



**SITE SPECIFIC
SOURCE PROTECTION AREA
EMPLOYEE AND CONTRACTOR TRAINING PLAN**

**MACEWEN PETROLEUM FUEL DISPENSING FACILITY
5546 ALBION ROAD SOUTH,
OTTAWA (GLOUCESTER), ONTARIO**

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1 INTRODUCTION

This site-specific source protection area employee and contractor training plan for the property located at **5546 Albion Road South, Ottawa, Ontario**, has been developed to:

- Provide a clear details on the risks to individuals (staff, public, contractors) and natural features; and
- To provide information on the importance of the site designation being within a Wellhead Protection Area of the neighbouring Albion Sun vista facility communal well.

This plan is not intended to be the Site-specific health and safety plan, but rather a training guide to be implemented for employees and contractors at the Site, conducting work at **5546 Albion Road South, Ottawa, Ontario** to prevent risk to the natural environment and personal safety during incidents on the Site.

This Plan should be updated accordingly as site features and new technologies or features are introduced to the facility, which can assist with further spill prevention and mitigation measures.

The Site is located within the wellhead capture zone for the neighbouring Albion Sun Vista communal supply well system.

2 SITE CONTACTS

The subject site is owned, and will be operated by MacEwen Petroleum Inc. They are referred to as the 'Owner'.

The Site contact information, and general Site description, is as follows:

Owner Name	MacEwen Petroleum Inc.
Owner Representative	Roch Lortie
Owner Contact Information	18 Adelaide Street, P.O. Box 100 Maxville, Ontario K0C 1T0 Office Phone : 613-527-2100 Mobile : 613-227-0264
Site Location	5546 Albion Road South, Ottawa (Gloucester), Ontario Northwestern corner of the Mitch Owens Road and Albion Road intersection.
Site Mailing Address	5546 Albion Road South, Ottawa (Gloucester), Ontario
Site Legal Description	Part of Lot 30, Concession 3 (Rideau Front), Geographic Township of Gloucester, City of Ottawa
Site Access	One (1) entrance along Mitch Owens Road, and one (1) entrance along Albion Road, southern and eastern extents of the Site, respectively.

3 SPILL PREVENTION & RISK MANAGEMENT PLAN

3.1 Hazard Identification

Hazard	Location & Discussion	Risk Management Measure
<p>Liquid petroleum hydrocarbons (gasoline, and diesel) storage, spills or releases</p>	<p>Stored in large quantities underground in storage tanks. Dispensed to clients through a service of underground service lines, and petroleum dispensing pumps.</p>	<p>These are to be equipped with monitoring and detection systems must be maintained according to applicable provincial requirements, as governed by the Technical Standards and Safety Authority.</p> <p>Regular dips of the installation by the on-site staff will be used to compare electronic inventory counts to monitor if product is lost or released.</p> <p>An groundwater monitoring program will be implemented with annual reporting to the corresponding authority overseeing the program.</p> <p>Only trained site personnel are authorized to conduct on-site refueling of equipment when necessary. This includes machinery during construction efforts, as well as the re-fueling of petroleum storage vessels associated with the site operations.</p>
<p>Supply Well Damage</p>	<p>Along the east-central extent of the Site.</p> <p>Damage to the existing supply well can result in immediate impacts to the aquifer.</p> <p>Such impairment can travel through the supply aquifer, resulting in possible detrimental conditions of neighbouring supply wells.</p>	<p>During construction and re-development of the Site, the supply well must be protected from potential damage by all parties involved.</p> <p>At no time shall snow be piled or stored within 15 m of the supply well.</p> <p>Construction fencing must be maintained around the perimeter of the supply well.</p> <p>At no time, shall the well casing or area within 15 m of the structure be altered, damaged or excavated, with the following exception:</p>

Hazard	Location & Discussion	Risk Management Measure
		<ul style="list-style-type: none"> i. A licenced individual, under O. Reg. 903, is retained to extend the casing accordingly so that it is at least 40 cm above final grade; ii. A licenced individual, under O. Reg. 903, is retained to disinfect the supply well post repair or alterations to the structure; iii. The installation of protective bollards to prevent damage to the well during typical Site operations; iv. The removal of asphalt surfacing, and curbing, and re-instatement, within 15 m of the well; v. Should a spill occur or accidental release occur within 15 m of the supply well, the Site specific Spill Management Plan must be followed, including notification of the respective parties and subsequent monitoring of the aquifer.
<p>Chemical storage, spill or release (including Oils and Lubricants, Methanol and Ethylene glycol, Engine coolant, Chlorofluorocarbons</p>	<p>Stored in small quantities within the convenience store on the Site. They are maintained in sealed and labeled manufacturer packaging.</p> <p>All efforts must be maintained to ensure these are not released into the natural environment.</p>	<p>Storage of this materials should be in a safe location, away from vehicle traffic, and should be in small quantities.</p> <p>Spill containment and absorbent material must be available on the site in the event of an accident release, so it can be cleaned promptly.</p> <p>All personnel and contractors on site are obligated to adhere to the training, operational procedures, and work instructions established by MacEwen Petroleum Inc.</p> <p>Only trained site personnel are authorized to conduct on-site refueling of equipment when necessary. This includes</p>

Hazard	Location & Discussion	Risk Management Measure
		<p>machinery during construction efforts, as well as the re-fueling of petroleum storage vessels associated with the site operations.</p> <p>The fueling area of machinery during construction must be as far from the existing supply well as possible, and no less than 30 meters the supply well. The following must also be considered:</p> <ul style="list-style-type: none"> • Refueling of machinery during on-site construction must be completed at the northern portion of the Site where a notable confining clay layer has been identified; • Spill containment or absorbent supplies must be readily available during re-fuelling; and • Re-fuelling of machinery during construction must be at least 30 m from any surface watercourses, water bodies, other wells, or other sensitive locations.
<p>Sewage release as a result of a potential malfunctioning sewage disposal system or incident</p>	<p>The Site is serviced by a private sewage disposal system located at the northern portion of the property. The associated tank and components contain rather significant quantities of raw sewage.</p>	<p>The septic is to be located at the northern extent of the site, in the area generally noted to have a confining layer of clay, which acts as a barrier between the surface and the deeper supply aquifer. This clay later should be maintained to support the</p>

3.2 Site Appointed Spill Response Coordinator

Name	Roch Lortie MacEwen Petroleum Inc. Mobile : 613-277-0264 Email : r.lortie@macewen.ca
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3.3 Spill or Incident Planning and Prevention

3.3.1 Roles and Responsibilities

All staff/employees, including management and contractors are considered responsible for implementing and following the details of this plan while conducting operations, or work at the subject site.

3.3.1.1 Spill Response Coordinator

It is the responsibility of the **Spill Response Coordinator** to:

- Report the incident to the corresponding authorities (Spills Action);
- Ensure that the Spill Report Form is completed;
- Ensuring Safety Data Sheets (“SDSs”) are readily available as well as that they are up to date for all hazardous material which are handled or stored on the site;
- Maintain a list of contractors with specialized spill response for easy access;
- Ensuring that spill response equipment is maintained, and is readily accessible in the event of an incident;
- Ensuring that all employees, including new hires, are trained and have knowledge and understanding of the details included herein; and
- Ensure that the details of this Spill and Risk Management Plan are complete and up to date.

3.3.1.2 Site Personnel (Staff/employees)

It is the responsibility of the **Site Personnel** to:

- Be involved and participate in spill training to become aware of the general response procedures, and be able to locate and follow the Spill Response Plan;
- Be aware of the steps to be followed and notification requirements in the event of an incident; and
- In the event of an incident, immediately notify their Supervisor, and the Spill Response Coordinator.

3.3.1.3 Contractors

- Review, follow and understand their obligations as set out in the Spill and Risk Management Plan prior to commencement of their work. This can include, but is not limited to the general response and notification procedures; and
- In the event of an incident, immediately notify the Spill Response Coordinator.

3.4 Risk Consideration

3.4.1 Possible Receiving Bodies of Concern

- Ground surface;
- Municipal ditches along Mitch Ownes Road, and Albion Road;
- Supply Well which services the site;
- Groundwater aquifer which supplies the site, and neighbouring lands with potable water.
 - The site is situated within the Albion Sun Vista Community Wellhead Protection Area, which renders the site as being highly sensitive with regards to risk for potential migration and off-site impairment to receptors.

3.4.2 Preventive Measures

Suitable, and effective measures must be taken promptly following an incident, or discovery of an incident, to mitigate risk to possible receiving bodies of concern. The following should be considered:

- All personnel and contractors on site are obligated to adhere to the training, operational procedures, and work instructions established by MacEwen Petroleum Inc.;
- Only trained site personnel are authorized to conduct on-site refueling of equipment when necessary. This includes machinery during construction efforts, as well as the re-fueling of petroleum storage vessels associated with the site operations;
- As the site is an operating self-serve fuel dispensing facility, the following should be considered for customers of the site:
 - Clearly posted signage indicating that smoking (or equivalent) and cell phone use while re-fuelling passenger vehicles is prohibited;
 - The individual filling the passenger vehicle must remain at the pump and in control of the pump throughout the process, and is not permitted to 'jam' the nozzle with an obstruction during fuelling;
 - A functioning emergency stop button must be present on the pump station which can also be triggered by the fuel service attendant in the store; and
 - Absorbent material must be readily available for use of customers in the event of a spill.
- The fueling area of machinery during construction must be as far from the existing supply well as possible, and no less than 30 meters the supply well. The following must also be considered:
 - Refueling of machinery during on-site construction must be completed at the northern portion of the Site where a notable confining clay layer has been identified;
 - Spill containment or absorbent supplies must be readily available during re-fuelling; and
 - Re-fuelling of machinery during construction must be at least 30 m from any surface watercourses, water bodies, other wells, or other sensitive locations.
- Refueling of the underground petroleum storage tanks will be limited to the south portion of the site, however, mechanical aids to prevent spills or other incidents will be followed,

including pre-fueling dip checks; vapour recovery system; and emergency shut off component.

- Site personnel are required to follow the Spill Response Plan in the event of an incident. This plan is a stand-alone document.

3.5 Spill Response Procedure

SPILL RESPONSE PLAN

1. Secure the area	<ul style="list-style-type: none"> • Confirm if the area of the spill is safe for responders, and that it does not pose a risk for health or safety concerns or danger; <input type="checkbox"/> • Isolate the area with available barricade markers like pylons or caution tape until the incident is resolved. <input type="checkbox"/>
2. Check for hazards	<ul style="list-style-type: none"> • Review the area for potential hazards, like reactive chemicals, or the source of the spill. <input type="checkbox"/>
3. If considered serious hazards	<ul style="list-style-type: none"> • Leave the area and instruct others (staff, costumers) to follow; <input type="checkbox"/> • Call 911. <input type="checkbox"/>
4. If not considered a serious hazard	<ul style="list-style-type: none"> • Eliminate the source of the spill, if possible (i.e. lift overturned container, emergency stop the pump, etc.). <input type="checkbox"/>
5. Migration Prevention	<ul style="list-style-type: none"> • Using available spill response materials, such as absorbent, prevent the spill from moving into monitoring wells, supply wells, septic disposal system, storm drains and manholes. <input type="checkbox"/> • Follow the material safety data sheet instruction for materials used as spill response. <input type="checkbox"/>
6. Clean the Spill	<ul style="list-style-type: none"> • Depending on the extent of the spill, this can be done by on-Site staff; <input type="checkbox"/> • Larger incidents will require support by environmental response services providers. <input type="checkbox"/>
7. Remove impacted material from the site	<ul style="list-style-type: none"> • Dispose of materials, including absorbent materials used, into secure containers for off-site disposal accordingly. <input type="checkbox"/>
8. Notify supervisor or manager of the incident	<input type="checkbox"/>
9. Notify the site owner of the incident	<input type="checkbox"/>
10. Report the spill to the Spills Action Centre	<input type="checkbox"/>
11. Complete the attached Spill Report Form	<input type="checkbox"/>

3.6 Reporting Requirements

In the case of a spill, it is mandatory for employees and contractors, (if applicable) to promptly inform the Spill Response Coordinator. Subsequently, the Spill Response Coordinator must notify the provincial spills reporting unit (Spills Action Centre), and Senior Management.

The following information must be provided when reporting a spill.

- Your name and phone number;
- Nature of release (i.e. spill, leak, fire or explosion);
- Impact on people, property, and environment;
- Date / time / location of spill;
- Type / quantity of substance released;
- Brief description of site and surrounding area;
- Circumstances leading up to the event;
- Resulting contamination; and
- Remedial action being taken/required.

In accordance with the *Environmental Protection Act*, it is required by law that any individual in control of a spilled pollutant, as well as any individual who spills or allows a spill of a pollutant that may result in or is likely to result in negative consequences, must immediately inform the relevant authorities about the incident. According to *Environmental Protection Act*, Section 92(1), MacEwen Petroleum Inc. is required to notify the following entities in the case of a reportable spill:

- The Ontario Ministry of the Environment, Conservation and Parks (MECP), through the Spills Action Centre, as mentioned above;
- The local municipality (City of Ottawa); and
- The Technical Standards & Safety Authority (TSSA) for spills of fuel and from fuel tanks.

3.7 Disposal of Spilled Materials

Various disposal methods exist, although, they are dependent on the type and quantities of the materials released. They can include the following:

- Free standing liquids which pool in a catchment structure, or water body are usually removed by vacuum truck; operated by competent person, and the material removed are disposed of accordingly at a licensed facility;
- Spilled material / spent absorbent / impacted soil, if in smaller quantities, should be placed into labelled drum or similar sealed containers;
- Larger quantities of impacted soil should be placed on a hard surface, if possible, tarped (both over and under the stockpile).
 - It should be stored in a secure storage area, at the northern extent of the site, where a clay confining area is identified, and as far from the supply well as possible (no less than 30 m from the well);
 - Soils will need to be sampled and analyzed using the Toxicity Characteristic Leaching Procedure (TCLP) by an accredited laboratory prior to disposal at a licensed landfill (non-hazardous or hazardous).

- The landfill will require the results of the TCLP analysis prior to accepting the waste. If the TCLP analysis confirms the waste is not leachate toxic, it may be disposed of at a landfill approved to accept non-hazardous waste. Leachate toxic waste is considered a hazardous waste and must be disposed of at a landfill licensed to accept hazardous waste.

4 STORAGE AND HANDLING OF FUELS OR HAZARDOUS MATERIALS

All employees of the site, and contractors, must ensure the following storage practices are maintained.

- Only product associated with the site activities as a gasoline service station, or associated with Facility Maintenance, Upgrades, Construction or Re-Development activities, shall be stored or handled on the site;
- The storage of products must be:
 - 30 m from the identified watercourse to the west of the site; or
 - 15 m from the existing, or proposed supply well on the site.
- Signage which outlines the requirement for not smoking 15 m of the subject property, including potential construction fencing;
- Up to date safety data sheets are to be maintained on the site which provide first aid, and disposal details of the respective project;
- Maintaining fire extinguishers in locations that can be easily accessible as needed;
- No re-fueling, fuel storage or equipment maintenance will take place within:
 - 30 m from the identified watercourse to the west of the site; or
 - 15 m from the existing, or proposed supply well on the site.

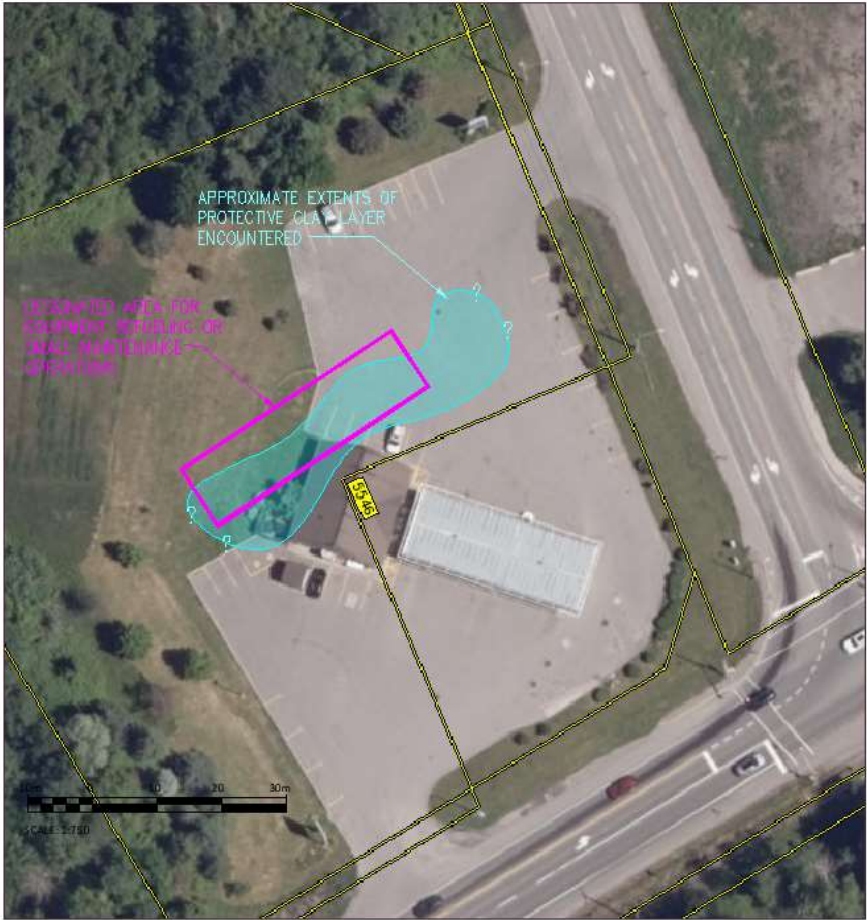
4.1 Machinery Maintenance, Repairs or Re-Fueling

No machinery maintenance (other than cleaning tracks, removing snow, idling to reach optimal operational temperature during winter months) is permitted on site. As both Mich Owens Road and Albion Road are highly traveled, it is not advisable to complete additional tasks off-site.

The following activities will be permitted on site, but at a safe distance from potentially sensitive receptors (open excavation, supply well), and should be completed in the area of the site identified as including a clay low permeable barrier – protective clay layer, which can act as a limiting factor to aquifer impairment in the event of a spill or incident:

- Re-fueling;
- Lubricating components;
- Adjusting hydraulic hoses;
- Checking fluids and 'topping'-off;
- Changing implements which includes attaching hydraulic hoses or removing pins.

The northern portion of the site, as presented in the following figure, as been identified to include a protective clay layer. The activities listed above (small maintenance operations) are permitted in this location, as presented in the subsequent image. Prior to these activities, the Spill & Risk Management Plan should be considered in the event of an incident. Staff must also be trained, to complete these activities according to prevent and minimize risk to the site and the sensitive receptors.



5 EMERGENCY ACTION AND FIRE PREVENTION

An “*emergency*” is a situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident, or an act whether intentional or otherwise (Emergency Management and Civil Protection Act, R.S.O., 1990). Some common types of emergencies include:

- Fires or explosions;
- Medical emergencies;
- Severe weather;
- Major power failures; and
- Infectious diseases.

An emergency action plan is necessary to:

- Keep employees, visitors, and first responders free from any further injuries;
- Succeed in managing life-threatening situations;
- Minimizing damage to equipment, machinery, tools, and any part of the environment; and
- Ensuring a return to work as safely as possible.

The following four (4) major elements have been considered for this Emergency Action and Fire Prevention Plan:

- Prevention (use of the policies and procedures to follow to avoid or minimize any emergencies);
- Preparation (the actions and procedures to take to ensure that MacEwen Petroleum Inc. and their employees are ready to effectively respond);
- Response (the actions to be taken in the event of an emergency); and
- Recovery (how employees and supervisors can return to normal business operations).

5.1 Accessibility Considerations

As per the Accessibility for Ontarians with Disabilities Act (AODA), individualized response plans are created for any employees who identify that they will need assistance during an emergency due to a permanent or temporary disability. These responsibilities include:

- Providing individualized emergency response information to the employee; and
- With the employee’s consent, sharing this information with the person(s) who will be designated to aid them during an emergency.

5.2 Fire or Explosion Preparedness

In the event of a fire:

- Employees are to evacuate, following the below evacuation procedures;
- The fire must be reported, and the information must include:
 - Who is reporting the fire;
 - What has happened (to the best of the person's knowledge);
 - Where it has happened;
 - If there are any injuries; and
 - Whether there are others who may be in the path of the fire.

5.2.1 Evacuation Procedures

In the event of a fire or emergency situation that requires evacuation, MacEwen Petroleum Inc. employees must remain calm and proceed in an orderly fashion.

Employees are to proceed to the muster point, as established in the on-Site Health and Safety policy.

Emergency responders are to be called, and nobody is to re-enter the area of concern until they are instructed by emergency responders that it is safe to do so.

5.2.2 Natural Environment Concerns – Supply Well / Aquifer

Following an incident on the Site, such as a fire, the supply well should be assessed once access to the Site is permitted. Maintaining a secure seal on the supply well at all times will work to avoid cross-contamination for run-off or by-product from the incident control procedures. It is advised that following such an incident, the well water be tested for general water quality conditions ('sub-division package') as well as Polycyclic Aromatic Hydrocarbons (PAH), Volatile Organic Compounds (VOCs) including BTEX, and Petroleum Hydrocarbons Fractions F1 through F4.

The water quality should be compared to the Ontario Drinking Water Standards, If conditions worsen, the MECP should be contacted to address the next steps, along with an Environmental Engineer.

ATTACHMENT I
Spills Response Plan



SPILLS RESPONSE PLAN

**MACEWEN PETROLEUM FUEL DISPENSING FACILITY
5546 ALBION ROAD SOUTH,
OTTAWA (GLOUCESTER), ONTARIO**

EMERGENCY NUMBERS

REPORT A SPILL

Spills Action Centre

416-325-3000

(Toll Free) 1-800-268-6060

EMERGENCY CONTACTS / ENVIRONMENTAL RESPONSE SERVICES

Crisis or Emergency

9-1-1

(Fire, Emergency Medical Services, Police) :

Spills Action Centre:

416-325-3000

Ontario Ministry of the Environment, Conservation and
Parks – Ottawa District Office:

613-521-3450

Hydro-Ottawa Emergency:

613-738-0188

Spill Response Contractors:

Tomlinson Environmental Group 1-800-263-5048

GFL Environmental Inc. 1-877-898-7222

David Brown Construction Ltd. 613-537-2255

City of Ottawa Public Health:

613-580-2424 (ext. 28020)

Fire Prevention Services – Non Crisis Services:

613-580-2860

Ottawa Police Services – Non Crisis Services:

613-236-1222

EMERGENCY SITE CONTACT DETAILS

Owner Name:

MacEwen Petroleum Inc.

Owner Contact Information:

18 Adelaide Street, P.O. Box 100, Maxville, Ontario K0C 1T0

Phone : 613-527-2100

Owner Representative

Roch Lortie

(After Hour Emergency Contact):

Mobile : 613-277-0264

Email : r.lortie@macewen.ca

SPILL RESPONSE PLAN

1. Secure the area	<ul style="list-style-type: none">• Confirm if the area of the spill is safe for responders, and that it does not pose a risk for health or safety concerns or danger; <input type="checkbox"/> • Isolate the area with available barricade markers like pylons or caution tape until the incident is resolved. <input type="checkbox"/>
2. Check for hazards	<ul style="list-style-type: none">• Review the area for potential hazards, like reactive chemicals, or the source of the spill. <input type="checkbox"/>
3. If considered serious hazards	<ul style="list-style-type: none">• Leave the area and instruct others (staff, costumers) to follow; <input type="checkbox"/> • Call 911. <input type="checkbox"/>
4. If not considered a serious hazard	<ul style="list-style-type: none">• Eliminate the source of the spill, if possible (i.e. lift overturned container, emergency stop the pump, etc.). <input type="checkbox"/>
5. Migration Prevention	<ul style="list-style-type: none">• Using available spill response materials, such as absorbent, prevent the spill from moving into monitoring wells, supply wells, septic disposal system, storm drains and manholes. <input type="checkbox"/> • Follow the material safety data sheet instruction for materials used as spill response. <input type="checkbox"/>
6. Clean the Spill	<ul style="list-style-type: none">• Depending on the extent of the spill, this can be done by on-Site staff; <input type="checkbox"/> • Larger incidents will require support by environmental response services providers. <input type="checkbox"/>
7. Remove impacted material from the site	<ul style="list-style-type: none">• Dispose of materials, including absorbent materials used, into secure containers for off-site disposal accordingly. <input type="checkbox"/>
8. Notify supervisor or manager of the incident	<input type="checkbox"/>
9. Notify the site owner of the incident	<input type="checkbox"/>
10. Report the spill to the Spills Action Centre	<input type="checkbox"/>
11. Complete the attached Spill Report Form	<input type="checkbox"/>

SPILL REPORT FORM

Date of Incident: _____ Date of Incident Discovery: _____
Time of Incident: _____ Time of Incident Discovery: _____
Address of Incident: _____

Site Details

Name and Title of Individual(s) who Discovered the Incident: _____

Type of material released (including the manufacturer's name): _____

Location of Incident on site: _____

Legal Description of site: _____

Location (Direction) to nearest intersection: _____

Incident Details

Estimated Volume Released (Litres): _____

Weather Conditions at the time of the Incident: _____

Topography of the Spill Location (Slope Direction, or Flat Conditions): _____

Spill receiving medium (pavement, sandy soil, water, etc.):

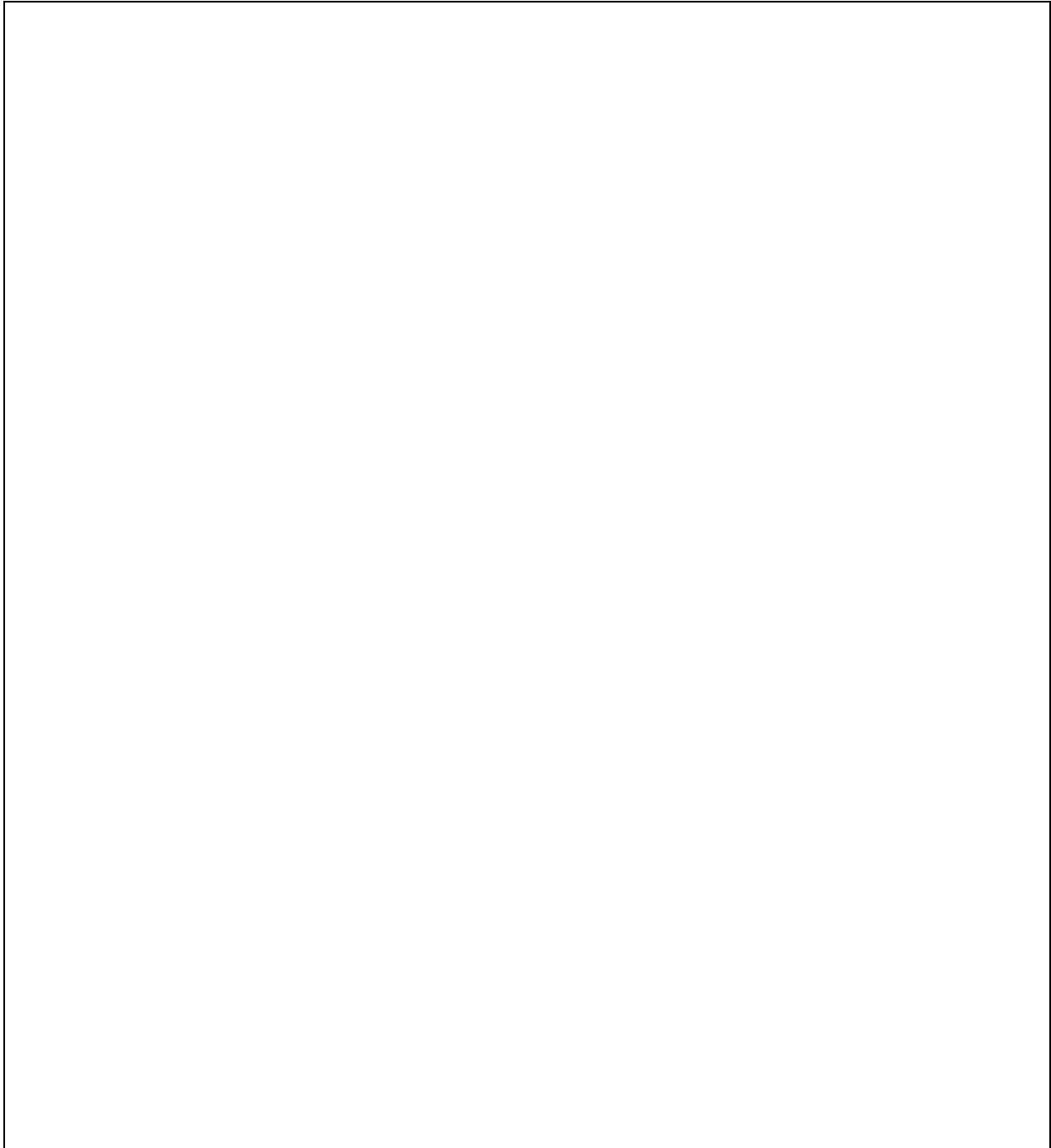
Did the spill reach a waterbody? YES NO

If Yes to above, is free phase product evidence present (sheen, product)? YES NO

Reason for Incident (Describe): _____

Has the Spill been cleaned up? _____

Sketch the Extents of Spill (size, configuration, location):



Spill Report Completed By: _____

Signature: _____

Date: _____