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 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

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	Work:	(907) 335-0600
Buccaneer Alaska Operations, LLC	Cell:	(713) 703-5157
ARike@buccaneerresources.com	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

Deleted: upper

Deleted: <sp>

Deleted: October 25, 2011

Deleted: August

Deleted: 0

FIGURES

CHECKLISTS

TABLES

Deleted: August

Deleted: 0

APPENDICES

Deleted: August

Deleted: 0

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 Cook Inlet (Figure I-1).

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

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

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. New exploration locations will be captured in site specific appendices.

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 summer operations will begin in mid-April and run through October in any given year. Initiation of winter operations will begin as soon as ice conditions are less than 10% and will cease when ice conditions reach 10% in any given year during November through April. Buccaneer will not drill ahead into liquid hydrocarbon-bearing formations or proceed with well testing and logging while ice conditions exceed 10% concentration in any year without ADEC concurrence. Ice conditions will be monitored and managed as described in the Ice Monitoring and Operations Curtailment Plan (IMOCP). Dependent upon satisfactory progress, Buccaneer may plug and abandon (P&A), complete, or suspend operations in early November.

In order to determine open pack ice concentration, Buccaneer will 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/marfcst.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.

Formatted: Section start: Continuous

Deleted: Upper

Deleted: early April

Deleted: May

Deleted: after

Deleted: October 31st

Deleted: of

Deleted: Critical

Deleted: COCP

Deleted: which is summarized in Section xxx

Deleted: In the event that ADEC approval is requested to continue drilling or well testing operations beyond the 31st of October,

Deleted: ould

Deleted: August

Deleted: TOC-

Deleted: 0

- 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 15th. 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 continued operations.

Deleted: of any request for approval to

Deleted: beyond October 31st

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 in Cook Inlet. Details for new exploratory wells will be located in site specific appendices.

Deleted: , generally April to November

The drilling rig will be stocked with most drilling supplies required to complete the 2012-2013 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

Deleted: August

Deleted: 0

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, response-specific Material Safety Data Sheets (MSDS), and new exploration projects.

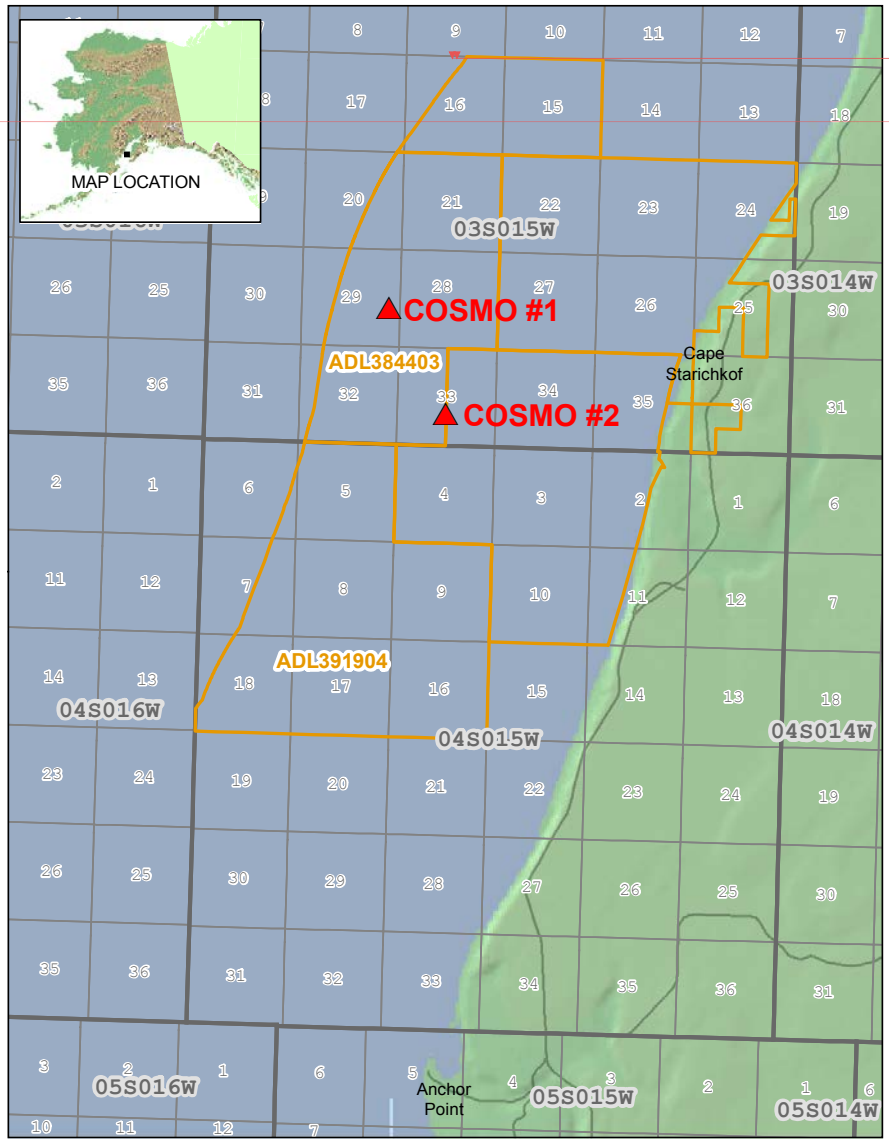
Deleted: and

Deleted: .

Deleted: August

Deleted: 0

Figure I-6 Cosmo Well Locations



Deleted:
Deleted: PAGE INTENTIONALLY LEFT BLANK
Deleted:
Deleted: August
Deleted: 0

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 notifications 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 Prevention and Response, Inc. (CISPRI)
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

Deleted: d

Deleted: Spill Response

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 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) 703-5157 (cell)
Alternate Incident Commanders	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM	(985) 781-0804	(907) 947-6849
Deputy Incident Commanders	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM	(985) 781-0804	
Command Staff			
Safety:	Don Combs	(907) 335-0600	(907) 252-3572
Information:	Dean Gallegos/Buccaneer	(907) 335-0600	01161416220007
Legal:	Kyle Parker/Crowell&Morning	(907) 227-9564	(907) 350-9805
Liaison:	O'Brien's RM	(985) 781-0804	24-Hour Response Line
Source Control:	Kenai Offshore Ventures, Inc.	(907) 335-0600	
	Wild Well Control, Inc.	(281) 784-4700	24-Hour Response Line
General Staff (Section Leaders)			
Operations Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM		
Planning Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
		(985) 781-0804	24-Hour Response Line
Logistics Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
Finance Section Chief	Kendall Williams	(907) 335-0600	(281) 750-1681 (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
National Response Center NRC (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

Deleted: CardnoEntrix, Inc. and
Deleted: 151
Deleted: Dan Sobieski (Alt.)/
Deleted: Kristina O'Connor (Alt.)/
Deleted: Dan Sobieski (Alt.)/
Deleted: Kristina O'Connor (Alt.)/
Deleted: (907) 947-6849
Deleted: To be determined and posted
Deleted: Onsite contact
Deleted: (713) 468-3717
Deleted: T. Berg/
Deleted: Human Resources: ... [2]
Deleted: Ventures
Deleted: D. Tucker/
Deleted: M. McCarthy/
Deleted: (985) 781-0804
Deleted: 24-Hour Response Line
Deleted: B. Flint/
Deleted: H. Young/
Deleted: Kyle
Deleted: /Bucaneer
Deleted: 713
Deleted: 703-1517
Deleted: <sp>

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

Deleted: . ... [2]

Deleted: . ... [3]

Deleted: August

Deleted: 0

1.6 RESPONSE STRATEGIES

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

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 upper Cook Inlet well site during a summer drilling program based upon the RPS volume of 5,500 barrels of oil per day (bopd).
- Spill scenario for a surface well blowout at the Cosmopolitan location during a winter drilling program based upon the RPS volume of 800 bopd.
- Response strategy for an oil transfer failure between the drill rig and a fuel barge (17 bbl).

Deleted: August

Deleted: 0

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. NOAA guidelines for on-water observations are at 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 scenarios 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 in *Cook Inlet Subarea Contingency Plan*.

Figures 3.10-3 through 3.10-6 provide a listing of GRS locations established for Cook Inlet.

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.

Deleted: Table 1.6-2

Deleted: s

Deleted: Central

Deleted: (CCI)

Deleted: Table 1.6-2 Summary of Sensitive Areas of Major Concern with Established GRS in Central Cook Inlet ... [4]

Deleted: August

Deleted: 0

1.6.7 *Containment and Control Strategies*

Specific containment and control procedures are presented in the response scenarios 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 Cook Inlet zones. Berms, barriers, sumps, trenches, and boom may be used in the event that shoreline cleanup is needed and approved.

Deleted: the eastern Central

1.6.8 *Recovery Strategies*

See the response scenarios 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).

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 scenarios 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 scenarios 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,

Deleted: August

Deleted: 0

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. 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 in upper Cook Inlet during the summer drilling season. 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 winter blowout scenario is presented for the proposed exploration activities in lower Cook Inlet. For purposes of the winter scenario a well blowout occurs while drilling during open water with up to 10 percent ice concentration during the months from November through April. The winter scenario was developed based upon the AOGCC approved lower RPS that establishes a discharge rate of 800 bopd at the Cosmopolitan location for the duration of 15 days. A response strategy is also 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).

Deleted: a

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

Deleted: August

Deleted: 0

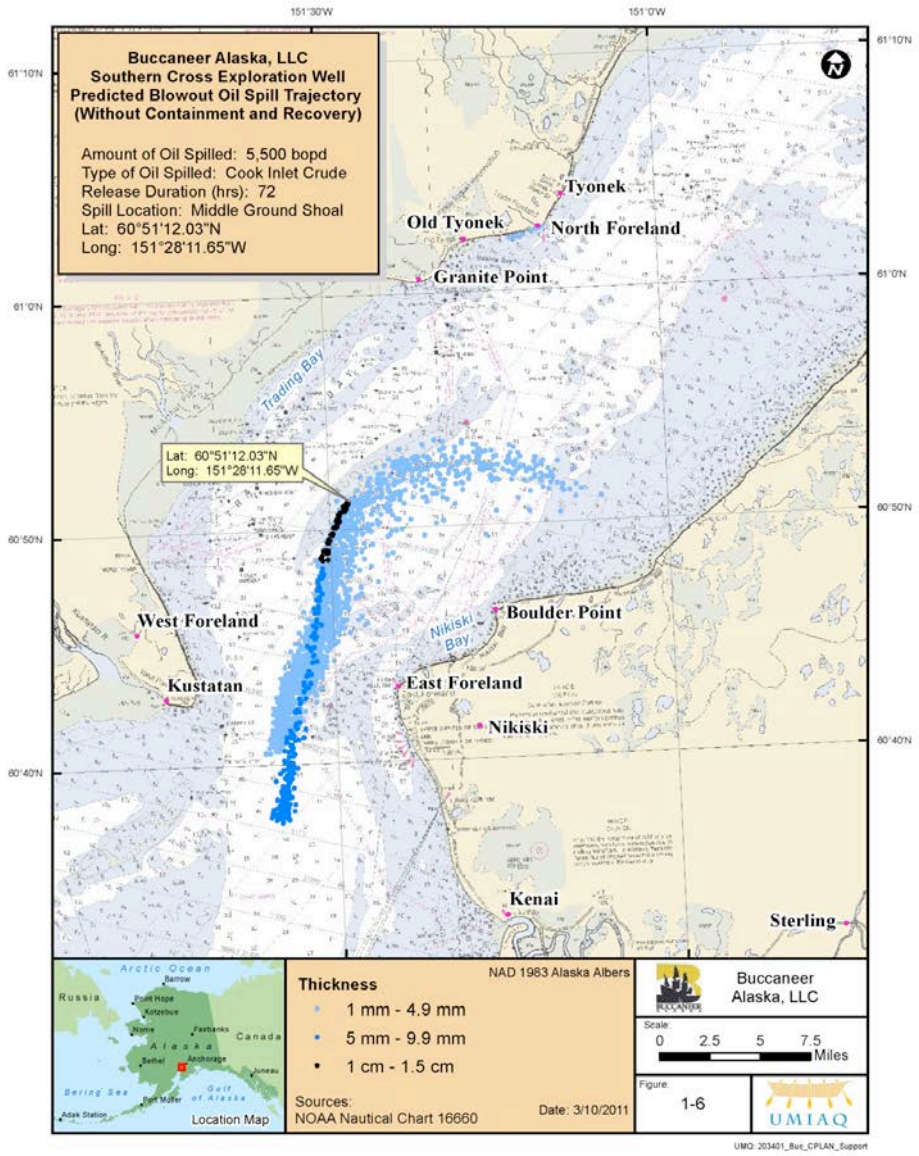


Figure 1.6-1 Predicted Oil Spill Trajectory – Upper Cook Inlet

Figure 1.6-1 is a result of running a single deterministic model for the blowout scenario utilizing OilMap™ V6.5.2. The model is a 2-dimensional trajectory model which includes evaporation, spreading, and the influences of tidal and wind-force currents. The model does not take into acount the physical oceanography of Cook Inlet which is characterized by complex circulation associated with variability at tidal, seasonal, annual and interannual time scales.

Deleted: August

Deleted: 0

Response Scenario 2 – Well Blowout During Winter Months

THIS PAGE INTENTIONALLY LEFT BLANK

SCENARIO – BUCCANEER WINTER BLOWOUT

The following scenario depicts typical response activities during a hypothetical oil spill response.

The Buccaneer jack-up oil exploration platform encounters an uncontrolled well release and is unable to control the flow from the platform. Based upon AOGCC requirements, 800 bopd will be used as the RPS for 15 days. Total discharge will be 12,000 bbl. There is no appreciable plume per S.L. Ross modeling due to well having a GOR of 300. 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.

For the purposes of this hypothetical scenario, all oil will reach the water directly, with no regard for real preventive measures. This scenario does not consider or investigate the cause of the loss of well control. The sole purpose of this scenario is to illustrate the ability to recover the total amount of oil discharged.

RESPONSE TYPE:	TYPE / AMOUNT:
Open-Water Response	Cook Inlet crude oil / 800 bopd

SOURCE:

Blowout of offshore well releasing 800 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 containment or recovery operations) is provided in Figure 1.6-3.

TIME:	10:00	**WIND:**	8 - 10 knots (kt) SW
SEASON:	February 15	**TEMPERATURE:**	40ºF
VISIBILITY:	>10 miles	**LOCATION:**	Cosmopolitan Site
WATER TEMP.:	37º F	**SEAS:**	Calm
TIDES:	Flood	**ICE:**	< 10% Concentration

ASSUMPTIONS:

- The discharge originates from an out-of-control exploration well.
- The exploration platform has built-in containment to drain all fluids on the deck to the oil/water separator system; this containment can contain 104,181 gallons (see Part 2.1.9.1 of this plan). For the purposes of this hypothetical scenario this containment will be ignored.
- Emulsification is possible and could be as much as 25%.
- Daylight aerial overflights will be multi-purpose: oil tracking and/or mapping, ice observation and 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 with consideration for maintenance using CISPRI tactics, as defined in the *CISPRI Technical Manual,* Tactics CI-OW-1 and CI-OW-5, with consideration to CI-OW-2 if ice should be encountered. 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.
- Recovery equipment is only assumed to operate 20 hours per day to allow time for maintenance.
- Decanting of free water will be conducted throughout the recovery operations as per *CISPRI Technical Manual,* Tactics CI-WM-1, CI-WM-2, CI-WM-3 and CI-LP-7.

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:

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.

SAFETY:

All rig personnel are initially evacuated for safety. Safety of rig and response personnel is a primary concern. Air monitoring will be conducted and hot/cold zones created as necessary. Cold weather may be a concern, and consideration should be given to proper clothing and the potential for hypothermia. Reference CISPRI TM Appendix B "Cold Temperatures".

DISCHARGE TRACKING:

Discharge tracking is addressed in the *CISPRI Technical Manual*, Tactics CI-TS-1, -2, -4. Initially a tracking buoy is released from the rig prior to evacuation of the crew.

PROTECTION OF ENVIRONMENTALLY SENSITIVE AREAS:

Tactics providing for sensitive area protection are described in *CISPRI Technical Manual*, Tactic CI-SA-1 through CI-SA-3. Specific GRS are implemented if spill trajectories or tracking indicate potential impact (Figure 1.6-3) based on estimated time(s) to impact. Trajectory modeling based on an 800 bopd discharge with no response shows possible impact to GRS site SWCI-01 at approximately 72 hours. A near shore task force and shoreline protection task force are prepared and placed on standby.

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 location of oil and ice, CISPRI will maintain contact with the largest concentrations of oil as described in *CISPRI Technical Manual*, Tactic CI-TS-1 through CI-TS-4. Consideration is provided for smaller vessels that may need to return to a berth or mother vessel at night.

CONTAINMENT AND CONTROL STRATEGIES:

Strategies for Containment and Control of on-water spill response are included in *CISPRI Technical Manual* (CTM)

TACTICS:	EQUIPMENT:
Open Water: • Site Characterization (CI-S-1) • High Volume Skimming (CI-OW-1) • Lightering and Storage Platforms (CI-OW-5) • Concentration Booming (CI-OW-1, CI-NS-1, and CI-NS-2)	• Air monitoring equipment • OSRV #1 and OSRV #2 equipped as listed in CTM • OSV *Resolution* equipped as listed in CTM • CISPRI *Barge Responder* (12,405 bbl) • *Barge 141* (59,421 bbl) • M/V *Resolution* equipped as listed in CTM • One Class 8 towing vessel (tug) • Six Class 3 vessels for boom towing
Nearshore/GRS • Protective Booming (CI-NS-3 through CI-NS-6) • Skimming (CI-NS-5) • On-Water Storage (CI-NS-5)	• M/V *Tern* (Support/GRS/Nearshore) • M/V *Moriah* equipped as listed in CTM • 2000 ft inland water boom • Anchor sets • Skiffs
Shoreline Cleanup • SCAT (CI-SL-1) • Manual or Vacuum Removal (CI-SL-5)	• Four Class 3 Vessels • Skiffs • Sorbents / Hand Tools
Safety • Ongoing safety oversight (CI-S-2, CI-S-3, CI-S-4)	• M/V *Seal* • Air monitoring equipment • PPE • Site Safety Plans and Safety Briefings (*CTM,* Appendix C*)* • Cold weather gear
Wildlife • Hazing (CI-W-1) • Capture and Rehabilitation (CI-W-2 through CI-W-5) • Permitting (CI-LP-7)	• Class 1 / 2 Vessel (Support/Command) • Propane cannons and other hazing equipment • Capture nets and boxes, transport cages • Class 6 Vessels • Sea Otter Rehabilitation Center (SORC) completely assembles in Seldovia / Bird Center activation (IBR) • International Wildlife Rescue (IWR) activation (CI-LP-3)
Decon/Disposal/Demobilization • Decon Plan - designation of zones (CI-S-4) • Setup of vessel decon stations (CI-S-5) • Disposal Sites - selection and setup (*CTM, Appendix D*) • Permitting (CI-LP-7) • Temporary and long-term storage sites (CI-LP-3, CI-LP-4, CI-LP-7, *CTM Appendix D*)	• Decon Kits (gloves, wash tubs, sorbent, brushes) • PPE • 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 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 recovered from the water will be initially collected and stored aboard the recovery vessels or associated storage barges and then transferred to a large storage barge.
- The barge 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 Barges have 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 will then be 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 may establish a site at/near the staging area for the purpose of maintaining/repairing spill response equipment or vessels.
- Colder temperatures may require additional maintenance breaks during working shifts to prevent/clear debris/icing of equipment. Crews may need to be reminded of this prior to starting each shift.

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 at the Homer Dock 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 Cook Inlet during the response. Contact should be limited because birds may be migrating through Cook Inlet 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.
- Trajectory modeling is accomplished and it is determined that should oil reach the water and fail to be recovered, it is possible for GRS site SWCI-01 to be impacted. A near shore task force and shoreline protection task force are prepared and placed on standby.

RESPONSE ACTIVITIES – Buccaneer Energy Spill Response Team
Day One

COMMAND	PLANNING SECTION	LOGISTICS SECTION	OPERATIONS SECTION
IC ✓ Establish Command Post ✓ Establish UC ✓ Establish goals & objectives **Liaison** ✓ Complete agency notification ✓ Establish community notification & identify contacts **Public Affairs** ✓ Prepare initial news release ✓ Set up media conference ✓ Set up Joint Information Center **Safety** ✓ Conduct initial Site Characterization ✓ Provide initial Site Safety Plan ✓ Prepare detailed Safety Plan ✓ Field Safety Oversight **Security** ✓ Establish security at Command Post, spill site, staging areas, etc. ✓ Check credentials of all spill site personnel to ensure appropriate levels of training	**Planning Section Chief** ✓ Activate Planning Section units ✓ Prepare Meeting Schedule ✓ Commence work on Long Range Plan ✓ Prepare Incident Action Plan for next 12-hour period ✓ Commence planning for waste management, decontamination and demobilization **Environmental Unit** ✓ Identify/Prioritize Sensitive areas based on resources at risk ✓ Prepare Wildlife Plan ✓ Prepare appropriate permits (ISB, Dispersant, etc.) ✓ Prepare Request for Decanting **Resources Unit** ✓ Display response equipment /personnel ✓ Establish short-term plan **Documentation Unit** ✓ Document all spill activities **Staging Areas and Technical Specialists** ✓ Natural Resource Damage Assessment (NRDA) (if appropriate) ✓ SCAT (If applicable) ✓ Spill Trajectory – prepare and update	**Logistics Section Chief** ✓ Establish Command Post ✓ Arrange for overflights ✓ Establish Staging Areas at CISPRI Warehouse, OSK Dock and wherever appropriate ✓ Mobilize Immediate Response Team (IRTs) ✓ Mobilize Short Notice Response Team (SNRT) [see CTM CI-LP-1(B)] ✓ Provide meals and services ✓ Establish Communications Plan ✓ Order portable lights ✓ Activate contract for infrared sensor expert	**Operations Section Chief** **Mobilize:** ✓ CISPRI OSRVs #1 and #2 ✓ OSV OMSI *Resolution* ✓ CISPRI M/V *Moriah* ✓ CISPRI M/V *Resolution* ✓ CISPRI M/V *Seal* ✓ CISPRI M/V *Tern* ✓ CISPRI Skimming Equipment ✓ CISPRI containment boom ✓ CISPRI barges ✓ CISPRI personnel ✓ IRT personnel ✓ Contract personnel (SNRTs) ✓ Contract vessels **Prepare** ✓ Information for Initial Briefing ✓ ICS-204 (Field Assignments) **Supervise** ✓ Aircraft overflights ✓ Equipment deployment ✓ Staging area ✓ Wildlife activities ✓ Decon activities ✓ Demobilization activities **Initiate Requests for** ✓ Decanting ✓ Personnel ✓ Additional response equipment ✓ Overflights ✓ Infrared expertise ✓ others as required

RESPONSE ACTIVITIES – Buccaneer Spill Response Team DAY TWO – DAY FIFTEEN UNIFIED COMMAND ACTIVITIES:			
COMMAND	**PLANNING SECTION**	**LOGISTICS SECTION**	**OPERATIONS SECTION**
Incident Commander ✓ Maintain and expand Command Post as necessary ✓ Maintain UC ✓ Revise goals and objectives as circumstances dictate **Liaison** ✓ Establish and maintain Community notification and identify contacts **Public Affairs** ✓ Ongoing media contact and public updates **Safety** ✓ Ongoing field safety oversight ✓ Ongoing revision of Health and Safety plan as appropriate **Security** ✓ Maintain security at the Command Post and Staging Areas as required	**Planning Section Chief** ✓ Maintain and expand as required * Documentation Unit * Resources Unit * Situation Status Unit * Environmental Unit * Long-Term Planning Unit ✓ Maintain meeting schedule ✓ Revise and update Long-Term Plan ✓ Update and revise Incident Action Plan for next 12-hour period. **Environmental Unit** ✓ Develop long term contractor recovery action plan ✓ Institute Waste Management Plan **Resources Unit** ✓ Maintain display of response equipment/ personnel **Documentation Unit** ✓ Continue documentation of all spill activities	**Logistics Section Chief** ✓ Maintain and expand Command Post ✓ Arrange for continued overflights ✓ Establish additional Staging Areas if needed ✓ Mobilize additional IRT & SNRT personnel ✓ Continue to provide meals and services ✓ Maintain Long-Range Communications Plan ✓ Order equipment as requested	**Operations Section Chief** ✓ Continue mobilization of equipment as required in the field ✓ Maintain equipment while in the field **Prepare** ✓ ICS-204 (Field Assignments) **Supervise** ✓ Recovery Operations ✓ Aircraft Deployments ✓ Staging Area ✓ Disposal Activities

MAJOR SPILL RESPONSE RESOURCES TABLE	OPEN WATER T.F. #1	NEARSHORE T.F. # 1*	WILDLIFE*	DISPOSAL	SAFETY	SHORELINE CLEAN UP*	
EQUIPMENT LIST							**TOTALS**
Offshore Task Force							
CISPRI OSRV #1 equipped as listed in CTM	**1**						**1**
CISPRI OSRV #2 equipped as listed in CTM	**1**						**1**
OSV *Resolution* equipped as listed in CTM	**1**	*					**1**
CISPRI *Resolution* equipped as listed in CTM	**1**	*					**1**
M/V *Moriah* equipped as listed in CTM	**1**	*					**1**
Class 3 Vessels for Towing Boom	**6**						**6**
Class 8 Towing Vessel (Tug)	**1**						**1**
Barge *141*	**1**						**1**
Barge *Responder*	**1**						
Personnel	**60**						**60**
Wildlife*							
Class 2 Vessel #1			**1**				**1**
Skiff for capture/ hazing			**2**				**2**
Personnel			**12**				**12**
Onshore Waste Handling and Decon							
Personnel				**1/4**			**1/4**
Safety/Logistics							
M/V *Seal*	**1**				**1**		**1**
M/V *Tern*	**1**	*			**1**		**1**
Personnel					**6**		**6**
Shoreline Cleanup (Day 3 to 4)*							
Class 3 Vessels for transport and support						**4**	**4**
SCAT						**4**	**4**
Cleanup Crew Personnel						**12**	**12**

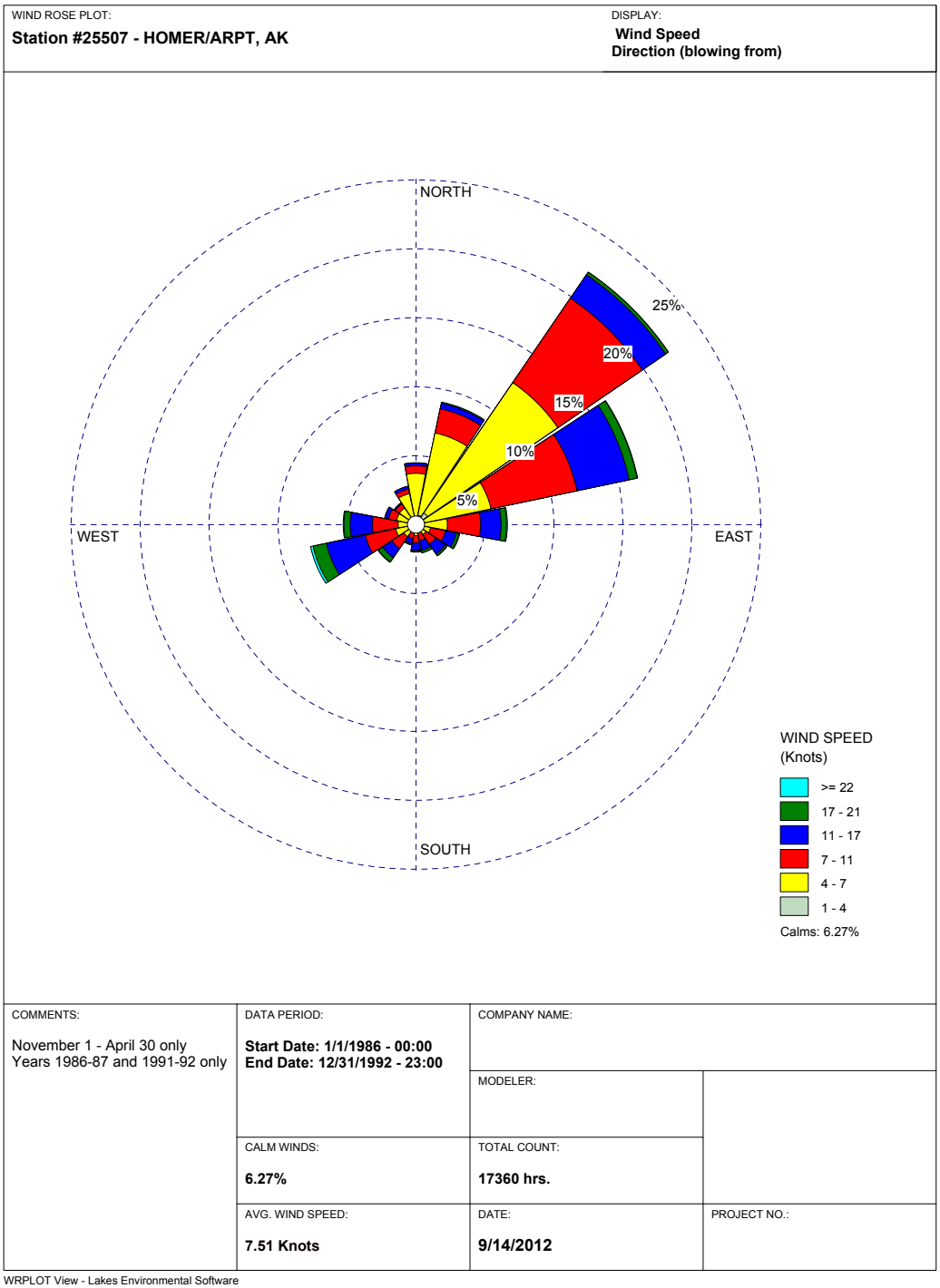
- Note: Personnel totals are split between Supervisors/Workers
- * denotes vessels that are prepared to be split off to address near shore oil recovery if necessary.

TIME:	RESPONSE TIMELINE
0 hours	CISPRI is notified of a well blowout from an offshore exploration platform in the area of Cosmopolitan #1 with a potential of up to 800 bopd and 300 GOR. Reports from the rig indicate that there is no plume and that oil is going directly to water. A tracking buoy is deployed from the rig. Rig personnel begin evacuation. • CISPRI begins mobilization for a potential large-scale open water response. • Buccaneer notifies their IC, SRT, and initiates callout of additional resources. • CISPRI activates OSRVs. The OSRV #1 transits to the OSK Dock to load out CISPRI Spill Techs, IRTs, SNRTs and a Safety Officer. The crew is tasked to ensure vessel is ready for response (e.g., warm up hydraulics, additional operator sets). • CISPRI vessels M/V *Moriah* and M/V *Resolution* are activated from their winter staging area on the Homer dock. The vessels are mobilized with responders on board. Responders will be flown to Homer to board. • All available IRTs are mobilized. • Contracts are activated for the OSV *Resolution* (OMSI), Class 3 vessels and a Class 8 towing vessel (tug). • The OSV *Resolution* is mobilized to the OSK Dock to load out pre-staged recovery systems and additional recovered fluid storage containers. • A Class 8 towing vessel (tug) is mobilized from Anchorage and transits to Seldovia to collect barges in rotation for transit to rig site. Estimated time of arrival (ETA) is Hour 24.
+1	OSRV #1 is en route to the spill scene. It has been assigned Task Force Leader for the Open Water Task Force. CISPRI vessel M/V *Seal* is en route to the spill scene. It has been assigned to be the Safety vessel. CISPRI command center is activated. Staging areas established at CISPRI facility and OSK Dock. 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. IRTs and SNRTs begin to arrive at CISPRI command center for transit to OSK Dock. An overflight has been ordered to provide the UC with direct knowledge of the size and complexity of the blowout.
+1.5	USCG and FAA have been requested to issue appropriate Notice to Mariners and Notice to Airmen for safety zones around the spill area. An emergency response plan is being developed to provide cleanup capability according to the following priorities: 1. Open water spill response. 2. Wildlife protection/hazing/capture. Overflight en route to rig site to observe blowout and to locate and map oil locations, as well as to search for shoreline and wildlife impacts. The CISPRI Vessel Administrator has been instructed to call out six Class 3 vessels. The Class 3 vessels will serve as boom towing for concentration booming for skimming platforms.
+2.0	CISPRI vessels M/V *Moriah* and M/V *Resolution* are deployed from their staging on the Homer dock and launched via crane. The vessels are mobilized once the responders are on board (flying from Nikiski). OSRV #2 arrives at OSK and begins load out of personnel and equipment. Overflight arrives over rig site and reports that oil is flowing directly to water. A slick is visible on the water, and the well is still uncontrolled.

TIME:	RESPONSE TIMELINE
+3	OSRV #2 is en route to the spill site.
+4	OSV *Resolution* arrives at OSK Dock to load its pre-assigned recovery package. Class 2 Vessel #1 departs Homer for OSK Dock for personnel and equipment to standby for wildlife recovery and protection (ETA +8 hours).
+4.5	The M/V *Seal* arrives on scene to provide safety/monitoring. The M/V *Seal* reports that air-monitoring results indicate a safe working atmosphere and Level D PPE is established for the on-water work around the rig site. Periodic air monitoring will be conducted to monitor on-scene conditions. Oil is visible on the water. CISPRI M/V *Resolution* and CISPRI M/V *Moriah* depart Homer Harbor with one 249-bbl barge each.
+5	OSV *Resolution* departs OSK Dock en route to rig location.
+6	M/V *Tern* arrives on scene and stands by for GRS or near shore support instructions.
+7	OSRV #1 arrives at the rig location and begins recovery operations. The OSRVs #1 and #2 and the OSV *Resolution* will recover from the main body of oil, and the M/V Moriah and M/V Resolution will focus on any oil that separates from the main concentration. M/V *Resolution* and M/V *Moriah* arrive at the rig location and begin recovery operations.
+8	For night time operations, OSRVs #1 and #2 and the OSV *Resolution* will continue recovery operations as they are set up for night operations. The M/V *Moriah* and M/V *Resolution* will return to Homer to overnight and rest crew. The M/V *Seal* will remain on-scene as the safety vessel. The M/V *Tern* will remain on scene and be available to support safety and logistics as necessary.
+9	The M/V *Moriah* and M/V *Resolution* will return to Homer to overnight.
+10	Waste handling site established at Homer Dock. Pit liners, timbers, lined tanks, etc. are on-hand or on order.
+10.5	OSRV #2 arrives at rig location and begins recovery operations.
+12	Class 2 Vessel #1 arrives on scene and is on standby for wildlife recovery and protection.
+12.5	OSV *Resolution* arrives on scene and begins recovery operations.
+18	Class 8 tug arrives in Seldovia and picks up Barge *141*. En route to rig location.
+22	The M/V *Moriah* and M/V *Resolution* arrive on scene and resume daylight recovery operations.
+23	Overflight confirms that well is still uncontrolled and that oil is flowing directly to water.
+24	OSRVs #1 and #2 continue recovery operations. M/V *Seal* continues to conduct air monitoring. M/V *Tern* remains on scene. CIOSM trajectory modeling has been accomplished for a worst case scenario no on-water recovery; it is possible for GRS site SWCI-01 to be impacted. A near shore task force and a shoreline protection and clean-up task force are created and placed on standby. Deployment of these task forces is evaluated each morning after the overflight. Class 8 tug arrives on scene with Barge *141*. The barge is anchored and the tug returns to retrieve the Barge *Responder*. The barge begins receiving recovered oily fluids from the recovery vessels.
+32	The M/V *Moriah* and M/V *Resolution* will return to Homer to overnight.
+36	Class 8 tug arrives on scene with Barge *Responder*. The barge is anchored, and the tug remains to tend the barges. As each barge reaches capacity it is delivered to KPL for offloading and returned to the scene. It is expected that the barges will maintain a rotation for the entire incident.
+46	The M/V *Moriah* and M/V *Resolution* return to scene and resume daylight recovery operations.

TIME:	RESPONSE TIMELINE
+48	OSRVs #1 and #2 remain on scene continuing recovery operations. M/V *Seal* continues to conduct air monitoring. M/V *Tern* remains on scene assisting with safety and logistics. As needed to depart the rig location for fueling or other relief, the M/V *Seal* and M/V *Tern* may alternate as safety vessel. All other vessels continue to support recovery as directed. Overflights continue at least once daily to track oil and monitor potential ice conditions.
+56	The M/V *Moriah* and M/V *Resolution* will return to Homer to overnight.
+70	The M/V *Moriah* and M/V *Resolution* return to scene and resume daylight recovery operations.
+72 to Day 15	OSRVs #1 and #2 remain on scene continuing recovery operations. The M/V *Moriah* and M/V *Resolution* continue daylight recovery operations with overnighting at Homer. M/V *Seal* continues to conduct air monitoring. M/V *Tern* remains on scene assisting with safety and logistics. As needed to depart the rig location for fueling or other relief, the M/V *Seal* and M/V *Tern* may alternate as safety vessel. All other vessels continue to support recovery as directed. Overflights continue at least once daily to track oil and monitor potential ice conditions.
Day 15	Oil recovery operations continue until the blowout is controlled and all oil is recovered.

Figure 1.6-2 November thru April Wind rose



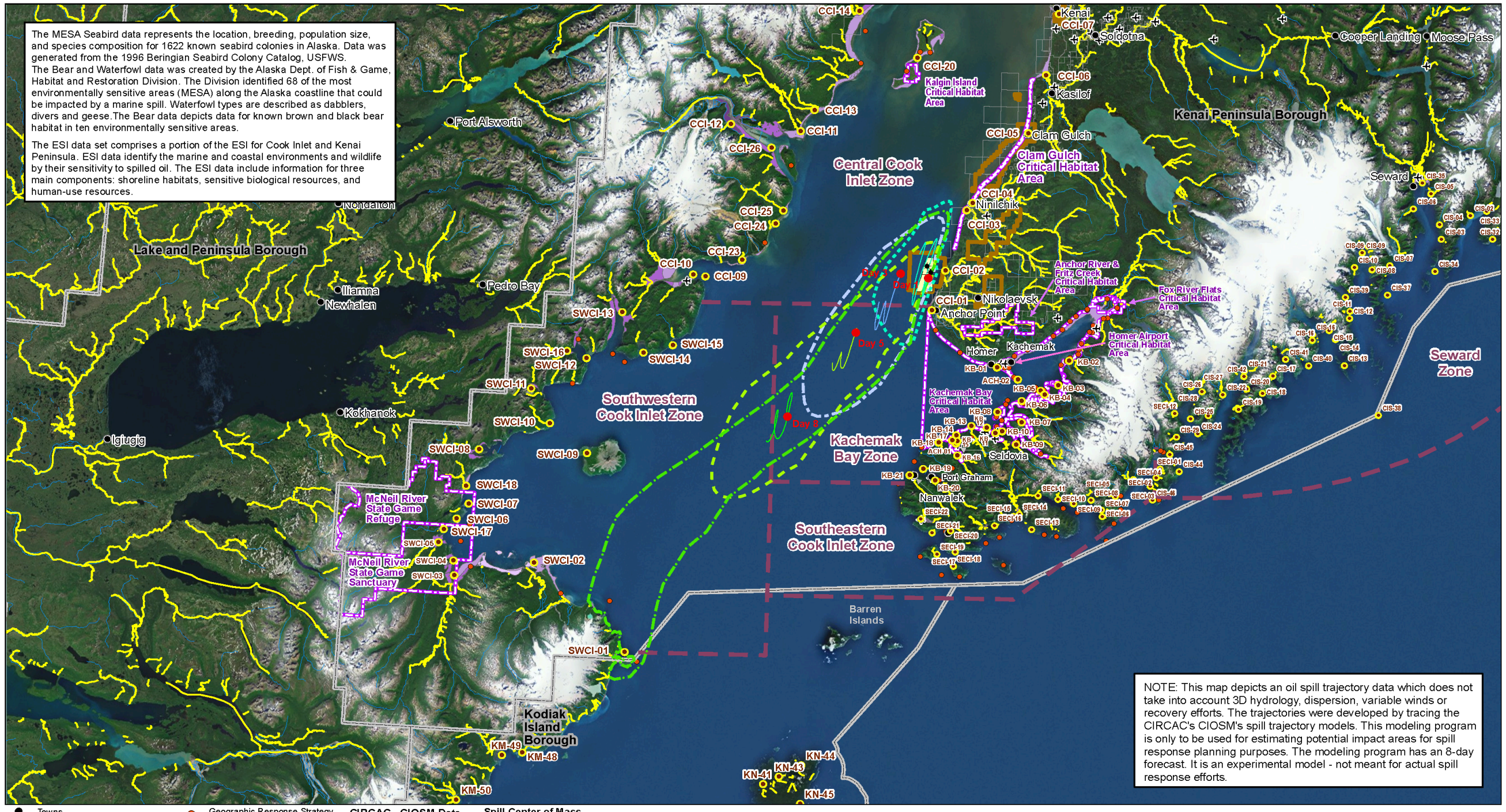
Cosmo #1 Blowout – Skimmer Recovery Capacity													
Hour	1 2 3	4 5 6	7 8 9	10 – 12	13 - 16	17 - 20	21 - 24	25 - 28	29 – 32	33 – 36	37 – 40	41 – 44	45 - 48
OSRV #1	Arrives on scene at hour 7 and begins recovery operations												
			200	300	400	400	400	400	400	*	400	400	400
OSRV #2	Arrives on scene at hour 10.5 and begins recovery operations												
				100	400	400	400	400	400	400	*	400	400
M/V *Moriah*	Arrives on scene at hour 7 and begins recovery operations, daylight only after first day												
			20				40	160	160				40
M/V *Resolution*	Arrives on scene at hour 7 and begins recovery operations, daylight only after first day												
			120				240	480	480				240
OSV *Resolution*	Arrives on scene at hour 12.5 and begins recovery operations												
					200	400	400	400	400	400	*	400	400
Totals (bbl/hrs)			340	400	1,000	1,200	1,480	1,840	1,840	800	400	1,200	1,480
Total (bbl)			340	740	1,740	2,940	4,420	6,260	8,100	8,900	9,300	10,500	11,980

Note: * denotes time spent on maintenance. Recovery equipment is assumed to operate only 20 hours per day.

Cosmo #1 Blowout – Skimmer Recovery Capacity													
Day 3 - 15	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
OSRV #1	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
OSRV #2	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
M/V *Moriah*	200	200	200	200	200	200	200	200	200	200	200	200	200
M/V *Resolution*	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
OSV *Resolution*	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Totals (bbl/day)	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400	7,400
Total (bbl)	19,380	26,780	34,180	41,580	48,980	56,380	63,780	71,180	78,580	85,980	93,380	100,780	108,180
						Grand Total Day 1 – Day 15 Derated Skimming Capacity = 108,180 bbl							

Note: Recovery equipment is assumed to operate only 20 hours per day.

Figure 1.6-3 Predicted Oil Spill Trajectory



Lower Cook Inlet Location Map
with Buccaneer Oil Leaseholdings,
Geographic Response Strategies,
and Environmentally Sensitive Areas
8.37 mph Winds from the Northeast

Figure 1.6-3

October 31, 2012 d/alliedgis/contracts/buccaneer/mxd/spill_1-3-5-8_ NE_8.37mph_17x11 grs and esi.mxd

THIS PAGE INTENTIONALLY LEFT BLANK

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
- Training on the Ice Monitoring and Operations Curtailment Plan (IMOCP) and the associated daily status reporting conducted for appropriate personnel.

Deleted: Critical

Deleted: COCP

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.

Deleted: August

Deleted: 0

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: generally from 7 April to 25 November	
Open water in upper Cook Inlet. 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.	**Operations** - First, do not drill prior to checking ice conditions with NOAA and USCG prior to moving the rig onsite. Follow the Ice Monitoring and Operations Curtailment Plan for ice monitoring and management.

Deleted: 1 April, and then check

Deleted: Critical

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
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.	**Engineering –** 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. **Operations –** Security, constant vigilance, and special interest training by Buccaneer and its contractors will help prevent any damage at the drill sites.

Deleted: August

Deleted: 0

2.6 EXCEPTIONS APPLIED TO RESPONSE PLANNING STANDARD

Cross References:

18 AAC 75.430(b))
18 AAC 75.425(e)(1)
18 AAC 75.434(b)(1) and (2)

2.6.1 *Exception to RPS Volume*

Exception to the RPS volume is not requested at this time. Changes to RPS Volume for any additional locations will be addressed in the site specific appendix.

Deleted: August

Deleted: 0

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. New exploration locations will be included in site specific appendices.

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.

When not in use by Buccaneer, 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.

Deleted: At the end of each drilling season

Deleted:

Facility Description

Drilling will be from the *Endeavour - Spirit of Independence* (modified and improved *Adriatic XI*, 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 a different rig is used, this plan shall be updated with rig-specific information. Facility diagrams are also shown in Section 1.8.

Deleted: August

Deleted: 0

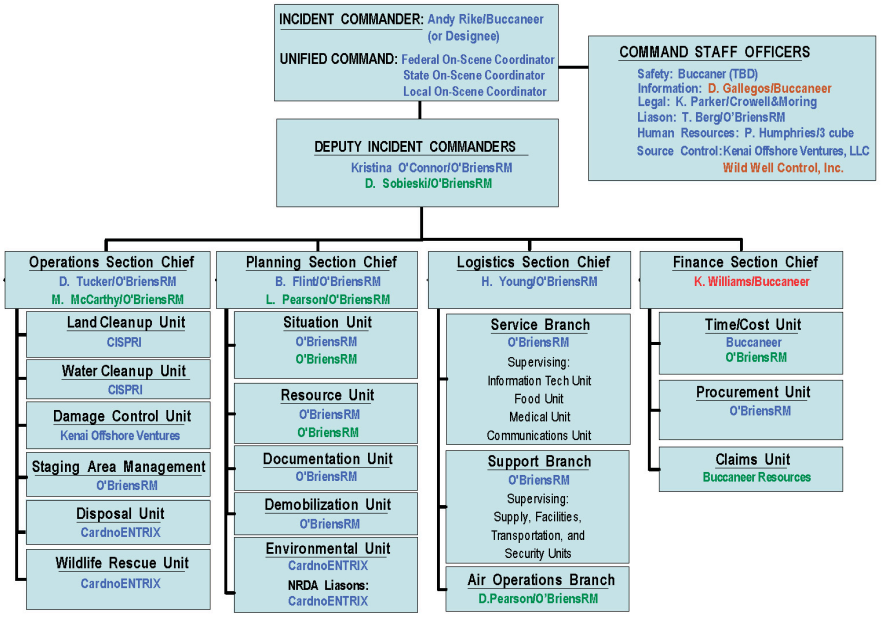
Deleted: <sp><sp>Facility Description ... [1]

Table 3.1-2
Rig Description

Rig Basics		**Rig Construction/Refurbishment Details**	
Rig Name:	*Endeavour - Spirit of Independence*	Classification:	ABS
Rig Manager:	Transocean Ltd.	Rig Design:	LeTourneau Class 116-C-*ADRIATIC XI*
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	**Operating Parameters**	
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
Capacities		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	**Operating Systems**	
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	**Main Dimensions/Draft/Displacement**	
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
Rig Equipment Details		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 $49^{1/2}$ 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-Torque DC traction motors, rated to 5,000 pounds per square inch (psi), 1,600 Hp	Cantilever Reach:	60 ft aft stern
		Transit Displacement:	5,745 tons

Deleted: *Adriatic XI*

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 (1st Callout)
O'BriensRM = Northwest (2nd Callout)
K. Williams/Buccaneer = Not NW or Alaska (Specialtist)

Title	Name/Company	Work Phone	Home or Cell Phone
Incident Commander	Andy Rike/Buccaneer	(907) 335-0600	(713) 703-5157 (cell)
Alternate Incident Commanders	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM	(985) 781-0804	(907) 947-6849
Deputy Incident Commanders	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM	(985) 781-0804	(907) 947-6849
Command Staff			
Safety:	Don Combs	(907) 335-0600	(907) 252-3572
Information:	Dean Gallegos/Buccaneer	(907) 335-0600	01161416220007
Legal:	Kyle Parker/Crowell&Morning	(907) 227-9564	(907) 350-9805
Liaison:	O'Brien's RM	(985) 781-0804	24-Hour Response Line
Source Control:	Kenai Offshore Ventures, Inc.	(907) 335-0600	
	Wild Well Control, Inc.	(281) 784-4700	24-Hour Response Line
General Staff (Section Leaders)			
Operations Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
	O'Brien's RM	(985) 781-0804	24-Hour Response Line
Planning Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
		(985) 781-0804	24-Hour Response Line
Logistics Section Chief	O'Brien's RM	(985) 781-0804	24-Hour Response Line
Finance Section Chief	Kendall Williams	(907) 335-0600	(281) 750-1681 (cell)

Deleted: 151
Deleted: Dan Sobieski (Alt.)/
Deleted: Kristina O'Connor (Alt.)/
Deleted: Dan Sobieski (Alt.)/
Deleted: Kristina O'Connor (Alt.)/
Deleted: To be determined and posted
Deleted: ab
Deleted: Onsite contact
Deleted: (907) 252-3572
Deleted: (713) 468-3717
Deleted: T. Berg/
Deleted: Human Resources: ... [2]
Deleted: Ventures
Deleted: D. Tucker/
Deleted: M. McCarthy/
Deleted: B. Flint/
Deleted: H. Young/
Deleted: yle
Deleted: /Bucaneer
Deleted: 713) 703-1517

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:

- O'BriensRM 24-Hour Response: (985) 781-0804
- O'Brien'sRM 24-Hour Response: (985) 781-0804

Deleted: Dan Sobieski/

Deleted: Kristina O'Connor/

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:

- O'Brien'sRM 24-Hour Response: (985) 781-0804
- O'Brien'sRM 24-Hour Response: (985) 781-0804

Deleted: Dan Sobieski/

Deleted: Kristina O'Connor/

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 O'Brien'sRM (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.

Deleted: Teresa Berg

General Staff

Deleted: <#>Human Resources Officer Pilar Humphries (907-317-1330) will be responsible for addressing human resources needs and issues.

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 – O'Brien'sRM at 985-781-0804

Deleted: -

Deleted: *Chiefs Dan Tucker and Mary McCarthy*

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 – O'Brien's RM at 985-781-0804

Deleted: -

Deleted: *Chiefs Bob Flint and Leslie Pearson*

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

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 – O'Brien'sRM at 985-781-0804

Deleted: *Chief Henry Young*

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.

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.

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 Cook Inlet are listed in Figures 3.10-3 through 3.10-6. *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 Figures 3.10-3 through 3.10-6 may be impacted. During a response, Buccaneer's Environmental Unit will coordinate with state and federal resource trustees to develop a list priority protection sites,

Deleted: central

Deleted: Table 1.6-2

Deleted:

Deleted: 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

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.

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 the summer 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 Cook Inlet area 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 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 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 Cook Inlet. Several of these areas are adjacent to Buccaneer exploration areas. Section 3.10-4 provides the summary of sensitive areas of major concern in Cook Inlet with developed GRS.

Deleted: Buccaneer's proposed

Deleted: central

Deleted: during drilling

Deleted: during Buccaneer's proposed drilling season

Deleted: and during Buccaneer's proposed drilling season,

Deleted: 22 of these areas in central

Deleted: the

Deleted: Prospect

Deleted: 1.6.6,

Deleted: Table 1.6-1

Deleted: s

Deleted: Central

Deleted: (CCI)

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

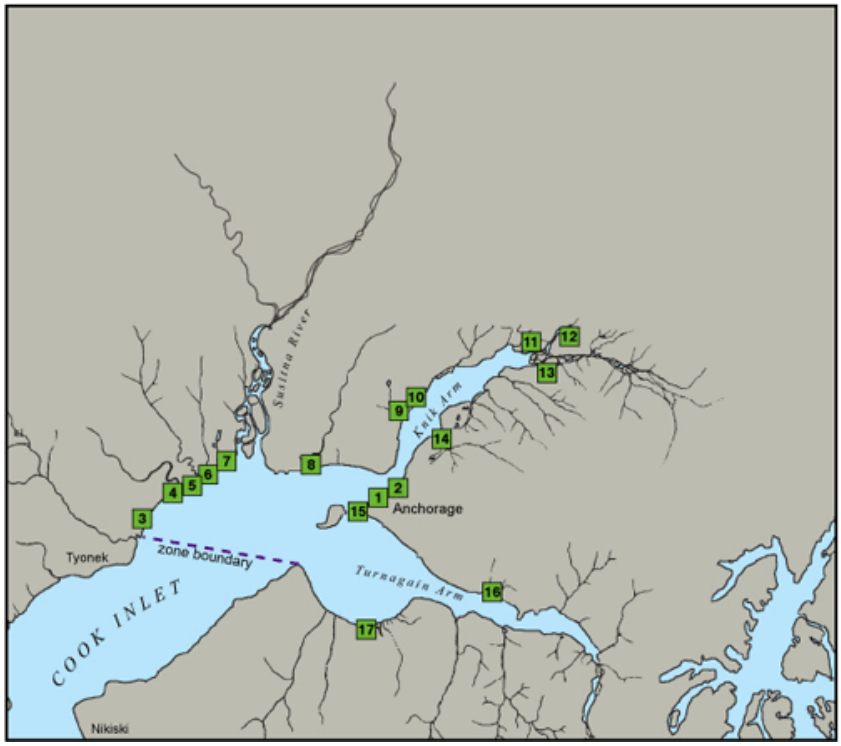
	ADF&G Permit Required to		USFW Permit Required to		NMFS Permit Required to	
Species	**Collect & Hold?**	**Haze?**	**Collect & Hold?**	**Haze**	**Collect & Hold?**	**Haze**
Migratory Birds	No	Yes	Yes	No	No	No
Sea Otters, Walrus	No	No	Yes	Yes	No	No
Whales, Porpoises, Seals and Sea Lions	No	No	No	No	Yes	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. Figures 3.10-3 through 3.10-6 provide maps of the sensitive areas listed for the Cook Inlet Areas.

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.

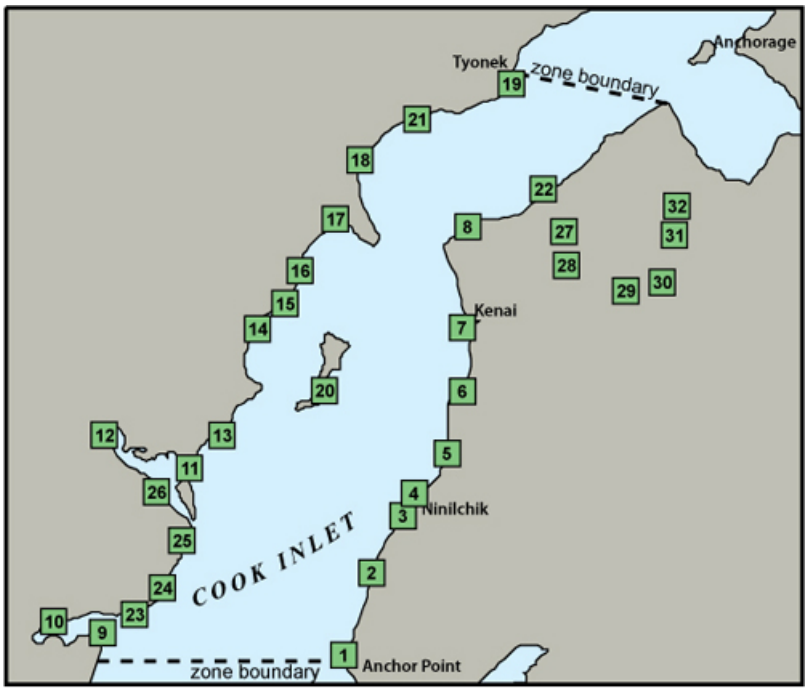
Figure 3.10-3 Northern Cook Inlet GRS Locations



NCI-01 Fish Creek
NCI-02 Ship Creek
NCI-03 Three Mile Creek
NCI-04 Beluga River
NCI-05 Theodore River
NCI-06 Lewis River
NCI-07 Ivan River
NCI-08 Little Susitna River
NCI-09 Goose Bay
NCI-10 Fish Creek North
NCI-11 Wasilla Creek
NCI-12 Spring Creek
NCI-13 Knik River
NCI-14 Eagle River
NCI-15 Campbell Creek
NCI-16 Bird Creek
NCI-17 Chickaloon River

Deleted: Buccaneer . . . . August 2012 . ... [3]

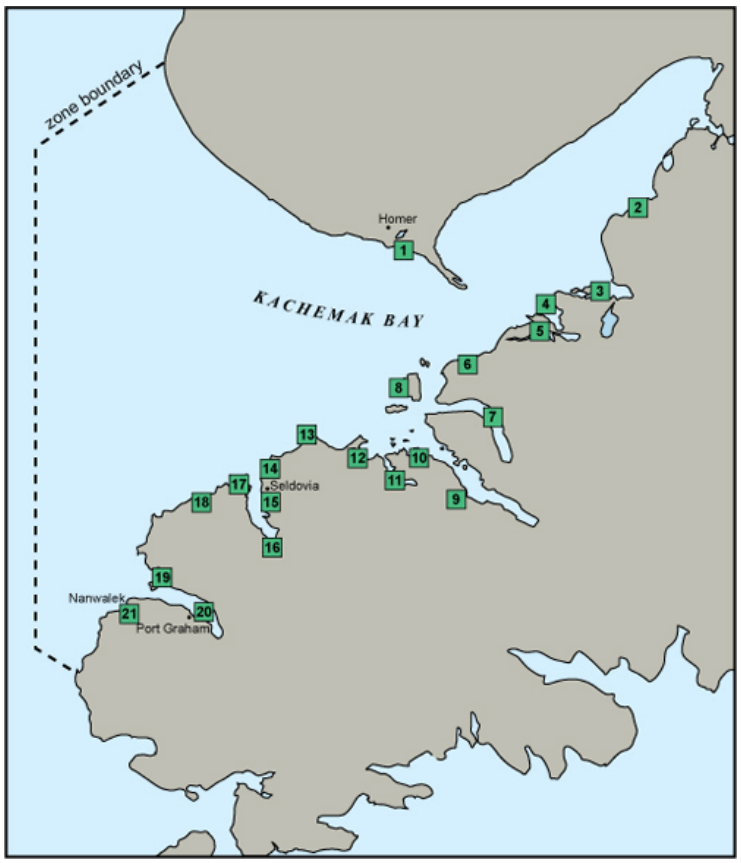
Figure 3.10-4 Central Cook Inlet GRS Locations



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 LittleJack 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
CCI-23 Shelter Creek
CCI-24 Silver Salmon
CCI-25 Johnson River
CCI-26 Tuxedni Bay

Deleted: Buccaneer . . . . August 2012 . ... [4]

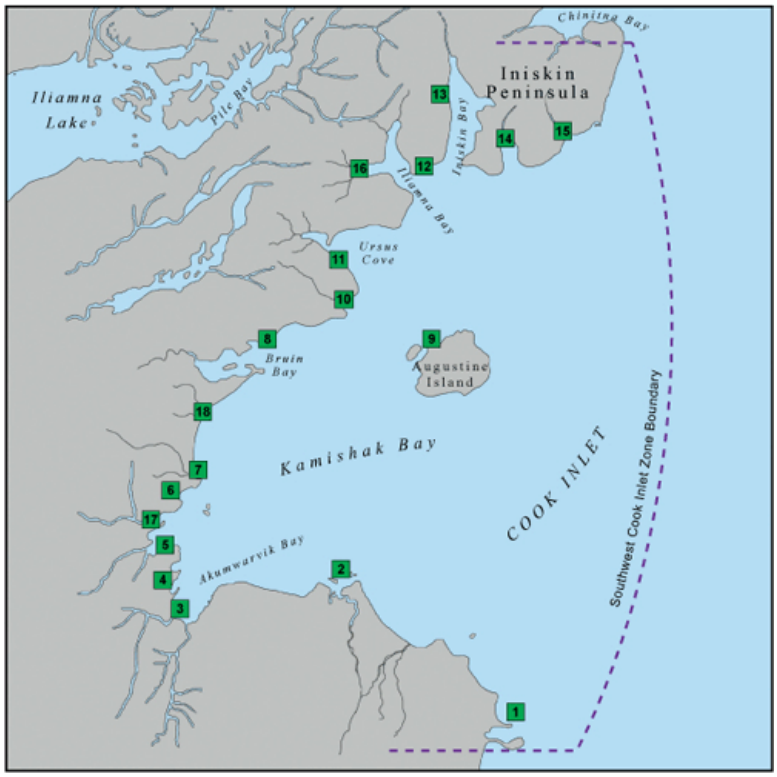
Figure 3.10-5 Kachemak Bay GRS Locations



KB-01 Beluga Slough
KB-02 Humpy Creek
KB-03 Halibut Cove
KB-04 Peterson Bay
KB-05 China Poot Bay
KB-06 Neptune Bay
KB-07 Sadie Cove
KB-08 Yukon Island West
KB-09 Tutka Bay Lagoon
KB-10 Little Tutka Bay
KB-11 Jakolof Bay
KB-12 Kasitsna Bay
KB-13 Barabara Creek
KB-14 Seldovia Outside Beach
KB-15 Seldovia Slough
KB-16 Seldovia River
KB-17 Hoen's Lagoon
KB-18 Fourth of July Creek
KB-19 Johnson Slough
KB-20 Port Graham
KB-21 English Bay

Deleted: Buccaneer . . . . August 2012 . ... [5]

Figure 3.10-6 Southwestern Cook Inlet GRS Locations



SWCI-01 Sukoi Bay

SWCI-02 Douglas River - N

SWCI-03 Akumwarvik Bay/Kamishak River

SWCI-04 Horseshoe Cove/Pinkidulia Cove

SWCI-05 McNeil Cove

SWCI-06 Amakdedulia Cove

SWCI-07 Chenik

SWCI-08 Bruin Bay

SWCI-09 Augustine Island - W

SWCI-10 Sunday Creek

SWCI-11 Head of Ursus Cove

SWCI-12 North/South Heads of Iliamna Bay

SWCI-13 Iniskin River

SWCI-14 Oil Bay

SWCI-15 Dry Bay

SWCI-16 Cottonwood Bay

SWCI-17 Paint River

SWCI-18 Amakdedori Creek

Deleted: Buccaneer . . . . August 2012 . ... [7]

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

Delete
Curtail

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_2S	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)
IMOCP	Ice Monitoring and Operations Curtailment Plan
IMT	Incident Management Team
IR	Infrared
IRT	Immediate Response Team
ISB	*In situ* 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

SNRT	Short Notice Response Team
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 *ODPCP Appendices*

Additional documents specific to the Buccaneer Alaska Operations, LLC Cook Inlet Exploratory Drilling Program are found at the end of the ODPCP 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
- Appendix D: BSEE Addendum
- Appendix E: 2012 Cosmopolitan Exploratory Drilling Prospect

No rigs capable of drilling a relief well at Buccaneer's Cook Inlet prospects are currently in Alaska. Therefore, Buccaneer has entered 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 used the Kulluk MODU currently staged in Dutch Harbor, Alaska (when not operating in the Beaufort or Chukchi Seas).

Deleted: will

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.

Deleted: August
Deleted: 0

In the event that Andy Rike cannot be contacted, notification should be made to:

- Buccaneer HSE Coordinator
- O'BriensRM Alternate Deputy Incident

Deleted: Darren Burks/Rob Crotty at (907) 335-0600

Deleted: 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/.

Buccaneer Alaska Operations, LLC

OIL DISCHARGE

PREVENTION AND CONTINGENCY PLAN

APPENDIX E

Lower Cook Inlet Exploratory Drilling Program

2012 Cosmopolitan Prospect

November 2012
Revision 1

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Tables

Figures

THIS PAGE INTENTIONALLY LEFT BLANK

INTRODUCTION

Buccaneer is designated as operator and permittee of record for the Cosmopolitan (Cosmo) leases. Buccaneer plans to conduct a two well, offshore delineation drilling program in lower Cook Inlet at its proposed locations on the following State of Alaska oil and gas lease: Alaska Division of Land (ADL) 384403 (Cosmo #1 and Cosmo #2).

Buccaneer Alaska Operations, LLC (Buccaneer) proposes to drill up to 2 wells at the COSMO Project utilizing the Endeavor – Spirit of Independence drill rig. The project consists of the COSMO No. 1 well and the COSMO No. 2 well. The proposed wells will be located offshore on the east side of lower Cook Inlet, near Cape Starichkof (aka Stariski) and north of Anchor Point. The proposed well location information is provided in Table E-1 below and illustrated in Figures E-1 and E-2.

Table E-1 Proposed Well Location Information

Cosmo #1	Cosmo #2
State Oil and Gas Leases:	
ADL 384403	ADL 384403
Legal Description, Seward Meridian:	
Township 3S, Range 15W, Section 29	Township 3S, Range 15W, Section 33
Geodetic Position, Latitude/Longitude:	
59° 53’ 12.87” N / -151° 52’ 57.71” W	59° 52’ 17.37” N / -151° 51’ 55.09” W

The east side of Cook Inlet is accessible by secondary road or highway. The drilling rig is located offshore and is accessible by vessel or by helicopter.

Buccaneer will use existing infrastructure and resources found on the Kenai Peninsula and south-central Alaska area whenever possible during the project. These resources include barge landings, private staging areas, airstrips, landfills, water supplies, heavy equipment, and personnel.

Note: The following addresses the site-specific information not provided in the Core Plan. The section numbering on the addendum corresponds to the section numbers of the Core Plan to facilitate easy cross-referencing. Only those sections affected by the addendum are included. Most sections of the plan are not affected by the addendum and therefore many section numbers are intentionally omitted.

1.0 RESPONSE ACTION PLAN [18 AAC 75.425(e)(1)]

1.2 Reporting and Notification [18 AAC 75.425(e)(1)(B)]

Employees and contractors must report all spills directly to his/her supervisor or to the Buccaneer On-Site Company Representative and the onboard ERT. The Buccaneer On-Site Company Representative or designated alternate shall act as the Incident Commander for minor incidents only. The Buccaneer On-Site Company Representative or designated alternate shall act as the Initial Incident Commander 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 or designated alternate shall be relieved of the Incident Commander’s position when the IMT Commander arrives to the Buccaneer Incident Command Center or on

location. Positions and telephone numbers for the Incident Management Team are provided in Table 1.2-1 in the Core Plan.

Buccaneer maintains oil spill response service contracts with CISPRI as a primary response action contractor and Wild Well Control, Inc. for well control. Upon notification, Wild Well Control well control specialists can mobilize within 24 to 48 hours to Cook Inlet.

An IADC (International Association of Drilling Contractors) or AOGCC-approved equivalent certified well control specialist will be stationed on-site at the rig to provide continuous oversight and assistance in drilling operations and downhole control.

Buccaneer has contracted O'Brien's Response Management, Inc. (O'Brien'sRM) to provide additional experienced personnel to staff section unit functions within the IMT and direct response efforts. In the event of a major spill, Buccaneer will mobilize O'Brien'sRM staff to the Buccaneer Incident Command Center in Nikiski within 24 hours.

1.5.3 Transportation to the Spill Site [18 AAC 75.425(e)(1)(E)(i)]

Equipment that will be pre-staged on service vessels and response vessels is identified in the *CISPRI Technical Manual,* Tactic CI-LP-4. The rig will accommodate landing for helicopters up to the size of a Sikorsky S-61N and smaller. In general, air access is best suited for movement of personnel and for emergency movement of supplies or equipment. The distance from the Nikiski Airport to the rig is 70 air miles.

The primary mobilization for response is from the CISPRI warehouse in Nikiski to the rig. Response times for vessels will vary. Transit times listed in Table E-2 were supplied by CISPRI. See Table E-2 for estimates in response times.

Table E-2 Response Times

	Approximate Distance (Mi.)	Response Time
Mobilization Time	n/a	1 hour
Helicopter from Nikiski to Cosmo	70 air miles	20 minutes
OSRV *Perseverance*	80 miles	5 hours
OSRV *Endeavor* & OMSI OSV *Resolution*	80 miles	7.5 hours
CISPRI M/V *Resolution* & M/V *Moriah*	80 miles	4 to 5 hours
Tug from Anchorage to Seldovia to Cosmo	175 miles	30 hours
Dedicated OSV at Rig	n/a	immediate
Total Response Time (by air) from (CISPRI)		**1 hour, 20 minutes**
Total Response Time (by water) (CISPRI)		**immediate to 30 hours**

1.6.2 Response Planning Standard [18 AAC 75.434]

Please refer to the response planning standard (RPS) demonstration provided in the Response Scenarios in Section 1.6 of the Core Plan.

The RPS applied to Cosmo is 800 barrels of oil per day (bopd).

1.6.3 Procedures to Stop Discharge [18 AAC 75.425(e)(1)(F)(i)]

Drilling and well control will be performed in accordance with AOGCC drilling and well requirements. As required by 18 AAC 75.425(e)(1)(i), Buccaneer maintains a blowout contingency plan. In the event of an uncontrolled well blowout, all efforts will be made to regain

control using mechanical surface control methods. If surface control measures fail, relief well plans will be implemented as provided for in the well control plan

Buccaneer's Blowout Contingency Plan: Buccaneer's management will make their decisions in accordance with procedures contained in the well control plan. Identification of surface location, equipment, and timing is dependent of the specific well site conditions. A number of options may be available for location and equipment. Timing is dependent on the success of surface-control techniques and well conditions, including any natural bridging that may occur. Consequently, a broad range of well control activities, including capping, may be conducted concurrently to ensure that control of the well is regained in the shortest possible time. Refer to Sections 1.6 and 2.1.7 of the Core Plan for further discussion of well control options and preventative measures.

Cook Inlet operators have developed an Emergency Standby and Use Agreement for exploration wells to ensure drill rigs and resources are available when needed for combating a well control incident. If a suitable rig is in use, oil industry practice dictates that the operator release the rig when requested for relief well services.

The response scenario and strategies for controlling a blowout at the subject delineation wells are based upon control being achieved within 15 days using surface mechanical methods. A discussion of these techniques is provided in Section 1.6 and 2.1.7 of the Core plan.

In order to enhance on-site well control capabilities during routine operations, Buccaneer will have an IADC-certified (or AOGCC-approved equivalent) drilling specialist on site.

1.6.15 Response Scenarios

The response scenarios are located in Section 1.6.15 of the Core Plan. They were developed according to the guidelines established by the Alaska Department of Environmental Conservation and the response tactics, equipment and personnel described in the CISPRI Technical Manual. The scenarios are for illustration only and are not performance standards or guarantees of performance. The scenarios assume conditions of the spills and responses only to display general procedures, strategies, tactics, and selected operational capabilities. The Homer Airport Station is the closest available to the site therefore the most accurate for use in plume modeling for this site. The Homer Airport Winter Wind Rose for November through April is Figure E-3. The Homer Airport Winter Wind Rose for February only is Figure E-4.

2.0 PREVENTION PLAN [18 AAC 75.425 (e)(2)]

2.2 Discharge History [18 AAC 75.425(e)(2)(B)]

A review of the ADEC database tracking reportable spills found no history of releases for the *Endeavor- Spirit of Independence*.

2.6 Exceptions Applied to Response Planning Standard [18 AAC 75.430(b), 18 AAC 75.425(e)(1), 18 AAC 75.434(b)(1) and (2)

2.6.1 Exception to RPS Volume

Buccaneer applied to AOGCC to lower the RPS based on prior data from wells drilled in this area. AOGCC has approved a RPS of 800 bopd. See Figure E-10.

2.7 Compliance Schedules and Waivers [18 AAC 75.425(e)(2)(G]

Buccaneer commits to providing the following information as part of the plan prior to the commencement of drilling operations:

Table E-3 Compliance Schedule and Waivers

	Information	Alternate Schedule Basis
1.	Rig and Camp Contact List	The personnel on-site telephone numbers have not been selected yet.

3.0 SUPPLEMENTAL INFORMATION [18 AAC 75.425(e)(3)]

3.1 Facility Description and Operational Overview [18 AAC 75.425(e)(3)(A)]

Buccaneer is now the designated operator and permittee of record for the Cosmopolitan (Cosmo) leases. Buccaneer plans to conduct a two well, offshore delineation drilling program in lower Cook Inlet at its proposed locations on the following State of Alaska oil and gas lease: Alaska Division of Land (ADL) 384403.

Buccaneer proposes to drill up to 2 wells at the COSMO Project utilizing the *Endeavor – Spirit of Independence* drill rig. The project consists of the COSMO No. 1 well and the COSMO No. 2 well. The proposed wells will be located offshore on the east side of lower Cook Inlet, near Cape Starichkof (aka Stariski) and north of Anchor Point. The proposed well location information is provided in Table E-4 below and illustrated in Figures E-1 and E-2.

The east side of Cook Inlet is accessible by secondary road or highway. The drilling rig is located offshore and is accessible by vessel, which can be launched from various locations, or by helicopter.

Background

The drilling target for the Cosmopolitan Prospect is sands in the Lower Tyonek and Hemlock formations between 3,000 and 12, 000 feet total vertical depth.

The Lower Tyonek sands and the Hemlock sands may contain gas and associated liquids. Of the two wells drilled in the Cosmopolitan Field by Pennzoil in 1967, one was dry and was plugged and abandoned. The second well, in the Hemlock formation, was drilled through the producing interval, was tested and suspended. In 2001, ConocoPhillips drilled a well in the Cosmopolitan Field that was tested in March 2002. Drill stem test (DST) results for the ConocoPhillips well indicate that the oil productive reservoirs in Hemlock and Lower Tyonek (Starichkof) are not capable of sustaining natural flow. The formation has low permeability and low API gravity to sustain natural flow. The zones had to be produced using artificial lift such as nitrogen and jet pump.

Liquid hydrocarbons have been observed in the lower Tyonek “G” section.

The Hemlock formation has proven oil production in areas to the west such as the Granite Point, Trading Bay, and McArthur River fields.

Drilling Plan

Buccaneer, as operator, plans to drill two exploration wells in the State waters of lower Cook Inlet from an offshore drilling rig. The drilling target is the Tyonek and Hemlock formations between 3,000 and 12,000 feet total vertical depth.

Buccaneer proposes drilling delineation operations during winter drilling season in ice-free conditions in lower Cook Inlet. Lower Cook Inlet does not freeze over during winter, rather it remains as very open drift or open water conditions (i.e., very open drift is defined as a large navigable water surface covered by 20 to 30% pack ice; open water is defined as a large navigable water surface covered by <10% pack ice). Ice atlas information is located in Appendix B of the CISPRI TM and ice maps with current monthly-mean ice information is included as Figure E-6 through Figure E-9. Ice conditions will be monitored and managed as described in the Ice Monitoring and Operations Curtailment Plan (IMOCP).

During the summer drilling season, the rig will be located in upper Cook Inlet where it will be used in another approved drilling program. If rig maintenance is required, it will be conducted at Cosmo #1 or #2 when the drilling is completed or at an industrial dock near a major port in southwest or south-central Alaska before being moved north to upper Cook Inlet.

Project Schedule

The proposed project is planned to occur from late October 2012 through mid-April 2013 as summarized below. The drilling schedule is based upon ice conditions of less than 10% concentration.

- Late October 2012: The rig will be wet towed to Cosmo #1 in ADL 384403 from Homer where it was docked for cold weather modifications.
- Early November 2012 through Mid-December 2012: The rig will drill, test and complete Cosmo #1.
- Late December 2012: The rig will be wet towed to Cosmo #2 in ADL 384403.
- Early January 2013 through Mid-February 2013: The rig will drill, test and complete Cosmo #2.

Mid-February 2013 through Mid-April 2013: The rig will undergo maintenance at location or at an industrial dock near a major port in southwest or south-central Alaska before moving to upper Cook Inlet to be used in other approved drilling programs.

Location

The exploration area is 2.4 miles ESE of Cape Starichkof and 6.6 miles north of Anchor Point.

The location is leased and operated by Buccaneer for the proposed Exploration Program. The proposed surface well locations are as follows:

Table E-4 Reference Location for Proposed Exploration Sites

Site	Latitude	Longitude	ADL Lease
Cosmo #1	59° 53′ 12.87″ N	-151° 52′ 57.71″ W	384403
Cosmo #2	59° 52′ 17.37″ N	-151° 51′ 55.09″ W	384403

Locations are surface positions in Geographic NAD 27

Figure E-1 shows the mapped location of the proposed drill sites.

Drilling Operations

Buccaneer proposes to drill vertical holes at each well site using the jack-up rig. After rig up / rig acceptance by Buccaneer, each well will be spudded and drilled to the bottom hole depths of 3,000 to 12,000 feet. Drilling will take approximately 30 to 90 days per well. Well testing will take another 15 days per well.

Helicopter Support

Helicopter logistics for project operations will include transportation for personnel, groceries, and supplies. Helicopter support will consist of a twin turbine Bell 212 (or equivalent) helicopter certified for instrument flight rules landings and over-water operations.

Helicopter flights to and from the rig are expected to average two per day. Flight routes will follow a direct route to and from the rig location. The aircraft will be dedicated to the drilling operation and will be available for service 24 hours per day. A replacement aircraft will be available when major maintenance items are scheduled.

Rig crews, operator personnel, and third party personnel not already on the rig or in the Cook Inlet area will be flown to the Nikiski OSK facility, Homer Airport, or the Kenai Airport from Anchorage by scheduled commercial or chartered aircraft. Personnel will then be transported by helicopter to the rig. Personnel will be housed in an appropriate facility in the Homer or Kenai area in the event of inclement weather.

Supply Vessel Support

All major supplies will be staged on-shore in Nikiski at the Rig Tender's Docks at East Forelands Delivery Facility, Homer Dock, or the Nikiski OSK Dock. Required supplies and equipment will be moved from the staging area by contracted supply vessels and loaded aboard the rig when the rig is established on a drilling location. Major supplies will include fuel, drilling water, mud materials, cement, casing, and well service equipment. Supply vessels also will be outfitted with fire fighting systems as part of fire prevention and control as required by CISPRI.

The specific supply vessels have not been identified; however, typical offshore drilling support work vessels in Alaska are of steel construction with strengthened hulls to give the capability of working in extreme conditions.

Suspension, Abandonment or Completion

When all planned operations are completed, the wells will be suspended or Plug and Abandon (P&A) according to AOGCC regulations. Each well string is sealed and cemented with mechanical plugging devices to prevent the movement of any reservoir fluids between various strata. P&A includes cutting the casing below the sea floor and retrieving the stub. A P&A procedure will be presented to the AOGCC for approval prior to beginning the operation.

3.10 Environmental Protection [18 AAC 75.425(e)(3)(J)]

3.10.4 Sensitive Areas of Major Concern

Table E-5 is the list of Geographic Response Site (GRS) locations that could be *potentially* impacted if there was an RPS or Worst Case Discharge Volume (WCDV) sized spill *if there were no on-water response recovery operations*. Model limitations were carefully evaluated and

merged with geographic information system (GIS) data to provide the most conservative spill trajectory.

The CIRCAC Cook Inlet Oil Surface Model (CIOSM) was used to determine the potentially impacted GRS locations. The purpose of the CIOSM is to track the trajectory of *surface* floating oil. The CIOSM is an experimental model that does not take into account 3D hydrography, spill response efforts or variable winds. Since no other model like this currently exists, it was considered the best available to determine a deployment schedule to prevent oil from entering environmentally sensitive areas (ESA) in accordance with 18 AAC 75.445(d)(4). Using the worst-case scenario of no on-water recovery operations provides the most conservative mobilization and deployment schedule for the protection of these ESA's.

All potentially impacted GRS's have been included for priority protection planning by taking into account the estimated spill trajectory area based on proximity to land and adding the potential for increases in wind speed. These GRS's have been labeled as "possible." Refer to Table E-5 for a listing of potentially impacted GRS locations based on wind speed and direction using the CIOSM model.

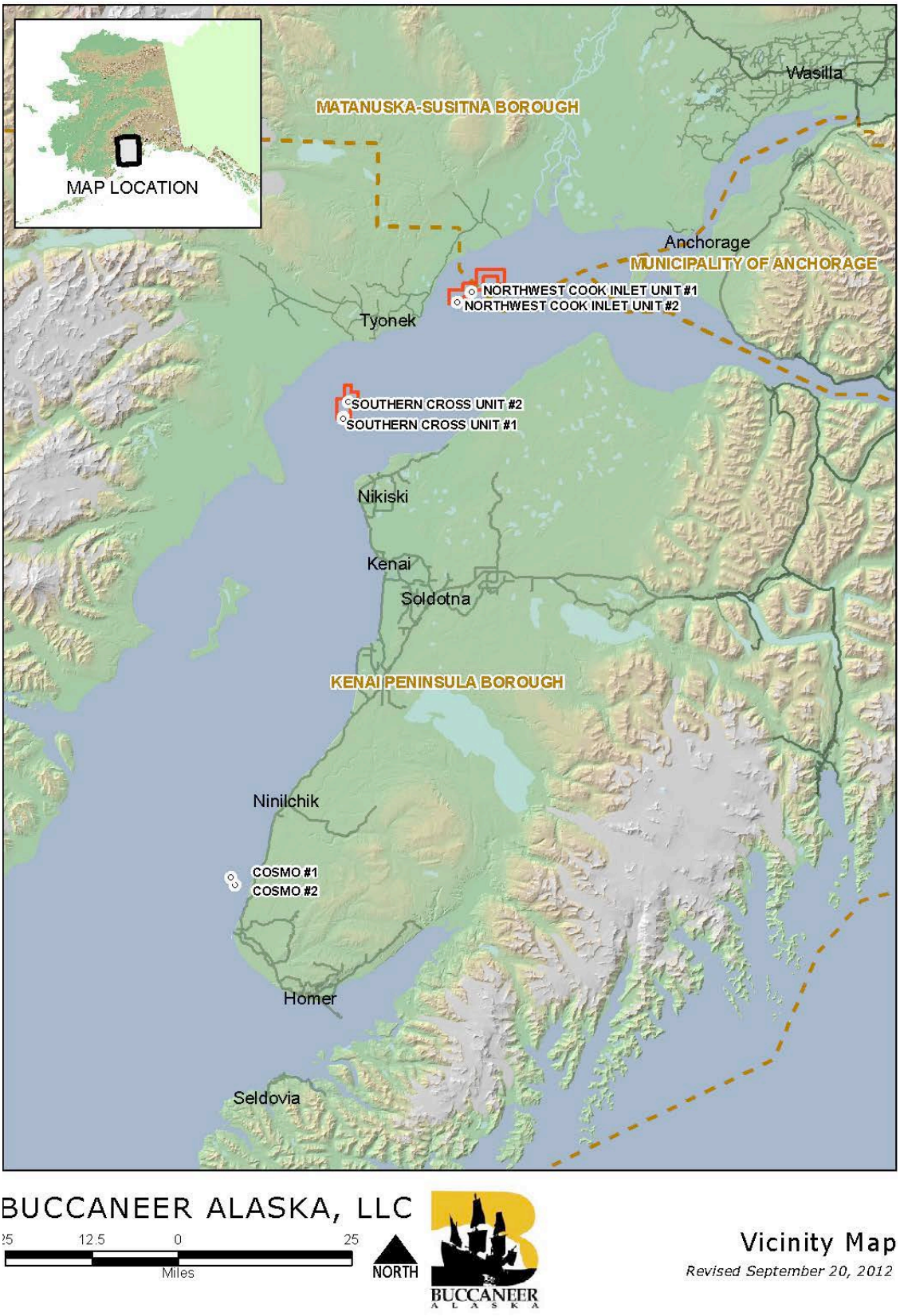
Table E-5: Potentially Impacted GRS Locations by RPS or WCDV Sized Discharges with no on-water Recovery Operations (Model run starting at 10 AM on February 15, 2013)

Day	Potentially Impacted GRS Location	Estimated time to impact per CIOSM	% Released	% On Shore
Wind Speed 8.37 mph from the NE				
Spill amount 33,600 gallons over 192 hours (equivalent to 800 bopd)				
8	CCISW-01	2/23/13 7:15	98	4

Figure E-4 shows the Spill Trajectory for a Cosmo blowout.

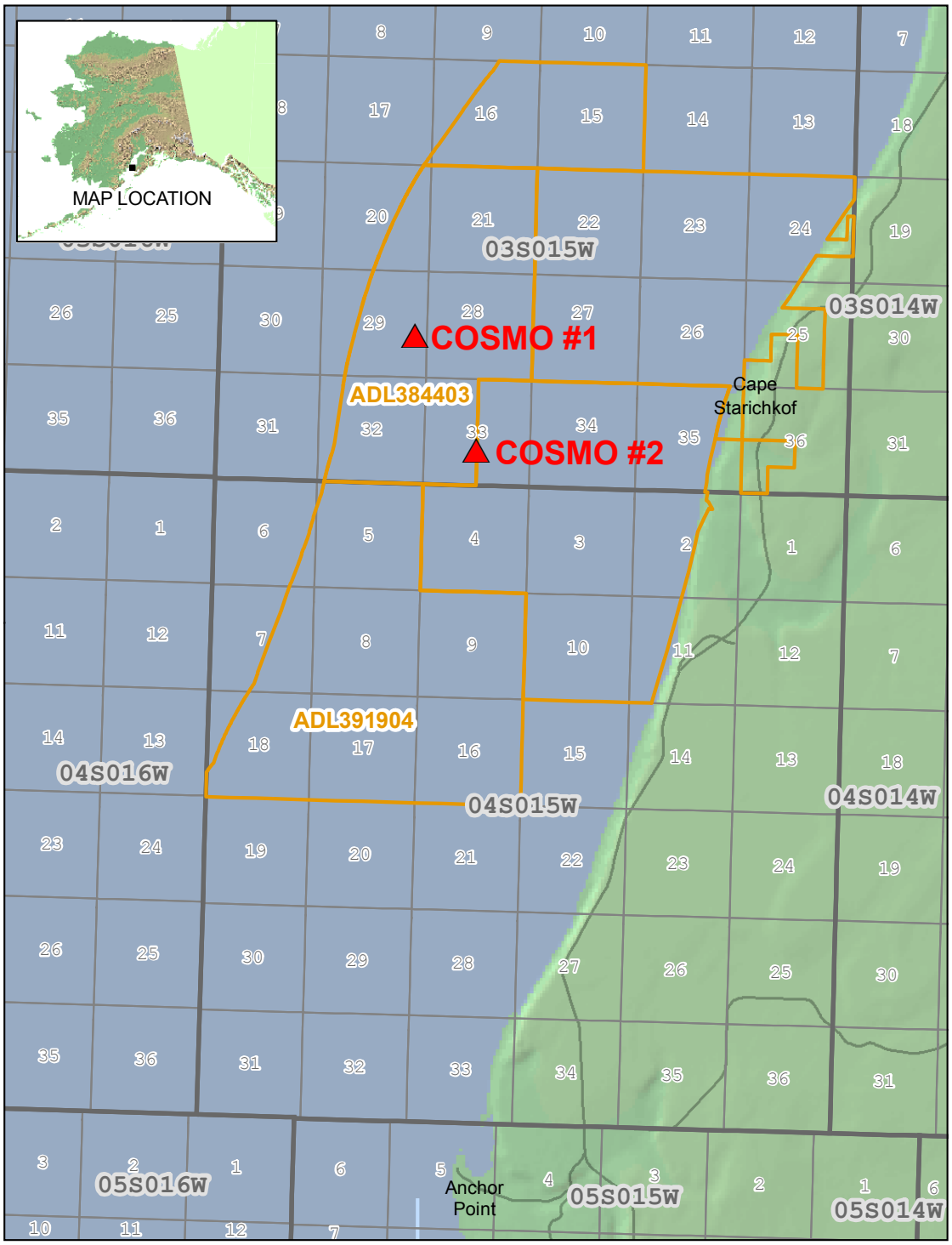
THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-1 Vicinity Map



THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-2 Cosmo Well Location



THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-3 Homer Wind Rose – November through April

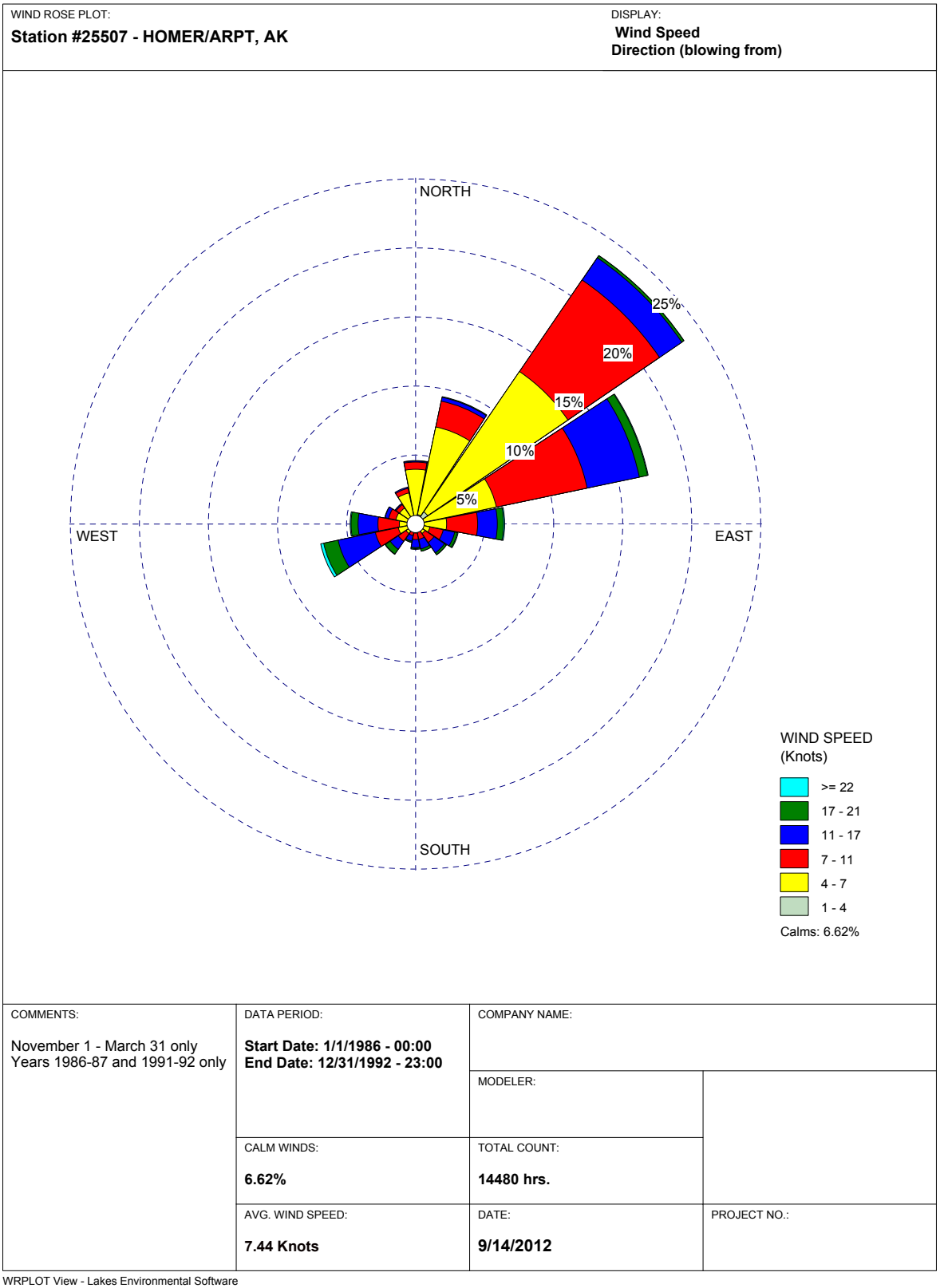


Figure E-4 Homer Wind Rose – February

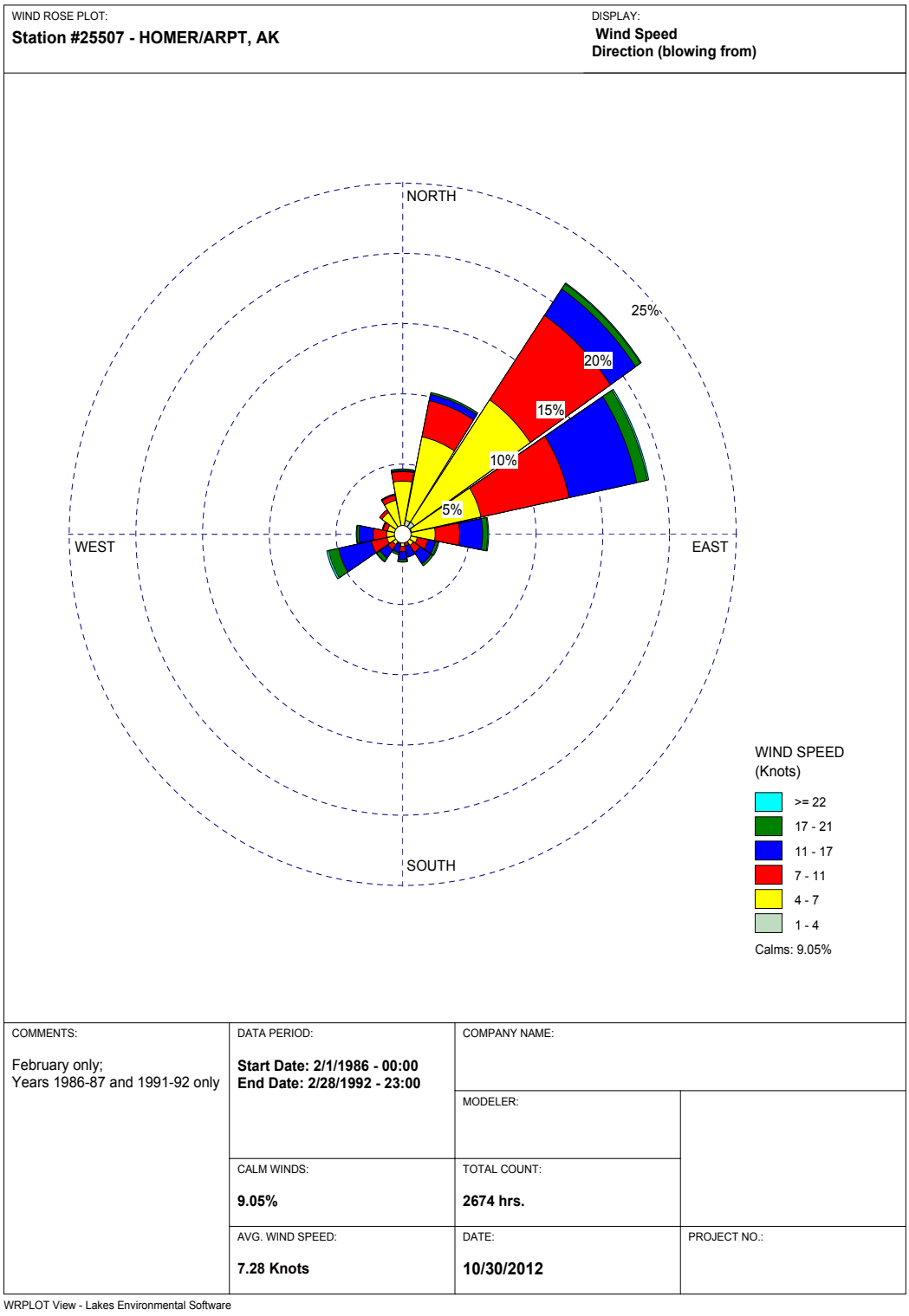
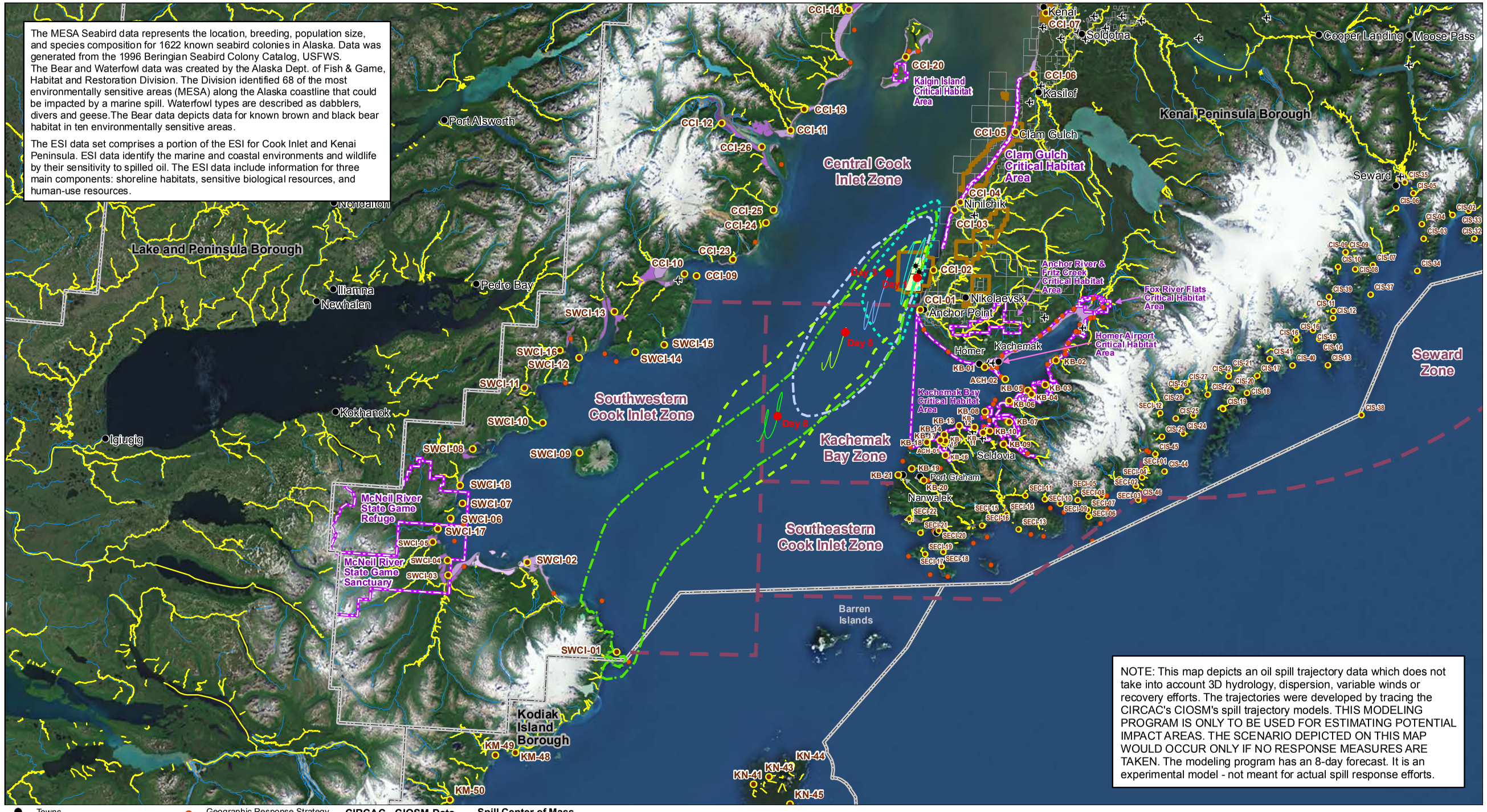


Figure E-5 Blowout Trajectory for the Worst Case Scenario Without Any Spill Response

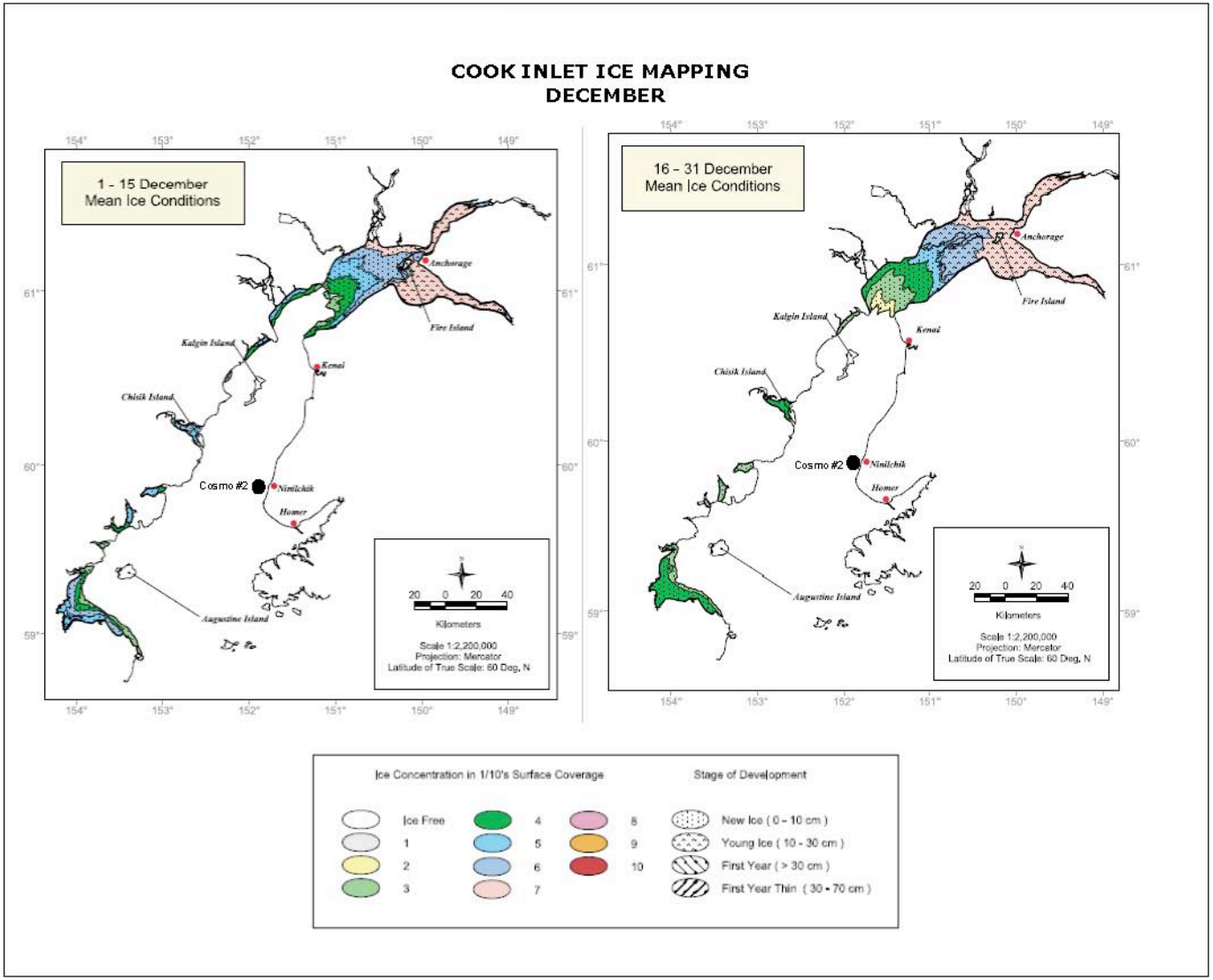


Lower Cook Inlet Location Map with Buccaneer Oil Leaseholdings, Geographic Response Strategies, and Environmentally Sensitive Areas 8.37 mph Winds from the Northeast

November 2, 2012 d/alliedgis/contracts/buccaneer/mxd/spill_1-3-5-8_ NE_8.37mph_17x11 grs and esi.mxd

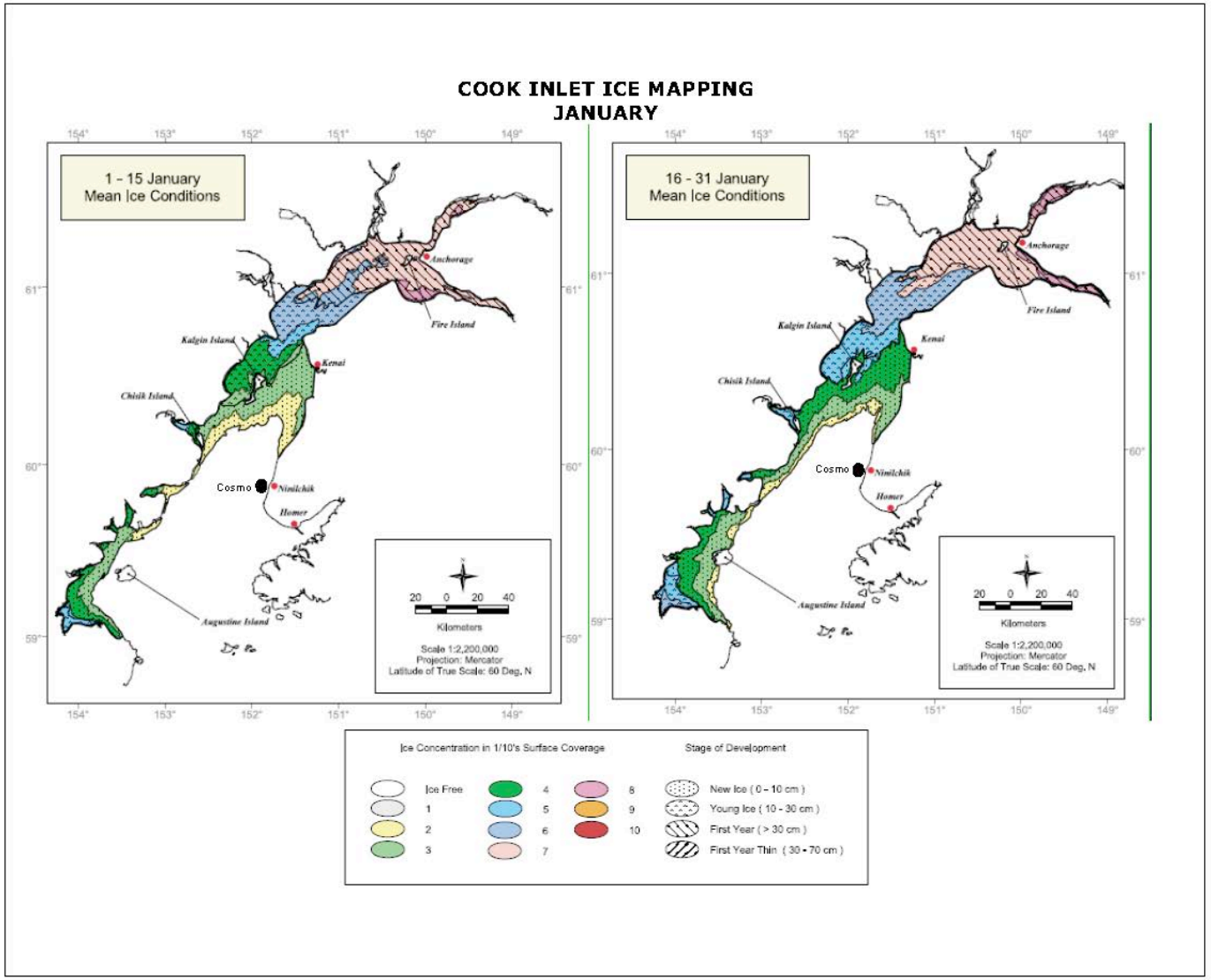
THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-6 Cook Inlet Ice Mapping December



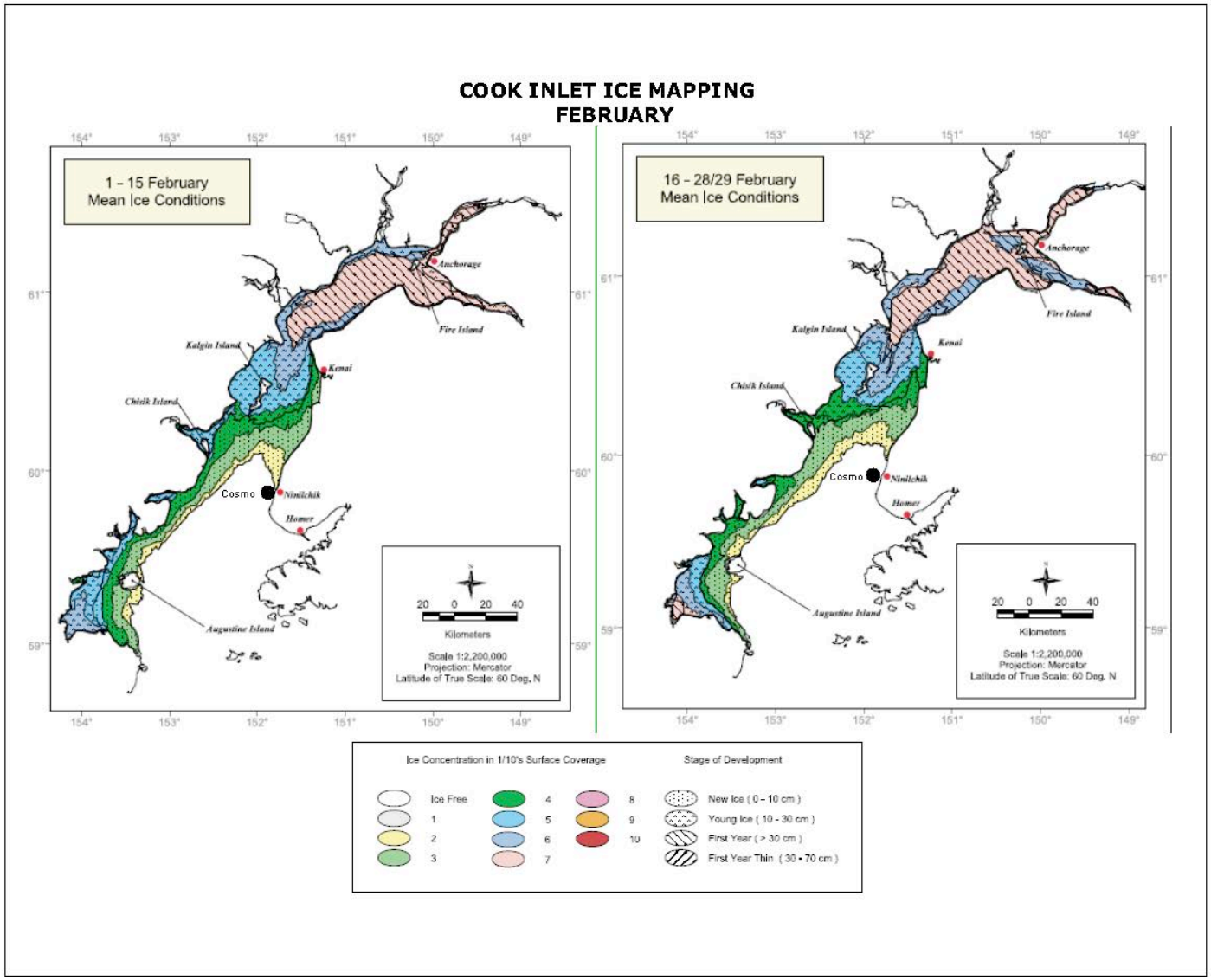
THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-7 Cook Inlet Ice Mapping January



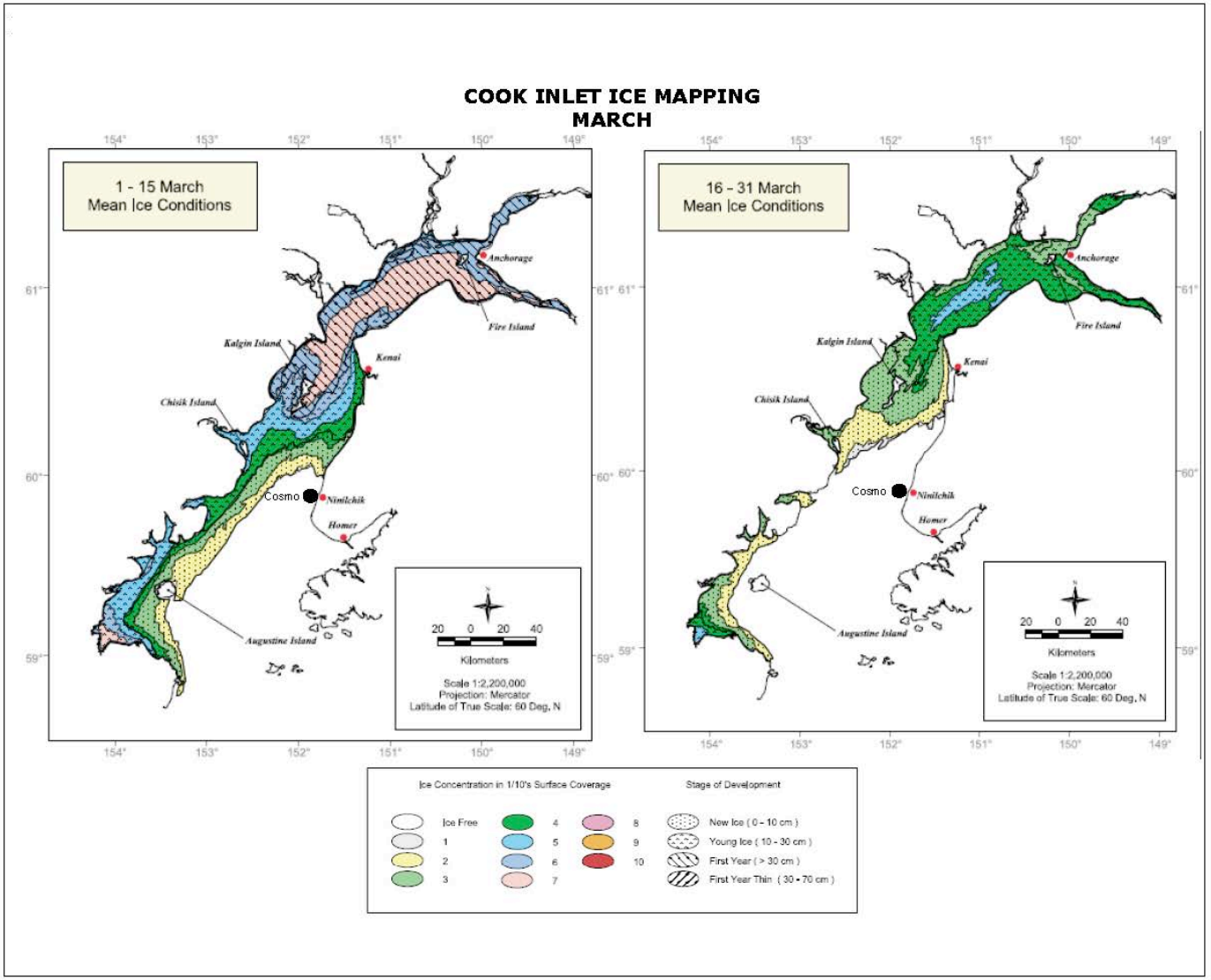
THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-8 Cook Inlet Ice Mapping February



THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-9 Cook Inlet Ice Mapping March



THIS PAGE INTENTIONALLY LEFT BLANK

Figure E-10 AOGCC Letter of Approval RPS Modification

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Alaska Oil and Gas Conservation Commission

333 West Seventh Avenue
Anchorage, Alaska 99501-3572
Main: 907.279.1433
Fax: 907.276.7542

October 10, 2012

Mr. Mark Landt
Vice President, Land & Business Development
Buccaneer Alaska, LLC
952 Echo Lane, Suite 420
Houston, Texas 77024

Ms. Laurie Silfven
Acting Section Manager
Division of Spill Prevention and Response
Industry Preparedness Program
Exploration Production & Refineries
555 Cordova Street
Anchorage, Alaska 99501

Re: Request under 18 AAC 75.434(*b*) for a recommendation that the Response Planning Standard volume for exploratory wells in the Cosmopolitan prospect area be lower than the default volume of 5500 barrels per day.

Dear Mr. Landt and Ms. Silfven:

By letter dated September 7, 2012, Buccaneer Alaska, LLC (Buccaneer) requested the Alaska Oil and Gas Conservation Commission (AOGCC) provide a recommendation that the appropriate Response Planning Standard (RPS) volume for exploratory wells drilled in the Cosmopolitan prospect area (located offshore on the east side of Cook Inlet) be lower than the Department of Environmental Conservation's (DEC) default volume of 5500 barrels per day specified in 18 AAC 75.434. Buccaneer requested a reduction in the RPS volume to 300 barrels per day.

18 AAC 75.434(*b*)

Under 18 AAC 75.434(*b*), the AOGCC may recommend an RPS volume lower than the default volume of 5500 barrels per day based on well data, exploration data, and other supporting technical documentation.

Recommendation

Based on the information reviewed, the AOGCC believes a reduction in the RPS to 800 barrels per day is appropriate for exploratory wells drilled in the Cosmopolitan prospect area.

Documents Reviewed

The AOGCC reviewed well history files, mud logs, open hole logs, and production test records for five wells[1] in the Cosmopolitan prospect area, which is located on the east side of the Cook Inlet Basin, Kenai Peninsula Borough, Alaska. These records provide reliable evidence of the geological properties and production capabilities of the formations that will be drilled and tested by exploratory wells in the prospect area.

Findings

1. The exploratory wells planned for the Cosmopolitan prospect area meet the statutory definition of "exploration facility" under 18 AAC 75.990(40).
2. At Cosmopolitan, Buccaneer intends to drill and test potentially productive zones in the Tyonek and Hemlock Formations.
3. Two flow tests were conducted in the Hansen 1 well, which is located in the Cosmopolitan prospect area. Hansen 1 is a directionally drilled well that averages about 73 degrees in inclination (from vertical) through the productive intervals.
4. The first flow test was open to 360 feet of perforations (140 feet true vertical thickness, or TVT) in both the Tyonek and Hemlock Formations, and it produced 300 barrels of oil per day (BOPD) of 24° API oil using nitrogen lift and a jet pump. The second flow test was open to 500 feet of perforations (200 feet TVT) in the Tyonek Formation, and it produced 200 BOPD of 27° oil using nitrogen lift and a jet pump.
5. Analysis of the first test indicates permeability of about 6 millidarcies (md) for the tested interval. Analysis of the second test indicates permeability of about 2 md.
6. Buccaneer's requested reduced RPS volume of 300 barrels per day assumes a vertical, cased wellbore that is open through perforations to a single oil-bearing zone. The AOGCC does not believe that this is representative of a worst-case scenario for determining spill response planning standards.
7. The AOGCC considers the appropriate scenario for spill response planning to be Tyonek and Hemlock Formations simultaneously open to an uncased wellbore. Based on this scenario, the AOGCC estimates the unassisted flow potential of an exploratory well in the Cosmopolitan prospect area to be about 800 barrels per day, assuming approximately 500 feet TVT of open, oil-bearing sands, an average permeability of 4 md, and average fluid properties from the Hansen 1 flow tests.

Conclusion

Based on the records examined, the AOGCC believes that the appropriate RPS volume for exploratory wells drilled to the Tyonek and Hemlock Formations in the Cosmopolitan prospect area is 800 barrels per day.

[1] Hansen 1, Hansen 1A, Hansen 1AL1, Starichkof State Unit 1, and Starichkof State 1

Mr. M. Landt and Ms. L. Silfven
October 10, 2012
Page 3 of 3

Please call Mr. Steve Davies at 793-1224 or Mr. David Roby at 793-1232 if you have questions concerning this recommendation.

Sincerely,

Cathy P. Foerster
Chair, Commissioner

Daniel T. Seamount, Jr.
Commissioner

John K. Norman
Commissioner

RECONSIDERATION AND APPEAL NOTICE

As provided in AS 31.05.080(a), within **20** days after written notice of the entry of this order or decision, or such further time as the Commission grants for good cause shown, a person affected by it may file with the Commission an application for reconsideration of this order or decision by it. If the notice was mailed, then the period of time shall be **23** days. An application for reconsideration must set out the respect in which the order or decision is believed to be erroneous.

The Commission shall grant or refuse the application for reconsideration in whole or in part within 10 days after it is filed. Failure to act on it within 10-days is a denial of reconsideration. If the Commission denies reconsideration, upon denial, this order or decision and the denial of reconsideration are **FINAL** and may be appealed to superior court. The appeal **MUST** be filed within **33** days after the date on which the Commission mails, **OR 30** days if the Commission otherwise distributes, the order or decision denying reconsideration, **UNLESS** the denial is by inaction, in which case the appeal **MUST** be filed within **40** days after the date on which the application for reconsideration was filed.

If the Commission grants an application for reconsideration, this order or decision does not become final. Rather, the order or decision on reconsideration will be the **FINAL** order or decision of the Commission, and it may be appealed to superior court. That appeal **MUST** be filed within **33** days after the date on which the Commission mails, **OR 30** days if the Commission otherwise distributes, the order or decision on reconsideration. As provided in AS 31.05.080(b), "[t]he questions reviewed on appeal are limited to the questions presented to the Commission by the application for reconsideration."

In computing a period of time above, the date of the event or default after which the designated period begins to run is not included in the period; the last day of the period is included, unless it falls on a weekend or state holiday, in which event the period runs until 5:00 p.m. on the next day that does not fall on a weekend or state holiday.

THIS PAGE INTENTIONALLY LEFT BLANK