ACETYLENE
TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colourless gas	FLASH POINT:	-18°C
ODOUR:	Garlic - like	FREEZING PT:	-82°C
SOLUBILITY:	Slightly soluble	VISCOSITY	n/a
VAPOUR DENSITY:	Will sink to ground levels	SPECIFIC GRAVITY:	(0.6) Liquid floats on water

SAFETY MEASURES

WARNINGS

- Vapours form instantaneously, and are heavier than air.
- Empty containers can contain explosive vapours.
- Vapours can travel to distant sources of ignition and flash back.
- Eye contact causes irritation.
- Material can accumulate static charges.
- Inhalation of vapours can cause irritation of the respiratory tract, headache, vomiting, and unconsciousness.

PERSONAL PROTECTION

- Always wear impervious, chemical-resistant clothing, gloves, footwear, and goggles; nitrile and Viton are suitable protective materials (**DO NOT USE NATURAL RUBBER, NEOPRENE, OR PVC**).
- Wear full-face organic vapour cartridge respirator where oxygen is adequate, otherwise wear positive pressure SCBA.

PRECAUTIONS

- Monitor for explosive atmosphere.
- Avoid contact with strong oxidizers, such as nitric acid, sulphuric acid, chlorine, ozones, peroxides.
- Eliminate ignition sources.
- Restrict access and work upwind of spill.

RESPONSE TO FIRES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

- Wear SCBA in confined areas.
- Shut off fuel supply.
- Extinguish fire with CO_2, dry chemical, alcohol foam or water fog.
- Use water to cool containers exposed to fire.

ACETYLENE
RESPONSE TO GAS RELEASES
CONSIDER ACTION ONLY IF SAFETY PERMITS!

ON LAND
- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES**

ON WATER
- **ELIMINATE IGNITION SOURCES.**
- **DO NOT ATTEMPT TO CONTAIN OR REMOVE RELEASES**

STORAGE & TRANSFER
- Store closed, labelled containers in cool, ventilated areas away from incompatible materials
- Electrically ground containers & vehicles during transfer.

DISPOSAL
- Consult with environmental authorities if the disposal of any contaminated materials is required.

FIRST AID

EYES
- Flush eyes immediately with fresh, warm water (NOT HOT WATER) for 20 minutes while holding the eyelids open.
- Remove contact lenses, if exposed to vapours or liquid.
- Get prompt medical attention.

SKIN
- Remove and launder contaminated clothing.
- Wash skin thoroughly with soap and water.
- Get medical attention.
- Discard saturated leather articles.

INHALATION
- Move victim to fresh air.
- Perform artificial respiration if victim not breathing.
- Provide oxygen if victim is having difficulty breathing.
- Get prompt medical attention.

INGESTION
- DO NOT INDUCE VOMITING; if victim is conscious; give milk or water to drink. If vomiting begins, keep victim's head below hips to prevent aspiration.
- Get prompt medical attention.

APPENDIX B

RESPONSE EQUIPMENT INVENTORY

RESPONSE EQUIPMENT INVENTORY

During the exploration phase of the project, spills occurring along the transportation route will be remedied by the appropriate personnel depending on the party responsible for the spill, the location of the spill, and the extend of the environmental threat. Larger spills will involve the coordination of WMC International personnel (including the Emergency Response Team), contractors, and WMC Mutual Aid Partners. For the purposes of listing response equipment, the equipment will be listed by contractor and site.

Mobile Equipment

From **Y & C Enterprises** (645 2546)
Equipment *located in Rankin Inlet that can be used for spill countermeasures includes:*

- 1 740 Champion grader
- 1 backhoe
- 1 BW 75 compactor
- 1 tractor and end dump
- 1 Cat 950 loader
- 1 Cat 966 loader
- 1 Cat 966 loader
- 1 Cat D3 dozer
- 1 Cat D5 dozer
- 1 Cat D6E dozer
- 1 Cat D6D dozer
- 1 Cat D8K dozer
- 9 tandem dump trucks
- 1 5000 gal. skid mounted storage tank
- 1 trash pump

From **NWT Power Corporation** (645 5300)
Spill equipoment available:

- fuel sorbent material
- pumps and hoses
- night operating equipment (portable generator light stand and cords)
- winter clean up equip,ent (chain saw)
- hand tools (shovels, rakes, wrenches)
- safety equipment

From **Municipality of Rankin Inlet** (645 2525) contact Fire Department (645 2895)
Heavy Equipment available:

- portable lighting
- front end loader
- dump truck
- backhoe
- bull dozer
- grader
- snow plow
- vacuum truck
- fire truck

Mutual Aid Partners

In the event of a major spill requiring additional resources, equipment and manpower will be made available through mutual aid agreements with the Canadian Coast Guard, the Hamlet of Rankin Inlet and the NWT Power Corporation.

Canadian Coast Guard (CCG) - Rankin Inlet Inventory

Material from the CCG inventory at Rankin INLET is available on a cost recovery basis and will be made available on request to the GNWT EMO representative who will be billed by CCG for material consumed and who will then recover costs from WMC accordingly.

1500' X 24"	oil containment boom
6	boom towing devices
6	5/8" tow lines X 100' c/w snap hooks
6	anchoring devices
6	Danforth anchors (22 lbs)
6	3/8" X 75' trip lines
6	trip line marker buoys type mb40
8	bales disposable boom (8" X 10' X 4 lengths per bale)
9	bales sorbent pads (18" X 18" X 3/8" X 100 pads)
10	sorbent rolls (36" X 150' X 3/8")
5	boxes of oil snare
2	1000 gal. portatanks
1	Spate pump
2	lengths 3" oil resistant suction hose - 50' each.
2	lengths oil resistant discharge hose - 50" each.
1	TDS-118 light medium oil skimmer c/w diesel power pack
1	spare parts kit for TDS-118 skimmer
1	4Kva diesel generator
1	16' aluminum boat
1	25 hp outboard motor
2	3000 psi portable high pressure washer
2	sets portable lights (each set has 3 X 500 watt halogen lamps, spare bulbs, 100" ext. cord and carrying case)
2	coils 1/4" polypropylene rope (1200')
2	coils ½" polypropylene rope (600')
2	coils 5/8" polypropylene rope (600')
72	pair disposable coveralls
120	pair work gloves
12	hard hat liners
40	dust / mist disposable masks
40	pairs assorted rain gear
20	pair safety glasses
20	safety vests
20	pair sunglasses
2	20' steel ISO containers
1	tool box

APPENDIX C

RISK ASSESSMENT & PREVENTATIVE MEASURES

RISK ASSESSMENT & PREVENTATIVE MEASURES

The purpose of Risk Assessment and preventative Measures for the Fuel Management and Spill Contingency Plan is to identify potential problems, suggest preventative measures to minimize the possibility of a mishap, and outline contingency plans in place to deal with the mishap once it has occurred. A summary table is provided on the next page.

The number of accidents and resulting fuel spills will vary depending on a number of factors: human error, mechanical failure, road conditions, weather conditions, etc. Over the past 10 years, the number of truck spills on winter roads supplying mines has decreased (personnel communication with Regulatory Agencies & Trucking Contractors). This seems to be as a result, in large part, to posting and enforcing speed limits, and increased experience and training of drivers.

A mishap that could occur with the transportation of fuel and supplies for the Meliadine West Gold Project can be separated into one of the following:

- A Delta goes through the ice - leaking
- A Delta goes through the ice - not leaking
- A Delta is upset on land or ice - leaking
- A Delta is upset on land or ice - not leaking

A Delta going through the ice and leaking is expected to be rare event.

Generally, the prevention of mishaps (potential problems) are the same and can be grouped together, as in the table on the next page.

Table C - 1 Risk Assessment, Preventative Measures, and Contingency Plans

Potential Problem	Preventative Measure	Contingency Plan
Delta Mishap - general	Y & C is expected to enforce a safe operating code for all Delta operators delivering fuel to the Strict rules of the road are enforced: no drinking is allowed on or around the transportation route, Drivers should be required to complete checklists and document all matters that require servicing & repair; mechanics should carry out the work as appropriate	Driver knows what to do: 1. The major freight carriers should have a contingency plan, For example Y & C Enterprises Ltd. 2. WMC will provide each vehicle that will haul fuel with a copy of this contingency plan. 3. Each driver should have a roll of plastic, shovel, absorbent material, metal buckets and knife in order to contain small spills. Clear lines of communication: 1. Depending on the severity of the to ensure safety spill, notification follows the Transportation Spill Response Organization with the appropriate personnel contacted - External and Internal Response team know what do to: 1. Freight carriers have to demonstrate to WMC adequate spill response experience & training 2. WMC Emergency Response Team receives training as new members are added Approvals are obtained to burn spilled and recovered fuels at previously selected disposal sites - usually borrow pits.

APPENDIX D

SPILL REPORT FORM

(make copies as required)

APPENDIX E

FUEL STORAGE MONITORING PLAN

The fuel storage monitoring plan will consist of the following daily and weekly inspections conducted by WMC personnel that have been trained in the use of fuel pumping equipment and fuel spill response.

The following inspections will be conducted and recorded on a daily basis:

1. All tanks, lines, pumps, hoses, valves and fittings will be inspected for leaks or damage.
2. Ensure proper fuel only is dispensed into the correct tanks and barrels for use in the camp and associated exploration work.
3. Ensure that the "No Smoking" signs posted in the area of the fuel tanks are always clearly visible.
4. Ensure that all personnel on site abide by the "No Smoking" rule within the distances outlined in the regulations for fuel tanks.
5. Ensure all spill response equipment and PPE (Personal Protection Equipment) is clearly visible and easily accessed.

The following inspections will be conducted and recorded on a weekly basis:

1. Fuel levels in all primary tanks checked and compared against the fuel dispensed from each primary tank for each week.
2. Outer tanks checked for fuel leakage from the primary tank.
3. Spill response equipment checked.
4. PPE checked.