Oil and Hazardous Material Spill Contingency Plan

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Tuktu Project Area
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ᓯᕗᓕᖅᑎᓃᖅᑰᖅᑐᑦ ᓇᐃᓅᕐᓯᒪᔪᑦ ᑐᑭᓯᐅᒪᔾᔪᑎᔅᓴᑦ

Advanced Explorations Inc.'s ᕿᓂᖅᐲᑦ ᓂᕆᐅᓇᖏᑐᓄᑦ ᐸᕐᓇᐅᑎᖑ ᓴᓇᔭᐅᓯᒪᔪᖅ ᑕᐃᒪᓐᓕᒻᒧᑦ ᐃᑰᑕᕐᓂᕐᒧᑦ ᐊᒻᒪᓗ ᑕᒪᑐᒧᖓ ᑐᕌᖑᓄᑦ ᕿᓂᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᓄᑦ ᐸᕐᓇᑕᐅᕙᓪᓕᐊᔪᓄᑦ ᑲᒪᒋᔭᐅᔪᓄᑦ ᓅᓐᓂᑦ ᑐᒃᑐ ᐱᓕᕆᐊᕐᒥ, ᑕᒫᓂ 70 ᑭᓛᒥᑕᓂᒃ ᐅᖓᓯᓐᓂᓕᒃ ᐱᖓᓐᓇᖓᓂ ᓴᓂᕋᔭᒻᒥ, ᓄᓇᕗᒻᒥ. ᐱᔾᔪᑎᖓ ᐸᕐᓇᐅᑎᐅᑉ ᐸᕐᓇᐅᒻᒥᑦ ᐊᑐᐃᓐᓇᐅᕐᑯᐱᓪᓗᑎᒃ ᖃᓄᖅᑑᕈᑎᔅᓴᐅᓚᔭᖅᑐᒥᒃ ᐃᓱᒪᓇᖅᑐᓄᑦ ᑯᕕᔪᖅᑲᑳᓪᓚᑕᕐᓂᖅᑲᑦ ᐊᑐᖅᑕᐅᓚᔭᖅᑐᓂᒃ ᓄᓇᒋᔭᐅᕙᑦᑐᒥ ᐃᑰᑕᕐᕕᐅᕙᑦᑐᓂᓪᓗ. ᓇᓗᓇᐃᕐᓯᓯᒪᔪᑦ ᑲᒪᒋᔭᔅᓴᒫᖑᓂᒃ ᑲᒪᔨᓪᓗᐊᑕᐅᕙᑦᑐᓂᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᓂᒃ ᐊᒻᒪᓗ ᓇᓗᓇᐃᕐᓯᓯᒪᓪᓗᓂ ᐊᐅᓚᔾᔭᓯᓇᓰᖑᓂᒃ ᖃᐅᔨᒃᑲᖅᑕᐅᑎᓪᓗᒋᑦ ᑯᕕᔪᖅᑲᖅᑎᓪᓗᒍ ᑎᒥᒧᑦ ᐊᑦᑕᓇᖅᑐᒦᑎᑦ ᑎᑦᑕᐃᓕᓪᓗᑎᒃ ᑭᓯᑐᐃᓐᓇᓄᓪᓗ, ᐊᕙᑎᒥᒃ ᓯᕋᑦᑎᑎᑦᑕᐃᓕᓪᓗᑎᒃ, ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒧᓪᓗ ᐊᑭᖏᓂᒃ. ᐸᕐᓇᐅᑦ ᐅᐸᓗᖑᐃᔭᖅᑕᐅᓯᒪᔪᖅ ᖃᐅᔨᒋᐊᕋᓐᓂᑎᐊᖅᑐᑎᒃ ᑐᑭᓯᐅᒪᒍᑎᔅᓴᐃᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᓖᑦ ᑲᒪᓂᐊᕐᓗᓂ ᑯᕕᔪᒥᒃ.

ᐊᑐᐊᒐᕆᔭᐅᒻᒪᑦ ᑎᒥᐅᔪᒧᑦ ᐱᒋᐊᖅᑎᑦᑎᓂᐊᖅᑎᓪᓗᒋᑦ ᓴᓗᒻᒪᕐᓴᐃᓂᕐᒥᒃ ᐃᒪᐃᑎᓪᓗᒋᑦ, ᐃᓱᒪᒋᔭᖏ ᐊᐅᓚᑦᑎᓴᖏᑕ ᒪᓕᑦᑐᒍ, ᑎᒥᐅᔪᖅ ᐊᑦᑐᐊᑎᓪᓗᒋᑦ ᐅᕝᕙᓘᓐᓅᑦ ᐊᑐᖅᑕᐅᓯᒪᓂᐊᖅᑎᓪᓗᒋᑦ ᑯᕕᔪᒧᑦ. ᐊᒻᒪᓗᑦ ᑕᐅᖅ, ᑎᒥᐅᑉ ᐊᑐᐊᒐᖏ ᐃᒫᒃ ᐊᑐᕈᒫᕐᓂᐊᕐᓯᒪᒻᒥᔪᖅ: ᒪᓕᓪᓗᑎᒃ ᒪᓕᒐᐅᔭᓅᖅᑐᓂᒃ; ᓯᕈᖅᑎᑦᑕᐃᓕᓗᑎᒃ ᐊᕙᑎᒥᒃ ᐃᓯᕐᕆᐅᑎᓄᑦ ᐊᔪᕐᓇᑎᓐᓇᒍ ᕿᓇᐅᔭᓕᐅᕈᑎᔅᓴᓄᓪᓗ ᓈᒻᒪᑎᓪᓗᒍ; ᑲᑐᔾᔨᖅᑎᖅᑕᖅᓗᑎᒃ ᐊᓯᖏᓂᒃ ᑎᒥᐅᔪᓂᒃ ᐱᓕᕆᖅᑎᓕᖕᓂᒃ ᓴᐳᔾᔨᓂᕐᒥᒃ ᐊᕙᑎᒥᒃ; ᐃᓱᒪᒋᔭᖅᑕᖅᓗᑎᒃ ᓯᕗᓂᑦᑎᓐᓂ ᓯᕈᖅᑎᑦᑕᐃᓕᓂᕐᒧᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᓕᓐᓂᒃ ᐊᒻᒪᓗ ᐊᑐᐃᓐᓇᐅᑎᑦᑎᓗᒃ ᑕᒪᑐᒧᖓ; ᐊᒻᒪᓗ ᐃᖅᑲᓇᐃᔭᖅᑎᓂᒃ, ᒐᕙᒪᒃᑯᓂᓪᓗ ᐱᓕᕆᔨᓂᒃ ᐊᒻᒪᓗ ᐃᓄᓕᒫᓂᒃ ᖃᐅᔨᒃᑲᐃᓯᒪᓗᑎᒃ ᖃᓄᐃᑦᑐᖃᕐᓂᖏᓂᒃ ᐱᓕᕆᕕᖑᓂ.

ᐃᓚᒋᔭᐅᓗᓂ ᐊᑐᐊᒐᕐᒧᑦ, ᑕᒪᕐᒥᒃ ᐅᖅᓯᐊᓗᖅᑲᐅᐲᑦ ᑐᖅᑯᖅᑕᐅᓯᒪᖅᑲᑦ ᑕᕆᐊᓖᑦ ᐃᓂᒋᒋᐊᖅᑲᖅᑕᖏᓂ ᓴᓇᔭᐅᓯᒪᔪᒥᒃ ᑕᒪᒃᑯᓄᖓ ᐊᑐᕈᒫᕐᓂᐊᕐᓯᒪᔪᓂᒃ. ᑎᒥᐅᔪᖅ ᖃᐅᔨᒪᒋᐊᖏᓇᕆᐊᓖᑦ ᑯᕕᔪᖅᑲᖅᑎᓪᓗᒍ ᓴᓗᒻᒪᕐᓴᐃᒍᑕᐅᓰᑦ ᐊᑐᐃᓐᓇᐅᖕᒧᓇᕋᓗᐊᕐᒪᖕᑖ ᖅᑲᖕᓕᒫᒃᑯᑦ, ᐊᒻᒪᓗ ᐊᑦᑕᑯᐃᑦ ᐱᓕᕆᕝᕕᒻᒥ ᐊᐅᓪᓚᖅᑎᑕᐅᖅᑲᑦ ᑕᓴᓗᐊᕐᒪᖕᑖ ᐋᑕᐅᑦᑎᐊᖅᑲᑦ ᑕᖅᑯᓪᓗᒋᑦ ᐊᔅᓯᕕᓪᓚᑦᑖᕐᒧᑦ. ᐊᐅᓚᔾᔭᓯᐅᔭᓇᐊᑏᑦ ᐸᕐᓇᐅᒻᒥ ᐃᓚᓕᐅᔾᔭᐅᖅᑲᑦ ᑕᕆᐊᓖᑦ ᐱᓇᓯᐊᕈᓯᖅᑕᒫᑦ ᐊᑦᑕᓇᖅᑐᒦᑦ ᑕᐃᓕᓂᕐᒧᑦ ᑲᑎᒪᕐᓂᒥ ᑕᒪᓐᓇ ᑐᑭᓯᐅᒪᔭᐅᑦᑎᐊᖅᑯᓪᓗᒍ ᐳᐃᒍᖅᑕᐅᓯᒪᖅᑯᓇᒍᓗ ᐃᖅᑲᓇᐃᔭᖅᑎᓄᑦ ᐃᖅᑲᓇᐃᔭᖅᑐᓄᑦ ᐱᓕᕆᕕᒻᒥ. ᖃᓄᑐᐃᓐᓇᖅ ᐋᖅᑭᒋᐊᕈᑕᐅᖁᔭᐅᓯᒪᔪᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᓄᑦ ᕿᒥᕐᕈᔭᐅᖅᑲᑦ ᑕᕐᓗᑎᒃ ᐃᓚᓕᐅᔾᔭᐅᖅᑲᑦ ᑕᓯᓗᑎᓪᓗ ᑯᕕᔪᖅᑲᖅᑎᓪᓗᒍ ᐸᕐᓇᐅᒻᒥ, ᓈᒻᒪᑉᐸᑦ, ᐃᓚᒋᔭᐅᓗᓂ ᐋᖅᑭᒋᐊᖅᐸᓪᓕᐊᖕᓇᓂᕐᒧᑦ ᖃᓄᖅᑑᓇᐊᕈᑎᒋᕙᑦ ᑕᖕᓂᑎᒥᐅᑉ.

ᐅᑉ ᐱᕈᓯᒻᒪᑕ ᑎᒥᐅᔪᖅ ᐱᐅᓂᖅᐹᒥᒃ ᐊᑐᐊᒐᖅᑲᕆᐊᖅᑲᕐᓂᖏᓂᒃ ᐱᑦᑎᐊᕐᓯᒪᓂᖅᐹᓂᒃ ᐊᑐᕆᐊᓕᓐᓂᓪᓗ ᖃᓄᐃᓕᑎᑦᑎᑦᑕᐃᓕᖅᑲᑦ ᑕᓂᖅᒧᑦ ᑲᒪᑎᑦᑐᒥᑦ ᓯᓇᑐᐃᓐᓇᕐᓂᒃ ᑯᕕᔪᖅᑲᖅᑯᓇᒍ. ᑕᐃᒪᐃᒻᒪᑦ, ᑯᕕᔪᖅᑲᖅᓂᖅᑲᑦ ᐸᕐᓇᐅᑎᖑ ᐱᐅᔪᐊᓘᕗᖅ ᐊᒻᒪᓗ ᐱᕗᓕᐊᖑᓇᖑᑦ ᑐᓂᐊᓯᔾᔨᐸᓪᓕᐊᓂᖑ ᐱᓕᕆᐊᒻᒥ ᒪᓕᑦᑐᕆᑦ, ᓲᕐᓗ ᐊᓯᔾᐳᖅᑲᑦ ᑕᓯᓂᖅᓯᖅ ᐱᕗᓕᐊᓂᖅᓯᖅ ᒪᓕᑦᑐᕆᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᖅᓯᖅ ᑑᓐᓂᑦ. ᐸᕐᓇᐅᑦ ᐊᑑᑎᓕᒃ ᒪᓕᑦᑐᒍ ᓯᓚᐱᐊᖓᓂ ᐅᓪᓗᖓ ᑎᑎᕋᖅᑕᐅᕕᒋᓯᒪᔭᖓ ᑖᒃᑯᓇᓂ ᑎᑎᕋᕐᓯᒪᔪᓂᒃ ᐊᒻᒪᓗ ᐅᓪᓗᒥᒧᑦ ᐊᖑᒻᒪᑎᓕᖅᑎᑕᐅᕆᐊᕐᐸᑦᑐᑎᒃ ᐱᓕᕆᐊᖅ ᐊᐅᓚᓂᓕᒫᖓᓂ ᒪᓕᑦᑎᐊᖅᑲᑦ ᑕᓂᐊᕐᖓ ᐊᓯᔾᔨᐸᓪᓕᐊᓂᕆᑦ ᑕᖓᓄᑦ ᐊᐅᓚᓂᕐᒥ ᐃᓯᕐᕆᐅᑎᖓᓂᓪᓗ. ᑎᒥᐅᔪᖅ ᐱᓯᒪᔪᖅ ᓅᒻᒪᑦᑐᓂᒃ ᐱᔪᓐᓇᐅᑎᓂᒃ /ᐱᓕᕆᔪᓐᓇᐅᑎᓂᓪᓗ ᓚᐃᓴᓂᒃ ᑕᒫᓂ, ᑕᐃᒫᒃ ᓇᓗᓇᐃᕐᓯᒪᒻᒪᑦ ᓯᓚᐱᐊᖓᓂ ᓯᕗᓕᐊᕈᑕᖓᓂ ᐅᓂᒃᑳᑦ.

ᑖᔅᓯᒪ ᐸᕐᓇᐅᑎᐅᑉ ᓇᓕᖅᑲᖓ ᑐᓂᐅᖅᑲᖅᑕᐅᓲᖅᑐᑦ ᑕᒪᕐᒥᒃ ᑐᖅᑲᑕᕐᕕᓕᒫᓄᑦ ᐊᒻᒪᓗ ᐱᓕᕆᕕᖓᓂ ᐊᐅᓚᑦᑎᓴᓕᒫᓄᑦ ᐃᖅᑲᓇᐃᔭᖅᑎᓄᑦ ᐱᖅᑲᑕᐅᓪᓚᑦᑖᖅᑐᓄᑦ ᐱᓕᕆᐊᕐᒥ ᐊᒻᒪᓗ ᓇᓕᖅᑲᖓ ᐱᓯᒪᔪᐅᖅᑲᑦ ᑕᕐᓂᐊᓇᑦᑐᑎᒃ ᐃᖅᑲᓇᐃᔭᖅᑎᕐᕕᐅᔪᒥ ᐃᖅᑲᓇᐃᔭᖅᑎᓕᒫᓄᑦ ᕿᒥᕐᕈᔭᐅᖅᑲᑦ ᑕᕈᓐᓇᓂᐊᕐᖓᓕᖅ. ᓇᓕᖅᑲᑲᓐᓂᖓ ᐅᓪᓗᒥᒧᓪᓗ ᖃᐅᔨᕆᐊᕈᑎᑦ ᑎᑎᐊᐲᑦ ᑖᔅᓯᒪ ᐸᕐᓇᐅᑎᐅᑉ ᒥᔅᓲᓄᑦ ᐱᔪᐊᓇᕐᒥᐊᑦ ᖃᕋᔅᓴᐅᔭᒃᑯᑦ ᐃᕐᖑᓈᕈᑎᒃᑯᑦ ᐅᕝᕙᓘᓐ nadine@advanced-exploration.com ᐅᕝᕙᓘᓐᓅᑦ jennifer@advanced-exploration.com.

EXECUTIVE SUMMARY

Advanced Explorations Inc.'s Oil and Hazardous Material Spill Contingency Plan has been designed for the diamond drilling and associated exploration programs being planned and undertaken at Tuktu Project, approximately 70 km west of Hall Beach, Nunavut. The purpose of the plan is to provide a plan of action for foreseeable spill events at the camp and drill locations. It defines the responsibilities of key response personnel and outlines the procedures for responding to spills in a way that will minimize potential health and safety hazards, environmental damage, and clean up costs. The plan has been prepared to provide easy access to all of the information needed in dealing with a spill.

It is the policy of the Company to initiate cleanup activities when, in the opinion of its management, the Company is clearly associated or likely to be associated with the spilled material. As well, corporate policy is to: comply with existing regulations; provide such protection of the environment as is technically feasible and economically practical; cooperate with other groups working on the protection of the environment; anticipate future pollution control requirements and to make provision for them; and keep employees, government officials and the public informed of the status of the site.

As part of this policy, all fuel barrels in storage are kept within secondary containment berms which are purpose-designed for the application. The Company also ensures that spill kits are on hand at all times, and that waste products produced at the site are shipped to appropriate facilities for proper disposal. Procedures of the Plan are incorporated in the weekly safety meetings to ensure that the topic stays relevant and active in the minds of personnel working on the site. Any improvements suggested by personnel are evaluated and included in the Spill Contingency Plan, if appropriate, as part of the continuous improvement initiative which the company pursues.

It is the belief of the Company that the best policy is to take proper and necessary precautions during the handling of materials in order to avoid spills. Thus, the spill contingency plan is dynamic and will evolve with the changing conditions on site, such as changes in the stage of development or in personnel. This plan is effective as of the front cover date of this document and updated throughout the life of the project to reflect changes in operation and technology. The Company has received the appropriate permits/licenses for the area, as detailed on the cover page of report.

This plan will be distributed to all head office and site management personnel directly involved in the project and hard copies will be kept on site for all employees to review. Additional copies and updates of this plan may be obtained via email at nadine@advanced-exploration.com or jennifer@advanced-exploration.com.

Table of Contents

Introduction

The purpose of the Advanced Explorations Inc. ('AEI' or 'Company') Oil and Hazardous Material Spill Contingency Plan is to provide a plan of action for foreseeable spill events at the Tuktu Project. It defines the responsibilities of key response personnel and outlines the procedures for responding to spills in a way that will minimize potential health and safety hazards, environmental damage, and clean up costs. The Plan has been prepared to provide easy access to all of the information needed in dealing with a spill.

A schematic of the temporary camp is presented in Figure 1. A description of the facility including location, size and licensed storage capacity are also provided in Appendix A. Currently, there is no permanent infrastructure at the site. The present goal is to explore the property for iron mineral potential.

It is the policy of AEI to initiate cleanup activities when, in the opinion of its management, the Company is clearly associated or likely to be associated with the spilled material. As well, it is AEI's Company policy:

- to comply with existing regulations;
- to provide such protection of the environment as is technically feasible and economically practical;
- to cooperate with other groups working on the protection of the environment;
- to anticipate future pollution control requirements and to make provision for them; and
- to keep employees, government officials and the public informed of the status of the site.

It is the belief of the Company that the best way to avoid ever having to implement this Spill Contingency Plan is by taking proper and necessary precautions during the handling of the materials. As part of this, all fuel barrels in storage will be kept within a secondary containment berm which is purpose-designed for the application. We will also ensure that spills kits are on hand at all times. Materials used on site such as gasoline and oil will be stored in drums and transported to the site by helicopter from storage areas. Waste products produced at the site will be shipped out on returning supply aircraft or sealift.

Response Organization

The spill response team will comprise all employees and personnel who are present at the site of an undertaking. Generally, this should include the current site manager and the site representative of any contractors that may be involved, such as drill contractor, camp contractor or helicopter crew. The site manager is responsible for managing the entire

undertaking and is in charge of the management of petroleum products or hazardous materials. It is the site manager who will be initially responsible for cleanup activities.

In the event that the primary personnel are away from the site, it will be the responsibility of the primary personnel to appoint a duly authorized responsible person. The first team member at the scene shall assume spill activation procedures until the responsible person is present and shall take over the responsibility.

In the case of a major spill situation, the primary personnel who should be onsite to activate the proper procedures are the Project Manager and Site Supervisor. They may be reached 24 hours/day on the camp satellite phone or 867-928-8030 (Hall Beach Office) during the summer exploration season; off season, contact AEI at 416-203-0057.

Initial Actions

This section is included to educate company personnel about the proper procedures for reacting to a spill.

The suggested course of action of the first person at a spill scene is the following:

(a) Be alert and considerate of your safety first. If possible, identify the product spilled (refer to Product Information in Appendix B and Supporting Documentation in Appendix C);
(b) Assess the hazard to persons in the vicinity of the spill;
(c) If possible, without further assistance, control danger to human life;
(d) Assess whether the spill can be readily stopped or brought under control;
(e) If safe to do so, and if possible, try to stop the flow of material;
(f) Gather information of the status of the situation;
(g) Report the spill without delay to the Site Manager and ensure that the government is notified at the same time by the NT-NU 24-Hour Spill Report Line at 867-920-8130. INAC's Manager of Field Operations shall also be notified by phone at 867-975-4295 and/or fax at 867-979-6445;
(h) Notify the Site Supervisor on the camp satellite phone and the Project Manager at the Hall Beach Office at 867-928-8030; off season, contact AEI at 416-203-0057; and
(i) Resume any effective action to contain, clean up, or stop the flow of the spilled product.

Reporting Procedures

All spills or potential spills of petroleum products or other hazardous materials must be reported to the 24-hour Spill Report Line to ensure that an investigation may be undertaken by the appropriate government authority. This should be done by either the Site Manager or the

Project Manager. If neither of these people is available at the time of a spill, the first spill response team member who is present at the site is responsible for the reporting procedures.

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NOTE: Telephone calls can be made collect by informing the Operator that you wish to report a spill.

Once the proper governmental authorities have been notified, attempts should be made to notify the Site Manager and/or Project Manager if they were not present at the time of the spill. The next person to be notified is the Chief Executive Officer, and a copy of the report should be e-mailed to him at john@advanced-exploration.com as soon as is possible after the spill. A list of additional contact information that might be needed at the time of a spill can be found in Appendix E.

For each spill occurrence, INAC's Water Resources Officer/Inspector/Manager of Field Operations shall be contacted immediately by phone at 867-975-4295 and/or fax at 867-979-6445. The spill report shall be submitted to the Inspector no later than thirty (30) days after initially reporting the spill to the Spill Report Line.

If and when any hazardous waste has to be moved to a proper disposal facility, the Environmental Protection Service (EPS) must be contacted to track the movement of hazardous waste from the generator to the final disposal site through the use of a document called a waste manifest. This document must accompany all hazardous waste in transit regardless of the means of transport. All parties (the generator, carrier, and receiver) must be registered by the EPS and the registration number entered in the appropriate location on the waste manifest

form. Registration numbers and waste manifest forms are available from the EPS. More details on the waste manifest can be found in Appendix F.

Action Plans

Given the nature of the undertaking, the most likely spill possibilities would be leakage of the drums at the camp, spilling during transit, as a result of defective equipment, or through simple human error. Due to the small quantities in transit at any given time (45 gallon drums), the likelihood of a major spill is negligible. Further, contamination of bodies of water will be avoided by not transporting fuel over water and storage at least 31 m from any body of water. Fuel spill kits will be kept in close proximity to all fuel caches.

The risk of spills will be further reduced through regular inspection and maintenance of all storage areas and equipment associated with fuel handling. These include:

- all fuels to be stored within secondary containment berms designed for the purpose, and inspected on a regular basis: visual checks every time the cache is visited and a formal inspection by the Site Supervisor or other person appointed by the Site Supervisor on a weekly basis;
- pre-use visual checks of fuel pumps and hoses;
- carefully monitoring content in the receiving vessel during transfer;
- cleaning up drips and minor spills immediately;
- regularly inspecting drums, tanks and hoses for leaks or potential to leak; and
- training personnel, especially those who will be operators, in proper fuel handling and spill response procedures.

A record of these inspections and any remedial action is kept in camp and forwarded to Head Office on a monthly basis.

Procedure for Spills on Rock

For spills on rock outcrops, boulder fields, etc.:

1. First responder or their designate obtains plastic tarpaulin(s) and absorbent sheeting on site.

2. A berm of peat, native soil or snow is constructed down-slope of the seepage or spill. The tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums for sealing and disposal.

3. Absorbent sheeting is placed on the rock to soak up spilled oil, fuel, etc.

4. Crushed lava rock can be used to scrub the rock surface.

5. Saturated material is disposed of in an empty drum, which is then labeled and sealed. Alternatively, the pads may be wrung out into empty drums and the drums marked and then secured for eventual disposal.

6. Report the nature and volume of the spill to the 24-Hour Spill Report Line.

Procedure for Spills on Land

For spills on land:

1. First responder or their designate obtains plastic tarpaulin(s), absorbent sheeting, ultra-dry absorbent and any other necessary spill containment equipment, pumps, hoses, etc.

2. A berm of peat, native soil or snow is constructed down-slope of the seepage or spill. The tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums for sealing and disposal.

3. Applying a thin dusting of ultra-dry absorbent to the groundcover may control petroleum-product sheen on vegetation.

4. All contaminated soil must be shoveled into empty drums as far as possible and kept for disposal. The material shall be transported away from site and disposed of at the nearest suitable facility where a capable waste management contractor will ensure disposal.

5. Contact the 24-Hour Spill Report Line to report the incident, the nature of the spill and the estimated volume of the spill.

Procedure for Spills on Water

It is important to immediately limit the extent of spills. The following is the procedure to be implemented when an incident on water occurs:

1. If the spill is small, deploy hydrophobic (water repellent) absorbent pads on the water. Hydrophobic pads readily absorb hydrocarbons. Alternatively, an ultra-dry absorbent designed for use on water-based spills may be deployed.

2. If the spill is larger, ready several empty drums to act as refuge containers for the spills.

3. Deploy containment booms on the water surface to "fence in" the spill area gradually and to prevent it from spreading. Keep in mind those environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup. Absorbent booms can then be deployed to encircle and then absorb any spillage that may have escaped the containment boom.

4. Once a boom has been secured, a skimmer may be brought on scene to help capture the hydrocarbon. Once captured, the product should be pumped into the empty fuel drums and held for disposal.

5. Contact the 24-Hour Spill Report Line to report the incident, the nature of the spill and the estimated volume.

Procedure for Spills on Snow

By its nature, snow is an absorbent and fuel spilled on snow is collected with relative ease using either a shovel or loader, depending on the size of the spill.

1. Assess the nature of the spill. Necessary equipment might include shovels, plastic tarps, empty drums and/or wheeled equipment.

2. Shovel or scrape contaminated snow and deposit in empty fuel drums. If the spill is more extensive, build compacted snow berms with plastic overtop around the affected area.

3. Contact the 24-Hour Spill Report Line and report the spill.

Procedure for Spills on Ice

Spills on ice are handled similarly to those on snow. However, as ice presents the added danger of immediate access to water, care must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

1. Construct a compacted snow berm around the edge of the spill area.

2. Although hard ice will slow or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (such as gravel or frozen absorbent pads) must be scraped from the ice surface and disposed of in an appropriate manner.

3. Contact the 24-Hour Spill Report Line and report the spill.

Procedure for Berm Water Contamination

In order to reduce the potential impact to water that collects in fuel containment berms from natural sources, it is important to minimize the amount of snow and/or rain entering the berms at all times. This is accomplished by covering the drummed fuel with polytarps to the extent possible. In addition, drums inside the berms are stacked for long-term storage with bungs at the 3 and 9 o'clock positions. Water that does collect in the berms will be pumped into empty 205 L (45 gallon) drums for containment and future treatment, if immediate treatment is not available. Water in the berms or in the storage containers will be treated once an approved filtration system is available, with the release of treated water being discharged away from any surface water bodies.

Procedure for Loss of External Load during Air Transportation

The loss of external loads of fuel, oil, or chemicals from aircrafts almost certainly results in complete and catastrophic failure of the container that once held the product. Immediate response is imperative.

1. Mark the loss target with global positioning system (GPS) coordinates and relay to camp ASAP. Include quantity and type of load loss.

2. Camp should contact the 24-Hour Spill Report Line and report the spill.

3. Administer the appropriate procedures for spills on land, water, snow or ice depending on the location of the spill.

Procedure for Loss of External Load during Ground Transportation

Spills during the transportation of fuel over land should be treated the same as spills on snow, ice, water or land, depending on the location of the spill. Further the response should include:

1. Mark the loss target with global positioning system (GPS) coordinates and relay to camp ASAP. Include quantity and type of spill.

2. Camp should contact the 24-Hour Spill Report Line and report the spill.

3. Administer the appropriate procedures for spills on land, water, snow or ice depending on the location of the spill.

Environmental Mapping

A map showing the environmental mapping undertaken to date is provided (Figure 4). The most sensitive vegetation/terrain is shown in dark green (riparian) and light green (graminoid).

Resource Inventory

The following is a list of both the personnel and the specific types of equipment, machinery and tools that will be made available at camp. This includes equipment to be used by a contractor responding to the spill on the Company's behalf. These resources are described in two categories, and are partially dependent on size of exploration program being conducted, and the stage at which the camp is in operation:

- Personnel (dependent on size of seasonal drill programs):
    - Site Manager
    - Drill Supervisor
    - Drillers and Drill Helpers
    - Camp Cooks, who are also First Aid Officers
    - Camp Manager
    - Geologists and Geology Students
    - General Labourers
    - Consultants (presence will fluctuate during the undertaking)
    - Pilot
    - Aircraft Engineer

- Equipment (estimate; some equipment onsite only seasonally):
    - Eurocopter A-star 350B2 helicopter
    - Longyear diamond drills; Longyear 55 model drills
    - Honda ATVs; Snowmobiles
    - Industrial Diesel Generators
    - Piston Water Pumps
    - A Weatherhaven camp
        - Complete spill kits, oil absorbent kits. One kit will be located at each drill site during drilling operations, one at the camp where fuel is stored and one at the sealift landing fuel cache. All kits will be inspected on a monthly basis to ensure they are fully equipped and usable. Each kit contains (or similar):
            - 1-45 Gallon, 16 gauge open top drum (with Bolting Ring & Gasket)
            - 1 48"x48"x1/16" Neoprene Pad (drain stop)
            - Plug N/Dike™ Granular, 1-gal US
            - Splash protective goggles

- 2-PVC oil resistant gloves
- 1-pkg polyethylene disposable bags (5mm) 10/Pack
- 1-Shovel (spark proof)
- 1-case T-12 3" x 12' Mini Boom, 4 booms/case
- 1-bale HP-256 17"x19"x1/2" Pads, 100 pads/bales
- 1 skimmer
- 1 bale of Sphag Sorb™

For resources and contact information available from other sources, please see Appendix D.

Training and Exercises

To prepare personnel to deal with a spill, all people in the camp will be instructed on the procedures set out in this Spill Contingency Plan, and on the practical use of a spill kit. The training shall include dry demonstrations of the application of the components making up the spill kits. The location of spill kits will be communicated as part of the training and all personnel will be instructed on the importance and necessity of preventing fuel spills.

The procedures of the Spill Contingency Plan will be incorporated in the weekly safety meetings to ensure that the topic stays relevant and active in the minds of personnel working on the site. Any improvements suggested by personnel will be evaluated and included in the Spill Contingency Plan as part of the continuous improvement initiative which the company pursues.

Further, upon arrival at the site, each member of the Team will also undergo a site induction which includes the contents of this Spill Contingency Plan as part of site orientation.

Conclusion

This spill contingency plan is dynamic and will evolve with the changing conditions on site, such as changes in the stage of development or in personnel. This plan shall be updated annually, as a condition of the water license, to reflect changes in operation and technology.

Copies of this spill contingency plan will be readily available in all locations of concern at the site as well as with personnel entrusted with spill response duties.

Signed “John Gingerich” March 2011

_____ _____

John Gingerich **Date**
Chief Executive Officer
Advanced Explorations Incorporated

Signed “Lou Nagy” March 2011

_____ _____

Lou Nagy **Date**
Chief Financial Officer
Advanced Explorations Incorporated

Appendix A: Description of the Facility

The Tuktu Project area consists of 11 mineral claims designated HABS 1 to 11. HABS 1 to 3 were recorded on September 10, 2009 and HABS 4 to 11 were recorded on October 7, 2009. To date, Advanced Explorations Inc. has taken 75 Surface samples from the property, and conducted preliminary surface mapping in the area of mineralization. Additional mapping and sampling will be required in the future, with potential for follow-up diamond drilling to outline any resource.

The Tuktu Project exploration program will be initiated from the existing Roche Bay camp (approximately 60 km south of the Tuktu Project area). An approximated 20 man camp will be established at the project area. Geophysics will be conducted in late spring while there is still snow and ice cover, with geological, sampling and mapping programs being conducted during the snow free portion of the season. Potential drilling activities will be contingent on results of the above program. All of the above is contingent on the level of financing that can be achieved; lack of financing will result in no program being undertaken in 2011.

Facility – Camp: A 20-person camp will be established at the project area. The camp will consist of Weatherhaven tent modules.

Licensed Storage capacity at Tuktu Project Area:

- 100 barrels diesel
- 50 barrels unleaded gasoline
- 100 barrels aviation fuel Jet B
- 30 x 100 lb tanks of propane

Fuel Storage: Fuel will be stored in the appropriate facility at a safe distance from the accommodations and well away (at least 31 m) from all water bodies. To prevent a spill, fuel stored in drums is located in secondary containment berms which are capable of holding 110% of the total volume contained. The berms will contain any spill, and fuel spilled in the berm will be cleaned up using the appropriate methods. The containers will be situated in a manner that allows easy access and the removal of containers in the event of a spill. All fuel caches will be inspected regularly.

Container Size: Fuel is stored in sealed 205 litre (45 gallon) steel drums.

In addition to fuel, a total of up to 50 bags (1000 kg each) of calcium chloride (drill salt) may be stored on site in a safe and chemically-compatible manner, a minimum of 31 m from all water bodies.

Appendix B: Product Information

Gasoline

http://www.brownoil.com/msdsgasoline.htm

MSDS	Material Safety Data Sheet for Gasoline
Definition of terms	**1. Chemical Product** **MSDS Number:** U4080 **MSDS Date:** 01-1-99 **Product Name:** Gasoline **24 Hour Emergency Phone: (210) 979-8346** **Transportation Emergencies: Call Chemtrec at 1-800-424-9300** MSDS Assistance: (210) 592-4593 **Chemical Name:** Gasoline **Cas Number:** 8006-61-9 **Synonyms/Common Names:** This Material Safety Data Sheet applies to the following product descriptions for Hazard Communication purposes only. Technical specifications vary greatly depending on the product, and are not reflected in this document. Consult specification sheets for technical information. **Unleaded Gasoline Blendstocks/Subgrades**- all types, grades, octanes, and vapor pressures. **California Air Resources Board (Carb) Gasoline**- all grades, octanes, vapor pressures, and oxygenate blends. **Reformulated Gasoline (RFG)**-all grades, octanes, vapor pressures, and oxygenate blends. **California Reformulated Gasoline (CARFG)**-all grades, octanes, vapor pressures, and oxygenate blends. **Conventional Gasoline**-all grades, octanes, vapor pressures, and oxygenate blends. **2. Composition, Information On Ingredients** **Product Use:** This product is intended for use as a fuel in engines or for use in engineered processes. Use in other applicatiions may result in higher exposures and require additional controls, such as local exhaust ventilation and personal protective equipment. **Description:** Reformulated gasoline is a complex mixture of hydrocarbons from a variety of chemical processes blended to meet standardized product specifications. Composition varies greatly and includes C? to C? hydrocarbons with a boiling range of about 80-473 degrees F. The following is a non-exhaustive list of common components, typical percentage ranges in product, and occupational exposure limits for each. Functional and performance additives may also be present at concentrations

below reporting thresholds.

Component or Material Name	%	CAS Number	ACGIH Limits TLV -- STEL -- Units	OSHA Exposure Limits PEL -- STEL -- C/P – Units
Gasoline	90-100	Mixture	300--500--ppm	NA--NA--NA -- ----
Butane	<9	106-97-8	800--NA--ppm	NA--NA--NA -- ----
Pentane	<6	109-66-0	600--750--ppm	1000--NA--NA—ppm
n-Hexane	<4	110-54-3	50--NA--ppm	500--NA--NA—ppm
Hexan(other isomers)	<8	NA	500--1,000--ppm	NA--NA--NA-- ----
Benzene	1.2 - 4.9	7-4-2	0.5--2.5--ppm	1--5--NA—ppm
N-heptane	<2	14-82-5	400--500--ppm	500--NA--NA—ppm
Ethylbenzene	<2	100-41-4	100--125--ppm	100--NA--NA—ppm
Xylene (o,m,p, - isomers)	<11	1330-20-7	100--150--ppm	100--NA--NA—ppm
Cyclohexane	<2	110-82-7	300--NA--ppm	300--NA--NA—ppm
Trimethylbenzene	<4	25551-13-7	25--NA--ppm	NA-NA-NA- ----
Methyl-t-butyl ether (MTBE)	0-15	1634-04-4	40--NA--ppm	NA-NA-NA- ----
Toluene	<12	108-88-3	50-NA-ppm	200-300/500-NA-ppm
Ethyl-t-butyl ether (ETBE)	0-7	637-92-3	N/A-NA-ppm	NA-NA-NA- ----
t-amyl-methyl-ether	0-5	994-05-8	N/A-NA-ppm	NA-NA-NA- ----
Ethanol	0-11	64-17-5	1,000-NA-ppm	1,000-NA-NA-ppm

C=Ceiling concentration not to be exceeded at any tume. P= Peak concentration for a single 10 minute exposure per day.

3. Hazards Identification

Health Hazard Data:

1. The major effect of exposure to this product is central nervous system depression and polyneuropathy.

2. Studies have shown that repeated exposure of laboratory animals to high concentrations of whole gasoline vapors at 67,262 and 2056 ppm has caused kidney damage and cancer of the kidney in rats and liver cancer in mice.

3. LARC has listed gasoline as possibly carcinogenic (2B) to humans with limited evidence in humans in the absence of sufficient evidence in experimental animals. NIOSH lists gasoline as a carcinogen with no further classification.

4. N-heptane and cyclohexane cause narcosis and irritation of eyes and mucous membranes. Cyclohexane has been reported to cause liver and kidney changes in rabbits. N-heptane has been reported to cause polyneuritis following prolonged exposure.

5. ACGIH lists benzene a human carcinogen with and assigned TLV of 0.5 ppm 8 hour TWA and a STEL of 2.5 ppm; IARC, NTP $ OSHA show sufficient evidence for classifying Benzene as a human carcinogen, see 29 CGR 1910.1028 for current PEL of 1 ppm and specific actions to take. Studies have shown that benzene can induce leukemia at concentrations as low as 1 ppm. Significant elevations of chromosomal aberrations have been corroborated among workers exposed to levels at mean concentrations less than 10 ppm. Based on risk assessment studies by Rinsky, an individual inhaling 1 ppm of benzene for 40 years, the odds of benzene-induced leukemic death were 1.7 times higher than those of unexposed workers.

6. MTBE is a mild irritant to the eye with an LC50 of 85 mg/m3 on 4 hr. exposure and an LD50 ~4 ml/Kg (RATS). An increase in anesthesia with increasing concentration (250,500 & 1000 ppm) was observed during a 90 day Test exposure. ACGIH has listed MTBE as an animal carcinogen (A3) based on tests in experimental animals at relatively high dose levels, by routes of administration, at sites, of histologic types, or by mechanisms not considered relevant to worker exposure. Available evidence suggests that MTBE is not likely to cause cancer in humans except under uncommon or unlikely routes of levels of exposure.

7. Trimethylbenzene (pseudocumene (1,2,4,) & mesitylene (1,2,5,)) has a PEL and TLV of 25 ppm 8 hr. TWA; the isomers may cause nervousness, tension, and anxiety and asthmatic bronchitis.

8. n-Hexane has been shown to cause polyneuropathy (peripheral nerve damage) after repeated and prolonged exposure, other hexanes show narcotic effects at 1000 ppm and are not metabolized like n-hexane.

9. Toluene can cause impairment of coordination and momentary loss of memory (200-500 ppm); Palpations, extreme weakness and pronounced loss of coordination (500-1500). The 100 ppm 8 hr. TWA and the 150 ppm STEL provides adequate protection.

10. The toxicological effects of ETBE and TAME have not been thoroughly investigated. ETBE and TAME are expected to be an inhalation hazard and a severe eye and moderate skin irritant.

Hazards of Combustion Products: Carbon monoxide and carbon dioxide can be found in the combustion products of this product and other forms of hydrocarbon combustion. Carbon monoxide in moderate concentrations can cause symptoms of headache, nausea, vomiting, increased cardiac output, and confusion. Exposure to higher concentrations of carbon monoxide can cause loss of consciousness, heart damage, brain damage, and/or death. Exposure to high concentrations of carbon

dioxide can cause simple asphyxiation by displacing available oxygen. Combustion of this and other similar materials should only be carried out in well ventilated areas.

Diesel Fuel

http://www.equivashellmsds.com/

MATERIAL SAFETY DATA SHEET
Review Date: 04/29/2003

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: GN LS Diesel 2 Winter 65/35

MSDS NUMBER: 400609E - 2
PRODUCT CODE(S): 02925

SECTION 2 PRODUCT/INGREDIENTS

CAS#	CONCENTRATION	INGREDIENTS
Mixture	100 %weight	#2 Diesel
68814-87-9	0 - 99.99 %weight	Full Range Straight Run Middle Distillate
64741-59-9	0 - 39.99 %weight	Light Catalytic Cracked Distillate
71-43-2	0.01 - 0.64 %weight	Benzene
7704-34-9	0 - 0.04 %weight	Sulfur

NOTE: H2S is a naturally occurring constituent in the petroleum stream and is not added separately to the product.

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Appearance & Odor: Bright and clear liquid (Tax Exempt Diesels - pale red liquid). Oil-type odor.
Health Hazards: Hydrogen sulfide (H2S), an extremely flammable and toxic gas, may be present. Causes severe skin irritation. Toxic and harmful if inhaled. May be harmful or fatal if swallowed. Do not induce vomiting. May cause aspiration pneumonitis.
Physical Hazards: Combustible Liquid.

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0
Hazard Rating: Least - 0 Slight - 1 Moderate - 2 High - 3
Extreme - 4

Inhalation:
In applications where vapors (caused by high temperature) or mists (caused by mixing or spraying) are created, breathing may cause a mild burning sensation in the nose, throat and lungs. Toxic and harmful if inhaled. Hydrogen Sulfide (H2S) and other hazardous vapors may evolve and collect in the headspace of storage tanks or other enclosed vessels. Hydrogen Sulfide is an extremely flammable, toxic gas. Inhalation of vapors, mist or fumes (generated at high temperatures) may cause irritation to the nose, throat and respiratory tract.

Eye Irritation:
If irritation occurs, a temporary burning sensation, minor redness, swelling, and/or blurred vision may result.

Skin Contact:
Severely irritating to the skin causing pain, redness and swelling. Other adverse effects not expected from brief skin contact.

Ingestion:
This material may be harmful or fatal if swallowed. Ingestion may result in vomiting; aspiration (breathing) of vomitus into lungs must be avoided as even small quantities may result in aspiration pneumonitis. Generally considered to have a low order of acute oral toxicity.

Other Health Effects:
Carcinogenic in animal tests. It is probable that the material causes cancer in laboratory animals.
Material may release hydrogen sulfide (H2S), a highly toxic and extremely flammable gas, when heated to 180 Degrees F or higher. H2S can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomitting, diarrhea, and pulmonary edema. The odor ("rotten egg") threshold is 0.02 ppm. Do not depend on sense of smell for warning; H2S rapidly deadens the sense of smell.
Refer to Section 11, Toxicological Information, for specific information on the following effects:

Signs and Symptoms:
Irritation as noted above. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin); in severe cases death may occur.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Inhalation:
Vaporization of H2S that has been trapped in clothing can be dangerous to rescuers. Maintain respiratory protection to avoid contamination from victim to rescuer. Mechanical ventilation should be used to resuscitate the victim. DO NOT attempt to rescue victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin:
Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye:
Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

Ingestion:
DO NOT take internally. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Note to Physician:
If more than 2.0ml/kg body weight has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point [Method]: >125 ºF/>51.67 ºC [Closed Cup]
Autoignition Temperature: 500 °F/260 °C
Flammability in Air: 0.5 - 4.4 %volume

Extinguishing Media:
Material will float and can be re-ignited on surface of water. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

Fire Fighting Instructions:

CAUTION! COMBUSTIBLE. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Cool surrounding equipment, fire-exposed containers and structures with water. Container areas exposed to direct flame contact should be cooled with large quantities of water (500 gallons water per minute flame impingement exposure) to prevent weakening of container structure.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:
CAUTION! COMBUSTIBLE. Eliminate potential sources of ignition. Handling equipment must be bonded and grounded to prevent sparking.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management:
Shut off source of leak if safe to do so. Dike and contain spill.

FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:
CERCLA: Product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air, land, or water are not reportable under CERCLA (Superfund).

CWA: This product is an oil as defined under Section 311 of EPA's Clean Water Act (CWA). Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 1-800-424-8802.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures:
CAUTION! COMBUSTIBLE. Do not breathe material. Keep container closed. Use only with adequate ventilation. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Material may release hydrogen sulfide (H2S), a highly toxic and extremely flammable gas, when heated to 180 Degrees F or higher. H2S may collect in the headspace of the container.

Handling:
Surfaces that are sufficiently hot may ignite liquid material.

Storage:
Keep liquid and vapor away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation indoors and in laboratory settings.

Container Warnings:
Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Benzene ACGIH TLV TWA: 0.5 ppmv STEL: 2.5 ppmv Notation: Skin
Benzene OSHA PEL TWA: 1 ppmv STEL: 5 ppmv
Diesel Fuel, as total hydrocarbons ACGIH TLV TWA: 100 mg/m3

Carbon dioxide ACGIH - TLV TWA: 5000 ppmm STEL: 30000 ppmm
Carbon dioxide OSHA - PEL STEL: 30000 ppmm
Carbon dioxide OSHA - PEL_IS TWA: 10000 ppmm
Carbon monoxide OSHA - PEL TWA: 35 ppmv Ceiling: 200 ppmv
Carbon monoxide Combustion

EXPOSURE CONTROLS
Adequate explosion-proof ventilation to control airborne concentrations.

PERSONAL PROTECTION
Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:
Chemical Goggles - If liquid contact is likely., or Safety glasses with side shields

Skin Protection:
Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should

take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:
Neoprene, or Nitrile Rubber
Respiratory Protection:
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:
Supplied-Air Respirator. Air-Purifying Respirator for Organic Vapors.
Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Bright and clear liquid (Tax Exempt Diesels - pale red liquid). Oil-type odor.
Substance Chemical Family: Petroleum Hydrocarbon, Fuel Oil
Appearance: Bright and clear liquid (Tax Exempt Diesels - pale red liquid).

Auto Ignition Temperature: 500 ºF

Flammability in Air: 0.5 - 4.4 %volume

Flash Point: > 125 ºF [Closed Cup]

Specific Gravity: 0.85 Typical

Stability: Stable

Vapor Pressure: 0.02 mmHg Typical [Calculated]

Viscosity: 1.9 - 4.1 cSt @ 40 ºC

SECTION 10 REACTIVITY AND STABILITY

Stability:
Material is stable under normal conditions.

Conditions to Avoid:
Avoid heat and open flames.

Materials to Avoid:
Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:

Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide, Carbon Dioxide, Ketonesand other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Toxicity
Dermal LD50 > 5 ml/kg(Rabbit) OSHA: Non-Toxic Based on similar material(s)
Eye Irritation Non-Irritating [Rabbit] OSHA: Non-Irritating Based on similar material(s)
Oral LD50 9 ml/kg(Rat) OSHA: Non-Toxic Based on similar material(s)
Skin Irritation Extremely irritating [Rabbit] OSHA: Irritating Based on similar material(s)
Carcinogenicity Classification
#2 Diesel
NTP: No IARC: No ACGIH: No OSHA: No
Benzene
NTP: Yes IARC: Carcinogen (1) ACGIH: A1 OSHA: Yes
Light Catalytic Cracked Distillate
NTP: No IARC: Possible Carcinogen (2B) ACGIH: No OSHA: No
Carcinogenicity
Related materials have caused the development of skin tumors in lifetime mouse skin painting studies. However, these tumors have a long latency period and may be associated with the repeated severe irritation caused by the test materials. Prolonged and repeated exposure to high concentrations (10s to 100s ppm) of benzene may cause serious injury to blood-forming organs and is associated with anemia (depletion of blood cells) and is linked to the later development of acute myelogenous leukemia (AML).

Genotoxicity
A closely related component (Hydrodesulfurized Middle Distillate) did not cause detectable mutations in two different in vivo (live animal) studies. Some evidence of genotoxicity was seen in separate in vitro (test tube) studies, usually in cases where the test material was metabolically activated.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Impact Summary:
There is no ecological data available for this product.

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification

Proper Shipping Name:	Diesel Fuel
Identification Number:	NA1993
Hazard Class/Division:	Combustible Liquid
Packing Group:	III

Hazardous Substance/Material RQ: Benzene / 1546.2005 lbs

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

Emergency Response Guide #128

International Air Transport Association

Hazard Class/Division:	3 (Flammable Liquid)
Identification Number:	UN1202
Packing Group:	III
Proper Shipping Name:	Diesel Fuel

International Maritime Organization Classification

Hazard Class/Division:	3 (Flammable Liquid)
Identification Number:	UN1202
Packing Group:	III
Proper Shipping Name:	Diesel Fuel

SECTION 15 REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

OSHA Classification:
Product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):
This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

SARA Extremely Hazardous Substances (302/304):
Hydrogen sulfide RQ 100 lbs Reportable Spill => 711013 lbs or 100334 gal

SARA Hazard Categories (311/312):
Immediate Health:YES Delayed Health:YES Fire:YES Pressure:NO Reactivity:NO

SARA Toxic Release Inventory (TRI) (313):
Benzene

Toxic Substances Control Act (TSCA) Status:
This material is listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:
Australian AICS, Canadian DSL, European EINECS, Korean Inventory,

State Regulation
The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

New Jersey Right-To-Know Chemical List:
Benzene (71-43-2) 0.01 - 0.64 %weight Carcinogen

Benzene (71-43-2) 0.01 - 0.64 %weight Mutagen
Light Cat Cracked Distillate 0 - 39.99 %weight Mutagen

Pennsylvania Right-To-Know Chemical List:
Benzene (71-43-2) 0.01 - 0.64 %weight Spec Haz Sub/Env Hazardous

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SECTION 16 OTHER INFORMATION

Revision#: 2
Review Date: 04/29/2003
Revision Date: 04/29/2003
Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been newly reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

SECTION 17 LABEL INFORMATION

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

PRODUCT CODE(S): 02925

GN LS Diesel 2 Winter 65/35

WARNING!

COMBUSTIBLE LIQUID! MAY BE FATAL IF INHALED. CAUSES SEVERE SKIN IRRITATION. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS BENZENE WHICH IS A CANCER HAZARD - LINKED TO DEVELOPMENT OF ACUTE MYELOGENOUS LEUKEMIA.
Refer to Section 11, Toxicological Information, for specific information on the following effects:

Precautionary Measures:
Avoid heat and open flames. Hydrogen Sulfide and other hazardous vapors may evolve and collect in the headspace of storage tanks or other enclosed vessels. Hydrogen Sulfide is an extremely flammable, toxic gas. Respiratory protection should be worn when venting tanks. Avoid breathing of vapors, fumes, or mist. Do not take internally. Use only with adequate ventilation.

Avoid contact with eyes, skin and clothing. Keep container closed when not in use. Wash thoroughly after handling.

FIRST AID
Inhalation: DO NOT attempt to rescue victim unless proper respiratory protection is worn. Vaporization of H2S that has been trapped in clothing can be dangerous to rescuers. Maintain respiratory protection to avoid contamination from victim to rescuer. Mechanical ventilation should be used to resuscitate the victim. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.
Skin Contact: Remove contaminated clothing. Flush with large amounts of water for at least 15 minutes and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
Eye Contact: Flush eyes with plenty of water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.
Ingestion: DO NOT take internally. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

SPILL OR LEAK
Dike and contain spill.
FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Full Range Straight Run Middle Distillate, 68814-87-9; Light Catalytic Cracked Distillate, 64741-59-9; Benzene, 71-43-2; Sulfur, 7704-34-9

NFPA Rating (Health, Fire, Reactivity): 2, 2, 0

TRANSPORTATION

US Department of Transportation Classification

Proper Shipping Name: Diesel Fuel

Identification Number:	NA1993
Hazard Class/Division:	Combustible Liquid
Packing Group:	III

Hazardous Substance/Material RQ: Benzene / 1546.2005 lbs

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

Emergency Response Guide #128

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT : IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF SHELL OIL PRODUCTS US AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF SHELL OIL PRODUCTS US.

44156-11800-100R-04/05/2005

Oil

Approximately 1000 litres of oil will be stored on site in containment berms and transported in their containers by helicopter to where it is required.

http://www.equivashellmsds.com/

MATERIAL SAFETY DATA SHEET

MSDS: 61054E-02 01/04/99
GAS ENGINE OIL 30 (SCP)
TELEPHONE NUMBER:
24 HOUR EMERGENCY ASSISTANCE — GENERAL MSDS ASSISTANCE
EQUIVA SERVICES: 877-276-7283 — 877-276-7285
CHEMTREC: 800-424-9300

SECTION I NAME

PRODUCT: GAS ENGINE OIL 30 (SCP)
CHEM NAME: MIXTURE (SEE SECTION II-A)
CHEM FAMILY: PETROLEUM HYDROCARBON; INDUSTRIAL OIL
SHELL CODE: 67169
HEALTH HAZARD: 1 FIRE HAZARD: 1 REACTIVITY: 0

SECTION II-A PRODUCT/INGREDIENT

NO.	COMPOSITION	CAS NO.	PERCENT
P	GAS ENGINE OIL 30 (SCP)		
1	SOLVENT DEWAXED, HEAVY PARAFFINIC DISTILLATE	64742-65-0	60-70
2	HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	30-40
3	ADDITIVES	MIXTURE	<10

NFPA HAZARD RATING: HEALTH 0 FIRE 1 REACTIVITY 0

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	NOT AVAILABLE		
1	>5.0 G/KG, RAT*	>5 G/KG, RABBIT*	
2	>5.0 G/KG, RAT*	>5 G/KG, RABBIT*	

* BASED ON API STUDIES

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN MINIMALLY IRRITATING TO THE EYES.

SKIN CONTACT: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN MILDLY IRRITATING TO THE SKIN. PROLONGED AND REPEATED CONTACT MAY LEAD TO VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, OIL ACNE OR FOLLICULITIS.

INHALATION: INHALATION OF VAPORS (GENERATED AT HIGH TEMPERATURES ONLY) OR OIL MIST FROM THIS PRODUCT MAY CAUSE MILD IRRITATION OF THE UPPER RESPIRATORY TRACT.

INGESTION: LUBRICATING BASE OILS ARE GENERALLY CONSIDERED NO MORE THAN SLIGHTLY TOXIC IF SWALLOWED.

SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE.
AGGRAVATED MEDICAL CONDITIONS:
PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.
OTHER HEALTH EFFECTS:
THIS PRODUCT AND ITS COMPONENTS ARE NOT CLASSIFIED AS CARCINOGENS BY INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), NATIONAL TOXICOLOGY PROGRAM (NTP) OR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

COMP NO.	OSHA PEL/TWA	PEL/CEILING	ACGIH TLV/TWA	TLV/STEL	OTHER
P	5 MG/M3*	NONE	5 MG/M3*	10 MG/M3*	NONE

*OIL MIST, MINERAL

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS OFF. WASH WITH SOAP AND WATER OR A WATERLESS HAND CLEANER FOLLOWED BY SOPA AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.
INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.
INGESTION: DO NOT INDUCE VOMITING. IN GENERAL NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE.
NOTE TO PHYSICIAN: IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS, I.E., MOST OILS AND GREASES.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

NONE IDENTIFIED.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F):	SPECFIC GRAVITY (H2O = 1):	VAPOR PRESSURE (MM HG):
>550	0.8899	<0.1
MELTING POINT (DEG F):	SOLUBILITY IN WATER:	VAPOR DENSITY (AIR = 1):
10 (POUR POINT)	NEGLIGIBLE	NOT AVAILABLE

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1):NOT AVAILABLE
APPEARANCE AND ODOR:WHITE LIQUID. SLIGHT HYDROCARBON ODOR.
PHYS/CHEM PROPERTIES:VISCOSITY: 11.8-12.5 (CS @ 104 DEG F).

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD: 445 DEG F (PMCC)
FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: N/AV HIGHER: N/AV
EXTINGUISHING MEDIA:
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.
SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:
MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE-SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE-PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE IDENTIFIED

SECTION IX REACTIVITY

STABLITY: STABLE HAZARDOUS POLYMERIZATION WILL NOT OCCUR
CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, OPEN FLAMES AND OXIDIZING MATERIALS.
HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID, PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:
IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SECTION IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.
PROTECTIVE CLOTHING
WEAR CHEMICAL-RESISTANT GLOVES AND OTHER PROTECTIVE CLOTHING AS REQUIRED TO MINIMIZE SKIN CONTACT. WEAR SAFETY GOGGLES TO AVOID EYE CONTACT. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.
ADDITIONAL PROTECTIVE MEASURES:
NONE IDENTIFIED

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES:
MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. *** LARGE SPILLS *** WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACCUM TRUCKS OR PUMP TO STORAGE SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIALS; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE

RESIDUE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

SECTION XII SPECIAL PRECAUTIONS

MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, THAT CANNOT BE DECONTAMINATED.
STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILLATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.

SECTION XIII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:
NOT HAZARDOUS BY D.O.T. REGULATIONS
DOT PROPER SHIPPING NAME: NOT APPLICABLE
OTHER REQUIREMENTS: NOT APPLICABLE

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.
PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.
IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

STATE LISTED COMPONENT CAS NO PERCENT STATE CODE

BASED ON INFORMATION AVAILABLE, THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL SUBSTANCE REGULATED BY A SPECIFIC STATE LIST.

SECTION XVI SPECIAL NOTES

MSDS - SECTION II-A AND EDS - SECTION I HAVE BEEN REVISED TO UPDATE INGREDIENTS. THE OSHA HAZARD EVALUATION AND REGULATORY STATUS OF THE PRODUCT HAVE NOT CHANGED.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED

HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF EQUIVA SERVICES, LLC.

ENVIRONMENTAL DATA SHEET
EDS: 61054E
GAS ENGINE OIL 30 (SCP)
TELEPHONE NUMBER:
24 HOUR EMERGENCY ASSISTANCE — GENERAL MSDS ASSISTANCE
EQUIVA SERVICES: 877-276-7283 — 877-276-7285
CHEMTREC: 800-424-9300
PRODUCT CODE: 67169

SECTION I PRODUCT COMPOSITION

NO.	COMPOSITION	CAS	PERCENT
P	GAS ENGINE OIL 30 (SCP)	MIXTURE	100
1	SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	60-70
2	HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	30-40
3	ADDITIVES	MIXTURE	<10

SECTION II SARA TITLE III INFORMATION

NO.	EHS RQ (*1)	EHS TPQ (*2)	SEC-313 (*3)	313 CATEGORY (*4)	311/312 CATEGORY (*5)

BASED ON THE DATA AVAILABLE THIS PRODUCT IS NOT REGULATED BY SARA, TITLE III.

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*1 = REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*2 = THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302
*3 = TOXIC CHEMICAL, SEC 313
*4 = CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM
*5 = CATEGORY (FOR AGGREGATE REPORTING REQUIREMENTS UNDER SARA 311, 312)
HEALTH: H-1 = IMMEDIATE (ACUTE) HEALTH HAZARD
H-2 = DELAYED (CHRONIC) HEALTH HAZARD
PHYSICAL: P-3 = FIRE HAZARD

P-4 = SUDDEN RELEASE OF PRESSURE HAZARD
P-5 = REACTIVE HAZARD

SECTION III ENVIRONMENTAL RELEASE INFORMATION

THIS PRODUCT IS COVERED BY EPA'S COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) PETROLEUM EXCLUSION. THEREFORE, RELEASES TO AIR, LAND, OR WATER ARE NOT REPORTABLE UNDER CERCLA ("SUPERFUND"). HOWEVER, UNDER SECTION 311 OF EPA'S CLEAN WATER ACT (CWA), THIS PRODUCT IS CONSIDERED AN OIL. AS SUCH, SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.
THIS PRODUCT IS AN OIL UNDER 49 CFR (DOT) PART 130. IF SHIPPED BY RAIL OR HIGHWAY IN A TANK WITH A CAPACITY OF 3,500 GALLONS OR MORE, IT IS SUBJECT TO THE REQUIREMENTS OF PART 130. MIXTURE SOLUTIONS IN WHICH THIS PRODUCT IS PRESENT AT 10% OR MORE MAY ALSO BE SUBJECT TO THIS RULE.

SECTION IV RCRA INFORMATION

IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

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77267-4414

FOR ADDITIONAL INFORMATION ON THIS ENVIRONMENTAL DATA PLEASE CALL
(877) 276-7285
FOR EMERGENCY ASSISTANCE PLEASE CALL
EQUIVA SERVICES LLC: (877) 276-7283
CHEMTREC: (800) 424-9300

Jet B Fuel

http://www.online.petro-canada.ca/datasheets/en_US/w219.pdf

Section 1. Chemical Product and Company Identification

Material Safety Data Sheet

WHMIS (Pictograms) Protective Clothing
Product Name
Synonym

JET B AVIATION TURBINE FUEL Code

Jet B; Jet B DI; JP-4; Jet F-40; NATO F-40; Turbine Fuel, Aviation,
Wide Cut Type (Can/CGSB-3.22).
W219
SAP: 150, 151, 152
Used as aviation turbine fuel. May contain a fuel system icing inhibitor.
In case of Emergency
Petro-Canada: 403-296-3000
Canutec Transportation: 613-996-6666
Poison Control Centre: Consult local telephone directory for emergency number(s).
PETRO-CANADA P.O. Box 2844
150 –6th Avenue South-West
Calgary, Alberta
T2P 3E3

WHMIS (Classification)

B-2, D-2A, D-2B

TDG (pictograms)
Manufacturer Material Uses Validated on 9/28/2007.
Complex mixture of petroleum hydrocarbons (C6- C14).
64741-41-9 60-100 Not established Not established
Not established
Benzene 71-43-2 0.1-0.5 0.5 ppm 2.5 ppm Not established
Fuel System Icing Inhibitor (FSII) (if added*):
Diethylene Glycol Monomethyl Ether 111-77-3 0.1-0.15 Not established Not
Established Not
Established Anti-static, antioxidant, corrosion inhibitor and metal deactivator additives.
* Please note that Jet B DI, JP-4, Jet F-40 and
NATO F-40 all contain Fuel System Icing Inhibitor
(FSII).corrosion inhibitor
Not applicable
<0.1 Not applicable Not applicable Not applicable

Section 2. Composition and Information on Ingredients

Name CAS #
Exposure Limits (ACGIH)
% (W/W) TLV-TWA(8 h) STEL CEILING
Manufacturer
Recommendation
Not applicable
Other Exposure Consult local, state, provincial or territory authorities for acceptable exposure limits.
Limits

Section 3. Hazards Identification.

Flammable liquid. Exercise caution when handling this material. May cause cancer. May cause

teratogenicity/embryotoxicity. Contact with this product may cause skin irritation. Inhalation of vapours can cause irritation of the respiratory tract and CNS depression with symptoms of nausea, headaches, vomiting, dizziness, fatigue, light-headedness, reduced coordination, unconciousness and possibly death. Aspiration into the lungs may produce potentially fatal chemical pneumonitis (fluid in the lungs), severe lung damage, or respiratory failure. For more information refer to Section 11 of this MSDS.

Potential Health Effects
Eye Contact
Skin Contact
Inhalation
Avoid direct contact. Quickly and gently blot or brush chemical off the face. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.
As quickly as possible, remove contaminated clothing, shoes and leather goods (e.g., watchbands, belts, etc.). Avoid direct contact. Wear chemical protective clothing if necessary. Quickly and gently, blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Immediately obtain medical attention. Completely decontaminate clothing, shoes and leather goods before reuse or discard.
Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Quickly transport victim to an emergency care facility.

Section 4. First Aid Measures
NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing.
Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 240 to 300 mL (8 to 10 oz) of water to dilute material in stomach. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Have victim rinse mouth with water again. If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Quickly transport victim to an emergency care facility.
Ingestion
Note to Physician Not available
Auto-Ignition Temperature
Products of Combustion
Flash Points
Fire Fighting
Media and Instructions
Flammable Limits
Fire Hazards in Presence of Various Substances
240°C (464°F) (NFPA)
Carbon oxides (CO, CO2), nitrogen oxides (NOx), sulphur oxides (SOx), aldehydes, ketones, smoke and irritating vapours as products of incomplete combustion.
CLOSED CUP: -31ºC (-24°F) (NFPA)
LOWER: 1.3% UPPER: 8% (NFPA)
NAERG2004, GUIDE 128, Flammable liquids (Non-polar/Water-immiscible).
CAUTION: This product has a very low flash point: Use of water spray when fighting fire may be inefficient.
If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions.
SMALL FIRES: Dry chemical, CO2, water spray or regular foam.
LARGE FIRES: Water spray, fog or regular foam. Do not use straight streams. Move containers from fire area if you can do it without risk.
Fires Involving Tanks or Car/Trailer Loads: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of

rising sound from venting devices or any discolouration of tank. ALWAYS stay away from the ends of tanks.
For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Flammable in presence of open flames, sparks, and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite. May accumulate in confined spaces.

Explosion

Hazards in Presence of Various Substances

Do not cut, weld, heat, drill or pressurize empty container. Containers may explode in heat of fire.

Flammability Flammable liquid (NFPA).

Section 5. Fire-fighting Measures

Section 6. Accidental Release Measures

Material Release or Spill

IN THE EVENT OF A LARGE SPILL CONSIDER THE FOLLOWING CONTROL MEASURES: Consult current National Emergency Response Guide Book (NAERG) for appropriate spill measures if necessary. Evacuate non-essential personnel. Extinguish all ignition sources. Ventilate area. Avoid breathing vapours or mists of material. Stop leak if safe to do so. Dike spilled material. Avoid contact with spilled material. Do not allow spilled material to enter sewer systems as vapours may accumulate and may cause an explosion/fire hazard. If spilled in a confined space, ensure appropriate confined space entry protocols are followed. Ensure clean-up personnel wear appropriate personal protective equipment. Use appropriate inert absorbent material to absorb spilled product. Do not use paper or other flammable materials to absorb product. Collect used absorbent for later disposal. Do not allow spilled materials to come into to contact with incompatible materials (see Section 10). Ground and bond all equipment used to clean up the spilled material, as it may be a static accumulator. Notify appropriate authorities immediately.

Storage Store away from heat and sources of ignition. Store away from incompatible and reactive materials (See section 5 and 10). Ensure the storage containers are grounded/bonded. Keep container tightly closed. Store in dry, cool, well-ventilated area.
FLAMMABLE MATERIAL. Handle with care. Avoid contact with any sources of ignition, flames, heat, and sparks. Avoid inhalation of product vapours or mists. Avoid skin contact. Avoid eye contact. Wear proper personal protective equipment (See Section 8). Ensure all equipment is grounded/bonded. Do not ingest this product. Avoid generating mists. Avoid confined spaces and areas with poor ventilation. Avoid contact with any incompatible or reactive materials. Empty containers may contain product residue. Do not pressurize, cut, heat, or weld empty containers. Do not reuse containers without commercial cleaning and/or reconditioning. Personnel who handle this material should practice good personal hygiene during and after handling to help prevent accidental ingestion of this product.

Handling

Section 7. Handling and Storage

Engineering Controls

Personal Protection - *The selection of personal protective equipment varies, depending upon conditions of use.*

For normal application, special ventilation is not necessary. If user's operations generate vapours or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Make-up air should always be supplied to balance air removed by exhaust ventilation. Ensure that eyewash station and safety shower are close to work-station.
Wear appropriate footwear to prevent product from coming in contact with feet and skin.

Section 8. Exposure Controls/Personal Protection

Eyes

Body

Respiratory

Hands

Feet

If this material may come in contact with the hands during handling and use, we recommend wearing gloves

of the following material(s): polyvinyl alcohol (PVA), and fluoro-elastomer. Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.
A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.
If this material may come into contact with the body during handling and use, we recommend wearing appropriate protective clothing to prevent contact with the skin. (Contact your PPE provider for more information).
As a minimum, safety glasses with side shields should be worn when handling this material.

Section 9. Physical and Chemical Properties

Physical State and Appearance
Clear liquid.
Volatility
Volatile.
Boiling Point
0.75 to 0.80 kg/L @ 15ºC (59ºF).
Vapour Pressure
3.5 (Air = 1)
Odour Threshold Density
21 kPa (158 mmHg) @ 37.8ºC (100ºF).
Vapour Density
Insoluble in water. Partially miscible in some alcohols. Miscible in other petroleum solvents.
Oil / Water Dist. Coefficient
Not available
Solubility

Odour Gasoline like.
Freezing point: <-51ºC(<-60ºF) for all types of Jet B including F40.
Colour Clear and colourless.
Dropping Point
Penetration
Not applicable.
Not applicable.
Viscosity Not available (similar to Gasoline)
Pour Point
Softening Point
50 to 270°C (122 to 518°F)
Ionicity (in water)
Dispersion Properties
Not available
Not available
Not applicable.
Not available
Stability
Corrosivity
The product is stable under normal handling and storage conditions.
Not available

Reactive with oxidizing agents, diborane, and halogen compounds.

Section 10. Stability and Reactivity

Incompatible Substances / Conditions to Avoid

Decomposition Products

May release COx, NOx, SOx, aldehydes, ketones, smoke and irritating vapours when heated to decomposition.

Hazardous Polymerization

Will not occur under normal working conditions.

Acute Lethality

Routes of Entry Skin contact, eye contact, inhalation and ingestion.

Acute toxicity information is not available for the product as a whole, therefore, data for some of the ingredients is provided below:

Benzene (71-43-2):
Acute oral toxicity (LD50): 930 mg/kg (rat).
Acute dermal toxicity (LD50): >9400 mg/kg (rabbit).
Acute inhalation toxicity (LC50): 13200 ppm/4h (rat).
Diethylene Glycol Monomethyl Ether (111-77-3):
Acute oral toxicity (LD50): 4140-5180 mg/kg (rat).
Acute dermal toxicity (LD50): >2000 mg/kg (rabbit).
Acute inhalation toxicity (LC50): >50000 mg/m³/4h (rat).

Section 11. Toxicological Information

Other Considerations No additional remark.

Chronic or Other Toxic Effects

Dermal Route:
Inhalation Route:
Oral Route:
Eye Irritation/Inflammation:
Immunotoxicity:
Skin Sensitization:
Respiratory Tract Sensitization:
Mutagenic:
Reproductive Toxicity:
Teratogenicity/Embryotoxicity:
Carcinogenicity (ACGIH):
Carcinogenicity (IARC):
Carcinogenicity (NTP):
Carcinogenicity (IRIS):
Carcinogenicity (OSHA): This product contains the following chemical(s) at >=0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be carcinogenic by OSHA. Benzene, 71-43-2)
This product contains the following chemical(s) at >=0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Considered to be carcinogenic by IRIS. Benzene, 71-43-2)
This product contains the following chemical(s) at >=0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic. (Known to be a human carcinogen according to NTP. Benzene, 71-43-2)
This product contains the following chemical(s) at >=0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic.
(Considered to be carcinogenic to humans (group 1) by IARC. Benzene, 71-43-2)
This product contains the following chemical(s) at >=0.1% that are listed as carcinogenic compounds. Therefore this product is considered to be carcinogenic.
(Considered to be A1 by the ACGIH. Benzene, 71-43-2)
This product contains a component(s) at >= 0.1% that has been shown to cause teratogenicity and/or embryotoxicity in laboratory tests. Therefore, this product is considered to be a teratogen/embryotoxin [Diethylene Glycol Monomethyl Ether].
This product is not known to contain any components at >= 0.1% that have been shown to cause

reproductive toxicity. Therefore, based upon the available data and the known hazards of the components, this product is not expected to be a reproductive toxin.
Benzene is tumorigenic by RTECS criteria.
Contact with this product is not expected to cause respiratory tract sensitization, based upon the available data and the known hazards of the components.
Contact with this product is not expected to cause skin sensitization, based upon the available data and the known hazards of the components.
Not available
Short-term exposure is expected to cause only slight irritation, if any.
Ingestion of this product may lead to aspiration of the liquid, especially if vomiting occurs. This may result in chemical pneumonitis (inflammation of the lungs) and/or pulmonary edema (an accumulation of fluid in the lungs).
Ingestion of this product may cause Central Nervous System (CNS) Depression, symptoms of which may include; weakness, dizziness, slurred speech, drowsiness, unconsciousness and in cases of severe overexposure; coma and death.
This product contains a component (at >= 1%) that can cause skin irritation. Therefore, this product is considered to be a skin irritant. Prolonged or repeated contact may defat and dry skin, and cause dermatitis.

Section 12. Ecological Information

Environmental Fate
Not available
BOD5 and COD Products of Biodegradation
Persistance/Bioaccumulation Potential
Additional Remarks
Not available Not available
Not available
No additional remark.

Section 13. Disposal Considerations

Waste Disposal Spent/ used/ waste product may meet the requirements of a hazardous waste. Consult your local or regional authorities. Ensure that waste management processes are in compliance with government requirements and local disposal regulations.

Section 14. Transport Information

TDG Classification Special Provisions for Transport
FUEL, AVIATION, TURBINE ENGINE, 3,
UN1863, PGII (CL-TDG)
See Transportation of Dangerous Goods Regulations.

Personal Protection
Health Hazard
This product is acceptable for use under the provisions of WHMIS-CPR. All components of this formulation are listed on the CEPA-DSL (Domestic Substances List).
All components of this formulation are listed on the US EPA-TSCA Inventory.
All components of this product are on the European Inventory of Existing Commercial Chemical Substances (EINECS).
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.
Please contact Product Safety for more information.

Section 15. Regulatory Information

Other
Regulations
DSD/DPD (Europe)
ADR (Europe)

(Pictograms)
DOT (U.S.A)
(Pictograms)
HMIS (U.S.A.) NFPA (U.S.A.)
Not evaluated.
Fire Hazard
Reactivity
Health
Fire Hazard
Reactivity
Specific hazard
3
2 0
Rating
1
3
4
2
0
Slight
Moderate
Extreme
High
Insignificant
HCS (U.S.A.) HCS Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
HCS Class: May cause cancer.
HCS Class: Target organ effects.
HCS Class: Irritating substance.
Prepared by Product Safety - RS on 9/28/2007.
Data entry by Product Safety - DSR.
References Available upon request.
* Marque de commerce de Petro-Canada - Trademark

Section 16. Other Information
Internet: www.petro-canada.ca/msds
Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-1228
For Product Safety Information: (905) 804-4752
For Copy of MSDS Glossary
ACGIH - American Conference of Governmental Industrial Hygienists
ADR - Agreement on Dangerous goods by Road (Europe)
ASTM - American Society for Testing and Materials
BOD5 - Biological Oxygen Demand in 5 days
CAS - Chemical Abstract Services
CEPA - Canadian Environmental Protection Act
CERCLA - Comprehensive Environmental Response, Compensation and Liability Act
CFR - Code of Federal Regulations
CHIP - Chemical Hazard Information and Packaging Approved Supply List
COD - Chemical Oxygen Demand
CPR - Controlled Products Regulations
DOT - Department of Transportation (U.S.A.)
DSCL - Dangerous Substances Classification and Labeling (Europe)
DSD/DPD - Dangerous Substance or Dangerous Preparations Directives (Europe)
DSL - Domestic Substance List (Canada)
EEC/EU - European Economic Community/European Union
EINECS - European Inventory of Existing Commercial Chemical Substances
EPCRA - Emergency Planning And Community Right-To-Know Act
FDA - Food and Drug Administration
FIFRA - Federal Insecticide, Fungicide, and Rodenticide Act

HCS - Hazardous Communication System
HMIS - Hazardous Material Information System
IARC - International Agency for Research on Cancer
IRIS - Integrated Risk Information System
LD50/LC50 - Lethal Dose/Concentration kill 50%
LDLo/LCLo - Lowest Published Lethal Dose/Concentration
NFPA - National Fire Prevention Association
NIOSH - National Institute for Occupational Safety & Health
NPRI - National Pollutant Release Inventory
NSNR - New Substances Notification Regulations (Canada)
NTP - National Toxicology Program
OSHA - Occupational Safety & Health Administration
PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
SARA - Superfund Amendments and Reorganization Act
STEL - Short Term Exposure Limit (15 minutes)
TDG - Transportation Dangerous Goods (Canada)
TDLo/TCLo - Lowest Published Toxic Dose/Concentration
TLV-TWA - Threshold Limit Value-Time Weighted Average
TLm - Median Tolerance Limit
TSCA - Toxic Substances Control Act
USEPA - United States Environmental Protection Agency
USP - United States Pharmacopoeia
WHMIS - Workplace Hazardous Material Information System

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of itssubsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Finaldetermination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Calcium Chloride

Approximately 200-500 tonnes of calcium chloride will be stored in individual bags strapped to pallets and further wrapped in bulk supersacs for ease of transporation by helicopter.

http://www.chem.tamu.edu/class/majors/msdsfiles/msdscalciumchloride.htm

CALCIUM CHLORIDE

MSDS Number: C0357 --- Effective Date: 11/17/99

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1. Product Identification

Synonyms: calcium dichloride; calcium chloride anhydrous; Caltac(R); Dowflake
CAS No.: 10043-52-4
Molecular Weight: 110.98
Chemical Formula: $CaCl_2$
Product Codes:
J.T. Baker: 1311
Mallinckrodt: 0771, 3266, 3630, 4225, 4748, 4777, 4822, 4870, 4875, 4880

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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Calcium Chloride	10043-52-4	93 - 100%	Yes

3. Hazards Identification

Emergency Overview

WARNING! CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.

J.T. Baker SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight
Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 2 - Moderate
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Orange (General Storage)

Potential Health Effects

Inhalation:
Granular material does not pose a significant inhalation hazard, but inhalation of dust may cause irritation to the respiratory tract, with symptoms of coughing and shortness of breath.
Ingestion:
Low toxicity material but ingestion may cause serious irritation of the mucous membrane due to heat of hydrolysis. Large amounts can cause gastrointestinal upset, vomiting, abdominal pain.
Skin Contact:
Solid may cause mild irritation on dry skin; strong solutions or solid in contact with moist skin may cause severe irritation, even burns.
Eye Contact:
Hazard may be either mechanical abrasion or, more serious, burns from heat of hydrolysis and chloride irritation.
Chronic Exposure:
No information found.
Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Skin Contact:
Wipe off excess material from skin then immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Note to Physician:
Oral ingestion may cause serum acidosis.

5. Fire Fighting Measures

Fire:
Not considered to be a fire hazard.
Explosion:
Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. At high temperatures or when moistened under fire conditions, calcium chloride may produce toxic or irritating fumes.

6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. Small amounts of residue may be flushed to sewer with plenty of water.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Moist calcium chloride and concentrated solutions can corrode steel. When exposed to the atmosphere, calcium chloride will absorb water and form a solution. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
None established.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved):
For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear protective gloves and clean body-covering clothing.
Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Other Control Measures:
Maintain good housekeeping in work area. Dust deposits on floors and other surfaces may pick up moisture and cause the surfaces to become slippery and present safety hazards.

9. Physical and Chemical Properties

Appearance: White or gray-white granules.
Odor: Odorless.
Solubility: Freely soluble in water, exothermic.
Density: 2.15
pH: 8 - 9 Aqueous solution
% Volatiles by volume @ 21C (70F): 0
Boiling Point: > 1600C (> 2912F)
Melting Point: 772C (1422F)
Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.
Evaporation Rate (BuAc=1): No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Substance will pick up moisture from the air and go into solution if exposed in open containers.
Hazardous Decomposition Products:
Emits toxic chlorine fumes when heated to decomposition. May form hydrogen chloride in presence of sulfuric or phosphoric acids or with water at elevated temperatures.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Methyl vinyl ether, water, zinc, bromine trifluoride, mixtures of lime and boric acid, barium chloride, and 2-furan percarboxylic acid. Metals will slowly corrode in aqueous calcium chloride solutions. Aluminum (and alloys) and yellow brass will be attacked by calcium chloride.
Conditions to Avoid:
Incompatibles.

11. Toxicological Information

Oral rat LD50: 1000 mg/kg. Investigated as a tumorigen and mutagen.

--------\Cancer Lists\----------

	---NTP Carcinogen---		
Ingredient	Known	Anticipated	IARC Category
Calcium Chloride (10043-52-4)	No	No	None

12. Ecological Information

Environmental Fate:
Based on available information for Calcium Chloride anhydrous, this material will not biodegrade or bioaccumulate.
Environmental Toxicity:
The LC50/96-hour values for fish are over 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

--------\Chemical Inventory Status - Part 1\---------

Ingredient	TSCA	EC	Japan	Australia
Calcium Chloride (10043-52-4)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\---------

		--Canada--		
Ingredient	Korea	DSL	NDSL	Phil.
Calcium Chloride (10043-52-4)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\----------

	-SARA 302-		------SARA 313------	
Ingredient	RQ	TPQ	List	Chemical Catg.
Calcium Chloride (10043-52-4)	No	No	No	No

--------\Federal, State & International Regulations - Part 2\----------

	-RCRA-	-TSCA-	
Ingredient	CERCLA	261.33	8(d)
Calcium Chloride (10043-52-4)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
Reactivity: No (Pure / Solid)

Australian Hazchem Code: No information found.
Poison Schedule: No information found.
WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: **1** Flammability: **0** Reactivity: **1**
Label Hazard Warning:
WARNING! CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED OR INHALED.
Label Precautions:
Avoid contact with eyes, skin and clothing.
Wash thoroughly after handling.
Avoid breathing dust.
Keep container closed.
Use only with adequate ventilation.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In case of contact, wipe off excess material from skin then immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In all cases, get medical attention.
Product Use:
Laboratory Reagent.
Revision Information:
No changes.
Disclaimer:
****
Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
****
Prepared by: Strategic Services Division
Phone Number: (314) 539-1600 (U.S.A.)

Matex Mud Polymer DD200

http://www.americawestdrillingsupply.com/MSDSDD2000New.asp

Material Safety Data Sheet

DD 2000

Material Identification and Use

MANUFACTURER'S NAME	Control Chemical (1989) Corporation
MANUFACTURER'S ADDRESS	Bay 6, 2016 - 25th Ave. N.E. Calgary, Alberta, Canada T2E 6Z4
EMERGENCY PHONE NUMBER	(403) 291-9850
SUPPLIER IDENTIFIER	
SUPPLIER'S ADDRESS	
SUPPLIER EMERGENCY PHONE NUMBER	
PRODUCT IDENTIFIER	DD 2000
PRODUCT USE	Drilling Mud

Hazardous Ingredients of Materials

Chemical Identity	Concentration	CAS#/NA#/UN#	LD(50)	LC(50)
No regulated components.			(oral, rat): >2,000 mg/kg.	
NOT A CONTROLLED PRODUCT.				

Physical Data For Product

PHYSICAL STATE	Solid
ODOUR AND APPEARANCE	Granular white solid. Faint odour.
ODOUR THRESHOLD	Not available
SPECIFIC GRAVITY	0.80
VAPOUR PRESSURE	Very low.
VAPOUR DENSITY (air=1)	Not applicable
EVAPORATION RATE	Not available
BOILING POINT	Decomposes
FREEZING POINT	Not applicable.
pH	Not applicable.
DENSITY (g/ml)	0.80
COEFFICIENT OF WATER/OIL DISTRIBUTION	Not available

Fire and Explosion Hazard of Product

CONDITIONS OF FLAMMABILITY	Requires a source of ignition, the presence o air, and a temperature greater than the flas point.
MEANS OF EXTINCTION	Use dry chemical, foam, or carbon dioxide. Water may cause excessive slipperiness.
FLASHPOINT AND METHOD OF DETERMINATION	No flash point.

Material Safety Data Sheet

DD 2000

UPPER EXPLOSION LIMIT(% BY VOL). Not available
LOWER EXPLOSION LIMIT(% BY VOL). Not available
AUTO-IGNITION TEMPERATURE..... Not available
FLAMMABILITY CLASSIFICATION..... Not available. Not a controlled product.
HAZARDOUS COMBUSTION PRODUCTS... Not available
EXPLOSION DATA..... Not available
SENSITIVITY TO STATIC DISCHARGE. Not available

Reactivity Data

CHEMICAL STABILITY..... Stable under normal conditions. Hazardous polymerization will not occur.
INCOMPATIBLE MATERIALS..... Avoid strong oxidizing and reducing agents.
CONDITIONS OF REACTIVITY..... Avoid contamination with reactive substances.
HAZARDOUS DECOMPOSITION PRODUCTS Not available.

Toxicological Properties of Product

ROUTES OF ENTRY
SKIN CONTACT..... No effects of exposure expected due to conta Prolonged contact may cause skin irritation or dermatitis in some individuals.
SKIN ABSORPTION..... No known hazard due to skin absorption.
EYE..... No effects of exposure expected with the exception of possible irritation.
INHALATION..... May cause sneezing, slight irritation of nos and throat.
INGESTION.....
ACUTE OVER EXPOSURE EFFECTS.....
CHRONIC OVER EXPOSURE EFFECTS... Skin irritation or dermatitis may occur upon frequent or prolonged contact.
EXPOSURE LIMITS..... TWAEV = 0.03 mg/m3 (skin) (Ont. Reg. 654/86)
IRRITANCY OF PRODUCT..... Eye: mild irritant.
SENSITIZATION TO MATERIAL..... Repeated or prolonged contact may cause sensitization in some individuals.
CARCINOGENICITY, REPRODUCTIVE EFFECTS.....
TERATOGENICITY, MUTAGENICITY.... Not available.
TOXICOLOGICALLY SYNERGISTIC PRODUCTS..... Not available.

Preventive Measures

PERSONAL PROTECTIVE EQUIPMENT... Chemical goggles, impervious gloves, and protective clothing as required to prevent contact. Use a mechanical-filter respirator as required to prevent exposure.

Material Safety Data Sheet

DD 2000

SPECIFIC ENGINEERING CONTROLS...	General ventilation with a good source of make-up air recommended for all indoor situations.
LEAK AND SPILL PROCEDURES.....	Ventilate area. Wear rubber boots, gloves, a a self-contained breathing apparatus if ventilation is not adequate. Collect into waste container. Avoid raising dust. Wash spill site after material pickup. Water solutions are very slippery. May constitute a hazard following a spill.
WASTE DISPOSAL.....	Dispose of waste according to federal, provincial, and local regulations.
HANDLING PROCEDURES AND EQUIPMENT.....	Avoid prolonged or frequent contact when handling material. Do not inhale dust or breathe vapor. Wear a NIOSH approved mechanical-filter respirator, if adequate ventilation cannot be provided. Avoid skin c eye contact.
STORAGE REQUIREMENTS.....	Keep container closed when not in use. Stor in cool and dry location away from oxidizing and reducing agents.
SPECIAL SHIPPING INFORMATION....	None

First Aid Measures

SPECIFIC FIRST AID PROCEDURES...	Skin contact: wash exposed area with soap a water. If irritation or abnormalities persist, call a physician. Eye Contact: Immediately flush eyes with water for 15 minutes and call a physician. Inhalation: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. Ingestion: not induce vomiting. If conscious, dilute b giving two glasses of water. Call a physici immediately.

Preparation Date of Material Safety Data Sheet

PREPARED BY.....	Safety Committee
PHONE NUMBER OF PREPARER.....	(403) 291-9850
DATE PREPARED.....	January 04, 1994

The information contained herein is based on data believed to be reliable, bu is presented without guaranty or warranty and Control Chemical (1989) Corporation disclaims any liability incurred from the use thereof.

Appendix C: Supporting Documents

This section includes a listing of reference materials and government reports, which are relevant to the types of hazardous material stored, handled, or transported and to the environmental setting of the areas where impacts could occur.

- Public Water Supply Regulations, Ch. P-23, Public Health Act.
  ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/

- Contingency Planning and Spill Reporting in the NWT: A Guide to the New Regulations.
  ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/

- Guidelines for Contaminated Site Remediation in the NWT.
  ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/Guideline%20for%20Site%20Remediation.pdf

- Territorial Lands Act, Chapter T-7.
  ftp://ftp.nunavut.ca/nwb/NWB%20Administration/NWB%20GENERAL%20INFORMATION/Agency%20Regulations/Guidelines%20and%20Other%20Legislation/850101territoriallandact-FTAE.pdf

Appendix D: Spill Report Form

Please fill in electronically at:

http://www.gov.nu.ca/env/ntnuspill.pdf

Northwest Territories Nunavut Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME	☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	____-_____

C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION

H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS		

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

PAGE 1 OF _____

Appendix E: Additional Contact Information

Advanced Explorations Inc.
Chief Executive Officer: John Gingerich
416-570-3250
john@advanced-exploration.com

Advanced Explorations Inc.
Chief Financial Officer: Lou Nagy
416-203-0057
lou@advanced-exploration.com

Advanced Explorations Inc.
Project Manager
1 867 928 8030 (Hall Beach House – seasonal contact)

24 Hour Spill Report Line Northwest Territories/Nunavut
Tel (867) 920-8130 Fax (867) 873-6924

Government of Canada,
Environment Canada Tel (867) 669-4700 Fax (867) 873-8185

Environment Canada Enforcement Officer
Curtis Didham
(867) 975-4644
(867) 975-1925 (cell)
(867) 975-4594 (fax)

Environmental Protection Branch Tel (867) 669-4700 Fax (867)873-8185

Indian and Northern Affairs Canada Tel (867) 975-4550 Fax (867) 975-4585
Water Resources Officer Tel (867) 975-4289 Fax (867) 975-4560
Land Administration Tel (867) 975-4275 Fax (867) 975-4286
Manager of Field Operations Tel (867) 975-4295 Fax (867) 979-6445

Department of Fisheries and Oceans Tel (867) 979-8000 Fax (867) 979-8039

Government of Nunavut,
Department of Environment Tel (867) 975-7700 Fax (867) 975-7740

Nunavut Water Board Tel (867) 360-6338 Fax (867) 360-6369

Appendix F: Waste Manifest

Of the potential sources of spillage throughout the course of the project, the transportation of hazardous materials is one of them. Because of this, an effective tracking system as well as safe transportation by all modes: air, marine, road and rail, is required. The Environmental Protection Service (EPS) of the Department of Environment has developed guidelines to ensure the proper management of hazardous waste in Nunavut. As part of this, the EPS tracks the movement of hazardous waste from the generator to final disposal through the use of a document called a waste manifest. This document must accompany all hazardous waste in transit regardless of the means of transport. All parties (the generator, carrier, and receiver) must be registered by EPS and the registration number entered in the appropriate location on the waste manifest form. Registration numbers and waste manifest forms are available from EPS.

The completed manifest form provides:

- Detailed information on the types and amounts of hazardous waste shipped;

- A record of the firms or individuals involved in the shipment; and

- Information on the storage, treatment or disposal of the waste and confirmation that they reached their intended final destination.

Registration of generators, carriers and receivers can be done with the Environmental Protection Service, Department of Environment, Government of Nunavut, Phone 867-975-7748.

Figure 1: Site Map

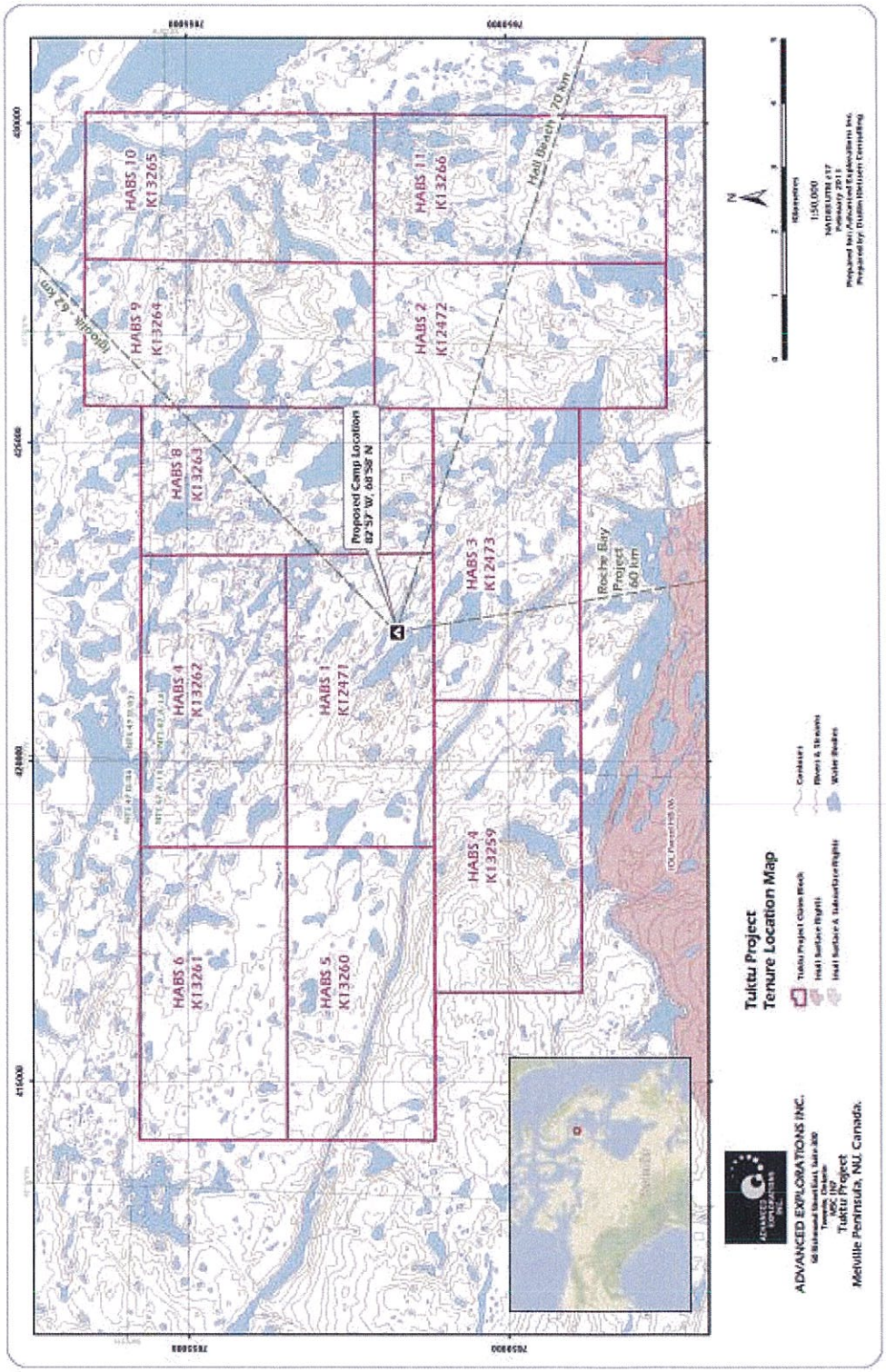
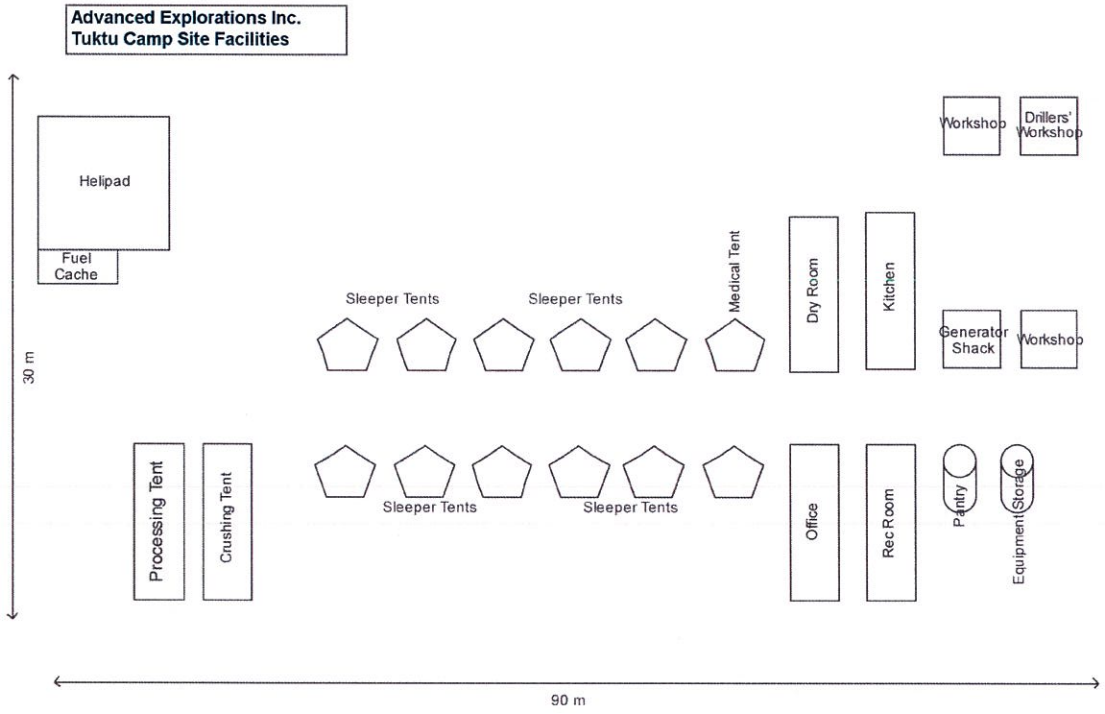


Figure 2: Schematic of Temporary Exploration Camp Layout



Note: Diagram is representative of general site layout only; camp has yet to be established.