiders, fin whales, humpback whales (both possible seasonal entrants) and beluga whales. For fin whales and humpback whales, impact from a spill to endangered or threatened wildlife in Cook Inlet would be limited in the East Forelands area.

Steller's eiders winter in Cook Inlet, in waters that are 10 meters or less in depth, and remain in the area from September until May. In general, Steller's eiders are known to winter along the western shoreline of the Kenai Peninsula, from Clam Gulch south. However, sightings of Steller's eiders have been reported in upper Cook Inlet, and during winter surveys conducted by the Service in 2004-2005, estimates in the low hundreds to >2,000 were reported along the shoreline between the Anchor River and Kenai.

The NMFS designated critical habitat for the Cook Inlet beluga whale that encompasses 3,013 square miles of marine habitat on May 11, 2011 (see Figure 3.10-1.) From April to November and during Buccaneer's proposed drilling season, beluga whales seasonally congregate in upper Cook Inlet. This area is delineated in Figure 3.10-1, Critical Habitat Area 1. In the fall and winter, they are known to migrate further south into central Cook Inlet, depicted as Critical Habitat Area 2 - Fall and winter feeding and transit areas. In the event of a spill, consultation with USFWS and NMFS will also be sought to prioritize protection strategies.

**Other Identified Areas.** Additional information on environmentally sensitive areas is contained in MESA maps, prepared by ADF&G. The *CISPRI Technical Manual* Tactic CI-SA-1 summarizes tools and resources that are available that include Cook Inlet area MESA maps. These maps are available online at <http://www.asgdc.state.ak.us/maps/cplans/subareas.html>.

### **3.10.5 Response Priorities and Actions to Sensitive Areas**

Overall, priorities for response will be set in consultation with the ADEC and natural resource trustees as they are the best, up-to-date source of information on sensitive areas and resources at risk during an incident, and can provide a wealth of local wildlife and habitat information. Contact information for ADF&G, ADNR, USFWS, and other wildlife trustee agencies is provided in Section 1.2, Reporting and Notification.

Buccaneer response actions will focus on using appropriate measures to protect plants and wildlife in sensitive areas. *CISPRI Technical Manual*, Tactics CI-SA-0 through CI-SA-3 describes possible actions used to minimize impacts to these species.

In addition to listing sensitive areas of major concern, Part G (Geographic Response Strategies) of the *Cook Inlet Subarea Contingency Plan* also provides specific response actions for 22 of these areas in central Cook Inlet. Several of these areas are adjacent to the Buccaneer Prospect. Section 1.6.6, Table 1.6-1 provides the summary of sensitive areas of major concern in Central Cook Inlet (CCI) with developed GRS.

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### **3.10.6 Wildlife Response Services**

The ARRT's Wildlife Protection Guidelines (Annex G of the Unified Plan) describe response strategies to protect wildlife during an oil spill. These strategies are prioritized into Primary, Secondary, and Tertiary as described below.

#### **Primary Response**

The primary response strategy emphasizes controlling the release and spread of spilled oil at the source to prevent or reduce contamination of potentially affected species and/or their habitat. In addition, the primary response strategy includes the removal of oiled debris, particularly contaminated food sources (such as dead wildlife carcasses) both in water and on land. Supplies needed for collection and storage of dead, oiled wildlife are maintained by CISPRI. Permit forms for collection and storage will be completed and submitted to the appropriate agencies for approval prior to undertaking these activities.

#### **Secondary Response**

The secondary response strategy emphasizes keeping potentially affected wildlife away from oiled areas through the use of deterrent techniques. Tactics may include visual methods such as ribbons and balloons, auditory methods (poppers and air cannons), a combination of both, and other methods.

#### **Tertiary Response**

The tertiary response strategy, which is a last-resort strategy, addresses the potential capture and treatment of oiled wildlife. Typically only a small percentage of oiled wildlife that are highly sensitive to the effects of oiling can be captured. Of those captured, only a portion will survive the treatment process.

#### **Secondary and Tertiary Wildlife Protection Strategies**

Secondary and Tertiary Wildlife Protection Response activities will be conducted in a manner that minimizes adverse effects to wildlife. The *Unified Plan* Volume 1 - Annex G, Wildlife Protection Guidelines for Alaska contains general suggestions to minimize adverse effects to wildlife from response activities. Appendices 1 through 26 of Annex G contain guidelines, checklists and permits for completing these activities. The precise techniques will need to be identified on a spill-specific basis.

CISPRI has a number of contracts already in place with qualified individuals able to conduct secondary and tertiary responses. Tactical information on the contracts and their activation are contained in *CISPRI Technical Manual*, Tactics CI-LP-1 and CI-LP-3.

#### **Trustee Agencies, Notification/Approval Procedures**

Both secondary and tertiary wildlife protection strategies require approval of an action plan and special permits from the appropriate wildlife agencies and the federal on-scene coordinators. Checklists for requesting authorization to initiate secondary and/or tertiary wildlife response activities (required prior to any hazing, collection, or holding of wildlife) are also included in Annex G. Appropriate response strategies to protect migratory birds, marine and terrestrial mammals following an oil discharge in Alaska, can be found in "Annex G" of The Alaska Federal/State Preparedness Plan for Response to Oil & Hazardous Substance Discharges/Releases (Unified Plan). The current version of the guidelines is available on the Alaska Regional Response Team website at: <http://www.akrrt.org/UnifiedPlan/G-Annex.pdf>. The guidelines are also posted on the ADEC website at: <http://dec.alaska.gov/spar/perp/plans/uc.htm>.

If a spill occurs, appropriate trustee agency representatives should be consulted, including U.S. Fish and Wildlife Service personnel. These trustees should be notified immediately to assess the level of effort needed, as well as to effectively protect, rescue, rehabilitate, and reduce the risk of injury to fish and wildlife and sensitive environments. Region 7 Spill Response Coordinator, Ms. Catherine Berg, can be reached at (907) 271-1630 or (907) 244-1529. An alternate Spill Response contact phone number is (907) 242-6893.

**Permits**

Agencies from which permits are required for wildlife intervention activities are shown in Table 3.10-2. Contacts for each agency are in Section 1.2, Reporting and Notification.

**Table 3.10-2  
 State and Federal Permits and/or Authorizations Required for Hazing, Collecting or Holding Live Animals**

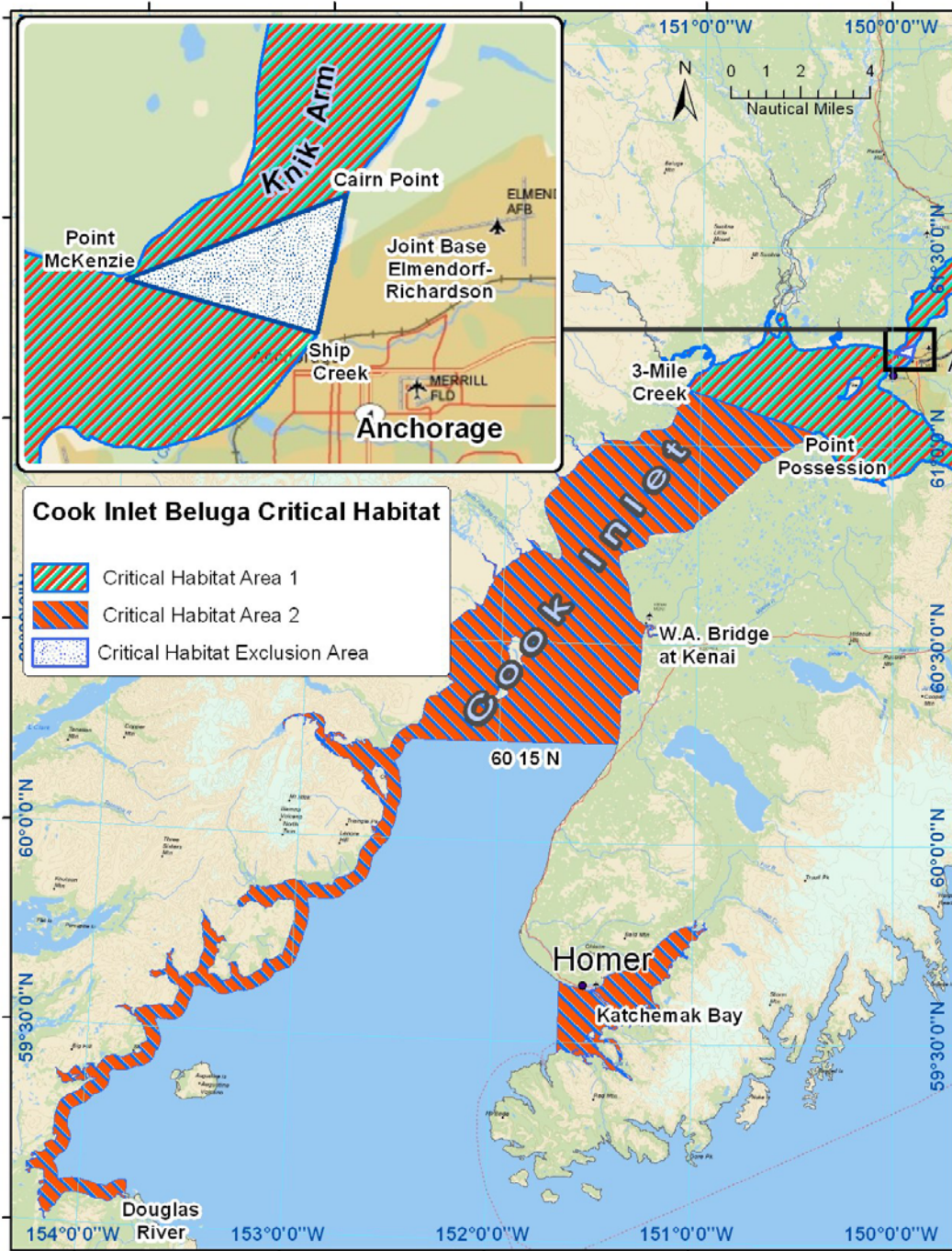
Species	ADF&G Permit Required to		USFW Permit Required to		NMFS Permit Required to	
	Collect & Hold?	Haze?	Collect & Hold?	Haze	Collect & Hold?	Haze
Migratory Birds	No	Yes	Yes	No	No	No
Sea Otters, Walrus	No	No	Yes	Yes	No	No
Whales, Porpoises, Seals and Sea Lions	No	No	No	No	Yes	Yes
Terrestrial Mammals	Yes	Yes	No	No	No	No
Endangered or Threatened Species	Yes	Yes	Yes	Yes	No	No

**Critical Habitats and Game Refuges**

The Alaska State Legislature has classified certain areas as being essential to fish and wildlife populations and public uses of these resources. These areas are designated as game refuges, critical habitat areas or game sanctuaries. Management of these areas is the joint responsibility of the ADF&G and ADNR. Upland State of Alaska game refuges and designated critical habitat are illustrated in Figure 3.10-2.

Permits will be required to work in these areas during a spill response. Buccaneer will access the web-based Alaska Oil Spill Permits Tool at <http://www.dec.state.ak.us/spar/perp/permits/index.htm> to apply for necessary permits.

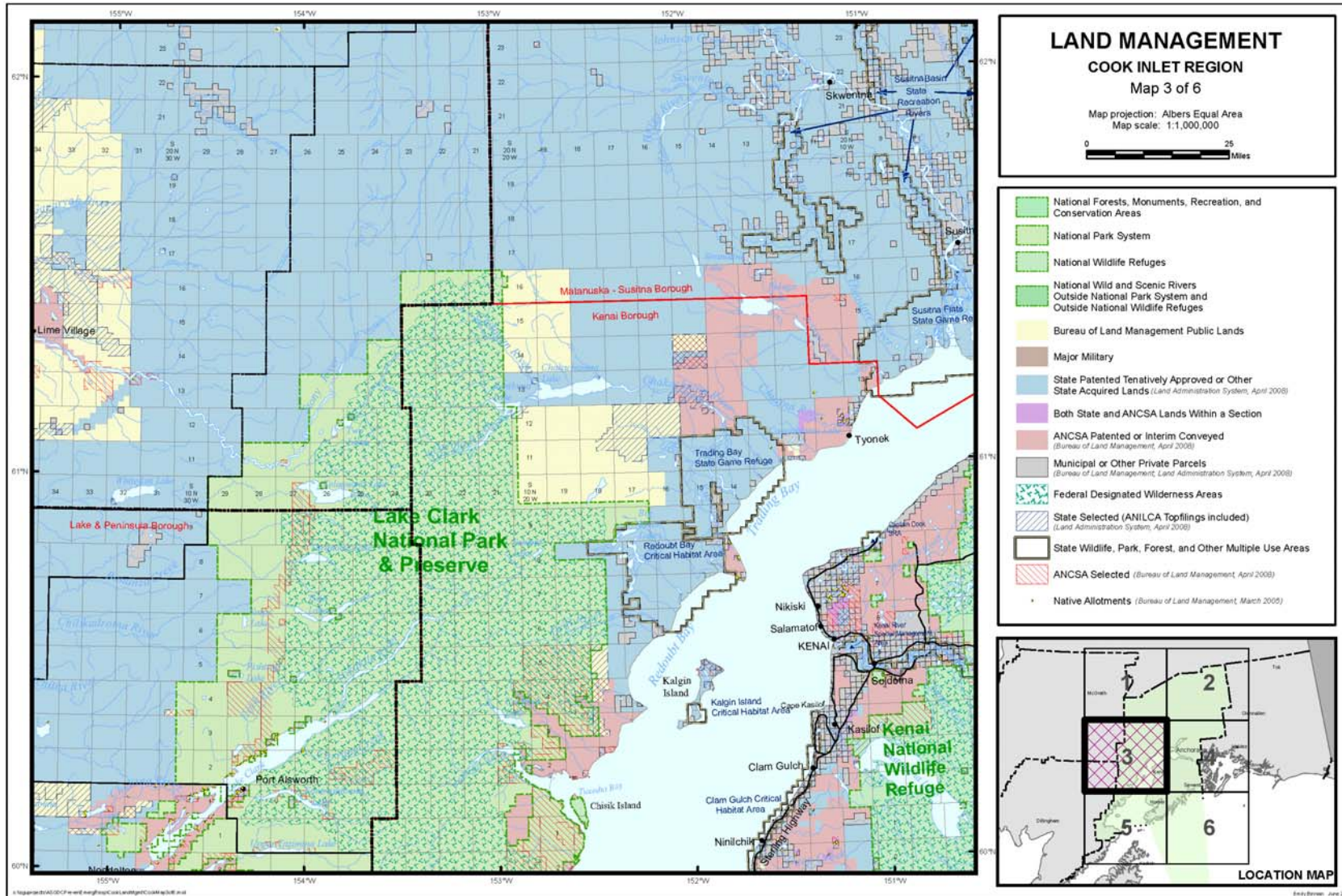
Figure 3.10-1 Map of Cook Inlet Beluga Whale Critical Habitat



Map Source: <http://www.fakr.noaa.gov/protectedresources/whales/beluga/management.htm#habitat>



**Figure 3.10-2 Upland Management Cook Inlet Region**



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### **3.10.7 Cultural Resources**

Cultural Resources Protection Guidelines for historical, cultural, and archaeological sites are provided as Annex M of the *AK Unified Plan*. Annex M outlines FOSC/SOSC responsibilities for protecting cultural resources. Annex M states that the FOSC is responsible for ensuring that historic properties on federal land are appropriately considered in planning and during emergency response, and provides an expedited process for compliance with Section 106 of the National Historic Preservation Act during the emergency phase of a response. Annex M also outlines ADNR responsibilities for state-managed and controlled lands.

#### **Cultural Resources**

Historic properties (also known as historic and prehistoric archaeological resources or cultural resources) may be encountered during field-based response activities. Historic and archaeological resources include a wide range of sites, deposits, structures, ruins, buildings, graves, artifacts, fossils, and other objects of antiquity. Caution should be used in any cleanup operation in order to not disturb or impact any historical or archaeological sites during response.

Because these heritage sites are irreplaceable, the UC will have a site identification and protection program to help protect these resources. For spill responses where there is no FOSC, the State Historic Preservation Office (SHPO) - Alaska Office of History and Archaeology (AOHA) will take the lead in working with the SOSC and O'Brien'sRM (acting on behalf of Buccaneer) to help ensure that response activities do not inadvertently injure or destroy historic properties. Where appropriate, this will include establishment of an incident-specific Historic Properties Protection Policy, which will be signed by the UC. For spill responses where there is an FOSC, the AOHA will work with the FOSC's Historic Properties Specialist to help ensure that response activities do not inadvertently injure or destroy historic properties. The FOSC's Historic Properties Specialist will also coordinate with other stakeholders, including Buccaneer.

All field-based response workers, including workers from Buccaneer will strictly adhere any incident-specific Historic Properties Protection Policy. The policy will reinforce that it is unlawful to collect or disturb, remove, or destroy any historic property or suspected historic property. The policy will require field-based response personnel to immediately report any historic property that they see or encounter, to their supervisor in accordance with the incident-specific Historic Properties Protection Policy. In the absence of an incident-specific Historic Properties Protection Policy, field-based response personnel will be required to immediately report any historic property that they see or encounter to the AOHA (907-269-8721).

**Background information:** Additional information on the protection of historic properties during spill response may be found on the internet at: <http://www.achp.gov/NCP-PA.html> (Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan) and <http://www.akrrt.org/plans.shtml> (*Alaska Implementation Guidelines for Federal On-Scene Coordinators for the Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan*).

**Historical and Archeological Response Coordination.** SHPO will consult and guide the IC on identification of cultural resources, planning of cleanup and restoration activities that may affect cultural resources, and assessment of effects of spills and cleanup on cultural resources. SHPO must be notified in the event a spill may impact lands under the control of ADNR.



Notification should be made to:

State Historic Preservation Office  
Alaska Office of History & Archaeology  
Department of Natural Resources  
3601 C Street  
Anchorage, Alaska 99510  
(907) 269-8721

Additionally, CISPRI maintains a contract with Chumis Cultural Resource Services for cultural resource activities (Tactic CI-SA-3 Cultural Resources).

Contact information is:

Mr. Chris Wooley  
Chumis Cultural Resource Services  
2073 Dimond Drive  
Anchorage, AK 99507  
Ph: (907)-563-3202  
Fax: (907)-563-3206  
chumis@gci.net

### **3.10.8 *Subsistence Use***

In the event of a spill, extensive coordination will be required in order to address subsistence resources. This coordination will take place between the UC and the appropriate state and federal agencies including ADF&G and ADEC.

## 3.11 ADDITIONAL INFORMATION

### Cross References:

**18 AAC 75.425(e)(3)(K)**  
**Alaska Incident Management System (AIMS) Guide for Oil and Hazardous Substance Response**  
**CISPRI Technical Manual**  
**Unified Plan and Cook Inlet Subarea Contingency Plan**

Section 3.11 provides additional information to support State and Federal plans and regulatory requirements.

### 3.11.1 ICS Forms

ICS forms utilized during incident response are listed in Table 3.11-1.

**Table 3.11-1**  
**ICS Forms**

ICS No	Descriptions	Prepared By
201-OS	Incident Briefing Initial Response	IC
202-OS	Incident Objectives	Planning Section Chief
203-OS	Organization Assignment List	Resources Unit
204-OS	Division Assignment List	Resources Unit Leader
205-OS	Incident Radio Communications Plan	Communications Unit Leader
206-OS	Medical Plan	Medical Unit Leader
207-OS	Organization Chart	Resources Unit Leader
208-OS	Site Safety Plan	Safety Officer
209-1	Incident Status Summary	Situation Unit Leader
210-OS	Status Change	Communications Center
211-OS	Check-in List	Resources Unit at multiple locations
213-OS	General Message Form	Any message originator
214-OS	Unit Log	All Positions
215-OS	Operational Planning Worksheet	Operations Section Chief & Planning Section Chief
216-OS	Radio Requirements Worksheet	Communications Unit Leader
217-OS	Radio Frequency Assignment	Communications Unit Leader
218-OS	Support Vehicle Inventory	Ground Support Unit Leader
219-OS	Resource Status Cards	Resources Unit Leader
220-OS	Air Operations	Summary Logistics Section Chief
221-OS	Demobilization Checkout	Demobilization Unit Leader
222-OS	Resource Order	Ordering Manager
223-OS	Health & Safety Message	Safety Officer
224-OS	Environmental Unit Summary Worksheet	Environmental Unit
230-OS	Daily Meeting Schedule	Situation Unit Leader
231-OS	Meeting Summary	Situation Unit Leader
232-OS	Resources at Risk Summary	Situation Unit Leader

Note:

A complete set of the forms, provided by NOAA, can found at  
[http://homeport.uscg.mil/mycg/portal/ep/contentView.do?contentType=2&channelId=-](http://homeport.uscg.mil/mycg/portal/ep/contentView.do?contentType=2&channelId=-17668&contentId=50701&programId=12821&programPage=%2Fep%2Fprogram%2Feditorial.jsp&pageType=11328)

[17668&contentId=50701&programId=12821&programPage=%2Fep%2Fprogram%2Feditorial.jsp&pageType=11328](http://homeport.uscg.mil/mycg/portal/ep/contentView.do?contentType=2&channelId=-17668&contentId=50701&programId=12821&programPage=%2Fep%2Fprogram%2Feditorial.jsp&pageType=11328)

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### **3.11.2 Information on Alaska Oil Spill Permits Tool and Select Permits**

The *CISPRI Tactics Manual*, Tactic CI-LP-7 should be referenced for information on Permits for Spill Response.

#### **Alaska Oil Spill Permits Tool**

Alaska's current statewide oil spill response system involves a complex assortment of permits, forms, and applications that must be prepared and filed during various phases of the response. The new Alaska Oil Spill Permits Tool (Tool) provides streamlined access to over 40 documents. The Tool allows the user to locate the appropriate form by sorting the permits either by the agency that requires the form or by the type of oil spill response activity that would necessitate the permit.

The Tool was developed through a cooperative work group process, including representatives of the state and federal agencies whose permit forms are included in the tool, as well as representatives from the oil industry and oil spill response organizations.

**Location.** The Tool can be accessed at: <http://www.dec.state.ak.us/SPAR/PERP/permits/>

**How the Tool Works.** The Tool allows the user to input incident-specific data, which is then exported to a data set that is available for import into the specific permits, forms, and incident response planning documents that are included in the permit tool. Once individual permit forms are filled out, they may be saved as Portable Document Format (PDF) files to be printed, e-mailed, or faxed to the appropriate agency or organization. The Tool allows the user to locate the appropriate form by sorting the permits either by the agency that requires the form or by the type of oil spill response activity that would necessitate the permit. Much of the text in the Tool is hyperlinked, which means that the user can click on a word or phrase and navigate throughout the Tool.

**How to Navigate within the Tool.** The Alaska Oil Spill Response Permit Tool has five major sections.

1. "How to Use this Tool" screens provide instructions on using the Tool. You can return to this area from anywhere in the Tool by clicking on the "How to Use this Tool" link on the bar at the top of the site.
2. The "Basic Incident Data" link on the bar on the top of site downloads a PDF file to your desktop. The PDF allows the user to input incident-specific data in a single location. This information may be saved to a data file, which is available for import into specific spill response forms and permits.
3. The "Select Permits by Agency" link allows the user to select or search for permit forms according to the agency that administers the permit. The agencies listed are limited to those with permits or forms included on the website.
4. The "Select Permits by Activity" link provides another way to find forms or permits. The user selects a particular type of activity and may then view the specific permits, forms and authorizations associated with that activity. The oil spill response activities listed are limited to those associated with permits or forms on this website.
5. The "Master Permit List" link takes the user to a page that contains links to every permit on this website. It is most useful if you know exactly which permit is required. The following List of Permit Templates provides a summary of those available on the Tool.

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## List of Permit Templates

### Permits National Marine Fisheries Service

- NOAA/NMFS Endangered Species Act Permits
- NOAA/NMFS Marine Mammal Protection Act Permit

### National Park Service

- National Park System Land Access
- National Park System Research/Collection Permits
- USDOI Archaeological Investigations Permit
- National Park Special Use Permit

### Unified Command

- Decanting Plan
- Decontamination Plan
- Health and Safety Plan
- Recovered Oil Plan
- Waste Management Plan

### United States Army Corps of Engineers

- Department of Army Permit Application
- United States Coast Guard
- NRC Report
- Local Notice to Mariners

### United States Department of Agriculture

- Special Use Permit for Federal Lands
- USDOI Archaeological Investigations Permit

### United States Fish and Wildlife Service

- Endangered Species Act Consultation
- USDOI Archaeological Investigations Permit
- Migratory Bird Treaty Act Rehabilitation Permit
- Migratory Bird Treaty Act Special Purpose Salvage Permit
- Migratory Bird Treaty Act Collection Permit
- Marine Mammal Protection Act Permit
- Special Use Permit National Wildlife Refuge
- Bald and Golden Eagle Protection Act Collection Permit
- CITES-ESA take Permit

### United States Department Of Transportation

- Notice to Airman Request

### Alaska Department of Environmental Conservation

- Decanting Plan Information
- Oil and Hazardous Materials Incident Final Report
- Food Service Permit (For >10 People)
- Food Service Permit (For < 10 People)
- In-Situ Burning Guidelines
- Open Burn Application
- Oil and Hazardous Substance Spill Notification Form
- Burning Oily Waste

**Alaska Department of Fish & Game**

Scientific and Educational Permit (birds and mammals)  
Scientific and Educational Permit (fish)  
Title 21 Fish Habitat Permit  
Title 16 Special Area Permit

**Alaska Department of Natural Resources**

Land Use Permit (Upland and Tidelands)  
Alaska Coastal Management Program  
Coastal Project Questionnaire  
Burning Permit (Forestry) (A burn permit is only required during the period of May 1- Sept 30)  
Alaska Field Archaeology Permit  
Special Park Use Permit  
Temporary Water Use Permit (fresh water only)

**Alaska Department of Transportation**

Lane Closure Permit  
Permit for Oversize Vehicle Permit for Oversize/Overweight Vehicle with Bridge Condition Attachment  
Alaska Native Corporation Land Access

**Alaska Regional Response Team**

In-Situ Burning Application Oil Spill Response Checklist: Wildlife Capture, Transport, Stabilization, and Treatment  
Oil Spill Response Checklist: Wildlife Hazing  
Places of Refuge Guidelines

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### 3.11.3 *Acronyms and Abbreviations*

A	Annual Refresher
AAC	Alaska Administrative Code
ACC	Alaska Chadux Corporation
ACP	Area Contingency Plan
ACS	Alaska Clean Seas
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ADOT	Alaska Department of Transportation
AIMS	Alaska Incident Management System
ANS	Alaska North Slope
AOGCC	Alaska Oil and Gas Conservation Commission
AOHA	Alaska Office of History and Archaeology
API	American Petroleum Institute
ARRT	Alaska Regional Response Team
AS	Alaska Statute
ASH	Alaska Safety Handbook (2010 edition)
ATV	all-terrain vehicle(s)
BAT	Best Available Technology
bbl	barrel(s)
bbl/hr	barrels per hour
BCP	blowout contingency plan
BSEE	Bureau of Ocean Energy Management, Regulation and Enforcement
BOP	blow out preventer
bopd	barrel(s) of oil per day
boph	barrel(s) of oil per hour
Buccaneer	Buccaneer Alaska Operations, LLC
CCI	Central Cook Inlet
CFR	Code of Federal Regulations
CI	Cook Inlet
CIC	Cook Inlet Capable
CIRCAC	Cook Inlet Regional Citizens Advisory Council
CISPRI	Cook Inlet Spill Prevention and Response, Inc.
COTP	Captain of the Port
CPR	Cardio Pulmonary Resuscitation
CRREL	Cold Regions Research and Engineering Laboratory
cu ft	cubic foot (feet)
CV	Contracted Vessel(s)
Dps	pump discharge rate in gallons per minute
EMT-III	Emergency Medical Technician III
EPA	U S Environmental Protection Agency
ERD	extended reach drilling
ERDC	Engineer Research and Development Center
ERT	Emergency Response Team
ESA	Environmentally Sensitive Area
ESI	Environmental Sensitivity Index

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ETA	Estimated Time of Arrival
FAA	Federal Aviation Administration
FBI	Federal Bureau of Investigation
FIFI	firefighting
FM	Frequency Modulated
FOSC	Federal On-Scene Coordinator
FR	Federal Regulation
ft	feet/foot
F/V	Fishing Vessel
gal	gallon or gallons
GIS	Geographic Information System
g/lf	gallons per linear foot
gpm	gallons per minute
GRS	Geographic Response Strategy(ies)
HAZCOM	Hazardous Communications
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response, OSHA
HF	High Frequency
Hp	horsepower
hr	hour
HSE	Health, Safety and Environment
H <sub>2</sub> S	hydrogen sulfide
Hz	hertz
I	Initial hire or initial certification
IADC	International Association of Drilling Contractors
IAP	Incident Action Plan
IBRRC	International Bird Rescue and Research Center
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System(s)
IMT	Incident Management Team
IR	Infrared
IRT	Immediate Response Team
ISB	<i>In situ</i> burning/burn
IT	Information Technology
km	kilometer
kPa	kilopascal
KPB	Kenai Peninsula Borough
KPL	Kenai Pipeline
kt	knot(s)
lb(s)	pound(s)
LEC	Loading and Environmental Criteria
LEL	Lower Explosive Level
lf	linear feet/foot
LOSC	Local On-Scene Coordinator
LWC	loss of well control
MARPOL	Maritime Pollution
MESA	Most Environmentally Sensitive Area

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MHz	Mega Hertz
mph	miles per hour
MSDS	Material Safety Data Sheet(s)
MSO	Marine Safety Office
M/V	Motor Vessel
MWRT	Marine Wildlife Rescue Team
NCP	National Contingency Plan
NGO	Non-government Organization
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPREP	National Preparedness for Response Program
NPS	National Park Service
NRC	National Response Center
NRDA	Natural Resource Damage Assessment
NTVCC	Non-Tank Vessel Cleanup Contractor
NW	northwest
NWS	National Weather Service
O	Annual demonstration of competence
O <sub>2</sub>	Oxygen
O'Brien'sRM	O'Brien's Response Management, Inc.
ODPCP	Oil Discharge Prevention and Contingency Plan
OPA 90	Oil Pollution Act of 1990
ORST	Oil Recovery, Storage, and Transportation
OS	oil spill
OSHA	Occupational Safety and Health Administration
OSK	Offshore Systems Kenai
OSRO	Oil Spill Removal Organization
OSRV	Oil Spill Response Vessel
OSV	Offshore Supply Vessel
OW	Open Water
PDF	Portable Document Format
PLCs	programmable logic controllers
POLs	petroleum oil lubricants
PPE	personal protective equipment
ppm	parts per million
PRAC	Primary Response Action Contractor
psi	pounds per square inch
PVR	pressure/vacuum relief valves
QI	Qualified Individual, OPA 90
R	API recertification every three or six years depending upon employment history
RESTAT	Resource Status
RMROL	realistic maximum response operating limitations
RPS	Response Planning Standards
SAM	Staging Area Manager
SCAT	Shoreline Clean-up Assessment Team
SERVS	Ship Escort Response Vessel System
SHPO	State Historic Preservation Officer
SNRT	Short Notice Response Team



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SOCT	Statement of Contractual Terms
SORC	Sea Otter Rehabilitation Center
SOSC	State On-Scene Coordinator
sq ft	square feet
SRT	Spill Response Team
SSB	single side band
STAR	Spill Tactics for Alaska Responders
SWAPA	Southwest Alaska Pilots Association
TBD	To Be Determined
TIMS	Technical Information Management Systems
Tool	Alaska Oil Spill Permits Tool
TOTE	Tote Ocean Trailer Express
TSD	Time to shut-down
T/V	Tank Vessel
TVD	total vertical depth
UC	Unified Command
UHF	Ultra-high frequency
Unified Plan	Unified Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases
US	United States
USACE	United States Army Corps of Engineers
USCG	US Coast Guard
USDOI	US Department of Interior
USFWS	US Fish and Wildlife Service
VHF	Very high frequency
VFR	visual flight rules

#### **3.11.4 ODP-CP Appendices**

Additional documents specific to the Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program are found at the end of the ODP-CP and include the following.

- Appendix A: Blowout Contingency Plan Summary
- Appendix B: Buccaneer Alaska Operations, LLC Fuel Oil and Fluids Transfer Manual
- Appendix C: Material Safety Data Sheets for Cook Inlet Crude Oil and Diesel Fuel

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# PART 4 BEST AVAILABLE TECHNOLOGY REVIEW

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This section discusses the Best Available Technology (BAT) requirements contained in 18 AAC 75.425(e)(4)(A)(B) and (C); these requirements address technologies not subject to response planning standard or performance standards in 18 AAC 75.445(k)(1) and (2).

The discussions below of each technology address the requirements to analyze applicable technologies and to provide justification that the technology is BAT.

## 4.1 COMMUNICATIONS [18 AAC 75.425(e)(4)(A)(i)]

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### Cross References:

18 AAC 75.425(e)(4)(A)(i)

18 AAC 75.425(e)(1)(D)

Section 1.4

*Alaska Incident Management System (AIMS) Guide for Oil and Hazardous Substance Response*

*AK Unified Plan - Annex B Unified Response Organization and Cook Inlet Subarea Contingency Plan*

*Marine Exchange of Alaska, <http://www.mxak.org/vtrack/display.html>*

*CISPRI Technical Manual, CI-LP-2*

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### 4.1.1 General

*CISPRI Technical Manual, Tactic CI-LP-2* and Section 1.4 of this plan provide a description of the CISPRI communication system used for spill response. Section 1.4 also describes required communication systems, and the backup ADEC systems.

The BAT communications system to be used in a spill response include CISPRI, ADEC, and rig systems that use HF/SSB radio, VHF Marine radio, VHF Aircraft radio, UHF radio, cellular telephone, and satellite telephone. In the event of a spill, the Incident Command System would charge the Communications Unit with ensuring proper communications systems are available and working. Marine communications are maintained through a redundant and extensive network of base stations and repeaters. CISPRI's communication system is fully compatible with systems maintained by SERVs and the ADEC, as well as onboard systems. Equipment and vessels stations must meet and maintain Federal Communications Commission (FCC) certification.

### 4.1.2 Comparative Analysis

Base stations and repeater systems are compared to trunk systems for radio communication. Satellite telephone and cellular telephone systems also are addressed.

### 4.1.3 Conclusion

CISPRI's communication system is fully compatible with systems maintained by other response contractors, regulators, and onboard systems. Buccaneer believes that radio communications maintained through a redundant and extensive system of base stations and repeaters is the BAT for communications. The rationale for acceptance of base stations and repeaters as BAT is provided in Table 4.1-1.



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**Table 4.1-1 Best Available Technology Analysis: Communications**

<b>BAT Evaluation Criteria:</b>	<b>Current Method: Base Stations &amp; Repeaters</b>	<b>Alternative Method: Trunk System</b>	<b>Current Method: Satellite Telephones</b>	<b>Current Method: Cellular Telephones</b>
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant.	Available standard for marine/ aircraft communications. CISPRI has VHF & UHF base stations throughout Cook Inlet. The technology is currently used.	Available and can provide enhanced service. Service is blocked under heavy loads.	Iridium satellite telephones available from large number of vendors.	Available from a number of vendors, complete with email capability. Coverage is fair to good in Cook Inlet.
<b>Transferability:</b> Whether each technology is transferable to the applicant's operations.	Makes use of transferable technology to all operations.	Not readily transferrable. Not compatible with VHF marine on contract vessels and spot-charter tankers.	Makes use of transferable technology to all operations.	Makes use of transferable technology to all operations.
<b>Effectiveness:</b> Whether there is reasonable expectation each technology will increase spill prevention, provide other environmental benefits.	Demonstrated effectiveness for both routine and emergency operations.	Less effective in emergency response operations.	Effective for both routine and emergency operations.	Effective for both routine and emergency operations.
<b>Cost:</b> Cost to COSMO of achieving BAT, plus consideration of cost relative to remaining years of service of technology use by COSMO.	No new costs warranted except for O&M and upgrades. System is in place.	Significant costs. Current system is being phased out.	Minor cost. Telephones can be rented as required.	No new costs warranted except for O&M and upgrades. System is in place.
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant.	Age varies. Condition is good; system used daily and routinely maintained.	System is waiting for an update.	Age varies. Condition is good; system used daily and routinely maintained	Age varies. Condition is good; system used daily and routinely maintained
<b>Compatibility:</b> Whether each technology is compatible with existing operations, technologies used by applicant.	Developed/maintained via operational experience, and is part of CISPRI operations.	Not compatible with CISPRI comm. system or CISPRI operations.	Developed/maintained via operational experience as part of CISPRI operations.	Developed/maintained via operational experience, and is part of CISPRI operations.
<b>Feasibility:</b> Practical feasibility of each technology in terms of engineering, operational aspects.	Feasible.	Not feasible without large capital expenditures for repeaters.	Feasible.	Feasible.

**Table 4.1-1 Best Available Technology Analysis: Communications**

<b>BAT Evaluation Criteria:</b>	<b>Current Method: Base Stations &amp; Repeaters</b>	<b>Alternative Method: Trunk System</b>	<b>Current Method: Satellite Telephones</b>	<b>Current Method: Cellular Telephones</b>
<b>Environmental Impacts Compared to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits.	No known adverse environmental impacts.	Repeater construction will create environmental impacts.	No known adverse environmental impacts.	No known adverse environmental impacts.

Note: Evaluation criteria definitions per 18 AAC 75.445(k)(3)(A) to (H)

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## 4.2 SOURCE CONTROL [18 AAC 75.425(e)(4)(A)(i)]

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### **Cross References:**

**Sections 1.6.5, 2.1.6 to 2.1.9, Table 4.2-1 and Appendix A**

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Buccaneer has conducted a thorough assessment of well capping methods and techniques for use in regaining control of a worst-case well blowout using the RPS conditions for exploration drilling. The results of the assessment determined the best available techniques and methods to control a well blowout with the potential of releasing liquid hydrocarbons at the water surface. Inherent in this evaluation are the assumptions that all primary and secondary levels of well control have failed and that all dynamic and mechanical attempts to regain primary or secondary well control have been ineffective.

Methods of regaining well control once an incident has escalated to a blowout scenario of this magnitude are:

- Well capping
- Relief well drilling

As a result of our investigation, Buccaneer believes that well capping is the BAT for source control of a blowout. The rationale for acceptance of well capping as BAT is provided in the following discussions.

### **4.2.1 Well Capping and Relief Well Drilling**

#### **Well Capping**

Over the past 15 years well capping techniques have been developed and proven to be both efficient and effective in regaining control of damaged wells and reducing the associated environmental impacts. Significant improvements to well capping techniques and procedures have been developed by a variety of well control specialist companies from around the world.

Well capping response operations are highly dependent on the severity of the well control situation Wild Well Control, Inc. has the ability to mobilize specialized personnel and equipment (e.g., capping stack, cutting tools) to a Cook Inlet location within 24 to 48 hours of notification. The materials for typical mechanical control responses (junk shots, hot tapping, freezing, or crimping) are small enough that they can be quickly made available to remote locations, even by helicopter, if necessary.

Other equipment necessary during well capping operations are commonly available items in the Cook Inlet area (e.g., barges, incinerators, cranes, pumps, block and tackle, large-diameter casing) and can be made available within a few hours of the actual emergency. Heavy-lift helicopters would be mobilized from the Pacific Northwest and could be on location within 48 hours.

Well capping techniques are compatible and feasible for the proposed project drilling operations, well type, and remote location. Well capping techniques have been applied both on both land and offshore locations and have historically proven successful in regaining well control quicker than the more time-consuming alternative of drilling a relief well.

According to data collected by the BSEE Technical Information Management Systems (TIMS), 650 wells (both production and exploration) were drilled on federal offshore leases between 1990 and 2005, and 14,996 well service operations (e.g., workovers and plug and abandonments) were conducted. Data presented by TIMS also showed that during this same time period, 66 "LWC" incidents occurred during the drilling and well service operations. Of the 66 incidents, 36 involved loss of fluid circulation, gas seeps, and kicks where control was regained through conventional BOP surface control equipment and the remaining 30 could be classified as blowouts.

Source control of the 30 blowouts included the following:

- 16 blowouts stopped flowing as a result of the bridging of solids in the wellbore.
- 12 blowouts were controlled by well capping.
- 2 relief wells were started, but not completed when the blowouts stopped flowing as a result of the bridging of solids in the well bore.

The above data clearly indicate well capping technologies provide the shortest duration and most effective option for regaining well control and minimizing environmental impacts once all other control measures have failed. There is more consistent application of well capping in response to well control events and the correspondingly shorter durations, to successfully regain well control as compared to the few relief wells that have been attempted.

Buccaneer maintains an operating agreement with Wild Well Control, Inc., a well control specialist organization that can assist in the intervention and resolution of any well control emergency. Wild Well Control, Inc. will be Buccaneer's single point of contact. In an actual blowout event, well capping operations would commence with Buccaneer's activation of Wild Well Control, Inc. and mobilization of key personnel and equipment. Dynamic and surface well control methods will continue to be attempted, if safe to do so. If the well capping option is selected, the actual situation will dictate how to proceed (working around or removing the rig).

Buccaneer has developed a realistic schedule of events for conducting a well capping operation in the Cook Inlet as follows:

- Blowout duration is 3 days if well capping is used as source control for a well not ignited; and
- Blowout duration for the same well is 15 days if involuntarily ignited.

These estimates do not take into account the high probability that well flow would be significantly reduced or stopped by formation bridging, dynamic kill operations, or surface well control actions.

### **Relief Well Drilling**

The relief well has traditionally been a last resort when other surface kill efforts fail. The operator of a blow out well will likely consider surface capping methods before snubbing or relief well options.

Some of the events or considerations influencing choices for an ignited well include:

- Time required to clear debris,
- Feasibility of capping well once access is gained,
- Possible pollution from an oil spill or hydrogen sulfide issues if fire is extinguished, and
- Inability to cap well on fire.

Some of the events or considerations influencing choices for a well that is not ignited include:

- Should a well be ignited to avoid flammable gas clouds, hydrogen sulfide or extensive pollution from an oil spill?
- If a flammable gas cloud is present, can the well be capped while on fire?
- Can the blowout be shut-in and killed by bullheading or circulating, or should it be diverted?
- Casing failing during capping, causing an underground blowout or cratered well.

Relief well drilling is similar to current methods used to drill and complete Cook Inlet wells today, and advances in directional drilling technology allow more precise well bore placement, thus increasing the likelihood of success of a relief well.

No rigs capable of drilling a relief well at Buccaneer's Cook Inlet prospects are currently in Alaska. Therefore, Buccaneer will enter into a rig-sharing agreement to facilitate optimum response times and ensure rig availability in the event of a blowout. Currently, this includes working with Shell Exploration to use the Kulluk MODU currently staged in Dutch Harbor, Alaska.

Relief well drilling in Cook Inlet is a time-consuming and costly process, exacerbated by lack of access and lack of another jackup drill rig in Alaska. An offshore relief well response in Cook Inlet, without using well capping, could take up to 180 days, depending on rig availability and weather restrictions. These lengthy timelines add to the overall environmental impact (spill volume) of the well blowout. Additionally, based on TIMS historical data, it is estimated that more than 97 percent of blowouts would be under control by the time the relief well drilling rig could be mobilized.

With blowout duration's estimated at 180 days, relief wells provide the longest duration alternative of effectively regaining well control. In addition to the longer blowout duration, the relief well itself presents additional environmental risks.

There are possible events where relief well drilling would be the preferred response. These events involve situations in which the potential to release liquid hydrocarbons to the surface is highly unlikely (e.g., shallow gas, compromised surface casing or surface casing cement jobs, broaching or reasonable concern of broaching, inaccessible wellhead and/or casing).

## **Conclusion**

Table 4.2-1 summarizes well capping as BAT for a well blowout response scenario in Alaska. Buccaneer believes that well capping is the BAT for well source control. Historical evidence also clearly indicates that well capping has greater reliability and application for well control when compared to relief well drilling. Well capping response times account for an approximate 50 percent reduction in blowout durations when compared to that of relief well drilling.

### **4.2.2 Main Fuel Tanks**

The main fuel tanks and all associated piping and valves are contained in the inner decking of the rig and are protected by a series of containment features. The secondary containment surrounding the tanks is comprised of the steel hull of the rig itself, bracing, and airspace. If any fuel does leak from the main tanks, the bilge system alarm will be activated. Buccaneer believes that this secondary containment for source control of the main fuel tanks is BAT for this type of system. The tanks are protected by an overfill alarm, leak detection alarm, and an impermeable secondary containment.

A potential alternative to the current setup is to use temporary fuel storage tanks. Based on available space and lift capacity of the cranes, at least sixteen 190-bbl double-walled tanks would be required for a similar storage capacity. Each of these alternatives is evaluated in Table 4.2-2 per 18 AAC 75.445(k)(3) criteria.

**Table 4.2-1**  
**Best Available Technology Analysis: Well Blowout Source Control**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Well Capping</b>	<b>Alternative Method: Relief Well</b>
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant	Well capping is in use globally. Fit-for- purpose well capping and well control equipment is located in Cook Inlet. Additional equipment can be on location within 24 to 48 hours.	Relief well drilling equipment (e.g., rigs, down hole tools) is not in Alaska and would take >60 days to arrive.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations	Technology suitable for use at Buccaneer wells.	Technology suitable for use at Buccaneer wells.
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits	Numerous global companies provide successful applications of well capping. After natural bridging and conventional methods, well capping is most frequent blowout control measure. Application of well capping provides best opportunity for minimizing pollution impacts. Estimated durations for well capping are 3 days for a well not ignited; and 15 days for an ignited event.	Successful application of relief well drilling has been documented in industry. Industry data suggest a very small percentage of blowouts are successfully controlled with this technique. Relief well drilling (at up to 180 days for offshore locations) is the longest pollution mitigation measure possible.
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant	Fit-for-purpose equipment is already owned and/or under long-term contract. Well capping requires the maintenance of open-end contracts with trained specialists to implement well control/capping operations.	Time and cost of permitting, well planning, and executing relief wells is estimated at 6 times the cost of well capping, excluding lost production.
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant	Well capping technology and well control specialists have been active since the 1920s and have made tremendous improvements since its frequent application during the 1993 Iraq-Kuwait war. FIFI equipment is in place in Cook Inlet	Relief well drilling technology is similar to current methods used to drill/complete Cook Inlet wells. Technology is available to mill (drill) into the well casing and kill the well. Potentially sensitive to blowout well types (extended reach drilling [ERD]).
<b>Compatibility:</b> Whether each technology is compatible with existing operations and technologies in use by the applicant	Technology is compatible and applied at surface (no sensitivity to well type).	Technology is compatible through potentially sensitive to blowout well types (e.g., ERD, remote locations). Survey uncertainty on high departure wells may result in problems intersecting target wellbore.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects	Method is feasible with all drilling operations. Applied at surface – no sensitivities to well type (e.g., ERD, remote locations). Prior proven success in offshore environments. Demonstrated success in historical well control efforts.	Method feasibility contingent upon geographical access near area of blowout. Lack of year-round access to some locations limits application. There is evidence of successful application of relief well drilling as the primary mitigation measure of control (in gas wells).
<b>Impacts Compared to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits	Technology provides the best-proven opportunity to quickly reduce environmental impacts. Estimated duration of 15 days is significantly (>10 times) less than conventional alternative technologies.	Technology provides additional exposure and environmental risks during application (additional well control problems). Technology application will able the relief well to intersect the well bore in approximately 180 days. This time frame will result in an excess of oil being deposited in the environment. Additionally, drilling a relief well is accompanied by the additional risk of a second well control event.

**Table 4.2-2**  
**Best Available Technology Analysis: Source Control for Rig Fuel Tanks**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Internal Fuel Tanks</b>	<b>Alternative Method: Temporary Tanks on Decks</b>
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant	Equipment is currently installed	Currently in use throughout Cook Inlet area.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations	Equipment is currently installed	Tanks would have to be installed.
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits	Main fuel tanks and associated piping and valve are contained in the internal structure of the rig. The tanks are protected by an overfill alarm, leak detection, and an impermeable secondary containment.	The temporary tanks will be outside of the rig decks. The secondary containment would be built-in and they would have overfill alarms and leak detection.
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant	None, except for inspection and regular maintenance.	Extreme cost of obtaining virtually every acceptable temporary tank on Cook Inlet, as well as developing the manifold piping and valve system required.
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant	Current internal fuel tanks such as these are still being constructed on new ships.	The tanks have a current API 653 inspection.
<b>Compatibility:</b> Whether each technology is compatible with existing operations and technologies in use by the applicant	Compatible to the rig.	New piping and valves would have to be designed in order to manifold all tanks together and enable the current systems of the rig to use them. A large effort would be required to make this alternative compatible to the rig.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects	Currently in use.	Not Feasible. It would be virtually impossible to obtain 16 190-bbl tanks and accomplish the required engineering to accomplish this Endeavour. 16 tanks and associated secondary containment would not fit on the rig
<b>Impacts Compare to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits	The currently installed fuel tanks are within an impermeable container. There is a virtual zero possibility of a fuel leak (from these tanks) impacting the environment.	There is a large increase of potential environmental impact by using such a system. There is no environmental benefit achieved by this method over the current method.



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## 4.3 TRAJECTORY ANALYSIS [18 AAC 75.425(e)(4)(A)(i)]

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### Cross References:

*Section 1.0 and 1.6*

*18 AAC 75.425(e)(4)(A)(i)*

*18 AAC 75.425(e)(1)(F)(i)*

*CISPRI Technical Manual, CI-TS-0 to CI-TS-4*

*General NOAA Operational Modeling Environment (GNOME) Trajectory Model*

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Trajectory analyses and forecasts are described in the *CISPRI Technical Manual*, Tactics CI-TS-0 through CI-TS-4 and include information on wind and current vectors plus traditional knowledge of CISPRI response staff. Additional sources to be used during a response include:

- Cook Inlet Regional Citizens Advisory Council (CINOAA scientific support and coordination);
- General NOAA Operational Modeling and Environment (GNOME) Trajectory Model

### 4.3.1 General

Buccaneer's proposed method for trajectory analysis for an oil discharge will be by surveillance and tracking of oil on open water. Tracking and surveillance during a response will include a combination of trained visual observations, infrared sensors, and electronic tracking to be supplied by CISPRI.

#### 4.3.1.1 Aerial and Vessel Surveillance

Observation will include using aerial and vessel surveillance (*Tactic CI-TS-1*) by using trained visual observers and infrared sensors. Visual surveillance will be accomplished by using trained personnel to observe the spread of oil from aircraft or vessel. These personnel, supplied by CISPRI, will have the ability to estimate the amount of oil on the surface of the water by color reference (*Tactic CI-TS-4*) and calculate the trajectory. Trajectory will be calculated from water current and wind vector data, with an assumption that wind pushes oil at 3% of wind speed.

#### 4.3.1.2 Tracking Buoys

CISPRI will supply tracking buoys (*Tactic CI-TS-2*) specially designed to be deployed into spilled oil, and move at the same set and drift as the oil. The buoys will track electronically (VHF radio or satellite based) or visually (lighted strobe). Buoys can be deployed at the leading edge of the spilled to track real time movement, or ahead of the spilled oil to determine currents and other factors that will provide future trajectories. Buccaneer tracking and surveillance resources will be managed under the control of the Planning Section by the Situation Unit. The Situation Unit will provide tracking and surveillance results to the Planning Section Chief for briefing the Incident Command about the spill location and trajectory. The results of the trajectory predictions will be posted on the Situation Unit display and will be used by the Planning and Operations Section Chiefs to help plan for the Next Operational Period.

### 4.3.2 Comparative Analysis

Table 4.3-1 evaluates four options identified for trajectory analysis. These options include BUCCANEER's combined trained visual observations and electronic tracking, plus NOAA's *GNOME Trajectory Model*.

#### **4.3.2.1 GNOME Trajectory Analysis**

GNOME was developed for use in tracking spills and forecasting trajectories for the FOSC during an oil spill. To use GNOME, a spill scenario is created by entering specific tide and current information into the program; GNOME then creates and displays a predicted trajectory of the oil spilled in the scenario. GNOME can be used by anyone in its “Standard Mode” for spill response exercise training, but should be used in the “Diagnostic Mode” only by NOAA experts during an actual spill.

#### **4.3.3 Conclusion**

Results of a BAT review, presented in Table 4.3-1, demonstrates that Buccaneer’s proposed method (combination of visual and electronic surveillance with tracking buoys) is BAT for the trajectory analysis and forecasting in Cook Inlet.

**Table 4.3-1 Best Available Technology Analysis: Trajectory Analysis**

BAT Evaluation Criteria:	Proposed Method: Aerial & Vessel Surveillance (Visual & Infrared)	Proposed Method: Tracking Buoys (VHF, Satellite & Strobe)	Alternative Method: GNOME Trajectory Analysis
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant.	Available, used by CISPRI. Also used worldwide.	Available and used by CISPRI. Also used worldwide.	Available in Standard Mode for use in exercises. NOAA technician required for use of Diagnostic Mode during spill response.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations.	Currently in place.	Currently in place.	Standard Mode can be downloaded from web site, but Diagnostic Mode requires NOAA contract.
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits.	Effectiveness demonstrated in drill and exercises.	Effectiveness demonstrated in drill and exercises.	Local information package for Cook Inlet not available. Effectiveness questioned by CISPRI.
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant.	No new costs. System in use.	No new costs. System in use.	No new costs for Standard Mode; system in use. Unknown contractual costs for NOAA technician for Diagnostic Mode during a spill response.
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant.	Currently in place.	Currently in place.	NOAA-based model updated in March 2010 with frequent updates.
<b>Compatibility:</b> Whether each technology is compatible with existing operations, technologies used by applicant.	Compatible with CISPRI operations.	Compatible with CISPRI operations.	Compatible with CISPRI operations for drills and exercises. Not compatible for spill response.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects.	Currently in place.	Currently in place.	Feasible.

**Table 4.3-1 Best Available Technology Analysis: Trajectory Analysis**

BAT Evaluation Criteria:	Proposed Method: Aerial & Vessel Surveillance (Visual & Infrared)	Proposed Method: Tracking Buoys (VHF, Satellite & Strobe)	Alternative Method: GNOME Trajectory Analysis
<b>Environmental Impacts Compared to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits.	Not applicable.	Not applicable.	Not applicable.

Note: Evaluation criteria definitions per 18 AAC 75.445(k)(3)(A) to (H)

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## 4.4 WILDLIFE CAPTURE, TREATMENT, AND RELEASE PROGRAMS [18 AAC 75.425(e)(4)(A)(i)]

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### **Cross References:**

**18 AAC 75.425(e)(4)(A)(i)**

**18 AAC 75.425(e)(1)(F)(xi)**

**Section 3.10**

***CISPRI Technical Manual, Tactics CI-W-0 through CI-W-6***

***Alaska Unified Plan - Annex G - AK Wildlife Protection Guidelines***

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Wildlife capture, treatment and release programs are described in the *CISPRI Technical Manual, Tactics CI-W-0 through CI-W-6* (which is incorporated herein by reference) and in *Alaska Unified Plan - Annex G - Alaska Wildlife Protection Guidelines*.

### **4.4.1 General**

BUCCANEER's proposed method for wildlife, capture, treatment and release is based on *CISPRI Technical Manual Tactics CI-W-1 to CI-W-5* and in *AK Unified Plan; Annex G - AK Wildlife Protection Guidelines*. These tactics and guidelines provide objectives and procedures for hazing wildlife away from spilled oil or response operations, capturing oiled wildlife, and transporting to treatment facilities and then releasing, and recovering dead wildlife.

The federal and state wildlife trustee agencies' participation is critical to a wildlife response program. Because the fundamental responsibility and authority for protecting wildlife lies with those agencies, the wildlife response would be conducted with the guidance of these agencies. Therefore, agency personnel will be part of the Environmental Unit and will also assist with wildlife response in the field.

Overall wildlife response planning will be conducted under the Planning Section Chief, based on guidance from the Environmental Unit, who will be working with the appropriate wildlife resource managers/agencies to ensure that all aspects of the wildlife response are being addressed. Appropriate contracted or owned vessels will be mobilized, assigned to the Wildlife Task Force, and told where to proceed if they are to pick up agency or contracted personnel or equipment. Wildlife Task Force Leaders will report to their assigned Group/Division within the Operations Section, who will in turn provide this information to the Environmental Unit.

CISPRI follows the *Alaska Regional Response Team (ARRT) Wildlife Protection Guidelines (Annex G of the Unified Plan)* per Primary, Secondary and Tertiary response strategies, to protect wildlife during an oil spill.

### **4.4.2 Comparative Analysis**

Table 4.4-1 evaluates CISPRI's wildlife tactics and ARRT guidelines as BAT.

### **4.4.3 Conclusion**

CISPRI wildlife tactics as applied along ARRT guidelines is the BAT (see Table 4.4-1). The BAT includes use of a stabilization center and tactics outlined in both documents.

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**Table 4.4-1 Best Available Technology Analysis: Wildlife Capture, Treatment and Release**

BAT Evaluation Criteria:	Proposed Method: CISPRI Wildlife Program	Alternative Method: None
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant.	CISPRI's two main wildlife response contractors are Marine Wildlife Response Team (MWRT) and Wildlife Rapid Response Team (WRRT). Both will provide trained personnel who will work with agency personnel to staff wildlife task force. MWRT maintains a roster of 20-25 trained wildlife response personnel in the Kenai area capable of staffing wildlife response task forces.	No alternative identified.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations.	New practices and techniques are primarily the result of experience from oil spills in other areas.	No alternative identified.
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits.	Effectiveness demonstrated in oil spills from other areas using similar tactics and ARRT guidelines.	No alternative identified.
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant.	Wildlife program costs are high because CISPRI program meets regulatory requirements. Most equipment is new, and all is maintained.	Not applicable.
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant.	Most equipment is new, and all is maintained.	Not applicable.
<b>Compatibility:</b> Whether each technology is compatible with existing operations, technologies used by applicant.	Compatible with CISPRI operations and with ARRT guidelines which has been demonstrated through the use of similar systems in oil spills in other areas.	No alternative identified.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects.	Feasibility has been demonstrated through the use of similar systems in oil spills in other areas.	No alternative identified.
<b>Environmental Impacts Compared to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits.	Implementation will minimize environmental impacts where great benefits can be realized, relative to not implementing the system.	Not applicable.

Note: Evaluation criteria definitions per 18 AAC 75.445(k)(3)(A) to (H)



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## 4.5 CATHODIC PROTECTION FOR TANKS [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.

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## 4.6 LEAK DETECTION FOR TANKS [18 AAC 75.425(e)(4)(A)(ii)]

### Cross References:

#### Section 2.1.7.

The rig will be staffed 24 hours a day. Standard operating procedures and best management practices provide for daily visual inspections of fuel tanks and secondary containment areas to detect leaks. Because this is not a permanently fixed facility, daily visual inspections (as outlined in Section 2.5) is the BAT; it provides the most reliable, feasible, and cost effective means to determine leaks.

Other technologies considered during the BAT review, included installation of remote monitoring systems to continuously monitor fuel levels in the main fuel tank(s) and/or installation of combustible gas concentrations near larger tank(s). These systems normally include placement of appropriate sensors on or near the tank(s) and an alarm system in a control room.

Each alternative is evaluated in Table 4.6-1 per 18 A.AC 75.445(k)(3) criteria.

**Table 4.6-1**  
**Best Available Technology Analysis: Leak Detection for Tanks**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Visual Inspection</b>	<b>Alternative 1: Continuous Level Monitoring System</b>	<b>Alternative 2: Remote Monitoring System</b>
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant	System is currently used.	System is currently available.	Sensors are readily available.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations	System is currently used.	Transferable, but not applicable to temporary tanks associated with a drill rig.	Transferable, but not applicable to temporary tanks associated with a drill rig.
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits	Effective with strict adherence to Best Management Practices and local 24-hour staffing at drill sites. Provides a reliable and effective method of leak detection.	In an isolated location, potentially effective in detecting minor leaks before they are visible. In this application, detectable levels of hydrocarbon vapors would be prevalent in the areas of the tanks due to their proximity to the rig, diesel engines, etc. Application would result in false alarms.	In an isolated location, potentially effective in detecting minor leaks before they are visible. In this application, detectable levels of hydrocarbon vapors can be expected to be prevalent in the areas of the tanks due to their proximity to the rig, diesel engines, etc. Application would result in false alarms.

**Table 4.6-1**  
**Best Available Technology Analysis: Leak Detection for Tanks**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Visual Inspection</b>	<b>Alternative 1: Continuous Level Monitoring System</b>	<b>Alternative 2: Remote Monitoring System</b>
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant	No cost	The cost to redesign the rig and its associated storage tank would be high.	The cost to redesign the rig and its associated storage tank would be high.
<b>Age and Condition:</b> Age, condition of technology used by applicant	Not applicable	System would be new.	The system would be new.
<b>Compatibility:</b> Whether each technology is compatible with existing operations and technologies in use by the applicant	Compatible and widely used on remote drilling operations. Requires no change.	Compatible, but not used on portable tanks and rigs.	Compatible. but not used on portable tanks and tanks on rigs.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects	Currently widely used. With 24-hour operations on the rig this provides a practical and reliable method of leak detection.	Feasible, but redundant and not as reliable on remote drilling operations.	Feasible, but redundant and not as reliable on remote drilling operations.
<b>Impacts Compare to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits	None	None	None

## 4.7 MAINTENANCE PROCEDURES FOR BURIED STEEL PIPING [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.

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## 4.8 TANK LIQUID LEVEL DETERMINATION

### [18 AAC 75.425(e)(4)(A)(ii)]

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#### **Cross References:**

**Section 2.1.6 and 2.1.7 and Appendix B**

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Tank liquid levels will be manually measured to determine the required volume prior to any fuel transfers. Tank liquid levels will be checked primarily by visual means prior to filling (e.g., by direct observation through the hatch using a flashlight) and/or by manual soundings with an applicable sounding tape. Direct visual observation using a flashlight is reliable, as actual liquid levels are noted. Manual soundings are taken at any time that there is uncertainty with other sounding methods. Visual observation may be more accurate and reliable than other options such as electronic, or sight glasses, or float gauges, due to the tendency for these devices to fail (Table 4.8-1).

Best management practices for transfers require two operators be present, in direct line-of-sight of each other, or at least in constant communication via radio for the duration of the fuel transfer. One person will be positioned to shut down the fuel transfer in the event of an emergency. Tank liquid levels will be monitored visually (e.g., by direct observation through the hatch using a flashlight) throughout the duration of the fuel transfer process. This method provides the most reliable, feasible, fuel cost-effective alternative to the five alternative methods presented in Table 4.8-1.



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**Table 4.8-1**  
**Best Available Technology Analysis: Tank Liquid Level Determination**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Visual Inspection and Manual Gauging</b>	<b>Alternative 1: Electronic Control</b>	<b>Alternative 2: Relay Logic Control</b>	<b>Alternative 3: Pneumatic Control</b>	<b>Alternative 4: Sight Glass with Ball Check Valve</b>	<b>Alternative 5: Float Level Gauge</b>
<b>Availability:</b> Whether each technology is the best in use in other similar situations and is available for use by the applicant	Proposed method	Microprocessor-based programmable logic controllers (PLCs) are used in most electronic control systems today. PLCs BAT for 20+ years.	Hardwired relay logic control systems are still used, but are becoming less popular.	Pneumatic control systems are used in very few applications and never where pumps and motors are cycled.	Sight glass with ball check valve systems are used today, but less frequently than other devices.	Float-actuated level gauge, such as Varec, devices are widely used in the industry today.
<b>Transferability:</b> Whether each technology is transferable to the applicants operations	Transferable	Allen Bradley SLC5 PLCs and all instrumentation are not transferable to the drill rigs/or temporary storage tanks.	Undetermined	Undetermined	Undetermined	Transferable
<b>Effectiveness:</b> Whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits	Highly effective with strict adherence to Best Management Practices and local procedure. Tank liquid levels will be determined from direct observation through the hatch and using a flashlight and manual measurement. As good as or better than other “low tech” devices.	Not effective in this application (see Note 1). Adversely affected by temperature and susceptible to physical damage.	Not effective in this application (see Note 1). Adversely affected by temperature and susceptible to physical damage. In addition, relay systems do not provide for logic status monitoring or alarming.	Not effective in this application. In addition, pneumatic systems are prone to freezing if moisture build-up occurs in the tubing.	Not effective in this application. Sight glass systems are prone to breaking, becoming obstructed, and freezing if condensation occurs in tubing. The ball check valves are prone to freezing and sticking in open or closed position.	Effective in this application. But condensation or freezing conditions may obscure the measurement reading window. This system will also provide inaccurate measurements w/ sediment build up in tank.

**Table 4.8-1**  
**Best Available Technology Analysis: Tank Liquid Level Determination**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Visual Inspection and Manual Gauging</b>	<b>Alternative 1: Electronic Control</b>	<b>Alternative 2: Relay Logic Control</b>	<b>Alternative 3: Pneumatic Control</b>	<b>Alternative 4: Sight Glass with Ball Check Valve</b>	<b>Alternative 5: Float Level Gauge</b>
<b>Cost:</b> The cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant	Not applicable	The cost to redesign the rig and its associated storage tank would be high.	The cost of design changes to a relay based logic system is high. Re-wiring is required for any revision.	The cost of design changes to a pneumatic logic system is high. Re-tubing is required for any revision.	Undetermined	Undetermined
<b>Age and Condition:</b> The age and condition of the technology in use by the applicant	Procedures have been in place since 1993 for fuel transfer operations.	N/A	N/A	N/A	Sight glass devices have been used in the industry for at least 20 years, mostly on permanent tanks.	Float-actuated devices have been used in the industry for at least 20 years.
<b>Compatibility:</b> Whether each technology is compatible with existing operations and technologies in use by the applicant	Compatible and widely used. Requires no change.	Compatible but not used on portable tanks and tanks on rig.	Compatible but not used on portable tanks and tanks on rig.	Compatible but not used on portable tanks and tanks on rig.	Compatible but preferably not used on portable tanks and tanks on rig due to breakage potential.	Compatible and used in the industry on tanks in Alaska.
<b>Feasibility:</b> The practical feasibility of each technology in terms of engineering and other operational aspects	Feasible and preferred due to potential for electronic or pneumatic systems to experience damage from rough handling.	Rig tanks are frequently subject to rough handling which has the potential to affect the accuracy and/or operability of the system (Note 1).	Rig tanks are frequently subject to rough handling which has the potential to affect the accuracy and/or operability of the system (Note 1).	Rig tanks are frequently subject to rough handling which has the potential to affect the accuracy and/or operability of the system (Note 1).	Rig tanks are frequently subject to rough handling which has the potential to affect the accuracy and/or operability of the system (Note 1). Sight glass devices are typically not used in exposed areas, as they can become a source for a leak if damaged.	Feasible, but would require some engineering modifications to install, and operational modifications. There is concern regarding float devices due to several failures of float devices within Alaska.

**Table 4.8-1**  
**Best Available Technology Analysis: Tank Liquid Level Determination**

<b>BAT Evaluation Criteria: Definition</b>	<b>Current Method: Visual Inspection and Manual Gauging</b>	<b>Alternative 1: Electronic Control</b>	<b>Alternative 2: Relay Logic Control</b>	<b>Alternative 3: Pneumatic Control</b>	<b>Alternative 4: Sight Glass with Ball Check Valve</b>	<b>Alternative 5: Float Level Gauge</b>
<b>Impacts Compared to Benefits:</b> Whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits	None	None	None	None	None	None

Note 1: In summary, application of liquid level determination devices (i.e. Alternatives 1 through 5) to the current visual and manual measurement method in remote, offshore environments is not BAT for the following reasons:

- Significant potential for physical damage or damage to associated components from transportation, setup and operations;
- Requirement for power sources which provide potential ignition sources;
- Requirement for frequent maintenance;
- Unreliable accuracy; and
- Cost for equipment, power, installation, maintenance, replacement.

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## 4.9 PROTECTIVE WRAPPING OR COATINGS FOR PIPELINES [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.

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## 4.10 PIPELINE LEAK DETECTION MONITORING AND OPERATIONS [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.



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## 4.11 CATHODIC PROTECTION FOR PIPELINES [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.

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## 4.12 CORROSION SURVEYS [18 AAC 75.425(e)(4)(A)(ii)]

Not applicable.

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# PART 5 RESPONSE PLANNING STANDARD

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## **Cross References:**

**18 AAC 75.430(c)(1)**

**18 AAC 75.425(e)(5)**

**18 AAC 75.432**

**18 AAC 75.434(b)(1) and (2)**

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This section summarizes applicable RPS for the Buccaneer oil exploration drilling program in Cook Inlet. Information is also provided on Buccaneer's proposed drilling season.

Section 1.6.15 includes a response scenario to demonstrate the plan holders capability of responding to an RPS oil discharge volume as prescribed by 18 AAC 75.434 (b)(1) and (2). A response strategy addressing a potential spill during an oil transfer is also provided.

Per 18 AAC 75.434 (b) (1) and (2), the default oil flow rate used in ODPCP RPS for surface well blowout is 16,500 bbl for the first 72 hours plus 5,500 bopd for 12 days for a total of 82,500 bbl.



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# APPENDICES

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# APPENDIX A:

## BLOWOUT CONTINGENCY PLAN SUMMARY

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### Introduction

The attached is based on the Wild Well Control BCP for this project supplied to plan holder. The BCP is available for inspection by the ADEC upon request.

The development of a BCP is one of the best ways in which an operator can accomplish the goals of their emergency preparedness efforts. These goals will be written and included in the BCP.

Pre-event well control planning will benefit the operations in several ways. First, it is an excellent way to organize personnel and contractors in the event of a major well control problem. It is also a way to inform key personnel of the material and equipment requirements that may be needed for a well control job. This level of emergency preparedness will ultimately save time and money in the event of a well control event.

The primary objective of the BCP is to establish a process for responding to and safely managing well control emergencies. Processes included in the Buccaneer BCP include:

- Implementing actions at the emergency site that will enhance personnel safety
- Defining the notification protocols and methods
- Defining the critical information that is required in order to determine the appropriate response level and strategies
- Providing forms for the consistent documentation and distribution of critical information
- Organizing personnel and providing guidelines for their role in the emergency response and subsequent management
- Pre-selecting sources and developing mobilization plans for personnel, equipment, material and services typically required for implementation of well control procedures

The process is intended to provide a framework for responding to and managing a range of well control emergencies. Working through a well-defined series of activities helps to ensure that critical aspects of the response are given adequate consideration and that proper safety and operational assessments are made at the required time.

Responding to a well control emergency with a BCP can reduce risks to personnel and assets, minimize environmental impact, promote an earlier involvement by the well control company and demonstrate a proactive effort by the Operator to regulatory agencies, shareholders, and employees.

### Initial Response Summary

For the purposes of response to well control incidents, Buccaneer's Incident Command System consists of the following three main components:

1. Initial Responders
2. Emergency Command Center staff in Anchorage
3. Crisis Management staff

Initial Responders are the personnel on site when a well control incident occurs. Their role, explained further in the following sections, is to activate the Incident Command System through notification of the Emergency Command Center staff. Additional information on the Incident Command System is available in Section 1.2 and from Figure 1.2-1 of this Oil Discharge and Prevention Contingency Plan.

**IN THE EVENT OF A WELL CONTROL INCIDENT, ON-SITE PERSONNEL SHOULD ACT ACCORDING TO GUIDANCE PROVIDED IN THE FOLLOWING SECTIONS**

## Initial Response Actions

The highest ranking operator representative on site, likely the Buccaneer Company Man or Drilling Supervisor, will assume the role of On-Scene Commander or Incident Commander (IC) until relieved. The primary duties of the IC are as follows:

1. Provide for the health and safety of personnel
2. Collect the necessary data
3. Perform notification requirements as described herein

### *Provide for the Health and Safety of Personnel*

The first responsibility of the IC will be to ensure the safety of personnel on site. Actions to be taken to protect health and safety will depend on the specific nature of the emergency. Following any well control event that causes partial or complete evacuation of site, the IC will muster and account for all personnel. Further evacuation and/or first aid operations will be performed as necessary. If personnel are missing, their IC will evaluate the need for rescue operations.

### *Collect the Necessary Data*

Prior to notification, significant information must be collected such that a meaningful report can be given to support personnel off site. Reporting forms on which to record the most pertinent data are provided in the blowout contingency plan. Note that much of this information will already be available in Buccaneer's offices, but it will not be known by other responders, such as well control specialists, remediation contractors, etc. As the situation merits, the OC may provide additional information not shown on the data sheet.

### *Perform Notification Requirements as Described Herein*

The OC will relay the collected information to Buccaneer's Incident Commander by calling:

**Mr. Andy Rike**  
**Buccaneer Executive Vice President of Operations**  
**(907)-335-0600**  
**(713)-703-5157**  
• **O'BriensRM 24-hour response at 985-781-0804**

In the event that Andy Rike cannot be contacted, notification should be made to:

- Buccaneer HSE Coordinator Darren Burks/Rob Crotty at (907) 335-0600
- O'BriensRM Alternate Deputy Incident Kristina O'Connor at 985-781-0804

Subsequent notifications to response contractors and other interested parties will be handled via the activated Incident Command System. Additional emergency contact information is available in Section 1.2 of the ODPCP.

### ***After Initial Response***

Depending on the severity of the incident, once the Incident Command System has been activated via the notification process, an on-scene management team may be mobilized to site to take over on-scene incident management. The Initial Responder who assumed the role of OC may be relieved of that role by the Incident Commander or his designee. Simultaneously, the Buccaneer Command Center may be activated at CISPRI in Nikiski to help support on-scene management efforts.

Specifics about on-scene incident response management are provided in the Response Action Plan, which is Part 1 of this ODPCP.

On-scene response tactics will depend on the specific circumstances encountered and may vary significantly from any descriptions herein; however, the decision trees which follow are included as a guide to assist in determining the most prudent course of action.

### ***Well Control: Capping a Blowout Well***

As discussed in Section 4.2.1, well capping provides the shortest duration and most effective option for regaining well control and minimizing environmental impacts once all other control measures have failed. The BCP will include the details of what is done to prevent a "kick" from turning into an uncontrolled blowout as well as listing and describing specialized tools, equipment and process that will be used to in capping to regain control of a Buccaneer well in the most efficient, most effective and safest manner.

Buccaneer also will describe in the BCP the steps required to cap a conventional well blowout, including:

1. Collecting information on the blow out on an incident report form (example attached), so that additional, real-time detail can be used to supplement the BCP;
2. removing large and then smaller debris from around the wellhead to minimize the horizontal and distorted flow and allows a fire (if flow has ignited) to move to a more vertical axis;
3. cutting damaged wellhead equipment in order to cap the well;
4. inspecting the remaining wellhead flange to assess its integrity by using a Flow Tube;
5. maneuvering a Capping Assembly (complete with BOP) over a suitable, exposed wellhead flange and bolting it into place; and
6. shutting the well in by closing the blind rams in the BOP.

Additional information on Wild Well Control's emergency well control services and procedures can be found at <http://www.wildwell.com/>.

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***BCP Attachment 1:  
BCP Well Control Incident Reporting Forms***



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# APPENDIX B:

## FUEL OIL AND FLUID TRANSFER PROCEDURES

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### INTRODUCTION

The *Endeavor - Spirit of Independence* Fuel Oil and Fluid Transfer Procedures are guidelines that apply to any fuel or fluid transfer between (to or from) the rig and a fuel barge. The procedures provide crewmembers with practical reminders and checklist tools that facilitate safe fuel transfer.

### PRINCIPLES

The aim of these guidelines is to prevent cargo/fuel oil spillage, and the resulting environmental damage. This can be prevented by:

- The safe transfer of oil cargo or fuel under all reasonable circumstances using sound, well rehearsed practices, adequate numbers of trained and alert personnel, sufficient materials, and well maintained, thoroughly tested equipment.
- Compiling and exercising contingency and emergency plans regularly and thoroughly, to familiarize all personnel involved with the essential needs and hazards of such operations.
- Prompt and correct local response in the event of a spill to safeguard life and property; and lessen the environmental impact of the spill.

In summary, the crew is to be able to work safely and carefully, secure in the knowledge that reasonable precautions have been taken, and that adequate resources can be deployed if an unforeseen problem develops.

***This document is a guide only. The information it provides does not take precedence over applicable federal or state law governing oil transfer activities. The crew's conduct must at all times be governed by the normal practice of seamanship and in compliance with all applicable requirements.***

### GENERAL CONSIDERATIONS FOR TRANSFER OPERATIONS

#### CISPRI

**CISPRI response vessels capable of responding to, cleaning up and containing spills from all fluid transfers shall be on site and ready before transfers commence. Transfer crews also will communicate operation status to the CISPRI vessel throughout the transfer.**

#### RESPONSIBILITIES

The Master, Chief Engineer, Barge Master and Chief Mechanic shall be responsible to ensure that this procedure and regulatory requirements are followed by all personnel involved in fuel oil transfer operations.

All personnel involved in the operation shall be familiar with the scope of the overall operation as well as their own specific responsibilities.

**At no time shall more than one fuel transfer operation take place between two vessels.**

Responsibilities for personnel during oil fluid transfers are summarized in the following table.

Personnel	Fuel/Fluid Transfer Responsibilities
Master / Barge Master (Person in Charge)	<ul style="list-style-type: none"> <li>Overall responsible for. operations and equipment on own vessel</li> <li>Ensure that a company approved Pre-Transfer Checklist is completed and distributed as per the form distribution list.</li> <li><b>Shall ensure CISPRI is standing by ready for response for at least twice volume to be transferred.</b></li> </ul>
Chief Engineer/ Chief Mechanic	<ul style="list-style-type: none"> <li>Ensure fuel oil products supplied and delivered to the rig meet company-approved specifications.</li> </ul>
Duty Mate/Duty Barge Master	<ul style="list-style-type: none"> <li>Ensures that all items on checklists are complied with including checking the hose before commencing transfer and inspecting the seas around the vessel during the transfer operation.</li> <li>Shall work closely with the Duty Engineer / Mechanic and is responsible for operations on deck.</li> <li>Confers with the Duty Engineer / Mechanic on completion of the transfer and ascertains final transfer figures.</li> <li>Completes transfer documentation and exchanges necessary documents with the other unit involved in the operation.</li> <li><b>If there is any doubt as to safety of the fuel transfer operation the Duty Mate/Duty Barge Master will stop the operation and notify the Master / Barge Master (Person in Charge).</b></li> </ul>
Fuel/Fluid Hose Watch Person	<ul style="list-style-type: none"> <li>Shall be on watch at the valve manifold throughout the entire fuel/fluid transfer operation.</li> <li>Shall remain in contact with the Duty Engineer / Mechanic in the engine room / fuel control station via VHF radio or internal telephone.</li> <li>Will also be in contact, visually and by VHF radio with the other unit involved in the operation and will relay orders between the two units. Continuously monitor the hoses and connections for possible leaks.</li> <li><b>In an emergency, he will contact the other unit involved in the transfer operation, stop the transfer operations by using the emergency fuel pump shutdown switch (located at the valve manifold) and inform the Duty Mate / Barge Master immediately.</b></li> </ul>
General Deck Watch Person	<ul style="list-style-type: none"> <li>Shall be on watch tending mooring lines and relieving Fuel/Fluid Hose Watch Person at, intervals as required but not exceeding 30 minutes throughout the entire fuel transfer operation.</li> </ul>
Duty Engineer	<ul style="list-style-type: none"> <li>Shall stand by in the engine room/ fuel control station in the vicinity of the pump control switch and monitor all aspects of the transfer operation and communicates by VHF radio, telephone, or paging system with the Hose Watch Person and the other unit involved in the transfer.</li> <li>Responsible for all operations such as flow rates, tank levels and fuel inventories.</li> <li>On completion of the fuel transfer, calculate the amount of fuel transferred and passes this figure to the Duty Mate / Barge Master who will complete and exchange any necessary paperwork with the other unit.</li> </ul>
Assisting Engineer/ Mechanic	<ul style="list-style-type: none"> <li>Regulate valves to fuel tanks affected by the transfer as instructed by the Duty Engineer/Mechanic.</li> <li>Assisting Engineer / Mechanic shall continuously monitor the levels of fuel in the fuel tanks which are affected during the fuel transfer operation.</li> <li>Also shall report directly to the Duty</li> </ul>
Shore Management	<ul style="list-style-type: none"> <li>Shall maintain copies of Engine Room Logs and company approved Pre-Transfer Check List on file</li> </ul>

## **LIFESAVING CONSIDERATIONS**

The following equipment should be readily available for quick deployment, or depending on prevailing conditions, worn:

- Life buoys, and other lifesaving equipment; for quick deployment (Note: powder/rocket type line throwers should not be used).
- Approved personal flotation devices and appropriate cold weather clothing for personnel working on barges and workboats, which may be used during ship to shore or vice-versa transfers.

## **SAFETY**

The following safety guidelines should be observed:

- "No smoking/no naked lights or flames" warning signs should be posted.
- Announcements of an impending transfer should be made, on board the vessel(s).
- All operations personnel should be versed and rehearsed in emergency procedures and in the use of firefighting equipment.
- Sufficient personnel and relief crews should be available to deal with intended transfer operations and to allow for sufficient rest and food breaks.
- Ground faults found on the main switchboard should be traced and isolated immediately to prevent arcing.
- Use an Insulating Flange, in accordance with the "International Safety Guide for Oil Tankers and Terminals".
- Routine checks for flammable gas concentrations should be made near tank vents with LEL monitoring equipment when loading crude oil of an unknown flashpoint, or products with known low flashpoints.
- If high readings for this product are recorded on deck, operations should be suspended, until gas accumulation clears to a safe level.
- Routine checks for gas concentration should be carried out during all ship-to-ship transfer operations.
- Radiated energy from HF radios and radar antennae can cause arcs or heat, which can affect nearby ship superstructures, causing an ignition hazard. During ship-to-ship transfer, if high gas concentrations exist, these systems and equipment should be used with caution.
- For barge transfers, and where appropriate, forward and aft emergency towing wires should be deployed over the opposite side of the vessel from the hose manifold in use and available for immediate use.
- Routine checks should be made of mooring arrangements and fenders, as well as gangways and nets, if in use.
- A minimum wind speed of 5 knots is required when transferring high volatile products ( i.e. gasoline).

## **FIRE FIGHTING AND EMERGENCY EQUIPMENT CONSIDERATIONS**

The following guidelines for firefighting and the use of emergency equipment should be observed:

- Firefighting equipment should be prepared for rapid deployment before commencing transfer.

- A fire extinguisher should be readily available, and a fire hose should be rolled out on deck at instant readiness, close to the manifold in use.
- For barge transfers, firefighting equipment and resources on accompanying tugs, service vessels and CISPRI response vessels standing by should be in a state of readiness.
- When conditions are expected to remain below freezing during the transfer period, fire and foam lines on open decks and unheated areas should be kept dry to prevent freeze-up.

### **WEATHER and LOCAL ICE CONDITIONS**

Weather and local conditions should be considered during a transfer. During a transfer period:

- Local and regional weather forecasts should be obtained.
- Weather conditions should be monitored constantly throughout the transfer period.
- Transfer operations personnel should have suitable clothing for the prevailing conditions, and should not be exposed to severe weather conditions or other hazards for lengthy periods. In these circumstances, the deck watch should be relieved more frequently.

### **LIGHTING**

- Supplier and recipient facilities should be supplied with adequate lighting particularly at the respective manifolds or fuelling stations and over the ship side.
- Work boats involved in sealift transfers should be equipped with spotlights for hose inspections and related work.
- Flashlights and other portable and fixed lighting apparatus should be designed and constructed according to approved specifications for operation in flammable or explosive gas areas.

### **COMMUNICATIONS**

Radio communications during fuel transfer operations are by a combination of radio, telephone, paging and/or visual signals. It is essential personnel on both ships involved in the cargo transfer operations shall have reliable means of communications such as intrinsically safe portable hand-held transceivers. Good communications are essential for a smooth transfer operation, and are vital in a crisis situation.

- The transfer crewmembers should have the capability, for "full break-in" to the radio system or network, where possible, or a radio channel dedicated exclusively to the transfer operation.
- During transfer of volatile, low flashpoint products, hand-held radios should be used which are intrinsically safe, have a VHF or UHF band, with adequate range, and are on a channel or frequency agreed to by suppliers and recipients,
- Fresh batteries should be installed before the transfer commences, and replacements should be available to ensure continuous operation of the radios throughout the transfer period

(Note: Battery life is shortened by cold weather conditions);

- All personnel using radios should be on the SAME channel or frequency (this should be verified).

The following standard signals should be used in all transfer operations:

STANDBY TO START TRANSFER  
START TRANSFER  
SLOW DOWN TRANSFER  
STAND BY TO STOP TRANSFER  
STOP TRANSFER  
EMERGENCY STOP OF TRANSFER.

## GENERAL PRE-TRANSFER PREPARATION AND OPERATIONS

- Conduct a pre-transfer conference and complete a Pre-Transfer General Checklist.
- Inform each party involved of the dimensions of the other's key facilities, such as manifold/fuelling station location, maximum and minimum draught, barge/ship length, and fendering arrangements.
- Confirm with all participating personnel, their duties and responsibilities during the transfer, and ensure they are well versed in emergency procedures, and know the oil spill contingency plan to be followed in the event of an incident;
- Ensure engines, steering, thrusters, and maneuvering controls, are tested and remain on standby during transfer.
- Ensure barge is secured alongside or anchored, with due consideration for prevailing and expected wind, weather and tide conditions.
- Ensure that moorings are adequate to allow for draught and tidal changes during transfer.
- Suspend all operations that could cause ignition hazards around deck tank vent areas, such as:
  - welding and other hot work
  - use of portable electrical apparatus, particularly extension cords
  - use of portable combustion engine driven equipment
  - other operations which could cause ignition hazards
- Ensure all cargo manifold valves and/or fuelling connections which will not be used in the current transfer are isolated and blanked.
- Ensure valves used for the transfer are free of obstructions and are easy to operate through their full range.
- Ensure all deck scuppers are plugged to contain any oil spilled, and that freeing ports and other open areas where spillage could go overboard are closed.
- Ensure absorbent material is readily available at the flexible hose connections on deck and other predictable minor spill locations.
- Ensure containers, or drip trays of suitable size are placed under tank vents, manifolds, fuelling connections, or other locations where adequate permanent containment arrangements are not fitted.
- Ensure accommodation deck doors, deadlights or shutters, ports, and vents are closed.
- Ensure flame arrestors or gauze screens and pressure/vacuum relief valves (PVR) are checked.
- Ensure no helicopter landings or takeoffs occur during transfer operations.
- Ensure vessel air conditioning systems are on recirculation mode.
- Ensure that all valves and pipelines required for the current transfer are open, and that all other valves and pipelines in connected systems are closed and secured.
- Ensure the above is double-checked by the assigned crewmembers and Duty Mate/Duty Barge Master.

## **PRE-TRANSFER HOSE PREPARATION AND HANDLING**

When preparing and passing the blanked or capped hose between the Supplier and Recipient, the following procedures should be observed:

- Check for a valid hose certificate, confirming that the hose has been satisfactorily inspected during the past 12 months, according to the Oil Pollution Prevention Regulations.
- Check individual hose test markings or tags.
- Define who will supply the transfer hose and establish hose configuration -- diameter, total hose length, coupling type and number, operating pressure of hose and couplings, type of terminal flange (size/class, etc.).
- Define hose purging method between products, and after final transfer.
- Examine "O" rings and joints in couplings and replace any damaged seals or gaskets.
- Inspect hose-to-coupling clamps visually to ensure good condition and security and repair or replace any damaged clamps, where possible, or use spare hose lengths.
- Check that an insulating flange or coupling is in place.
- Secure hose coupling clips with safety wire.
- Ensure lifting and restraining arrangements are suitable for the type and dimensions of hose used, and that the apparatus will prevent hose damage due to ship movement in swells or draught changes.
- Ensure the hose is suitably supported throughout the hand-over, and during the transfer, to avoid damage and prevent kinks.
- Use hose strain relief system with long floating hose transfers to prevent strain on the hose string from winds and tides.
- Examine the completely installed hose string carefully and repair or replace any damaged hoses, flanges or joints, before starting the transfer.
- Minimize the number of couplings by using longer hose lengths.

## **TRANSFER**

The following procedures should be followed before and during a transfer operation:

- Complete the pre-transfer check list
- Have a responsible person, with an operational radio set on the correct channel/frequency, near the cargo/transfer pump start/stop control throughout the transfer.
- Start pumping at a previously agreed slow rate, while rechecking hose string for leaks;
- Ensure the product is going to the correct recipient tank.
- Maintain the normal pumping rate, as agreed with the other party, until topping off is required.
- Examine the hose string regularly during transfer and watch for signs of undue strain, bulging, and other evidence of real or potential leaks.
- Check both Supplier and Recipient tanks regularly for both content level and product, and investigate any anomalies, suspending the transfer if necessary.
- Keep a constant check on the pumping pressure and immediately investigate any pressure variations of an unexpected nature.

- Make regular visual checks of the water immediately surrounding the rig and barge.
- Reduce transfer rate when tanks are nearly full for topping off.

**NOTE TRANSFER IS COMPLETE WHEN TANK IS 90 PERCENT FULL**

- Use an automatic stop device to shut down the pump when the flow rate or backpressure exceeds a pre-set level.

**EMERGENCY STOP**

If any of the following conditions occur, the transfer should be stopped immediately:

- LOST COMMUNICATIONS
- LOSS OF ABILITY TO MONITOR HOSE TO SHORE
- SIGN OF SPILLAGE, OR DAMAGE TO HOSES AND COUPLINGS
- ANY DETECTION OF ACCUMULATED GASES
- MAJOR INCREASE IN WIND AND/OR SWELLS
- WHEN AN ELECTRICAL STORM IS PRESENT OR PREDICTED
- SEVER DETERIORATION IN VISIBILITY
- HELICOPTER LANDINGS OR TAKE OFFS
- ANY OTHER SITUATION DEEMED DANGEROUS BY THE TRANSFER SUPERVISOR.

**AFTER TRANSFER**

When the transfer has been completed, the following procedures should be followed:

- Purge the hose by previously agreed method, and shut all manifold and tank valves; when purging ensure that no air will be introduced to the tanks at the shore facility;
- Sound all tanks, (after waiting for settling, if necessary), and confirm with both parties that quantities of fuel/cargo have been properly transferred;
- Stow hoses securely for sea passage;
- Complete transfer checklists;
- Ensure the ship's and facility's Oil Books and Checklists are signed, kept up to date, and retained for examination

**ON BOARD FUEL TRANSFERS**

Fuel Oil transfers on board the rig are mainly transfers from main fuel tanks to day storage tanks in the after rig package, forward Camp Utilities, and cranes. The Chief Mechanic will be responsible for ensuring that a safe watch is maintained at both the discharge control station and the loading station.



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**OIL TRANSFER INFORMATION**

<b>VESSEL / STATION INFORMATION</b>			<b>Location:</b>	
	Supplier	Recipient	Start Date	
Vessel / Station Name			Start Time	
Officer in Charge			Finish Date	
Title			Finish Time	
<b>OPERATIONS</b>				
Transfer Type		Connection Type (e.g., 2/4 bands):		
Total Length of Hose (m):		Number of Hose Sections:		
Diameter(m):		Test Pressure [kilopascal (kPa)]:		
Boom Deployed before transfer: Yes / No		If yes, type:		
Work Boat used: Yes / No				
Hose Strain Relief System used: Yes / No		If yes, type:		
<b>PRODUCT INFORMATION</b>				<b>WEATHER CONDITIONS</b>
Type	Quantity	Start Time	Finish Time	Wind Force (knots)
				Wind Direction:
				Sea State:
				Visibility
				Light Conditions
<b>COMMUNICATIONS</b>				
Primary Method: (VHF/UHF) (Chan/Freq)			Backup Method: (Phone, Radio)	

**TRANSFER CHECKLIST**

GENERAL PROCEDURE	CHECK	SUPPLIER		RECIPIENT		COMMENTS
	YES	INITIAL	DATE	INITIAL	DATE	
1. Suspend all hot work permits and suspend all internal transfers if they are in progress.						
2. All personnel involved are informed and adequately trained. A designated PIC on duty at all times during the transfer operation.						
3. The transfer is to be manned continually during the entire operation.						
4. The pre-transfer P.A. Announcement is made.						
5. All communications including Backup System tested?						
6. Verify fire fighting equipment has been tested, is available & fire screens in place:						
7. Ensure all fuel storage tank valves are in closed position.						
8. Take a full set of soundings.						
9. Close exterior doors and ports leading to main deck.						
10. Confirm containment equipment & absorbent are available.						
11. Ensure scuppers are plugged.						
12. Verify that the Transfer Emergency Shutdown has been tested.						
13. Check that hose and bunker lines are clear. Check hoses to be used for: a) correct diameter & length to reach other station; b) chafing, cracks, or other deformation; c) damaged fittings; and d) blanking of hoses.						
14. All craft alongside are authorized and following hazard warnings.						
15. Confirm pumping rate and quantity to be pumped.						
16. Start the operation.						
17. Take soundings throughout the operation						
18. Reduce transfer rate as tanks are nearly full.						
19. At completion of fueling operation, close tank valves.						
20. Before disconnecting hose, confirm quantity received.						
21. Secure bunker hose so that end is over save-all / or containment						
22. P.A. Announcement for termination of fueling operations.						
23. Secure tank valves.						

# APPENDIX C:

## MATERIAL SAFETY DATA SHEETS FOR COOK INLET CRUDE OIL AND DIESEL FUEL

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**UNOCAL MATERIAL SAFETY DATA SHEET**

Product Name: Cook Inlet Crude Oil  
Product Code: None  
Page 1 of 12

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Crude Oil - High Aromatic, Sour  
Product Code: None  
Synonyms: H2S Crude - H2S Oil - Crude Oil - Field Crude  
Separator Crude  
Sour Crude - Sour Oil - Petroleum  
Generic Name: Petroleum  
Chemical Family: Petroleum Hydrocarbon

Responsible Party: Unocal Corporation  
Union Oil Company of California  
14141 Southwest Freeway  
Sugar Land, Texas  
77478

For further information contact MSDS Coordinator  
8am - 4pm Pacific Time, Mon - Fri: 281-287-5310

**EMERGENCY OVERVIEW**

**24 Hour Emergency Telephone Numbers:**

For Chemical Emergencies:  
Spill, Leak, Fire or Accident  
Call CHEMTREC  
North America: (800)424-9300  
Others: (703)527-3887(collect)

For Health Emergencies:  
California Poison  
Control System  
(800)356-3129

**Health Hazards:** Contains and liberates poisonous hydrogen sulfide gas. Crude oil is a probable skin cancer hazard. Benzene, component, is a cancer hazard. Harmful if inhaled. Overexposure may cause damage to the peripheral nervous system. Use ventilation adequate to keep exposures below recommended limits. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash thoroughly after handling.

**Physical Hazards:** Flammable liquid and vapor. Keep away from heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment).

Issue Date: 09/15/03  
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Status: Final Revised

UNOCAL

Product Name: Cook Inlet Crude Oil  
Product Code: None Page 2 of 12

< Physical Form: Liquid  
< Appearance: Brown to dark black  
< Odor: Hydrocarbon-rotten egg

NFPA HAZARD CLASS: Health: 2 (Moderate)  
Flammability: 4 (Extreme)  
Reactivity: 0 (Least)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS COMPONENTS	% Weight	EXPOSURE GUIDELINE		
		Limits	Agency	Type
Crude Oil (Petroleum) CAS# 8002-05-9	100	Not Established		
n-Hexane CAS# 110-54-3	0-1.4	50 ppm 500 ppm 50 ppm	ACGIH OSHA Cal.OSHA	TWA TWA TWA
Hydrogen Sulfide CAS# 7783-06-4	>1	10 ppm 15 ppm 20 ppm 10 ppm 10 ppm 15 ppm 50 ppm 50 ppm	ACGIH ACGIH OSHA MSHA Cal.OSHA Cal.OSHA Cal.OSHA OSHA	TWA STEL CEIL TWA TWA STEL CEIL 10 min.peak; once per 8-hr shift
Sulfur CAS# 7704-34-9	>1	Not Established		
Benzene CAS# 71-43-2	0.01-0.3	0.5 ppm 2.5 ppm 1 ppm 5 ppm 25 ppm 1 ppm 5 ppm	ACGIH ACGIH OSHA OSHA MSHA Cal.OSHA Cal.OSHA	TWA-SKIN STEL-SKIN TWA STEL CEIL-SKIN TWA-SKIN STEL-SKIN

Note: State, local or other agencies or advisory groups may have

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Product Name: Cook Inlet Crude Oil  
Product Code: None  
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established more stringent limits. Consult an industrial hygienist or similar professional, or you local agencies, for further information.

Contains benzene. If exposure concentrations exceed the 0.5 ppm action limit, OSHA requirements for personal protective equipment, regulated areas and training may apply (29CFR 1910.1028). Also see Section 4.

**3. HAZARDS IDENTIFICATION**

**POTENTIAL HEALTH EFFECTS:**

**Eye:** Contact may cause mild eye irritation including stinging, watering and redness.

**Skin:** Contact may cause mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation). No harmful effects from skin absorption are expected.

**Inhalation (Breathing):** Toxic. May be harmful if inhaled. Contains and liberates poisonous hydrogen sulfide - see Other Comments section below.

**Ingestion (Swallowing):** Low degree of toxicity by ingestion.

**Signs and Symptoms:** Effects of overexposure may include irritation of the nose, throat and digestive tract, nausea, vomiting, diarrhea, transient excitation followed by signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, and fatigue), coughing, runny nose, shortness of breath, chest pain, blurred vision, abdominal pain, muscle weakness, irregular heartbeats (arrhythmias), pulmonary edema (accumulation of fluids in the lungs), breathing difficulties, respiratory failure, convulsions, coma and death.

**Cancer:** Skin cancer hazard. A component is a known human cancer hazard (see Sections 11 and 14).

**Target Organs:** Overexposure to a component may cause injury to the peripheral nervous system (see Section 11). There is limited

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Product Name: Cook Inlet Crude Oil  
Product Code: None  
Page 4 of 12

evidence from animal studies that overexposure to a component may cause injury to the male reproductive system.

**Developmental:** Potential hazard to the fetus (see Section 11).

**Other Comments:** This material may contain or liberate hydrogen sulfide, a poisonous gas with the smell of rotten eggs. The smell disappears rapidly because of olfactory fatigue so odor may not be a reliable indicator of exposure. Effects of overexposure include irritation of the eyes, nose, throat and respiratory tract, blurred vision, photophobia (sensitivity to light), and pulmonary edema (fluid accumulation in the lungs). Severe exposures can result in nausea, vomiting, muscle weakness or cramps, headache, disorientation and other signs of nervous system depression, irregular heartbeats, convulsions, respiratory failure, and death.

This material may contain polynuclear aromatic hydrocarbons (PNAs) which have been known to produce a phototoxic reaction when contaminated skin is exposed to sunlight. The effect is similar in appearance to an exaggerated sunburn, and is temporary in duration if exposure is discontinued. Continued exposure to sunlight can result in more serious skin problems including pigmentation (discoloration), skin eruptions (pimples) and possible skin cancers.

Allergic skin responses after repeated contact with sulfur have been reported but are not common.

**Pre-Existing Medical Conditions:** Conditions aggravated by exposure may include skin, respiratory (asthma-like) male reproductive and peripheral nerve disorders.

**4. FIRST AID MEASURES**

**Eye:** If irritation or redness develops, move victim away from exposure and into fresh air. Flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin:** Wipe material from skin and remove contaminated shoes and clothing. Cleanse affected area(s) thoroughly by washing with

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Product Name: Cook Inlet Crude Oil	Page 5 of 12
Product Code: None	

mild soap and water and, if necessary, a waterless skin cleanser. If irritation or redness develops, seek medical attention.

**Inhalation (Breathing):** Immediately move victim away from exposure and into fresh air. If respiratory symptoms or other symptoms of exposure develop, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Ingestion (Swallowing):** First aid is not normally required; however, if swallowed and symptoms develop, seek medical attention.

**Note To Physicians:** This material may contain or liberate hydrogen sulfide. In high doses hydrogen sulfide may produce pulmonary edema and respiratory depression or paralysis. The first priority in treatment should be the establishment of adequate ventilation and the administration of 100% oxygen. If unresponsive to supportive care, nitrites may be an effective antidote.

Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for development of long-term sequelae. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities.

Federal regulations (29CFR 1910.1028) specify medical surveillance programs for certain exposures to benzene above the action level or PEL (specified in Section (i)(1)(i) of the Standard). In addition, employees exposed in an emergency situation shall, as described in Section (i)(4)(i), provide a urine sample at the end of the shift for measurement of urine phenol.

**5. FIRE FIGHTING MEASURES**

<b>Flammable Properties:</b>	Flash Point: <9-28°F
	OSHA Flammability Class: Flammable Liquid
	LEL/UEL: Not determined

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Product Name: Cook Inlet Crude Oil  
Product Code: None  
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Autoignition Temperature: No data

**Unusual Fire & Explosion Hazards:** This material is extremely flammable and can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

**Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.

**Fire Fighting Instructions:** Long-duration fires involving crude oil stored in tanks may result in a boilover. The contents of the tank may be expelled beyond the containment dikes or ditches. All personnel should be kept back a safe distance when a boilover is anticipated (reference NFPA 11 or API 2021). For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapors. Cool equipment exposed to fire with water, if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

**6. ACCIDENTAL RELEASE MEASURES**

Extremely flammable. Keep all sources of ignition and hot metal

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Product Name: Cook Inlet Crude Oil  
Product Code: None  
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surfaces away from spill/release. The use of explosion-proof equipment is recommended. Stay upwind and away from spill/release. Notify persons downwind of spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Use foam on spills to minimize vapors (see Section 5). Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

7. HANDLING AND STORAGE

**Handling:** Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-704 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 2 and 8). Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Use good personal hygiene practice.

Before working on or in tanks which contain or have contained this material, refer to OSHA Regulations, ANSI Z49.1 and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

**Storage:** Keep container(s) tightly closed. In a tank, barge, or other closed container, the vapor space above materials that contain hydrogen sulfide (H<sub>2</sub>S) may result in concentrations immediately dangerous to life and health (IDLH). Use and store this material in cool, dry, well-ventilated areas away from

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heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers. Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (see appropriate electrical codes).

**Personal Protective Equipment (PPE):**

**Respiratory:** Wear a positive pressure air supplied respirator in situations where there may be potential for airborne exposure to H<sub>2</sub>S above exposure limits (see Section 2). H<sub>2</sub>S has poor warning properties, and appropriate air purifying cartridges are not commercially available. A NIOSH certified air purifying respirator with an organic vapor cartridge may be used under conditions where H<sub>2</sub>S is not detected, and airborne concentrations of hydrocarbons are expected to exceed exposure limits. Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Skin:** The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation (see glove manufacturer literature for information on permeability).

**Eye/Face:** Approved eye protection to safeguard against potential

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Product Code: None  
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eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

**Other Protective Equipment:** A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Note: Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm).

Flash Point: <9-28°F  
Flammable/Explosive Limits (%): LEU: / UEL: Not determined  
Autoignition Temperature: No data  
Appearance: Brown to dark black  
Physical State: Liquid  
Odor: Hydrocarbon-rotten egg  
pH: No data  
Vapor Pressure (mm Hg): <12 psig  
Vapor Density (air=1): No data  
Boiling Point: 165-697°F  
Freezing/Melting Point: No data  
Solubility in Water: 0%  
Specific Gravity: 0.819-0.851  
Bulk Density: 7.42 lbs/gal  
Pour Point: <9°F

**10. STABILITY AND REACTIVITY**

**Chemical Stability:** Stable under normal conditions of storage and handling. Extremely flammable liquid and vapor. Vapor can cause flash fire.

**Conditions To Avoid:** Avoid all possible sources of ignition (see Sections 5 & 7).

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Product Name: Cook Inlet Crude Oil  
Product Code: None  
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**Incompatible Materials:** Avoid contact with strong oxidizing agents.

**Hazardous Decomposition Products:** Combustion can yield carbon dioxide, carbon monoxide, hydrogen sulfide, other organic compounds and sulfur oxides.

**Hazardous Polymerization:** Will not occur.

11. TOXICOLOGICAL INFORMATION

Crude Oil (CAS# 8002-05-9)

**Carcinogenicity:** Chronic application of crude oil to mouse skin resulted in an increased incidence of skin tumors. IARC concluded in its Crude Oil Monograph that there is limited evidence of carcinogenicity in animals, and that crude oil is not classifiable as to its carcinogenicity in humans (Group 3). It has not been listed as a carcinogen by NTP or OSHA.

**Developmental:** Dermal exposure to crude oil during pregnancy resulted in limited evidence of developmental toxicity in laboratory animals. Decreased fetal weight and increased resorptions were noted at maternally toxic doses. No significant effects on pup growth or other developmental landmarks were observed postnatally.

n-Hexane (CAS# 110-54-3)

**Target Organ(s):** Excess exposure to n-hexane can result in peripheral neuropathies. The initial symptoms are symmetrical sensory numbness and paresthesias of distal portions of the extremities. Motor weakness is typically observed in muscles of the toes and fingers but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. The neurotoxic properties of n-hexane are potentiated by exposure to methyl ethyl ketone and methyl isobutyl ketone. Prolonged exposure to high concentrations of n-hexane (>1,000 ppm) has resulted in decreased sperm count and degenerative changes in the testes of rats but not those of mice.

Benzene (CAS# 71-43-2)

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Product Name: Cook Inlet Crude Oil  
 Product Code: None Page 11 of 12

**Carcinogenicity:** Benzene is an animal carcinogen and is known to produce leukemia in humans. Benzene has been identified as a human carcinogen by NTP, IARC and OSHA.

**12. DISPOSAL CONSIDERATIONS**

This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristic(s) of ignitability (D001), benzene (D018) and possibly reactivity (D003). If the material is spilled to soil or water, characteristic testing of the contaminated materials is recommended. Further, this material, once it becomes a waste, is subject to the land disposal restriction in 40 CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

**13. TRANSPORT INFORMATION**

DOT Proper Shipping Name / Technical Name: Petroleum Crude Oil  
 Hazard Class or Division: 3  
 ID #: UN1267  
 Packing Group: I

**14. REGULATORY INFORMATION**

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372:

COMPONENT	CAS NUMBER	WEIGHT %
Hydrogen Sulfide	7783-06-4	>1
n-Hexane	110-54-3	1.4
Benzene	71-43-2	0-0.2

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Product Name: Cook Inlet Crude Oil  
Product Code: None Page 12 of 12

**Warning:** This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

COMPONENT	EFFECT
Benzene Reproductive	Cancer, Developmental, Toxicant
Various Polycyclic Aromatic Hydrocarbons	Skin Cancer
Toluene	Developmental Toxicant

This material has not been identified as a carcinogen by NTP or OSHA. Crude oil has been identified as a Group 3 carcinogen by IARC.

EPA (CERCLA) Reportable Quantity:  
----None----

**15. DOCUMENTARY INFORMATION**

Issue Date: 09/15/03  
Previous Issue Date: 08/14/03  
Product Code: None

**16. DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES**

The information in this document is believed to be correct as of the date issued. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assume the risk of his use thereof.

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MATERIAL SAFETY DATA SHEET

Revision Date: 01/16/2003

-----  
SECTION 1            PRODUCT AND COMPANY IDENTIFICATION  
-----

PRODUCT: SH Diesel 1 AK Taxable Dyed

MSDS NUMBER: 401499E - 0

PRODUCT CODE(S): 26961

MANUFACTURER ADDRESS: Shell Oil Products US, P. O. Box 4453, Houston, TX.  
77210-4453

TELEPHONE NUMBERS

Spill Information: (877) 242-7400

Health Information: (877) 504-9351

MSDS Assistance Number: (877) 276-7285

-----  
SECTION 2            PRODUCT/INGREDIENTS  
-----

CAS#	CONCENTRATION	INGREDIENTS
Mixture	100 %weight	Diesel 1
8008-20-6	96.4 - 99.99 %weight	Kerosene
91-20-3	0 - 2.99 %weight	Naphthalene
7704-34-9	0 - 0.49 %weight	Sulfur
71-43-2	0.01 - 0.08 %weight	Benzene

-----  
SECTION 3            HAZARDS IDENTIFICATION  
-----

EMERGENCY OVERVIEW

Appearance & Odor: Clear light straw to light red liquid. Kerosene odor.

Health Hazards: May cause skin irritation. May be harmful or fatal if  
swallowed. Do not induce vomiting. May cause aspiration pneumonitis.

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0

Hazard Rating: Least - 0      Slight - 1      Moderate - 2      High - 3  
Extreme - 4

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**Inhalation:**

In applications where vapors (caused by high temperature) or mists (caused by mixing or spraying) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

**Eye Irritation:**

May cause slight irritation of the eyes. If irritation occurs, a temporary burning sensation, minor redness, swelling, and/or blurred vision may result.

**Skin Contact:**

May be irritating to the skin causing a burning sensation, redness and/or swelling. Other adverse effects not expected from brief skin contact.

**Ingestion:**

This material may be harmful or fatal if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Generally considered to have a low order of acute oral toxicity.

**Other Health Effects:**

Carcinogenic in animal tests. It is probable that the material causes cancer in laboratory animals.

This material and/or components may cause the following effects:

Genotoxicity

**Primary Target Organs:**

The following organs and/or organ systems may be damaged by overexposure to this material and/or its components.

Eye, Blood/Blood Forming Organs, Kidney, Liver

**Signs and Symptoms:**

Irritation as noted above. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin); in severe cases death may occur. Damage to blood-forming organs may be evidenced by: a) easy fatigability and pallor (RBC), b) decreased resistance to infection (WBC effect), c) excessive bruising and bleeding (platelet effect). Kidney damage may be indicated by changes in urine output or appearance, pain upon urination or in the lower back or general edema (swelling from fluid retention). Liver damage may be indicated by loss of appetite, jaundice (yellowish skin and eye color), fatigue and sometimes pain and swelling in the upper right abdomen.

For additional health information, refer to section 11.

-----  
SECTION 4            FIRST AID MEASURES  
-----

**Inhalation:**

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If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

**Skin:**

Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

**Eye:**

Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

**Ingestion:**

DO NOT take internally. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

**Note to Physician:**

If more than 2.0ml/kg body weight has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

-----  
SECTION 5 FIRE FIGHTING MEASURES  
-----

Flash Point [Method]: >100 °F/>37.78 °C [ Closed Cup]  
Flammability in Air: 0.7 - 5 %volume

**Extinguishing Media:**

Material will float and can be re-ignited on surface of water. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

**Fire Fighting Instructions:**

CAUTION! COMBUSTIBLE. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of

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water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

-----  
SECTION 6 ACCIDENTAL RELEASE MEASURES  
-----

Protective Measures:

CAUTION! COMBUSTIBLE. Eliminate potential sources of ignition. Handling equipment must be bonded and grounded to prevent sparking.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management:

Shut off source of leak if safe to do so. Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:

U.S. regulations require reporting releases of this material to the environment which exceed the reportable quantity to the National Response Center at (800)424-8802.

CWA: This product is an oil as defined under Section 311 of EPA's Clean Water Act (CWA). Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 1-800-424-8802.

-----  
SECTION 7 HANDLING AND STORAGE  
-----

Precautionary Measures:

CAUTION! COMBUSTIBLE. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Handling:

Surfaces that are sufficiently hot may ignite liquid material.

Storage:

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Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation indoors and in laboratory settings.

Container Warnings:

Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

-----  
SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION  
-----

Kerosene OSHA PEL TWA: 100 ppmv  
Kerosene OSHA TLV TWA: 100 ppmv  
Naphthalene ACGIH TLV TWA: 10 ppmm STEL: 15 ppmm  
Naphthalene OSHA PEL TWA: 10 ppmv  
Naphthalene OSHA PEL - 1989(revoked) TWA: 10 ppmv STEL: 15 ppmv  
Carbon monoxide OSHA - PEL TWA: 35 ppmv Ceiling: 200 ppmv  
Hydrogen sulfide ACGIH - TLV TWA: 10 ppmm STEL: 15 ppmm  
Hydrogen sulfide OSHA - PEL<sub>IS</sub> TWA: 10 ppmm STEL: 15 ppmm  
Hydrogen sulfide Combustion At temperatures >180 degrees F

EXPOSURE CONTROLS

Adequate explosion-proof ventilation to control airborne concentrations.

PERSONAL PROTECTION

Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:

Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields

Skin Protection:

Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:

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Neoprene, or Nitrile Rubber

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:  
Supplied-Air Respirator. Air-Purifying Respirator for Organic Vapors.  
Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

-----  
SECTION 9            PHYSICAL AND CHEMICAL PROPERTIES  
-----

Appearance & Odor: Clear light straw to light red liquid. Kerosene odor.  
Substance Chemical Family: Petroleum Hydrocarbon, Fuel Oil  
Appearance: Clear light straw to light red liquid.

Boiling Point: 320 °F

Flammability in Air: 0.7 - 5 %volume

Flash Point: > 100 °F [Closed Cup]

Specific Gravity: 0.8 - 0.82

Stability: Stable

Viscosity: 1.3 - 2.4 cSt @ 40 °C

-----  
SECTION 10           REACTIVITY AND STABILITY  
-----

Stability:  
Material is stable under normal conditions.

Conditions to Avoid:  
Avoid heat and open flames.

Materials to Avoid:  
Avoid contact with strong oxidizing agents.

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Hazardous Decomposition Products:

Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Carbon Monoxide, Hydrogen Sulfide, Unidentified organic compounds, Sulfur Oxides and other unidentified organic compounds may be formed upon combustion.

-----  
SECTION 11 TOXICOLOGICAL INFORMATION  
-----

Acute Toxicity

Dermal LD50 > 2 g/kg (Rabbit) OSHA: Non-Toxic Based on components(s)  
Eye Irritation Draize 2.0 [Rabbit, 1 HOUR(S)] OSHA: Non-Irritating Based on components(s)  
Oral LD50 > 5 g/kg (Rat) OSHA: Non-Toxic Based on components(s)  
Skin Irritation Draize OSHA: Irritating Based on components(s)

Carcinogenicity Classification

Diesel 1

NTP: No IARC: No ACGIH: No OSHA: No

Naphthalene

NTP: Yes IARC: Yes ACGIH: A4 OSHA: No

Carcinogenicity

Long-term skin painting of kerosene and related materials caused malignant skin tumors with long latency periods (appearing late in the animals lives) in mice. Mechanistic studies suggest that these tumors are a secondary effect related to prolonged skin injury and irritation. A two-year inhalation study in rats found that naphthalene caused tumors in the lining of the nose (olfactory epithelial neuroblastoma) and respiratory tract (respiratory epithelial adenoma) of both male and female animals.

Eye

Animal studies indicate that long-term exposure to high doses of naphthalene can cause the formation of lens opacities (cataracts). Case reports suggest that oral, dermal and inhalation exposure may cause similar effects in humans. However, large-scale studies in exposed workers have failed to confirm this.

Genotoxicity

The vast majority of genotoxicity tests conducted on kerosene and related petroleum streams have not indicated genetic toxicity or mutagenicity. However, a few exceptions have been reported. One kerosene-like material was found to be mutagenic in the L5178Y mouse lymphoma assay with metabolic activation (a test-tube procedure) and to cause chromosome damage in the in vivo (live animal) rat cytogenetics assay. A more highly-refined middle distillate material (Jet Fuel A) was reported to produce chromosome damage in at least one rat study.

Blood/Blood Forming Organs

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Hemolytic anemia is the most frequent manifestation of naphthalene exposure in humans with secondary effects reported including jaundice, neurological damage, and respiratory difficulty.

#### Kidney

Nephropathy (kidney damage) caused by kerosene inhalation appears to be male rat specific (accumulation of alpha-2-u globulin) and is probably not relevant to humans. Renal toxicity has been reported in case studies of humans who ingested naphthalene.

#### Liver

Tissue damage was observed in some organs of rabbits following repeated skin exposure to related petroleum materials. Microscopic changes seen in the liver (mottled necrosis and centrilobular degeneration), kidney and bladder (hyperplasia) were considered to be secondary to (caused by) the severe skin irritancy.

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SECTION 12            ECOLOGICAL INFORMATION  
-----

Environmental Impact Summary:  
There is no ecological data available for this product.

-----  
SECTION 13            DISPOSAL CONSIDERATIONS  
-----

#### RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

-----  
SECTION 14            TRANSPORT INFORMATION  
-----

US Department of Transportation Classification

Proper Shipping Name: Diesel Fuel

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Identification Number: NA1993  
Hazard Class/Division: Combustible Liquid  
Packing Group: III  
Hazardous Substance/Material RQ: Naphthalene / 100 lbs

Combustible Liquid: This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.  
Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.  
Emergency Response Guide # 128

International Air Transport Association

Hazard Class/Division: 3 (Flammable Liquid)  
Identification Number: UN1202  
Packing Group: III

International Maritime Organization Classification

Hazard Class/Division: 3 (Flammable Liquid)  
Identification Number: UN1202  
Packing Group: III  
Proper Shipping Name: Diesel Fuel

-----  
SECTION 15 REGULATORY INFORMATION  
-----

FEDERAL REGULATORY STATUS

OSHA Classification:  
Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
Comprehensive Environmental Release, Compensation & Liability Act (CERCLA):  
Benzene RQ 10 lbs Reportable Spill => 11111 lbs or 1666 gal

Clean Air Act (CAA):  
This material is classified as a Hazardous Air Pollutant under the Clean Air Act (CAA).

Superfund Amendment & Reauthorization Act (SARA) Title III:

SARA Extremely Hazardous Substances (302/304):  
Sulfur RQ 100 lbs Reportable Spill => 20000 lbs or

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2999 gal

SARA Hazard Categories (311/312):

Immediate Health: YES    Delayed Health: YES    Fire: YES    Pressure: NO  
Reactivity: NO

SARA Toxic Release Inventory (TRI) (313):

Naphthalene

Toxic Substances Control Act (TSCA) Status:

This material is listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:

Australian AICS, Canadian DSL, Chinese Inventory, European EINECS, Korean Inventory, Philippines PICCS,

State Regulation

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).

WARNING: This product contains a chemical(s) known to the State of California to cause cancer. WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List:

Naphthalene (1322) 0 - 2.99 %weight

Pennsylvania Right-To-Know Chemical List:

Benzene (71-43-2) 0.01 - 0.08 %weight Spec Haz Sub/Env Hazardous

Naphthalene (91-20-3) 0 - 2.99 %weight Environmental Hazard

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SECTION 16            OTHER INFORMATION  
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Revision#: 0

Revision Date: 01/16/2003

Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been newly created to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take the

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opportunity to read the MSDS and review the information contained therein.

-----  
SECTION 17 LABEL INFORMATION  
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READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 26961

SH Diesel 1 AK Taxable Dyed

CAUTION!

COMBUSTIBLE LIQUID! MAY CAUSE SKIN IRRITATION. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE OIL ACNE OR DERMATITIS.

MATERIAL AND/OR COMPONENTS THAT HAVE BEEN SHOWN TO CAUSE CANCER INCLUDE:  
Naphthalene

MAY CAUSE DAMAGE TO: Eye, Blood/Blood Forming Organs, Kidney, Liver

This material and/or components may cause the following effects:  
Genotoxicity

Precautionary Measures:

Avoid heat and open flames. Avoid breathing of vapors, fumes, or mist. Do not take internally. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Keep container closed when not in use. Wash thoroughly after handling.

FIRST AID

Inhalation: If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin Contact: Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye Contact: Flush eyes with plenty of water while holding eyelids open.

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Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment. Ingestion: DO NOT take internally. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

SPILL OR LEAK

Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Kerosene, 8008-20-6; Naphthalene, 91-20-3; Sulfur, 7704-34-9; Benzene, 71-43-2

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0

TRANSPORTATION

US Department of Transportation Classification

Proper Shipping Name: Diesel Fuel

Identification Number: NA1993

Hazard Class/Division: Combustible Liquid

Packing Group: III

Hazardous Substance/Material RQ: Naphthalene / 100 lbs

Combustible Liquid: This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

Emergency Response Guide # 128

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).

WARNING: This product contains a chemical(s) known to the State of California to cause cancer. WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

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WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

Name and Address

Shell Oil Products US  
P. O. Box 4453  
Houston, TX 77210-4453

ADMINISTRATIVE INFORMATION

MANUFACTURER ADDRESS: Shell Oil Products US, P. O. Box 4453, Houston, TX.  
77210-4453

Company Product Stewardship & Regulatory Compliance Contact: David Snyder  
Phone Number: (281) 874-7728

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT : IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF SHELL OIL PRODUCTS US AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF SHELL OIL PRODUCTS US.

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# APPENDIX D: BSEE ADDENDUM

Buccaneer intends to submit their State of Alaska Oil Discharge Prevention and Contingency Plan to the BSEE as provided by 30 CFR 254.53 to the extent BSEE’s jurisdiction extends to the inland waters of the Cook Inlet where Buccaneer will operate (*see Alaska v. United States*, 422 U.S. 184, 186 (1975)). Cross reference information between the ODPCP and 30 CFR 254.53 is available under the Tab Cross Reference to BSEE Oil Spill Requirements. References are made to the *ODPCP Southern Cross and Northwest Cook Inlet Prospects, Buccaneer Alaska Operations, LLC*.

<b>BSEE REGULATION</b>	<b>REFERENCE</b>
30 CFR 254.53(a)(1) Consistent with NCP and ACP	Cross Reference to BSEE Oil Spill Requirements
30 CFR 254.53(a)(2) QI and Reporting Requirements	Management Approval and Man Power Authorization
30 CFR 254.53(a)(3) Statement of Contractual Terms	Section 3.8
30 CFR 254.53(a)(4) Training and Drills – Prevention and Emergency Response	Prevention: Sections 2.1.1 and 2.1.2 Response: Section 3.9.
30 CFR 254.53(a)(5) Plan Approval Procedures	Revisions and Renewal Requirements
30 CFR 254.53(b)(1) List of Facilities and Leases the Plan Covers.	Introduction
30 CFR 254.53(b)(2) Handled, Stored, or Transported Oil Types	Appendix C
30 CFR 254.53(b)(3) Name and Address of the State Agency	ADEC Approval
30 CFR 254.53(b)(4) Date of Submission to State Agency	ADEC Approval
30 CFR 254.53(b)(5) Date of Approval by State Agency	ADEC Approval
30 CFR 254.53(b)(6) Regulatory Standards Used	Proposed Operations Review with Regard to the Oil Pollution Act of 1990

## ***How the Scenario Complies with BSEE Requirements***

The following scenario provides a simulation of a WCD with the type of responses that could be employed, to the maximum extent practicable. To meet the requirements of 30 CFR 254, the operations described within the following scenario reflect consistent tactical and strategic approaches as that presented to meet the requirements of 18 AAC 75 (Section 1.6 of the ODPCP.) The primary difference is the 30-day duration of the blowout and demonstrated response capability.

Table D-1 addresses how the scenario meets the BSEE regulatory requirements of 30 CFR 254.26 for a WCD. Assumptions have been made about the environmental conditions, oil distributions, and response capabilities. References to documents, such as the CISPRI Technical Manual, that support these assumptions are provided in the table. These documents are publically available at ADEC and BSEE.



**Table 1.6-3 Summary of How the Worst Case Discharge Scenario Complies with BSEE Regulations**

BSEE REGULATION	SUMMARY	REFERENCE
30 CFR 254.26(a) and 254.47(b) WCD Volume for Exploration or Development Drilling Operations	The WCD volume of oil for this regional exploration plan is based on a worst case discharge of 5,500 bopd for an exploration well blowout.	See the OPA 90 BOEMRE cross-reference section at the front of this plan for a summary of the basis for the WCD estimate. The estimates follow 30 CFR 254.47(b) regarding WCDs for exploration drilling operations.
30 CFR 254.26(b) Oil Trajectory	<p>The simulation of the oil plume on water is based on a well blowout at the MODU drilling deck. The oil falls to the surface and spreads as a function of ocean currents and wind.</p> <p>A single, deterministic model was run for a blowout scenario at the proposed Southern Cross well. The model was run using OilMap™ V 6.5.2. The model is a 2-dimensional trajectory model which includes evaporation, spreading, and the influences of tidal and wind-forced currents.</p> <p>Oil on open water is assumed to move with surface currents and at 3 percent of the wind speed. As depicted in the CISPRI Technical Manual, Tactics CI-TS-1 and CI-TS-2 would be used to track the oil plume on open water throughout the spill response.</p>	Modeling of the oil plume migration was conducted using OilMap™ by EmergWest Consulting, local wind data and ocean currents.
30 CFR 254.26(c) Important Resources	Resources of environmental or special economic importance that might be impacted are the marine bird and mammal populations that range in Cook Inlet offshore and to the shoreline. The trajectory is described in the body of the scenario and mapped in Figure D-1. The resources are described more fully in the references.	Resources of special economic or environmental importance that potentially could be impacted in the areas in the trajectory are described in the ARRT's Cook Inlet Subarea Contingency Plan "Sensitive Areas" available from CISPRI, O'Brien's, and online at <a href="http://www.akrrt.org/CIplan/CItoc.shtml">http://www.akrrt.org/CIplan/CItoc.shtml</a> . Other sources are: ESI maps published by NOAA. GRS are available online at: <a href="http://dec.alaska.gov/spar/perp/grs/ci/home.htm">http://dec.alaska.gov/spar/perp/grs/ci/home.htm</a>

BSEE REGULATION	SUMMARY	REFERENCE
30 CFR 254.26(d)(1) Response Equipment	The scenario identifies the types, numbers, and usage of the equipment capable of containing and removing the oil.	The equipment descriptions, locations, owners, inventory, quantity and capabilities are described in the CISPRI Technical Manual .
30 CFR 254.44(a) Effective Daily Recovery Capacities	The effective daily recovery capacities are calculated and presented in the Skimmer Recovery Capacity Table.	The BSEE recovery capacity is based upon the manufacturer's rated throughput capacity over a 24-hr period multiplied by 20%. Efficiency rates for offshore recovery equipment are listed in the CISPRI Technical Manual, Tactic CI-LP-4.
30 CFR 254.26(d)(2) Deployment and Operation	The deployment of field personnel, vessels, and supplies needed to operate the oil removal and storage equipment are described in the scenario.	Equipment lists and locations of the equipment are described in the CISPRI Technical Manual Tactic CI-LP-4.
30 CFR 254.26(d)(3) Oil Storage, Transfer, and Disposal	The oil storage, transfer equipment, and disposal options, including barges, mini-barges, and Fast Tanks, and transport to oil processing facilities, are described in the scenario.	The types, locations, quantity, and capacity of the scenario's equipment are described in the CISPRI Technical Manual CI-LP-4.
30 CFR 254.26(d)(4)(i) Time for Procurement of Oil Containment, Recovery, and Storage Equipment	Time for procurement, mobilization, and transit time is reflected in the scenario.	Mobilization and deployment time for response equipment were derived the CISPRI Technical Manual Tactic CI-LP-1 and from equipment tables Tactic CI-LP-4. (Incorporated by reference.)  Buccaneer, through CISPRI, has the capability to mobilize out-of-area resources if needed. See CISPRI Tactic CI-LP-1, CI-LP-3, and CI-LP-4 for information on procuring, mobilizing, and transit times for resources.

BSEE REGULATION	SUMMARY	REFERENCE
30 CFR 254.26(d)(4)(iii) Time for Procurement of Personnel	Procurement, mobilization, and transit time for personnel is reflected in the scenario.	Mobilization time for personnel and other equipment on the CISPRI's primary response OSV is less than 1 hour. Mobilization time for other oil spill staff is reflected in the scenario.  Equipment operators and crews mobilize with their equipment from Anchorage, Nikiski and Homer through CISPRI contracts and Mutual Aid agreements: (CISPRI Technical Manual, Tactics CI-LP-1 CI-LP-3, CI-LP-4).
30 CFR 254.26(d)(4)(iv) Equipment Loadout Time	The loadout times for offshore, nearshore, and shoreline response equipment are included in the mobilization times listed in the CISPRI Technical Manual tactic equipment tables and are incorporated by reference into the Scenario.	Equipment loadout time is included in the mobilization times specified for equipment and vessels listed in the referenced CISPRI Tactic.
30 CFR 254.26(d)(4)(v) Travel Time	Times to travel to the deployment site for the offshore, nearshore, and shoreline tactical units (personnel and equipment) are described in the narrative of the scenario.	Travel times to the deployment sites are included the WCD scenario tables and are based upon the CISPRI Technical Manual Tactic CI-LP-1.
30 CFR 254.26(d)(4)(vi) Deployment Time	Times to deploy equipment are described in the scenario narrative and incorporated by reference to particular CISPRI Technical Manual tactics that provide deployment times.	Deployment times are specified in the WCD scenario. CISPRI Tactics Manual contain tactics equipment tables with equipment deployment times. Response and Deployment Assumptions for are generally captured within CISPRI Tactic CI-LP-1.  The Buccaneer Southern Cross well site locations are less than 10 nautical miles from Nikiski and approximately 45 nautical miles from Anchorage.

BSEE REGULATION	SUMMARY	REFERENCE
<p>30 CFR 254.26(e)(1) Equipment and Strategies are Suitable for Conditions</p>	<p>Response equipment illustrated in the scenario is designed to operate within the range of environmental conditions projected to be encountered at the exploration leases. The equipment available on the response vessels and other assets available commercially within Cook Inlet selected for the simulated deployments in this scenario are considered BAT for responding to oil well blowouts in the Cook Inlet. Equipment in the scenario has been tested and selected as the most suitable for mechanical oil recovery in the environmental conditions associated with this exploration plan.</p> <p>Response strategies illustrated in the scenario are also suitable, within the limits of current technology, for the range of environmental conditions anticipated in Cook Inlet. The strategy of mechanical recovery illustrated in the scenario reflects best available technology for the environmental conditions. The strategy has been tested, exercised, and selected as most suitable for the conditions.</p>	<p>See the following information and manuals that indicate the response equipment and strategies are most suitable:</p> <ol style="list-style-type: none"> <li>1. CISPRI Technical Manual</li> <li>2. Bowout response scenario in Appendix D of this plan.</li> </ol>
<p>30 CFR 254.26(e)(2) Standard Terms for Conditions and Equipment Capabilities</p>	<p>The scenario employs standardized terms to define environmental conditions and response equipment. The terms in the scenarios are consistent with terms used in spill response planning in general and for Cook Inlet responses in particular.</p>	<p>For definitions of terms, see the CISPRI Technical Manual.</p>

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## **WCD Response Scenario – Well Blowout During Summer**

## SCENARIO – BUCCANEER SUMMER BLOWOUT

The following scenario depicts typical response activities during an oil spill response.

The Buccaneer jackup oil exploration platform encounters an uncontrolled well release and is unable to control the flow from the platform. Based upon ADEC requirements, 5,500 bopd will be used as the RPS for 30 days. Total WCD volume will be 165,000 bbl. CISPRI has the capability, as demonstrated in their technical manuals, this plan, and other plans to mount an effective response that can be sustained for at least 30 days.

Once the oil breaches containment on the platform, it flows off the platform, landing on water beneath the platform and begins to move north on the flood tide. With a nominal wind, the oil may be sprayed downwind as much as 50 to 100 yards from the platform.

### RESPONSE TYPE: TYPE / AMOUNT:

Open-Water Response	Cook Inlet crude oil / 5,500 bopd
---------------------	-----------------------------------

### SOURCE:

Blowout of offshore well releasing 5,500 bbl the first day and each subsequent day for 29 days thereafter. As the oil impacts the waters surrounding the rig, the primary drivers for the slick movement will be the currents, winds and tides of Cook Inlet. The trajectory of the oil slick at Hour 72 (without the benefit of recovery operations) is provided in Figure D-1.

<b>TIME:</b>	08:00	<b>WIND:</b>	8 - 10 knots (kt) SW
<b>SEASON:</b>	Summer, July	<b>TEMPERATURE:</b>	50°F
<b>VISIBILITY:</b>	>10 miles	<b>LOCATION:</b>	Middle Ground Shoal
<b>WATER TEMP.:</b>	48° F	<b>SEAS:</b>	Calm
<b>TIDES:</b>	Flood		

### ASSUMPTIONS:

- The discharge originates from an out-of-control exploration well.
- Emulsification is possible and could be as much as 25%.
- Daylight aerial overflights will be multi-purpose: oil tracking and/or mapping, shoreline assessments, and wildlife observation input. Nighttime overflights will include infrared sensors to track and map oil.
- Site characterization results allow safe response operations.
- Task Force leaders have authority to assign response resources arriving on scene as necessary to meet conditions.
- Once small on-water storage devices (barges) arrive on scene, they are placed into a rotational cycle. These mini-barges are filled and lightered, replaced, and transported for off-loading to facilitate oil recovery options.
- Open water response operations will be conducted on a 24-hour basis using CISPRI tactics, as defined in the *CISPRI Technical Manual*, Tactics CI-OW-1 and CI-OW-5. Skimmer efficiencies and nameplate capacities are provided in Appendix A of the *CISPRI Technical Manual*.
- Equipment mobilization and deployment times accounted for in the scenario are supported by the *CISPRI Technical Manual*, Tactics CI-LP-1(A), CI-LP-1(B), CI-LP-3 and CI-LP-4.
- Decanting of free water will be conducted throughout the recovery operations as per *CISPRI Technical Manual*, Tactics CI-WM-1, CI-WM-2-2, CI-WM-3 and CI-LP-7.
- For the purposes of planning, the scenario assumes small quantities of oil escape offshore recovery task forces near the North Forelands. Contract resources make up and support SCAT and shoreline cleanup teams, which are activated on Day 2. Proposed shoreline clean up

techniques as provided in *CISPRI Technical Manual*. Tactics CI-SL-1 and CI-SL-5 are approved for implementation.

### **SUPPORTING ACTION TAKEN:**

- Site characterization will take place immediately upon arrival on scene.
- The USCG and the FAA will be requested to establish a “safety zone” and “no-fly” zone around the platform as blowout conditions can change rapidly.
- CISPRI oil spill response vessel (OSRV) acts as the on-scene forward vessel and provides continuous information to the Incident Command Post (ICP).
- Command Center mobilizes overflights with regulatory agencies, CISPRI and Buccaneer representatives. Additional overflights will be scheduled as necessary to track and map the spilled oil as well as assess possible shoreline and wildlife impacts.
- NOAA is requested to provide spill trajectory modeling, validated by on-scene observations and tracking buoy data.
- Notification of natural resource trustees with a request for guidance regarding wildlife activities.

### **PROCEDURES TO STOP A DISCHARGE:**

The Buccaneer activates Wild Well Control, Inc. to implement procedures to cap the well or drill a relief well (Section 1.6.5 of the ODPCP).

### **FIRE PREVENTION AND CONTROL:**

The rig is shut in and all ignition sources extinguished at the beginning of the release. T&T BISSO firefighting equipment is stored at CISPRI for rapid deployment onto the Offshore Supply Vessels (OSVs). Although CISPRI personnel and resources are available to assist with shipboard firefighting efforts if they are not involved in spill response operations, the use of the equipment requires a firefighting/salvage master available through CISPRI's agreement with T&T BISSO. CISPRI OSVs have sufficient deck space to accommodate shore-based firefighting equipment and may be deployed if safety and toxicity parameters are met.

### **DISCHARGE TRACKING:**

Discharge tracking is addressed in the *CISPRI Technical Manual*, Tactics CI-TS-0 through CI-TS-4.

### **PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:**

Tactics providing for sensitive area protection are described in *CISPRI Technical Manual*, Tactic CI-SA-0 through CI-SA-3. Specific GRS are implemented if spill trajectories or tracking indicate potential impact (Figure D-1). NOAA is requested to provide trajectory maps throughout the incident,

### **24 HOUR OPERATIONS:**

As described in the *CISPRI Technical Manual* Tactics, provisions are available to enable 24-hour response operations. Using overflights, infrared cameras (both ship-mounted and hand-held devices in a helicopter), and on-scene vessel lighting to track the oil location, CISPRI will maintain contact with the largest concentrations of oil as described in *CISPRI Technical Manual*, Tactic CI-TS-0 through CI-TS-4.



<b>CONTAINMENT AND CONTROL STRATEGIES:</b>	
Strategies for Containment and Control of on-water spill response are included in <i>CISPRI Technical Manual</i>	
<b>TACTICS:</b>	<b>EQUIPMENT:</b>
<p><b><u>Open Water:</u></b></p> <ul style="list-style-type: none"> <li>• Site Characterization (CI-S-1)</li> <li>• High Volume Skimming (CI-OW-1)</li> <li>• Lightering and Storage Platforms (CI-OW-5)</li> <li>• Concentration Booming (CI-OW-1, CI-NS-1, and CI-NS-2)</li> </ul>	<ul style="list-style-type: none"> <li>• Air monitoring equipment</li> <li>• OSV <i>Perseverance</i> with 8-rope Foxtail skimmer, two 220 bbl oil/water separators, 2,000 ft containment boom</li> <li>• OSV <i>Champion</i> with 8-rope Foxtail, two 220 bbl tanks and 249 bbl capacity barge</li> <li>• OSV <i>Resolution</i> with 8-rope Foxtail, two 220 bbl tanks</li> <li>• CISPRI Barge <i>Responder</i> (12,405 bbl)</li> <li>• Barge 141 (59,421 bbl)</li> <li>• Motor Vessel (M/V) <i>Resolution</i> with two Lori side-collectors and two 249 bbl barges</li> <li>• Cook Inlet Capable (CIC) vessels CIC #1 and CIC #2 with one 100 bbl barge and one 249 bbl barge, respectively</li> <li>• One Class 8 towing vessel (tug)</li> <li>• Six Class 3 vessels for boom towing</li> <li>• M/V <i>Moriah</i> with 4-rope skimmer and one 100 bbl barge</li> </ul>
<p><b><u>Nearshore/GRS</u></b></p> <ul style="list-style-type: none"> <li>• Protective Booming (CI-NS-3 through CI-NS-6)</li> <li>• Skimming (CI-NS-5)</li> <li>• On-Water Storage (CI-NS-5)</li> </ul>	<ul style="list-style-type: none"> <li>• M/V <i>Tern</i> (Support/GRS/Nearshore)</li> <li>• 2000 ft inland water boom</li> <li>• Anchor sets</li> <li>• Skiffs</li> </ul>
<p><b><u>Shoreline Cleanup</u></b></p> <ul style="list-style-type: none"> <li>• SCAT (CI-SL-1)</li> <li>• Manual or Vacuum Removal (CI-SL-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Four Class 3 Vessels</li> <li>• Skiffs</li> <li>• Sorbents / Hand Tools</li> </ul>
<p><b><u>Safety</u></b></p> <ul style="list-style-type: none"> <li>• Ongoing safety oversight (CI-S-2, CI-S-3, CI-S-4)</li> </ul>	<ul style="list-style-type: none"> <li>• M/V <i>Seal</i></li> <li>• Air monitoring equipment</li> <li>• PPE</li> <li>• Site Safety Plans and Safety Briefings (<i>CISPRI Technical Manual, Appendix C</i>)</li> </ul>
<p><b><u>Wildlife</u></b></p> <ul style="list-style-type: none"> <li>• Hazing (CI-W-1)</li> <li>• Capture and Rehabilitation (CI-W-2 through CI-W-5)</li> <li>• Permitting (CI-LP-7)</li> </ul>	<ul style="list-style-type: none"> <li>• Class 1 / 2 Vessel (Support/Command)</li> <li>• Propane cannons and other hazing equipment</li> <li>• Capture nets and boxes, transport cages</li> <li>• Class 6 Vessels</li> <li>• Sea Otter Rehabilitation Center (SORC) Assembly / Bird Center activation</li> <li>• Marine Wildlife Rescue Team (MWRT) activation (CI-LP-3)</li> </ul>
<p><b><u>Decon/Disposal/Demobilization</u></b></p> <ul style="list-style-type: none"> <li>• Decon Plan - designation of zones (CI-S-4)</li> <li>• Setup of vessel decon stations (CI-S-5)</li> <li>• Disposal Sites - selection and setup (<i>CISPRI Technical Manual, Appendix D</i>)</li> <li>• Permitting (CI-LP-7)</li> <li>• Temporary and long-term storage sites (CI-LP-3, CI-LP-4, CI-LP-7, <i>CISPRI Technical Manual Appendix D</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Decon Kits (gloves, wash tubs, sorbent, brushes)</li> <li>• PPE</li> <li>• Lined dumpsters, ore bins, pit Liners, etc.</li> <li>• Drums, small tankage for fluid storage</li> <li>• Temporary storage pit materials</li> <li>• Small vessel, on-land, decon station with pressure washers</li> </ul>

## RECOVERY STRATEGIES:

- Safety of workers from accident or exposure takes precedence over all recovery activities.
- Implement open water and contingency task forces for most effective response. The contingency task forces will be located behind the open waters task force to collect any residual oil outside of primary collection efforts.
- Minimize spread of oil.
- Institute use of concentration booming to increase swath width in capturing oil. Class 3 vessels can be used to tow 600-ft of Ro-boom in a gated U-boom configuration to concentrate oil.
- Logistics identifies and notifies suitable mutual aid and commercially available resources to provide support in the event of need. (CI-LP-1 through CI-LP-5). Commercially available resources are also identified (Cook Inlet Subarea Plan, accessed via the following link:  
[http://dec.alaska.gov/spar/perp/plans/scp\\_ci/ci\\_B-Resources\(2010\).pdf](http://dec.alaska.gov/spar/perp/plans/scp_ci/ci_B-Resources(2010).pdf)

## RECOVERED OIL TRANSFER AND STORAGE:

- Oil will be initially collected and stored aboard the recovery vessels or associated storage barges and then transferred to a large storage barge (CISPRI Barge *Responder*).
- The large storage barges will be emptied to on-shore oil storage tanks at the Chevron facility (25,000 bbl - Anchorage), or Tesoro Refinery/KPL (over 150,000 bbl - Nikiski). CISPRI Barge *Responder* has fixed onboard pumps and proper connections for vessel-to-dock transfers.
- Buccaneer negotiates agreement with KPL Dock to receive the recovered oil/water from the spill response operations. The recovered fluids will be stored in onshore storage tanks until an accounting process is completed. Fluids then separated with recovered oil being handled as crude oil. Water to be properly disposed.
- Oiled sorbents, Tyvek suits, and other consumables will be double-bagged onboard the vessels and stored in appropriate lined boxes until they can be transferred ashore.
- Oiled debris, etc. will be stored on-deck of vessels or barges, in open-hopper barges, or other appropriate sites. These areas will be properly lined. The debris will then be transferred to lined tanks, bins, pits, etc. on shore.
- Shoreline cleanup sorbents and debris are transferred to staging areas using contract vessels and personnel per CI-LP-3.

## DECONTAMINATION/DEMOBILIZATION:

- Response equipment, personnel, vessels, etc. will be decontaminated and returned to their base locations as soon as their use is no longer necessary. Planning for this process will commence as soon as critical response equipment resources are mobilized to the spill site.
- Both onshore (CISPRI yard) and on-water sites (boomed locations as agreed upon by the UC) will be established to decontaminate response equipment and vessels prior to their final demobilization from the spill. Onshore sites will be properly lined. Operations will be conducted as per UC guidance. Oil will be separated from the water via sorbent material, a separation system, or other selected method.
- If staging area becomes too crowded, additional decon sites can be set up in warehouse at OSK Dock or at CISPRI facility.

## EQUIPMENT MAINTENANCE AND REPAIRS:

- Due to the duration of this scenario, CISPRI would establish a site at/near the staging area for the purpose of maintaining/repairing spill response equipment or vessels.

### **TEMPORARY STORAGE AND ULTIMATE DISPOSAL:**

- Recovered oil will be sold as crude oil as soon as oil accounting agreement is reached with ADEC.
- Buccaneer will secure Temporary Waste Storage Permits for oily debris and submit a Waste Management Plan with emphasis on local incineration of oily absorbents and debris.
- Temporary on-land sites for debris (dumpsters, pits, ore bins, etc.) will be lined to hold oiled debris with proper permitting in place.

### **WILDLIFE PROTECTION:**

- Special consideration is given to the wildlife in the area.
- Wildlife tactics and equipment will target wildlife populations in the region. Mobile units may be established, tactics and equipment will be species-specific.
- Marine mammal populations in the region include harbor seals at West Forelands, Beluga whales at Redoubt Bay.
- Certain species of shore birds are present in the Trading Bay area during the summer months. Contact should be limited because hatchlings have left the nest and discharged product would be at the lower tidal stages.
- Anadromous streams in the area will be given first priority and GRS will be implemented as required.
- Actions are established and supervised by ADF&G, USFWS and other appropriate resource trustees.
- Activation of bird hazing, capture, and rehabilitation personnel and facilities occurs with their being put on standby, and then activated, if required.

**RESPONSE ACTIVITIES – Buccaneer Energy Spill Response Team**  
**Day One**

<b>COMMAND</b>	<b>PLANNING SECTION</b>	<b>LOGISTICS SECTION</b>	<b>OPERATIONS SECTION</b>
<p><b>IC</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Establish UC</li> <li>✓ Establish goals &amp; objectives</li> </ul> <p><b>Liaison</b></p> <ul style="list-style-type: none"> <li>✓ Complete agency notification</li> <li>✓ Establish community notification &amp; identify contacts</li> </ul> <p><b>Public Affairs</b></p> <ul style="list-style-type: none"> <li>✓ Prepare initial news release</li> <li>✓ Set up media conference</li> <li>✓ Set up Joint Information Center</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>✓ Conduct initial Site Characterization</li> <li>✓ Provide initial Site Safety Plan</li> <li>✓ Prepare detailed Safety Plan</li> <li>✓ Field Safety Oversight</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>✓ Establish security at Command Post, spill site, staging areas, etc.</li> <li>✓ Check credentials of all spill site personnel to ensure appropriate levels of training</li> </ul>	<p><b>Planning Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Activate Planning Section units</li> <li>✓ Prepare Meeting Schedule</li> <li>✓ Commence work on Long Range Plan</li> <li>✓ Prepare Incident Action Plan for next 12-hour period</li> <li>✓ Commence planning for waste management, decontamination and demobilization</li> </ul> <p><b>Environmental Unit</b></p> <ul style="list-style-type: none"> <li>✓ Identify/Prioritize Sensitive areas based on resources at risk</li> <li>✓ Prepare Wildlife Plan</li> <li>✓ Prepare appropriate permits (ISB, Dispersant, etc.)</li> <li>✓ Prepare Request for Decanting</li> </ul> <p><b>Resources Unit</b></p> <ul style="list-style-type: none"> <li>✓ Display response equipment /personnel</li> <li>✓ Establish short-term plan</li> </ul> <p><b>Documentation Unit</b></p> <ul style="list-style-type: none"> <li>✓ Document all spill activities</li> </ul> <p><b>Staging Areas and Technical Specialists</b></p> <ul style="list-style-type: none"> <li>✓ Natural Resource Damage Assessment (NRDA) (if appropriate)</li> <li>✓ SCAT (If applicable)</li> <li>✓ Spill Trajectory – prepare and update</li> </ul>	<p><b>Logistics Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Establish Command Post</li> <li>✓ Arrange for overflights</li> <li>✓ Establish Staging Areas at CISPRI Warehouse, OSK Dock and wherever appropriate</li> <li>✓ Mobilize Immediate Response Team (IRTs)</li> <li>✓ Mobilize Short Notice Response Team (SNRT) [see CTM CI-LP-1(B)]</li> <li>✓ Provide meals and services</li> <li>✓ Establish Communications Plan</li> <li>✓ Order portable lights</li> <li>✓ Activate contract for infrared sensor expert</li> </ul>	<p><b>Operations Section Chief</b></p> <p><b>Mobilize:</b></p> <ul style="list-style-type: none"> <li>✓ CISPRI OSRV</li> <li>✓ OSV <i>Champion</i></li> <li>✓ OSV <i>Resolution</i></li> <li>✓ CISPRI <i>Resolution</i></li> <li>✓ CISPRI Skimming Equipment</li> <li>✓ CISPRI containment boom</li> <li>✓ CISPRI barges</li> <li>✓ CISPRI personnel</li> <li>✓ IRT personnel</li> <li>✓ Contract personnel (SNRTs)</li> <li>✓ Contract vessels</li> </ul> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>✓ Information for Initial Briefing</li> <li>✓ ICS-204 (Field Assignments)</li> </ul> <p><b>Supervise</b></p> <ul style="list-style-type: none"> <li>✓ Aircraft overflights</li> <li>✓ Equipment deployment</li> <li>✓ Staging area</li> <li>✓ Wildlife activities</li> <li>✓ Decon activities</li> <li>✓ Demobilization activities</li> </ul> <p><b>Initiate Requests for</b></p> <ul style="list-style-type: none"> <li>✓ Decanting</li> <li>✓ Personnel</li> <li>✓ Additional response equipment</li> <li>✓ Overflights</li> <li>✓ Infrared expertise</li> <li>✓ others as required</li> </ul>

MAJOR SPILL RESPONSE RESOURCES TABLE	OPEN WATER T.F. #1	NEARSHORE T.F. #1	WILDLIFE	DISPOSAL	SAFETY	SHORELINE CLEAN UP	
							TOTALS
<b>EQUIPMENT LIST</b>							
<b>Offshore Task Force</b>							
CISPRI OSRV with 8-rope Foxtail Skimmer, two 220 bbl oil/water separators	1						1
OSV <i>Resolution</i> with 8-rope Foxtail skimmer, and CISPRI Barge Responder	1						1
OSV <i>Champion</i> with 8-rope Foxtail skimmer, Two 220 bbl tanks	1						1
CISPRI <i>Resolution</i> with two Lori side-collectors	1						1
M/V <i>Moriah</i> with 4-rope skimmer	1						1
CIC #1 and CIC #2	2						2
M/V <i>Tern</i>		1					1
Class 3 Vessels for Towing Boom	6						6
Class 8 Towing Vessel (Tug)	1						1
Barge 141	1						1
Personnel	55	5					60
<b>Wildlife</b>							
Class 2 Vessel #1			1				1
Skiff for capture/ hazing			2				2
Personnel			12				12
<b>Onshore Waste Handling and Decon</b>							
Personnel				1/4			1/4
<b>Safety/Logistics</b>							
M/V <i>Seal</i>					1		1
Personnel					3		3
<b>Shoreline Cleanup (Day 3 to 4)</b>							
Class 3 Vessels for transport and support						4	4
SCAT						4	3
Cleanup Crew Personnel						12	2

- Note: Personnel totals are split between Supervisors / Workers

TIME:	RESPONSE TIMELINE
0 hr	<p>CISPRI is notified of an oil spill created by a well blowout from an offshore oil production platform in the area of Buccaneer Southern Cross #1 Platform with a potential of up to 5,500 bopd.</p> <p>CISPRI begins mobilization for a large-scale open water response.</p> <ul style="list-style-type: none"> <li>• Buccaneer notifies their IC, SRT, and initiates callout of additional resources.</li> <li>• CISPRI activates its primary OSRV, the OSV <i>Perseverance</i>. The OSRV transits to the OSK Dock to load out CISPRI Spill Techs, the Safety Officer, and additional response equipment (i.e. two-220 bbl O/W Separators). The crew is tasked to ensure vessel is ready for response (e.g., warm up hydraulics, additional operator sets).</li> <li>• CISPRI vessels M/V <i>Moriah</i>, CIC #1 and CIC #2 are activated from their staging areas on the OSK dock and launched via crane. The vessels are mobilized with responders on board.</li> <li>• All available IRTs are mobilized.</li> <li>• Contracts are activated for the OSV <i>Resolution</i>, OSV <i>Champion</i> and a Class 8 towing vessel (tug).</li> <li>• The OSV <i>Resolution</i> is mobilized to the OSK Dock to load out pre-staged recovery systems and additional recovered fluid storage containers.</li> <li>• The CISPRI Barge <i>Responder</i>, anchored at the mooring buoy in Nikiski Bay, is hooked up by the OSV <i>Resolution</i> and transits to the spill site.</li> </ul> <p>A Class 8 towing vessel (tug) is mobilized from Anchorage/Homer and transits to the spill site. Estimated time of arrival (ETA) is Hour 24. At hour 24, the Class 8 tug is assigned to support the recovered fuel lightering operations (Barge <i>Responder</i> and Barge 141).</p> <p>Six Class 3 vessels are activated and depart Homer enroute to spill site. ETA is Hour 9.</p>
+1	<p>CISPRI's OSRV is en route to the spill scene. It has been assigned Task Force Leader for the Open Water Task Force.</p> <p>CISPRI command center is activated.</p> <p>Staging areas established at CISPRI facility and OSK Dock.</p> <p>The CISPRI Vessel Administrator has been ordered to commence a full-scale assessment of CISPRI's fleet of contracted vessels to determine which are readily available.</p> <p>IRTs and SNRTs begin to arrive at CISPRI command center.</p> <p>An overflight has been ordered to provide the UC with direct knowledge of the size and complexity of the oil spill.</p>
+1.5	<p>USCG and FAA have been requested to issue appropriate Notice to Mariners and Notice to Airmen for safety zones around the spill area.</p> <p>An emergency response plan is being developed to provide cleanup capability according to the following priorities:</p> <ol style="list-style-type: none"> <li>1. Open water spill response.</li> <li>2. Wildlife protection/hazing/capture.</li> </ol> <p>Overflight en route to locate and map oil locations, and search for shoreline and wildlife impacts.</p> <p>The CISPRI Vessel Administrator has been instructed to call out six Class 3 vessels. The vessels are to be tasked as follows:</p> <p>Class 3 vessels will serve as boom towing for concentration booming for skimming platforms. CISPRI vessel M/V <i>Sea/</i> will be the Safety/Logistics vessel. It will transit to the spill site from Kenai River moorage with one IRT and one SNRT and take on safety personnel from OSRV.</p>

<b>TIME: RESPONSE TIMELINE</b>	
	CISPRI OSRV arrives on scene and begins initial site characterization.
<b>+2.0</b>	<p>CISPRI vessels M/V <i>Moriah</i>, CIC #1 and CIC #2 are activated from their staging on the OSK dock and launched via crane. The vessels are mobilized with responders on board.</p> <ul style="list-style-type: none"> <li>• M/V <i>Moriah</i> departs with a three person crew and 100-bbl barge for the spill site.</li> <li>• CIC #1 departs with three personnel aboard and a 100-bbl barge.</li> <li>• CIC #2 departs with three personnel and a 249-bbl barge.</li> </ul> <p>OSV <i>Champion</i> arrives at OSK and begins load out of its pre-staged skimming system, two 220 bbl oil/water separators and one 8-rope Foxtail skimming system.</p> <p>The CISPRI OSRV reports that air monitoring results indicate a safe working atmosphere and Level D PPE is established for the spill. Periodic air monitoring will be conducted to monitor on-scene conditions.</p>
<b>+2.5</b>	<p>CISPRI OSRV deploys its recovery equipment. The M/V <i>Seal</i> arrives on scene to provide safety/monitoring.</p> <p>OSV <i>Champion</i> departs OSK Dock enroute to spill location with pre-assigned recovery package, 4 personnel and two 220 bbl oil/water separators (440 bbl storage).</p>
<b>+3</b>	<p>CISPRI M/V <i>Resolution</i> departs OSK with two 249-bbl barges.</p> <p>CISPRI M/V <i>Moriah</i>, CIC #1 and CIC #2 (CIC # 1 with a 100-bbl barge and CIC #2 with a 249-bbl barge) depart OSK Dock for the spill site.</p> <p>CISPRI OSRV begins recovery with one 8-rope Foxtail at a derated 100 bbl per hour (bbl/hr) of recovered fluids. The CISPRI OSRV has 440 bbl available storage. When the CIC #2 arrives on scene, it will lighter oil/water separators to 249 bbl barge and transit to CISPRI Barge <i>Responder</i> to lighter. This will be a continuous rotation throughout the response.</p>
<b>+3.5</b>	OSV <i>Champion</i> arrives on scene and maintains standby status pending spill assessment further direction.
<b>+4</b>	<p>OSV <i>Resolution</i> arrives at OSK Dock for its preassigned recovery package, consisting of one 8-rope Foxtail, two 220 bbl oil/water separators and 4 personnel.</p> <p>Class 2 Vessel #1 departs Homer for OSK Dock for personnel and equipment to standby for wildlife recovery and protection (ETA +8 hours).</p>
<b>+4.5</b>	<p>CIC #2 arrives on scene with 249 bbl barge and begins lightering from CISPRI OSRV. The CIC #2 will rotate lightering operations for duration of spill with the Barge <i>Responder</i> and the Barge 141.</p> <p>M/V <i>Moriah</i> (4-rope Foxtail) arrives on scene and is directed to begin deployment of its response equipment.</p>
<b>+5</b>	<p>OSV <i>Resolution</i> departs OSK Dock enroute to pick up CISPRI Barge <i>Responder</i> and transit to spill site (ETA +3 hours).</p> <p>M/V <i>Resolution</i> is on scene with two 249 bbl barges. M/V <i>Resolution</i> begins recovery operations and lightering to one of the 249 bbl barges.</p> <p>M/V <i>Moriah</i> is on scene skimming and recovering fluids to a 100 bbl barge.</p> <p>CIC #1 arrives with a 100 bbl barge and remains on standby in vicinity of M/V <i>Moriah</i>. Upon arrival of Barge <i>Responder</i>, CIC #1 begins lightering rotation of 100 bbl barges for duration of spill. CIC #1 shuttles barges filled by the M/V <i>Moriah</i> to the Barge <i>Responder</i> for lightering.</p> <p>M/V <i>Tern</i> is on scene and standing by for GRS or nearshore support instructions.</p>
<b>+8</b>	<p>OSV <i>Resolution</i> arrives on scene with Barge <i>Responder</i> and sets anchor for barge in vicinity for easy lightering.</p> <p>Trajectory modeling and assessment shows oil impact to shoreline will be unlikely as the free oil recovery assets target the leading edge of the slick. The M/V <i>Tern</i> will remain on standby</p>

TIME:	RESPONSE TIMELINE
	in the event trajectory modeling or overflights indicate status change and landfall locations to shuttle personnel, equipment, etc.
<b>+9</b>	Six Class 3 vessels arrive at the spill scene. The Class 3 vessels configure with CISPRI OSRV and M/V <i>Resolution</i> to tow gated U-boom in configuration. The CSIPRI OSRV, OSV <i>Resolution</i> , M/V <i>Resolution</i> , and M/V <i>Moriah</i> are on scene skimming and lightering to Barge <i>Responder</i> . OSV <i>Champion</i> and two Class 3 vessels are directed to remain on standby at spill site pending determination of spill containment and recovery efforts.
<b>+10</b>	Waste handling site established at OSK Dock. Pit liners, timbers, lined tanks, etc. are on-hand or on order. Overflight occurs at least once per shift to verify locations of thickest oil in nearshore and offshore zones.
<b>+12</b>	Class 2 Vessel #1 arrives on scene and is on standby for wildlife recovery and protection.
<b>+15</b>	OSV <i>Champion</i> , is staged within close proximity to recovery operations in the event additional skimming capacity is needed. This asset does not deploy skimmers as the recovery capacity of the other assets exceed the volume rate of the release.  At hour 15, the OSV <i>Champion</i> is assigned to transit with the empty Barge 141 “on hip” or alongside and return to spill location to provide for on-water storage. The OSV and Barge return by hr 24.
<b>+13 – 36</b>	Oil recovery and lightering to the Barge <i>Responder</i> will continue.
<b>+24</b>	Barge 141 arrives on-scene by OSV <i>Champion</i> . The Barge 141 relieves the Barge <i>Responder</i> when it reaches capacity. Class 8 tug relieves OSV <i>Champion</i> . OSV <i>Champion</i> is positioned nearby on stand-by and available for recovery operations throughout the response. A rotation cycle is established using the <i>Responder</i> and Barge 141 to provide for recovered fluid storage. The Class 8 tug manages the rotation cycle by towing the barge to the Tesoro facility to lighter. As one barge is filled and relieved for lightering, the other barge replaces it.
<b>+36</b>	Barge <i>Responder</i> is full. Barge 141 replaces the Barge <i>Responder</i> for oil recovery storage. The Class 8 tug will take Barge <i>Responder</i> under tow and proceed to Tesoro facility for lightering. Barge will then undergo decon procedures and return to the spill site at approximately Hour 60 and remain on standby for lightering as needed.
<b>+36 – Day 12</b>	Oil recovery and lightering to Barge 141 will continue, with the CISPRI OSRV, OSV <i>Resolution</i> , M/V <i>Resolution</i> and M/V <i>Moriah</i> skimming platforms already in place, and a monitoring/safety vessel (M/V <i>Sea</i> ). CISPRI OSRV and OSV <i>Resolution</i> skim in configuration with Class 3 vessels towing U-boom. The combined recovery capacity of the skimming platforms exceeds the rate of release (229 bbl/hr). The barges continue their rotation cycles to provide for interim storage of recovered fluids.  On Day 2, additional contract vessels (4) are mobilized and assigned to support SCAT and shoreline cleanup teams as needed. Contract personnel to fill these roles are mobilized in the event shoreline impacts occur per CI-LP-3. Two SCAT teams begin on daylight of Day 3. Cleanup crews are mobilized to selected recovery North Forelands sites on Day 4. The OSV <i>Champion</i> is positioned as a staging platform to shoreline cleanup crews and SCAT teams near the North Forelands. At this location, the vessel may also provide additional skimming support if it were to be needed.
<b>Approx. Day 12</b>	Barge 141 is full and will transit to Tesoro facility with the tug to lighter. Barge <i>Responder</i> replaces the Barge 141 for oil recovery storage. Barge returns to standby status until the Barge <i>Responder</i> needs to be relieved to offload at the Tesoro facility.
<b>Day 12–</b>	Oil recovery and lightering to the Barge <i>Responder</i> will continue with skimming platforms in



<b>TIME: RESPONSE TIMELINE</b>	
<b>Day 14</b>	place.
<b>Day 15 - 30</b>	From Day 15 to 30, the response barges <i>Responder</i> and Barge 141 continue in their rotation cycle to support on water storage needs. Oil recovery operations continue with skimming platforms in place until the blowout is controlled and the situation resolved on Day 30.

Note: Although mobilization and full deployment for recovery operations are not underway for the first 12 hours, the derated recovery capacity is more than sufficient to recover the planning volume released during the first 24 hours. The second day and beyond, skimming for 24 hours each day, recovery capacity exceeds the 5,500 bopd released in this scenario. Evaporation has not been taken into account as shown in NOAA's Automated Data Inquiry for Oil Spills (ADIOS2).

The following table provides a summary of the potential effective daily recovery capacity (EDRC) of the primary recovery assets described in the scenario. Mobilization, loadout, deployment, and transit times are presented in the Appendix D scenario and are displayed in the ODPCP Southern Cross #1 Platform Blowout - Skimmer Recovery Capacity Table, Section 1.6.15.

EQUIPMENT DESCRIPTION		RECOVERY CAPABILITIES		
ASSET		QUANTITY	EDRC (bbl)	DE-RATED STORAGE (bbl)
ON-WATER RECOVERY ASSETS	CISPRI OSRV <i>Perseverance</i>	1	2,400	430
	8-rope Foxtail	2		
	OSV <i>Champion</i>	1		
	8-rope Foxtail	1	2,400	
	CISPRI <i>Resolution</i>	1	5,760	
	Lori side-collectors	2		
	M/V <i>Moriah</i>	1	480	
	4-rope skimmer	1		
ON WATER STORAGE	Barge 141 [Class 8 Towing Vessel (Tug)]	1		59,421
	Barge Responder	1		12,405
	Mini-Barges (249)	3		747
	Mini-Barges (100)	2		200
	220 bbl oil/water separators ( <i>Perseverance</i> )	2		430
	220 bbl oil/water separators ( <i>Champion</i> )	2		430
TOTAL			11,040	73,633

\* The OSV *Champion* does not deploy recovery equipment in the scenario. This vessel serves as a support vessel and contingency recovery asset. Additional skimmer capacity (described in Tactic CI-LP-4) is also available through CISPRI.

The primary on-water storage capacity is provided by two response barges. The CIPRI Response *Barge 141* and the *Responder* are used in rotation to support on-water recovery operations. These assets are further described in the *CISPRI Technical Manual Appendix A* and Tactic CI-LP-4. Additional on-water barges and storage containers are described in Table 2 of CISPRI Tactic CI-LP-4. This tactic presents CISPRI's total on-water storage capacity as 84,298 bbls. Emergency use of below-deck storage on the *Perseverance*, *Champion* and OMSI *Resolution* would provide an additional 6,345 bbl of on-water capacity if needed. These assets would rotate to shore for lightering and be available for additional recovered fluid storage.

If needed, CISPRI would activate additional resources through Mutual Aid agreements and commercially assets in Cook Inlet to further support the response as described in CI-LP-3.

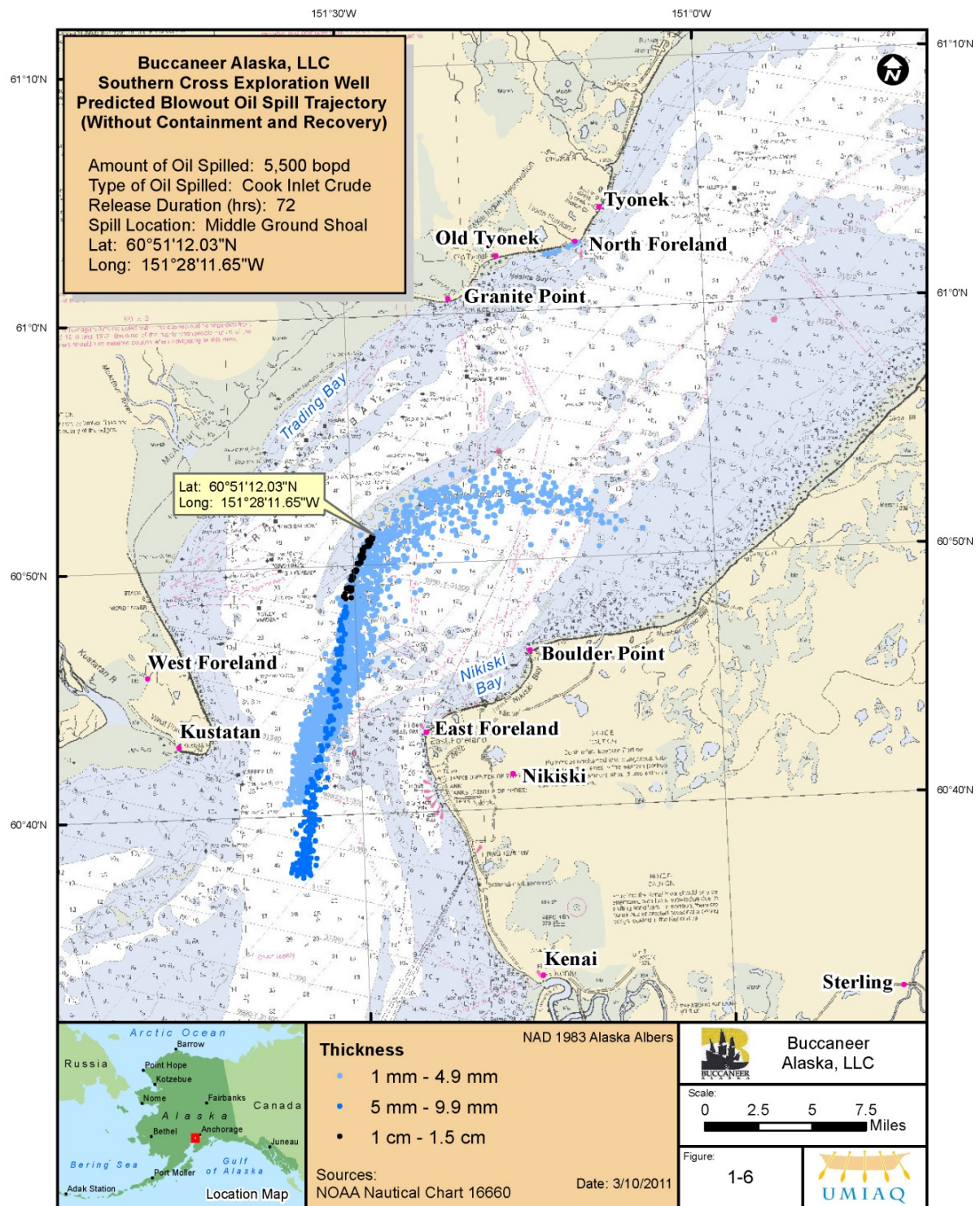


Figure D-1 Predicted Oil Spill Trajectory

<b>RESPONSE ACTIVITIES – Buccaneer Spill Response Team</b> <b>DAY TWO – DAY THIRTY</b> <b>UNIFIED COMMAND ACTIVITIES:</b>			
<b>COMMAND</b>	<b>PLANNING SECTION</b>	<b>LOGISTICS SECTION</b>	<b>OPERATIONS SECTION</b>
<p><b>Incident Commander</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand Command Post as necessary</li> <li>✓ Maintain UC</li> <li>✓ Revise goals and objectives as circumstances dictate</li> </ul> <p><b>Liaison</b></p> <ul style="list-style-type: none"> <li>✓ Establish and maintain Community notification and identify contacts</li> </ul> <p><b>Public Affairs</b></p> <ul style="list-style-type: none"> <li>✓ Ongoing media contact and public updates</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>✓ Ongoing field safety oversight</li> <li>✓ Ongoing revision of Health and Safety plan as appropriate</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>✓ Maintain security at the Command Post and Staging Areas as required</li> </ul>	<p><b>Planning Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand as required                             <ul style="list-style-type: none"> <li>* Documentation Unit</li> <li>* Resources Unit</li> <li>* Situation Status Unit</li> <li>* Environmental Unit</li> <li>* Long-Term Planning Unit</li> </ul> </li> <li>✓ Maintain meeting schedule</li> <li>✓ Revise and update Long-Term Plan</li> <li>✓ Update and revise Incident Action Plan for next 12-hour period.</li> </ul> <p><b>Environmental Unit</b></p> <ul style="list-style-type: none"> <li>✓ Develop long term contractor recovery action plan</li> <li>✓ Institute Waste Management Plan</li> </ul> <p><b>Resources Unit</b></p> <ul style="list-style-type: none"> <li>✓ Maintain display of response equipment/ personnel</li> </ul> <p><b>Documentation Unit</b></p> <ul style="list-style-type: none"> <li>✓ Continue documentation of all spill activities</li> </ul>	<p><b>Logistics Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Maintain and expand Command Post</li> <li>✓ Arrange for continued overflights</li> <li>✓ Establish additional Staging Areas if needed</li> <li>✓ Mobilize additional IRT &amp; SNRT personnel</li> <li>✓ Continue to provide meals and services</li> <li>✓ Maintain Long-Range Communications Plan</li> <li>✓ Order equipment as requested</li> </ul>	<p><b>Operations Section Chief</b></p> <ul style="list-style-type: none"> <li>✓ Continue mobilization of equipment as required in the field</li> <li>✓ Maintain equipment while in the field</li> </ul> <p><b>Prepare</b></p> <ul style="list-style-type: none"> <li>✓ ICS-204 (Field Assignments)</li> </ul> <p><b>Supervise</b></p> <ul style="list-style-type: none"> <li>✓ Recovery Operations</li> <li>✓ Aircraft Deployments</li> <li>✓ Staging Area</li> <li>✓ Disposal Activities</li> </ul>

## Spill Scenario



### • Oil Type

**COOK INLET, DRIFT RIVER TERMINAL**

**Location = DRIFT RIVER TERMINAL, ANCHORAGE, AK**

**Synonyms = none listed**

**Product Type = crude**

**API = 34.1**

**Pour Point = -20 deg C**

**Flash Point = unknown**

**Viscosity = 4.9 cSt at 38 deg C**

**Adhesion = unknown**

**Aromatics = unknown**

### • Wind and Wave Conditions

**Wind Speed = 8 knots from 226 degrees**

### • Water Properties

**Temperature = 48 deg F**

**Salinity = 32 ppt**

**Sediment Load = 5 g/m3 (ocean)**

**Current = 2.8 knots towards 29 degrees**

### • Release Information

#### · Continuous Release

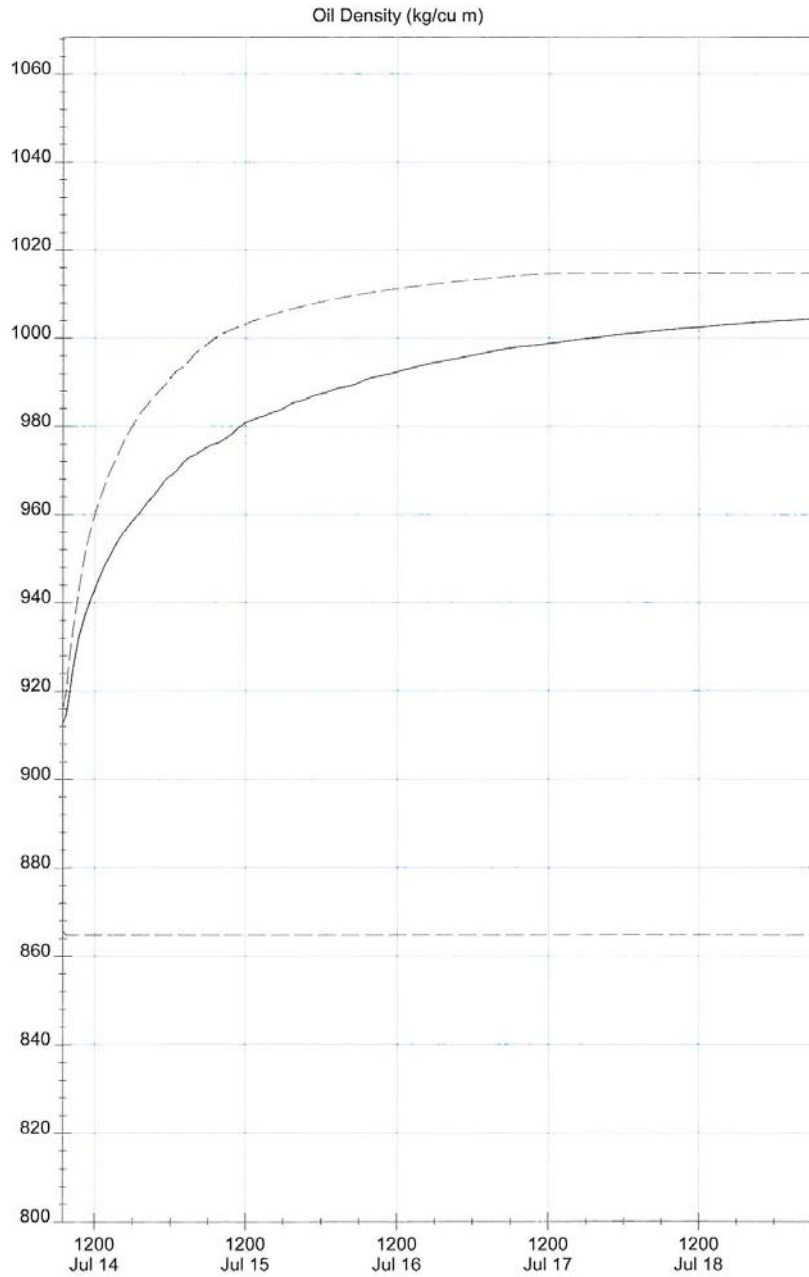
**Time of Release = July 14, 0700 hours**

**Spill Rate = 229 bbl/hr**

**Duration of Release = 5 days**

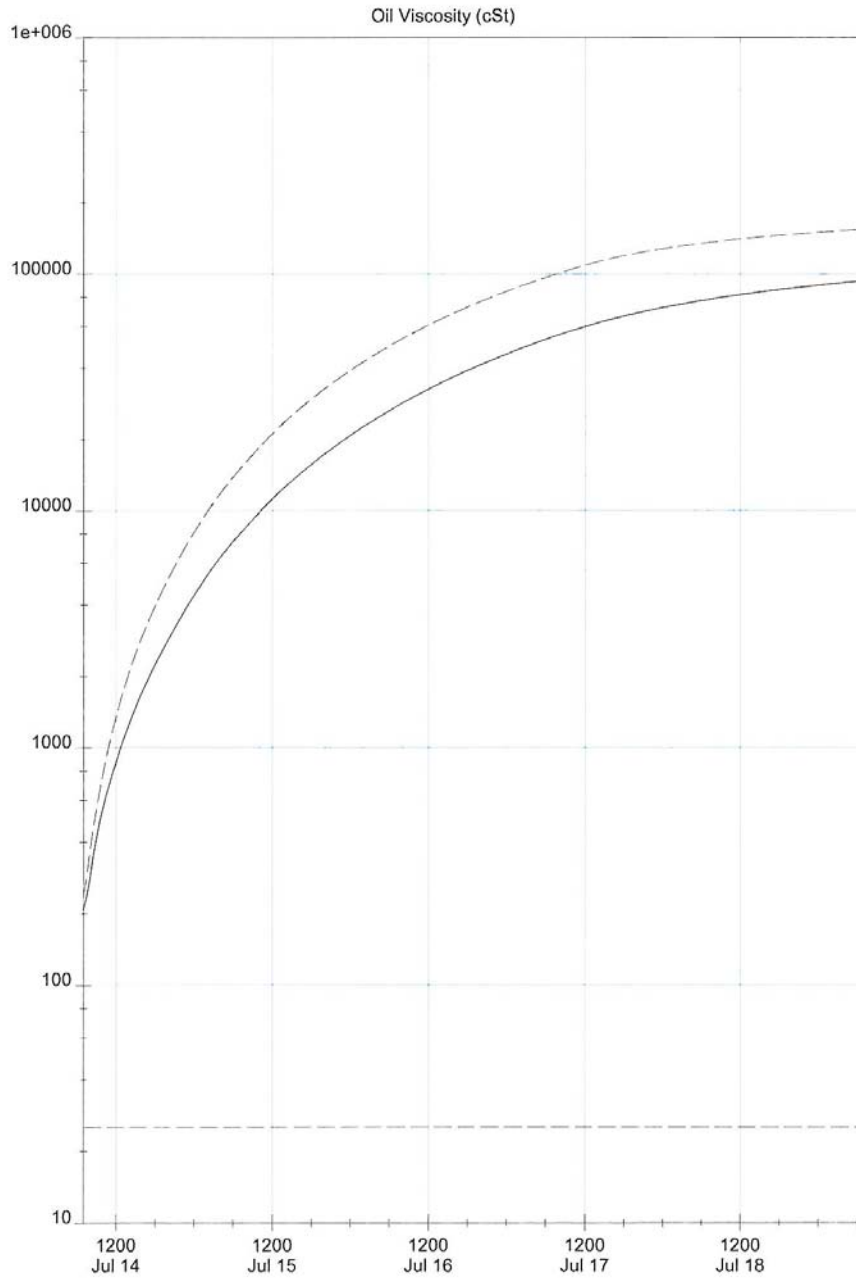
September 09, 2010

**Spill Scenario**



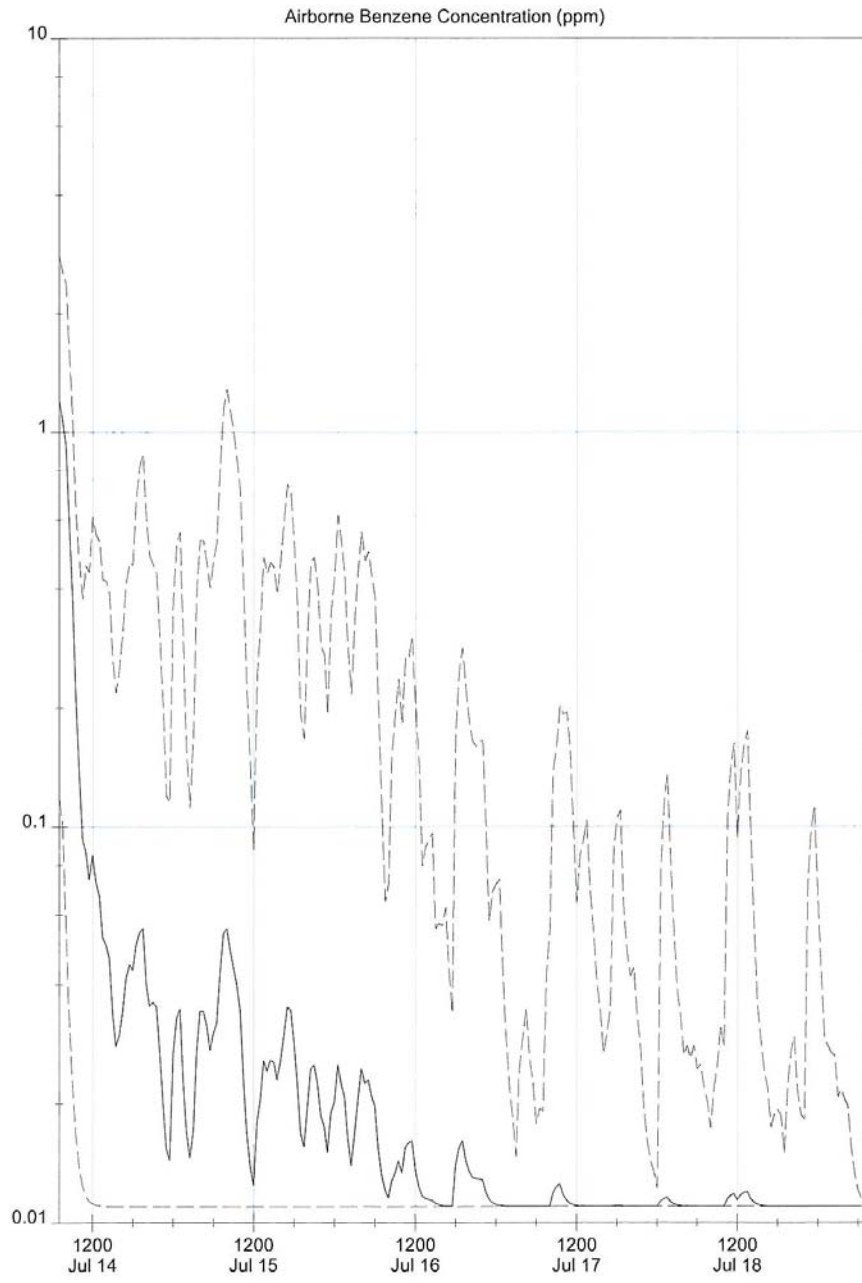
September 09, 2010

Spill Scenario



September 09, 2010

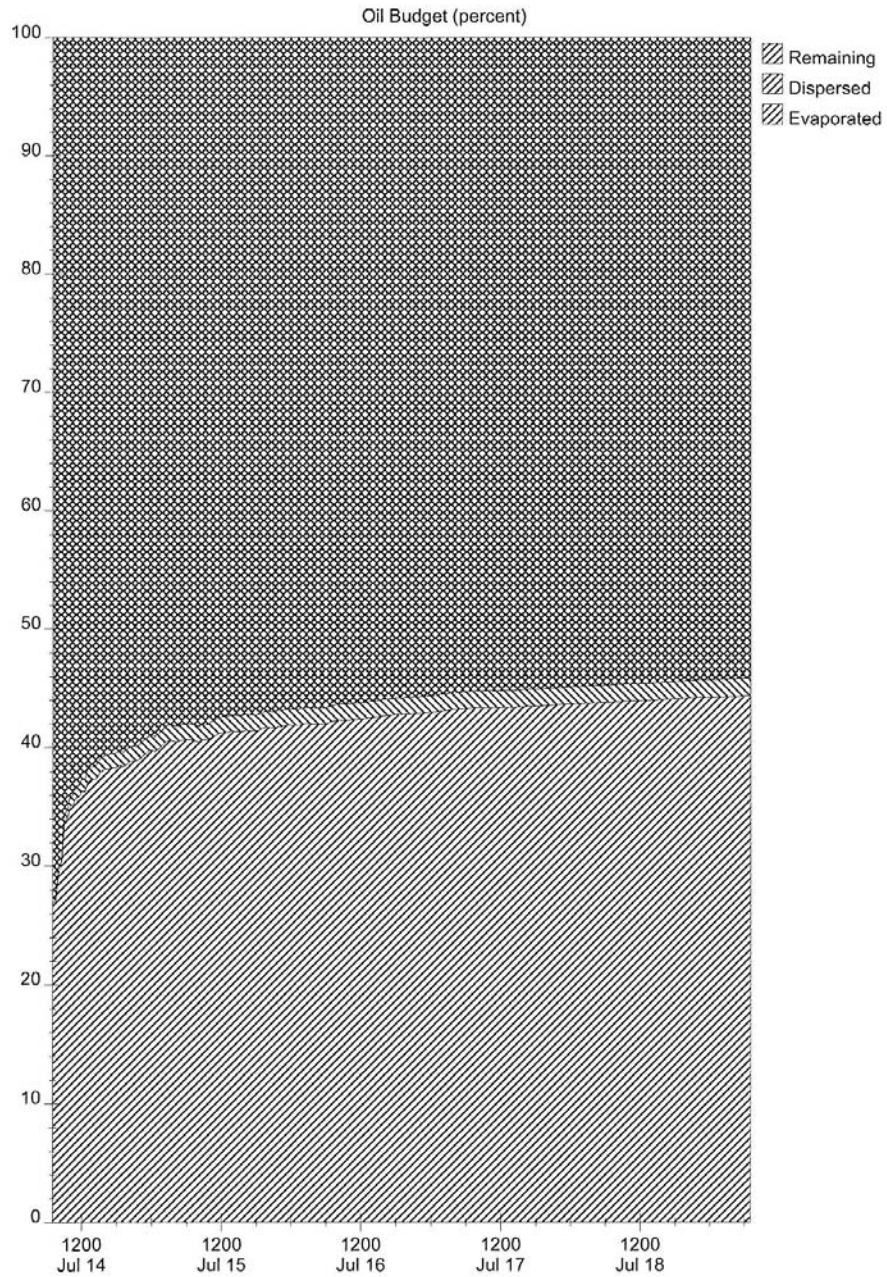
Spill Scenario



September 09, 2010

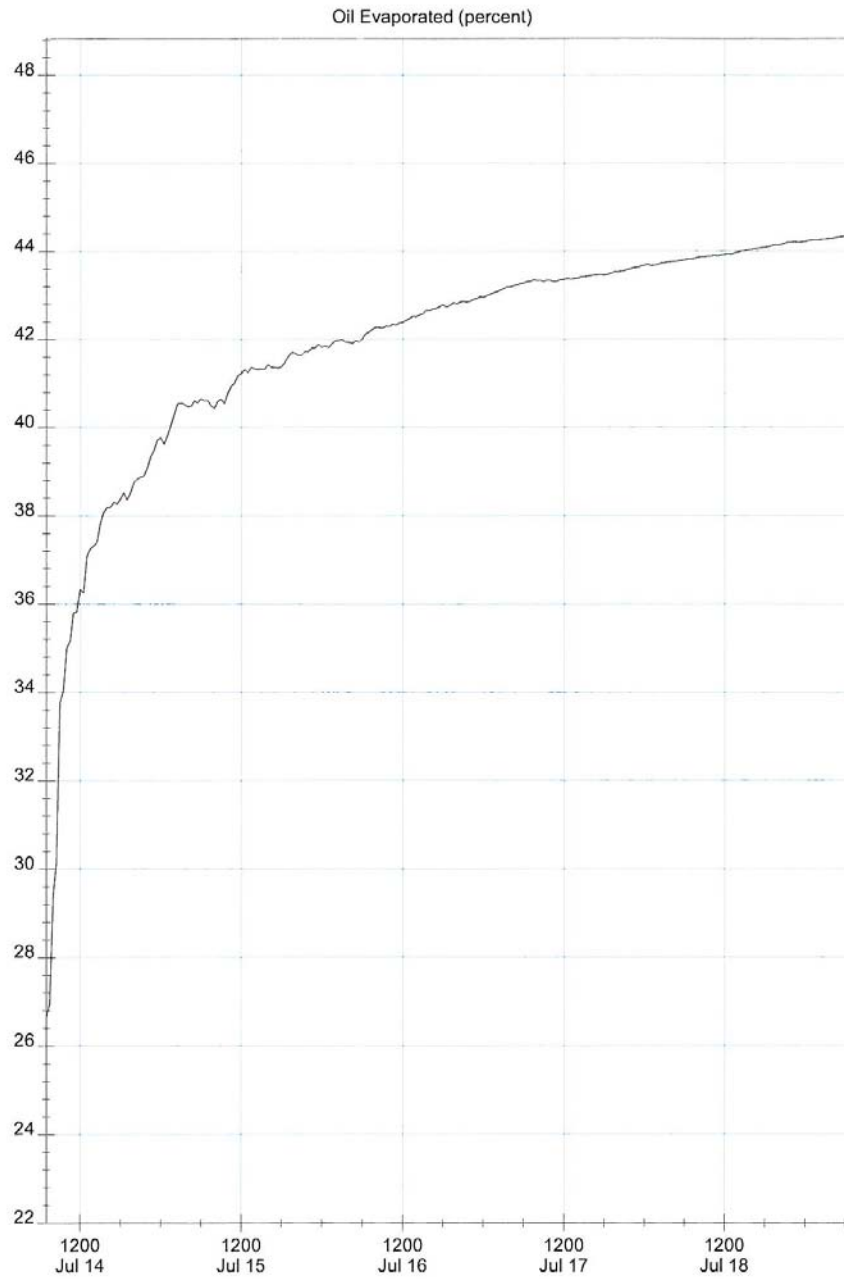


**Spill Scenario**



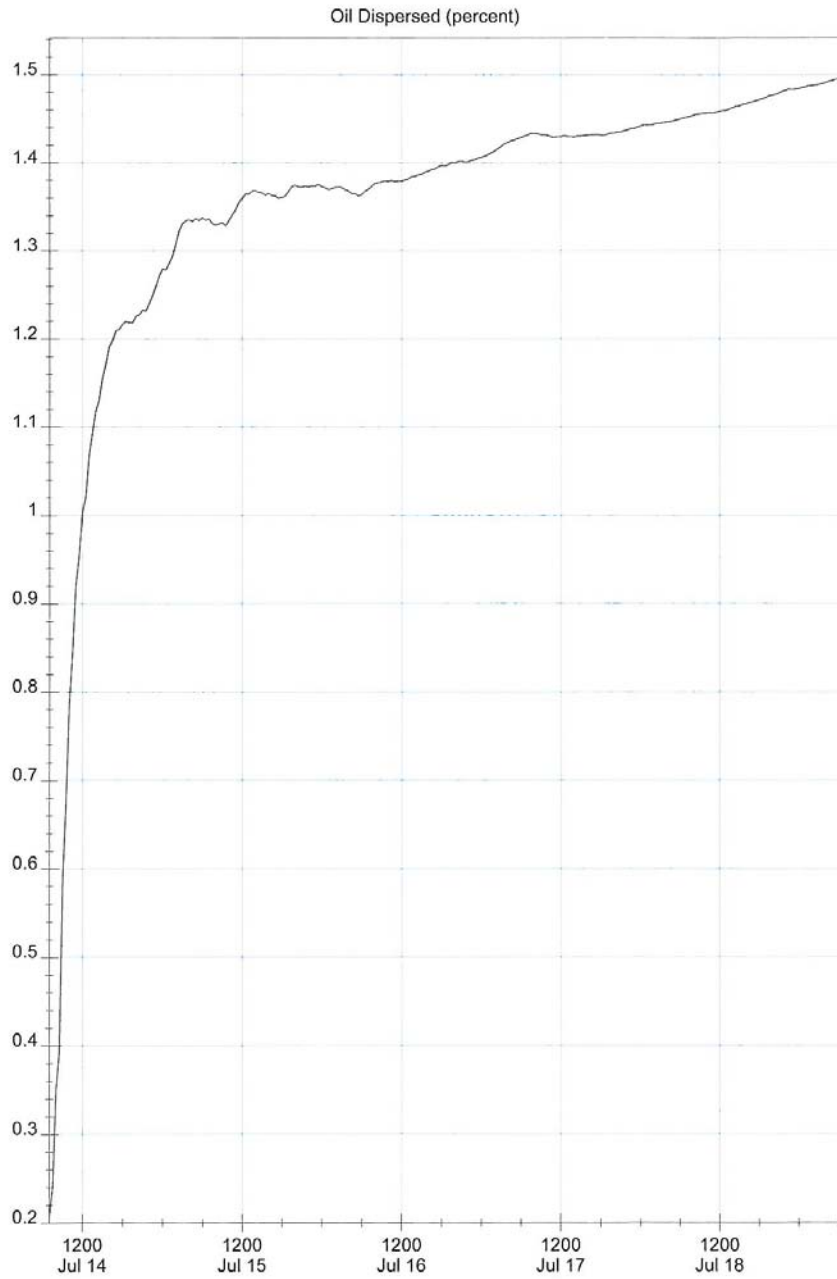
September 09, 2010

Spill Scenario



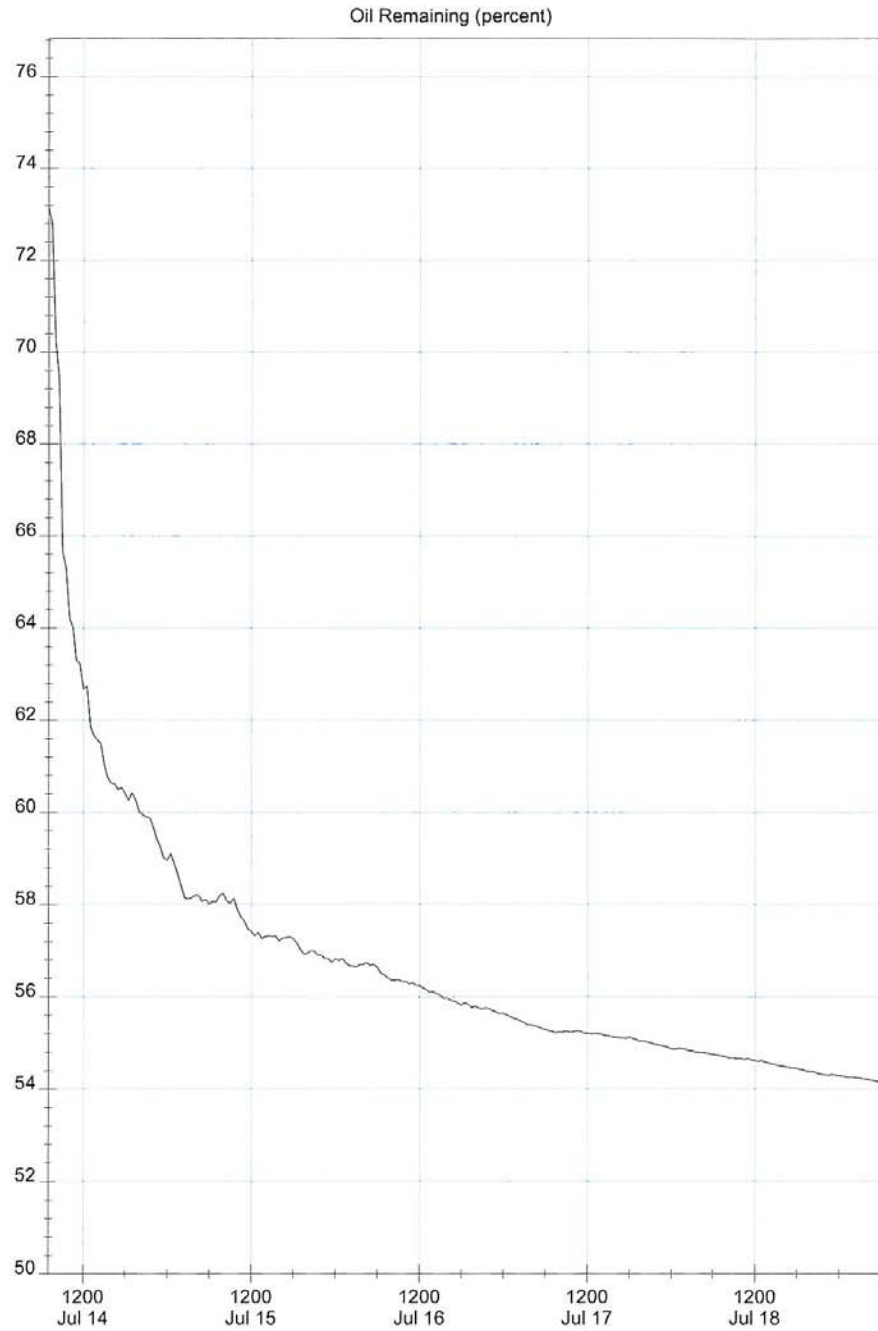
September 09, 2010

Spill Scenario



September 09, 2010

**Spill Scenario**



September 09, 2010

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