



Oil / Water Separator, Best Management Practices at Wholesale Facilities

Effective Date: December 8, 2020

Last Reviewed by Owner: December 8, 2020

Summary of Changes

This Summary shows:

- The location of each change within the document.
- All changes to this document since it was last approved and published.

Location of Change	Summary of Change
Monthly Sampling Activities	Revised the section under "Effluent Sample".
<u>A. OWS with Sample Port (municipal discharge)</u>	Revised point 9.
<u>B. OWS with Lift Station/Direct Discharge</u>	Revised point 9. Added point 10.

Purpose: This site operating procedure (SOP) is designed to provide Associates and their employees with detailed instructions regarding the proper operation and maintenance of an Oil Water Separator (OWS), also referred to as the works. **Associates must comply with all Federal, Provincial and Municipal requirements, applicable to effluent discharge into the environment.**

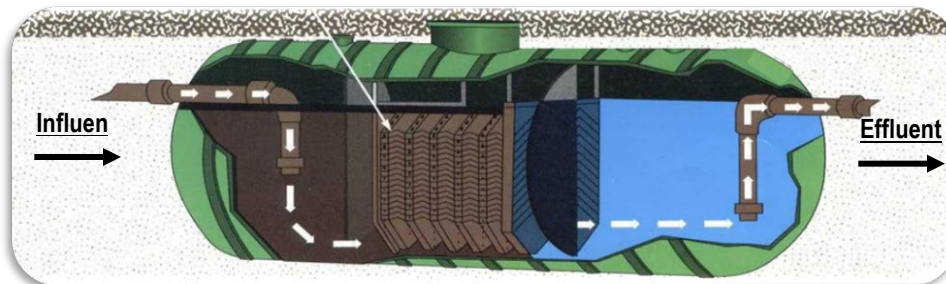
The OWS is designed to intercept and contain small amounts of fuel/oil and sediment (sludge) carried off by water run-off from containment pads or yard surfaces; which could end up in the environment. It is **NOT** a waste disposal system. **It is illegal to intentionally introduce contaminants into the system through catch basins, such as antifreeze, windshield washer fluid, paint, waste oil, methanol, lubricants or sludge.**

Oil Water Separators are installed by Suncor Energy to mitigate environmental impacts as well as serve as a secondary containment in the event of a spill. Catch basins and trenches or other storm water collection devices in the product handling areas and tank dikes, will be connected to the OWS. Other catch basins in non-product handling areas on the site will be routed directly to the municipal storm water system without passing through the OWS.

Fuels/Oils are lighter than water and will float when not disturbed. The OWS is designed to slow down the flow and allow any fuel/oil entering with the water to float to the top, and any sediment to settle at the bottom. Some oil water separators are equipped with baffles, corrugated plates or coalescing media to enhance this separation process. Sludge settles out at the bottom and water leaves the unit through an opening in the outlet pipe near the bottom of the unit.

Like any operating system, an OWS requires regular and proper maintenance, inspection and cleaning. In the absence of specific provincial or municipal regulations, these Best Management Practices are the minimum Suncor requirements in terms of inspecting, maintaining, operating and record keeping for Oil Water Separators.

Example of a typical ZCL coalescing OWS:





Make no alteration to the OWS, its piping, plates or baffles, without Suncor approval.

- **Operation, maintenance** (excluding that which is the direct responsibility of Suncor), **monitoring, inspection and record keeping of the OWS are the responsibility of the Associates.** Associates will adhere to all the requirements of these **Best Management Practices.**
- Any entry into the OWS is **PROHIBITED** by the Associate or his/her employees. Any maintenance related OWS work requires confined space certification and procedures by a Suncor approved contractor.

Summary of Operational Requirements

The following table lists the procedures associated with the safe and proper operation of the OWS.

1. **Operating Guidelines**
2. **Monitoring and Inspection Activities**
3. **OWS Sampling Procedures**
4. **Fuel / Oil Removal (suspended fuel level skimming)**
5. **Complete OWS sludge Clean-Out (Pump-Out)**
6. **Winter Operation and Spring Start-Up**
7. **Records (logbook and database recordkeeping)**
8. **In the Event of a Spill**
9. **Adverse Samples**
10. **Work Order Request Flowcharts**
11. **Drawings - Typical Models of Oil Water Separators**

1. **Operating Guidelines**

The following guidelines are mandatory to ensure the OWS operates as intended:

- **The OWS is not a disposal system.** No contaminants are to be intentionally introduced into the system through catch basins such as antifreeze, windshield washer fluid, paint, waste oil, methanol, lubricants or sludge. **It is illegal to do so.**
- The OWS effluent shutoff valve must be kept accessible at all times and must be identified by signage which includes the open and closed orientation. **The valve must be verified weekly to ensure operability.**
 - The OWS effluent shutoff valve or discharge pump is to remain open or operational at all times during normal OWS operation.

The Associate will ensure that any site maintenance or construction work that could potentially affect the OWS is taken into consideration. Ensure that Geo-Tech cloth is placed over any catch basins that drain to the OWS to prevent any excess debris, sand, dirt, etc. from entering the OWS. All activities are to be recorded in the OWS logbook as well as in the online OWS Database via the Wholesale Portal.

2. **Monitoring and Inspection Activities**

It is critical for Associates and their employees operating the OWS to ensure continued due diligence on all Suncor OWS minimum standards and applicable regulatory requirements for Daily, Weekly and Monthly activities. Gloves and safety glasses with side shields are mandatory personal protective equipment (PPE) when dipping and collecting samples.



I - Daily Activities

When an OWS discharges to the surface via a concrete lift-station, you must visually inspect the OWS effluent discharge area, looking for evidence of petroleum bypass or any other condition which might indicate a malfunction (weekly in the province of British Columbia). **Record inspection and findings in your OWS logbook.** Any oil or sheen in the OWS discharge area should be immediately removed and a notification should be issued to your Environment, Health and Safety (EH&S) Advisor, Wholesale Business Manager (WBM), and OWS Coordinator. Conduct an immediate investigation to determine the origin of the sheen and prepare an event report.

Check for spills around fuel transfer areas. If a new spill has been detected, check for fuel/oil in the OWS by performing dip measurements. Refer to the section of this SOP called **Dipping of the OWS.**

II - Weekly Activities

- Dip the OWS to ensure water is at the proper operating level as per your OWS logbook data (e.g. ZCL units 82 cm - 86 cm). Major variations to OWS water level should be called into the Petro-Canada Maintenance Contact Centre at 1-866-494-5050.
- Dip the OWS to measure the thickness of accumulated surface fuel/oil and sludge in the bottom of the OWS compartment(s). Record results in the OWS logbook.
- Inspect water discharge from the effluent discharge pipe. For locations with lift stations, override the pump to watch fluid exit the discharge pipe to identify any visual contaminants in the form of sheen and visible hydrocarbons.

NOTE: OWS that discharge into an underground municipal storm water line will not be able to verify this.

- Repeat all steps in all OWS chambers specific to your OWS unit.
- Check the OWS effluent shut-off valve and ensure it is functional and in the proper position.

For Bulk Plants with aboveground storage, in a dike, with a catch basin that drains to the OWS: the valve shall be closed and locked when not engaged in a supervised draining operation. Perform a tank dike inspection for visible hydrocarbons and record findings in the OWS logbook.

NOTE: All information recorded in the OWS logbook **MUST** be recorded in the online OWS Database via the Wholesale Portal.

Dipping of the OWS

Determining Fuel/Oil Level

Perform all steps one chamber at a time:

1. Slowly dip the OWS chamber to determine the total liquid depth; record this in your OWS logbook.
2. Dry off the dipstick.
3. Spread water finding paste (e.g. Kolor Kut) on one side of the dipstick from the determined liquid level down 20 cm.
4. Slowly insert the dipstick into the liquid again, and hold for 30 seconds to allow paste to react to water (the paste will only react to water by changing the colour).

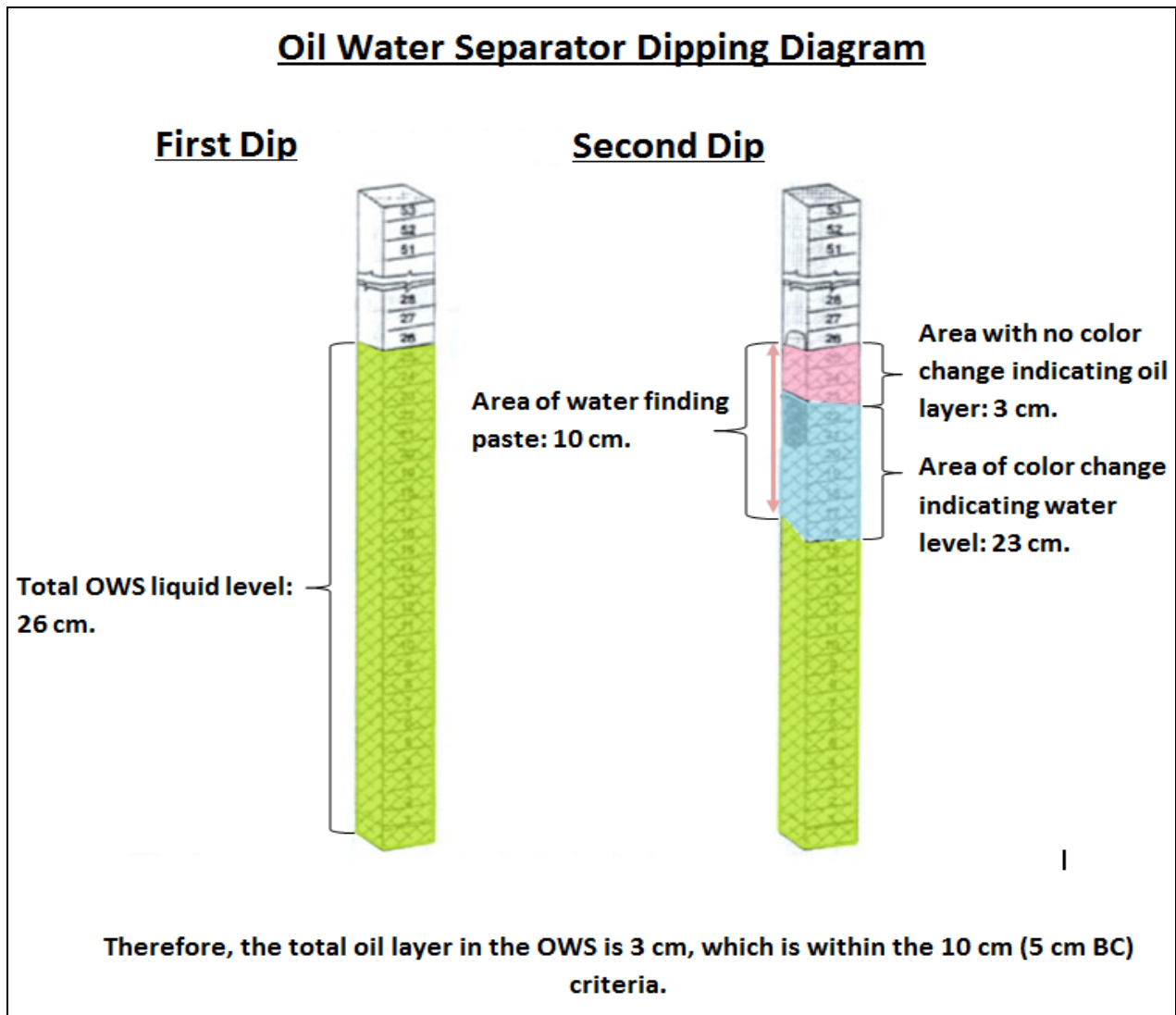


- The change in colour of the water finding paste will allow you to determine the fuel/oil thickness. **Request a Skimming of surface fuel/oil whenever thickness exceeds 10 cm** (5 cm in the province of British Columbia) by calling the Petro-Canada Maintenance Contact Centre at 1-866-494-5050.

Repeat steps 1- 5 for each chamber.

Determining Sludge Thickness

- To determine sludge thickness, slowly lower stick until you detect a slight resistance at the bottom of the tank. This is the top of sludge layer. Record the depth to top of liquid. Then slowly push the stick through the sludge to the OWS bottom. Record depth to top of liquid. The difference between the two readings is the sludge thickness. **Request, via Petro-Canada Maintenance, a cleaning of the OWS when sludge level exceeds 15 cm.**
- Twirl the stick 3 or 4 times to catch the sludge particles on the stick to record the level of these particles. **Request, via Petro-Canada Maintenance, a cleaning of the OWS when sludge level exceeds 15 cm.**





III - Monthly Activities

Monthly Sampling Activities

Take monthly OWS effluent samples for lab analysis. Record sample date in the OWS logbook. Ensure that proper labelling of effluent glass bottles corresponds to samples taken. Please see Section 3. **OWS Sampling Procedures** for further sampling details.

Effluent Sample

Depending on your OWS discharge:

- 1 - Sample riser port - Use the Suncor issued hand pump at the effluent sample port.
- 2 - Surface discharge – Fill bottles at the point of discharge from the lift-station.

Ensure that all containers are free from contaminants prior to collecting samples.

Package the effluent sample glass bottle(s) inside the cooler, ensure enough loose ice is used to cover bottle(s) and fill cooler $\frac{3}{4}$ full..

Keep a record of this shipment in your OWS binder.

3. OWS Sampling Procedures

It is important that these sampling procedures are followed to ensure a consistent method is being applied which will reduce potential corrective actions related to improper sampling techniques that create unnecessary costs and potential environmental impacts.

A. OWS with Sample Port (municipal discharge)

1. Take OWS samples as required by the Suncor OWS National Program for lab analysis. Record any field observations in the OWS logbook prior to sampling.
 - a. **Note:** Take monthly samples early in the month in the event a sample is above the Suncor internal limit. This will allow for sufficient time to have all sampling and analysis fall within that month.
 - b. **Note:** Take the sample early in the week so that there is no risk of a sample being left at the lab over the weekend – i.e.: Don't sample on a Thursday or Friday.
2. Ensure all PPE is worn, specifically disposable rubber/latex gloves and eye protection.

Note: new disposable gloves should be worn for each sampling event to avoid contamination of the sample.
3. Review the surroundings to make sure area is safe.
4. Locate sample port at Effluent end of the OWS. The sample port could be located where the OWS dips are taken, in a separate dedicated tube, or under a manhole cover.
5. Remove bottle(s) from sample kit and place on a stable surface.
 - a. **Note:** the sample bottle(s) contain preservatives and are harmful if swallowed. Do not touch or allow contact with eyes or ingest preservatives.
 - b. Properly label the bottle(s) filling in the Date, Time, and Sample Name – “SITE # - EFFLUENT”. Some sites have multiple OWS, so ensure that when naming the samples the specific OWS is referenced, such as “SITE # - West OWS – Effluent”.
6. Attach Suncor supplied sample pump to the port and begin to draw water out of the port a couple of times to flush unwanted contaminants out of the sample port line. To properly discard the sampling line, before collecting the



OWS effluent sample, collect one litre of fluid from the sample port into a container and dispose of these contents back into the OWS. Do not use the sample bottle as the container to discard the sample port.

- a. **NOTE:** If the site does not have a hand-held sample pump, or if there is no sample port, please contact the OWS Coordinator at ows@suncor.com.
7. Remove the pair of rubber gloves used to flush/discard the sample port and put on new rubber gloves and proceed to fill the sample bottles.
8. Remove sample bottle(s) lid and fill the sample bottle(s) up to the shoulder of the bottle. It is not necessary to fill the bottle(s) completely.
 - a. It is **IMPERATIVE** that all required bottle(s) are filled at the Effluent end of the OWS.
9. Once the bottle(s) are filled, secure the lids, package bottle(s) with sufficient bubble wrap, ensure enough loose ice is used to cover bottles and fill cooler $\frac{3}{4}$ full. The temperature of the sample must be less than 10°C when received..
10. Fill out the Chain of Custody and courier waybills, and call the courier company for a pickup.

B. OWS with Lift Station/Direct Discharge

1. Take OWS samples as required by the Suncor OWS National Program for lab analysis. Record any observations in the OWS logbook prior to sampling.
 - a. **Note:** Take monthly samples early in the month in the event a sample is above the Suncor internal limit. This will allow for sufficient time to have all sampling and analysis fall within that month.
 - b. **Note:** Take the sample early in the week so that there is no risk of a sample being left at the lab over the weekend – i.e.: Don't sample on a Thursday or Friday.
2. Ensure all PPE is worn, specifically disposable rubber/latex gloves and eye protection. Note, new disposable gloves should be worn for each sampling event to avoid contamination of the sample.
3. Review the surroundings to make sure area is safe.
4. Locate Effluent Discharge area of OWS. Activate the OWS discharge pump to flush the line as well as test to make sure the pump system is working.
5. Remove bottle(s) from sample kit and place on a stable surface.
 - a. **Note:** the sample bottle(s) contain preservatives and are harmful if swallowed. Do not touch or allow contact with eyes, or ingest preservatives.
 - b. Properly label the bottle(s) filling in the Date, Time, and Sample Name – "SITE # - EFFLUENT". Some sites have multiple OWS, so ensure that, when naming the samples, the specific OWS is referenced, such as "SITE # - West OWS – Effluent".
6. To sample the discharge, due to the high water flow from the effluent pump, fill the sample bottle with a little amount of water at a time to avoid overflowing sample bottle and displacing the preservatives in the sample bottle.
 - i. **NOTE:** Use the sample port as a secondary sample location if there is an issue with the Lift Station pump. Make note in the OWS binder if this occurs.
7. Turn off the discharge pump after the sample is taken.
8. Remove sample bottle(s) lid and fill the sample bottle(s) up to the shoulder of the bottle. It is not necessary to fill the bottle(s) completely.
 - a. It is **IMPERATIVE** that all required bottle(s) are filled at the Effluent end..
9. Once the bottle(s) are filled, secure the lids, package bottle(s) with sufficient bubble wrap, ensure enough loose ice is used to cover bottle(s) and fill cooler $\frac{3}{4}$ full. The temperature of the sample must be less than 10°C when received..



10. Fill out the Chain of Custody and courier waybills, and call the courier company for a pickup.

4. Fuel / Oil Removal – Skimming – *to be completed by a service provider*

1. If the fuel/oil level exceeds **10cm** in any compartment of the OWS (5 cm in the province of British Columbia), contact **Petro-Canada Maintenance** and schedule a skimming. The fuel/oil must be removed as soon as possible.
2. Service contractors must be notified of, and must agree to follow requirements and conditions for fuel/oil removal, prior to commencing any work. In addition, contractors must follow any site specific instructions and procedures.
3. Transportation and disposal of any OWS contents (water, surface oil, gasoline, sludge or any combination) must meet all regulations (keep a copy of the certificates and or manifest at the site).
4. Measure the contents of the OWS for fuel / oil and water content. Record results in OWS logbook. Ensure the contractor also dips and records for their records.
5. Remove the measured layer of fuel/oil plus an additional 5 cm of water from the compartment(s).
6. Re-dip the compartment(s) for fuel/oil and record measurement in OWS logbook.
7. Water to restore naturally to the operating level. Refilling of the OWS is not required.
8. Retain waste manifest/shipping documents in the OWS logbook.

5. Complete OWS Sludge Clean-Out (Pump-Out) – *to be completed by a service provider*

Complete clean-out of the OWS and catch basins is required when:

- Bottom sludge in any compartment exceeds a thickness of 15 cm.
- A minimum of once every two years.

Note: Clean-out of an OWS may involve confined space entry procedures. Associates and their employees are NOT permitted to enter the OWS at any time. This is for trained contractors only.

- Contractors must be notified of, and agree to follow, these requirements and conditions for fuel/oil and/or sediment/sludge removal prior to commencing any work. In addition, contractors must follow site specific instructions and procedures.
- A licensed waste transporter must be used, typically using a power vacuum unit. Disposal of any OWS contents (water, surface oil, gasoline, sludge, absorbent pads or material or any combination) must meet applicable regulations.

Note: Debris from animal matter, organic material, sand, dirt, etc. collects in the catch basins at the loading, offloading, and fuelling areas and eventually deposits in the OWS as sludge. Failure to properly clean the entire system can lead to operation problems and/or hydrocarbons being discharged at unacceptable levels.

Detailed steps to clean-out the OWS and associated equipment and drainage points are as follows:

1. Measure the contents of the OWS for fuel/oil, sludge and water content. Record results in OWS logbook.
2. Close discharge valve or shut off the automatic pump if equipped. This will prevent any sludge or hydrocarbon material from being washed out of the OWS.
3. Using the power vacuum unit, remove the contents of the catch basins located at the fuelling islands, off-loading or loading areas that are connected to the OWS collection system. Ensure that all sediment and water are removed. Start with the catch basin that is the farthest from the OWS and upstream of any other catch basins. Using a high pressure water source, flush lines from the upstream catch basin into the next catch basin. Remove all sediment and water and repeat until all lines and catch basins upstream of the OWS are cleaned.



4. Remove the contents of the compartment(s) of the OWS.
5. Clean the interior compartments.
6. Your OWS may be equipped with coalescing filter plates. If so, they must be removed and cleaned following the manufacturer's maintenance manual detailed instructions. Clean filters in collection trays or on absorbent pads to collect any hydrocarbon or sludge. Reinstall filter plates. Disposal of hydrocarbon, sludge or absorbent pads must meet applicable regulations.
7. Inspect the OWS immediately after cleaning to ensure it has been cleaned properly. **This procedure may require confined space entry as per provincial regulations.** Look for defects, cracks, broken or damaged outlet piping or structural damage which might permit leakage to the surrounding soil. If cracks or damage are noted, do not refill or use the OWS until authorized by a Suncor representative. Record all findings in the logbook.
8. Flush the discharge line and recover flushings.
9. After clean-out, restore the water level in the OWS to the proper operating level. Measure the contents of the OWS for fuel/oil, sludge and water content. Record results in OWS logbook.
10. Record the date of clean out, amount of fuel/oil and sediment removed and any other operational changes in the OWS logbook.
11. Retain waste manifests and other paperwork in the OWS logbook.

6. Winter Operation (Winterization) and Spring Start-Up

- **The OWS Coordinator and Service Provider will monitor and determine if the weather conditions warrant a winter shutdown.** Some OWS are operated year round. However in most geographic areas, OWS contents may freeze in winter. To prevent cracking and damage to oil water separators, Manufacturers recommend that the water level be lowered. Water removal date will vary by geographic area and weather conditions. The OWS is to remain available to contain spills throughout the winter. **Ensure the OWS outlet valve is closed, except in Ontario where it must remain open.** If spilled fuel / oil accumulate over the winter, it must be removed prior to filling the OWS with water in the spring. Failure to remove fuel / oil prior to refilling may cause some fuel / oil to enter the outflow pipe and be discharged to a sewer or the environment. Dip for water, sludge and fuel / oil prior to opening the OWS for service. Record results in the OWS logbook.
- **Winterization** of the OWS should be carried out in late fall/early winter when it appears that freezing temperatures will remain. **The actual dates will vary widely by geographic region and the local weather conditions.** Proper timing of the winterization will require a coordinated effort by the site personnel and the service provider.
- Spring Start-Up **does not require** a contractor unless there is fuel/oil in the OWS which requires skimming. The OWS water levels are to recharge naturally unless otherwise specified based on the type of OWS at the site.

Note: The OWS is to remain available to contain spills throughout the winter.

1. Measure the contents of the OWS for fuel/oil, sludge and water content. Record results in OWS logbook.
2. Skim off any fuel that has accumulated in the OWS.
3. Remove water as appropriate, depending on OWS type and/or geographic location.



4. **Ensure the OWS outlet valve is closed, (except in Ontario where it must remain open). Re-dip the OWS to verify the level of the liquid.**
5. Record the winterized date and levels in the OWS logbook.
6. During periods of extended thaws, runoff may accumulate in the OWS. Continue weekly monitoring (or more often as necessary) and recordkeeping activities. Measure the contents of the OWS for fuel/oil, sludge and water content. Record results in OWS logbook.
7. During an extended thaw, water may fill up the OWS tank and will have to be removed to prevent freeze-up when the temperature returns to below freezing. When the water level rises above the winterization level, **Petro-Canada Maintenance** must be contacted to winterize the OWS again. As per winterization procedures, ensure OWS dips are taken before and after the re-winterization activities.
8. Record any other OWS activities in the OWS logbook.

Spring Start-Up (weather dependent)

1. Inspect the OWS. Measure the contents of the OWS for fuel/oil, sludge and water content. Record results in OWS logbook. If fuel/oil has accumulated over the winter, it must be removed prior to reopening the OWS following the normal skimming procedures (Section 4.).
2. Remove snow and contaminated materials from surface.
3. Ensure all appropriate tags are on the specific ports.
4. Ensure the outlet valve is open and / or pumps are activated.
5. Measure the contents of the OWS. Record results in OWS logbook.
6. Record the start-up date in the OWS logbook.

7. Records (logbook and database recordkeeping)

I. Logbook / Database Record:

- All field/site information recorded in the OWS logbook is to be recorded in the online OWS Database via the Wholesale Portal.
- All inspections, operational changes, maintenance, surface fuel/oil removal and clean-outs (date and amount).
- Copies of chain of custody forms and waste manifests.
- The date the OWS is placed in winter operation mode, spring start-up, and the date of water refill in the spring (if applicable).
- Spills or other emergencies.
- Initialled or signed OWS log sheets for each day that a task is performed on the OWS.
- Proper inspection and verification of the OWS must be included in daily documented site checklists.



II. Staff Training records

All OWS training for monitoring, inspections and maintenance of the OWS received by Associate employees needs to be up to date and documented and kept in a separate section of the OWS binder. Identify gaps and, if additional training is required, please notify your WBM and the OWS Coordinator if further training is needed.

Other Documentation in the OWS Logbook:

- A site plan showing the location of the OWS, the areas serviced by storm sewers and the point of discharge to the environment.
- OWS installation drawing.
- Environmental drainage drawing.

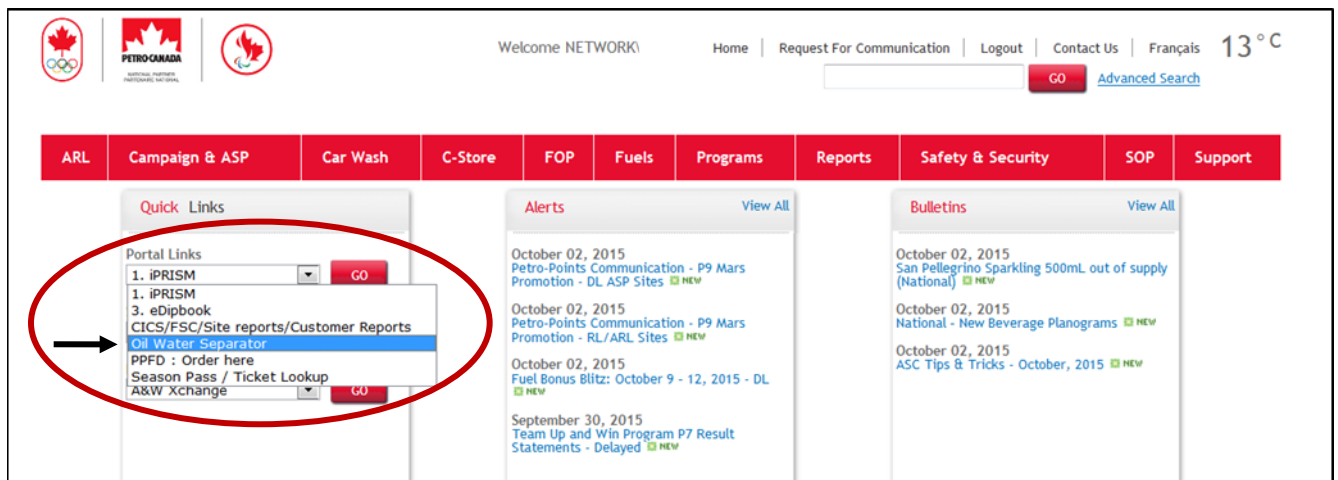
Note: For Ontario sites governed by an Environmental Compliance Approval, refer to the **Environmental Compliance Approval (ECA)** website for full and detailed requirements. All sites in Ontario require a current copy of the ECA in their OWS logbook at all times.

The WBM and OWS Coordinator will notify sites in Ontario when a new ECA is issued by the Ministry of Environmental Climate Change (MOECC). The OWS Coordinator will also upload the current ECA into the OWS Online Database

- This SOP and a copy of the ECA where applicable.
- Supplemental OWS manual or information, if available.

III. Up To Date OWS Online Database

Daily visual inspections (weekly in the province of British Columbia), weekly dips, monthly sampling events, and any other OWS-related activities are to be recorded in the OWS online database, via the Wholesale Portal, **before the end of each week.**



The screenshot shows the Wholesale Portal interface. At the top, there are logos for Petro-Canada and the Olympic rings, along with the text 'Welcome NETWORK'. Navigation links include 'Home', 'Request For Communication', 'Logout', 'Contact Us', and 'Français'. A search bar with a 'GO' button and 'Advanced Search' link is present. Below the navigation is a red horizontal bar with tabs for 'ARL', 'Campaign & ASP', 'Car Wash', 'C-Store', 'FOP', 'Fuels', 'Programs', 'Reports', 'Safety & Security', 'SOP', and 'Support'. The main content area is divided into three columns: 'Quick Links', 'Alerts', and 'Bulletins'. The 'Quick Links' column contains a dropdown menu with the following items: '1. iPRISM', '1. iPRISM', '3. eDipbook', 'CICS/FSC/Site reports/Customer Reports', 'Oil Water Separator' (highlighted in blue), 'PPFD : Order here', 'Season Pass / Ticket Lookup', and 'A&W Xchange'. A red circle highlights the dropdown menu, and a black arrow points to the 'Oil Water Separator' option. The 'Alerts' column shows several notifications dated October 02, 2015, and September 30, 2015. The 'Bulletins' column shows notifications dated October 02, 2015.

Keep all OWS logbook records at the facility for a minimum of 3 years.



8. A. In the event of a Spill:

1. Immediately close the outlet valve or shut-off the discharge pump after any **spilled fuel/oil**.
 - a. Where there is only a lift station (no outlet valve), immediately shutdown the lift pump. (Make sure that you are familiar with the location of the shutdown switch/breaker and it is well labelled).
2. Inspect catch basins for spilled fuel/oil.
3. Conduct a visual inspection of the OWS discharge area.
4. Dip the OWS for fuel/oil level. Provided that fuel / oil level is over 10 cm (5 cm in B.C.), please call the Petro-Canada Maintenance Contact Centre at 1-866-494-5050 or request a work order via the Petro-Canada Maintenance System for a Skim service.
 - a. Dip OWS before and after the skim/clean-out and record in the OWS logbook.
 - b. Ensure that catch basins are flushed clean during Skim service.
 - c. **Note:** High levels of fuel/oil can potentially reduce the effectiveness of the OWS, resulting in hydrocarbons being discharged at a level exceeding Suncor Energy and/or regulatory guidelines.
5. Retain all waste manifest/shipping documents in the OWS logbook. Record the date of skim, amount of fuel/oil removed and any other operational changes as well.
6. Before reopening the outlet valve, dip the OWS for fuel/oil content after the Skim service to ensure all fuel/oil has been removed. Record results in the OWS logbook.

Note: Review the SOP **Marketing Retail and Wholesale Emergency Response Plan** and, where applicable, use it as a reference guide.

B. In the event of a DEF Spill:

1. Immediately close the outlet valve or shut off the discharge pump after any spilled DEF.
 - a. Where there is only a lift station (no outlet valve), immediately shutdown the lift pump. (Make sure that you are familiar with the location of the shutdown switch/breaker and it is well labelled).
2. **Request, via Petro-Canada Maintenance, a cleaning of the OWS** by calling the Petro-Canada Maintenance Contact Centre at 1-866-494-5050.

The above spill procedure is to be followed for any DEF spill of 200L or more, at all applicable Petro-Pass and bulk storage plant sites. An OWS will not prevent DEF from entering the environment. The above steps must be followed to ensure proper containment and disposal. All DEF spills of 200L or more require a clean out of the OWS.

Note: Review the following two sections of the **Marketing Retail and Wholesale Emergency Response Plan** for guidance / reference:

Section 4.3 Diesel Exhaust Fluid (DEF) Spill or Release LESS THAN 200 LITRES

Section 4.3 Diesel Exhaust Fluid (DEF) Spill or Release GREATER THAN 200 LITRES



9. Adverse Samples

In case of an adverse Effluent sample:

- i. You will receive an email notification from the Suncor OWS Coordinator requesting a second sample to be taken.
- ii. Inspect your islands, aprons and fuel transfer areas for signs of a spill. Shut off the OWS discharge effluent shut off valve if there are signs of a spill.
- iii. Perform sludge, fuel/oil and water dip measurements. Record all levels in the OWS logbook.
- iv. Follow sampling procedures to obtain a second OWS effluent sample.
- v. If lab results from second sample are **OK** – the process stops.
- vi. If the second sample is adverse, the site will receive an email from the Suncor OWS Coordinator.
- vii. OWS Coordinator will initiate the steps for investigation to be completed by site personnel: completion of this investigation is time sensitive and must be completed and communicated immediately.
 - a. Check site catch basins for excessive deposits.
 - b. Perform sludge, fuel/oil and water dip measurements and record in the OWS logbook.
 - c. Document steps of actions performed to identify the adverse sample in the OWS logbook (what are the findings).
 - d. Notify Suncor EH&S, Asset Management – OWS Coordinator.
 - e. Document recent activity at the site (major spills) in the OWS logbook.
 - f. Document visual discharge appearance in the OWS logbook.
 - g. Depending on the results of the investigation, the Service Provider would be engaged to perform the required work to bring the OWS within operating standards.

10. Work Order Request Flow Charts (Telephone and Online)

Any OWS-related maintenance or service needs to be called into Petro-Canada Maintenance. Refer to the following two SOPs for guidance and as a reference to complete a call:

Petro-Canada Maintenance System Flowchart - Online

Petro-Canada Maintenance System Flowchart – Telephone



11. Drawings - Typical Models of Suncor Oil Water Separators

Figure 1 – Basic Concrete Tank Oil Water Separator

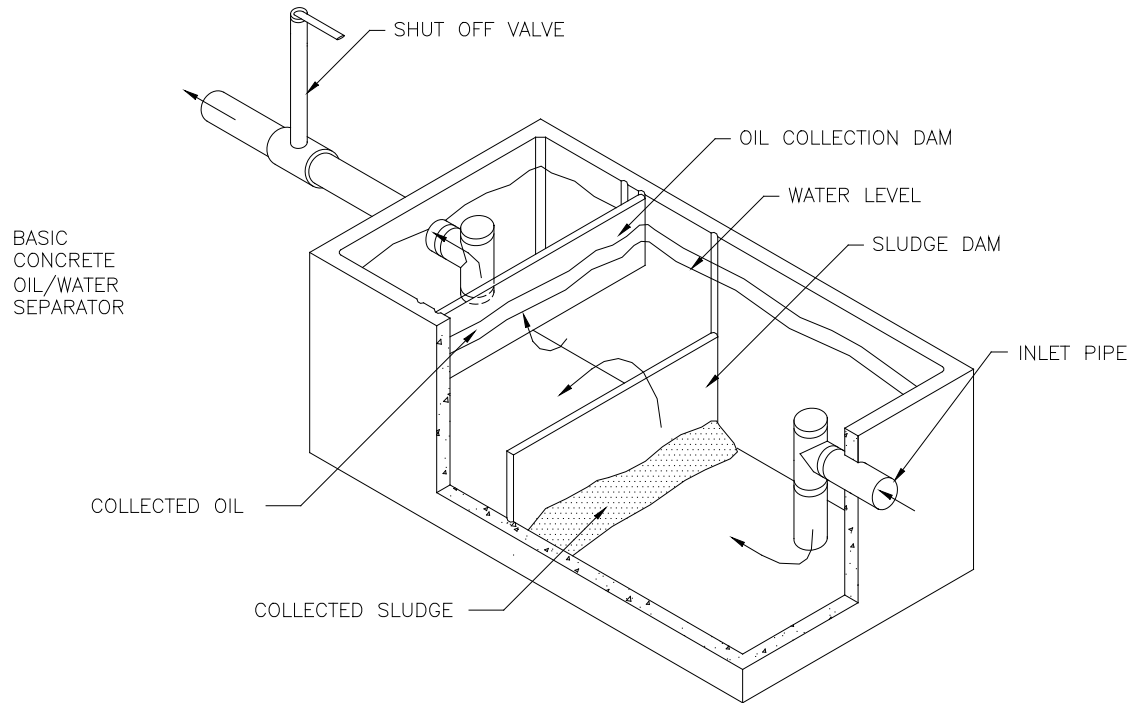




Figure 2 – Concrete Tank Oil Water Separator with Coalescing Plates

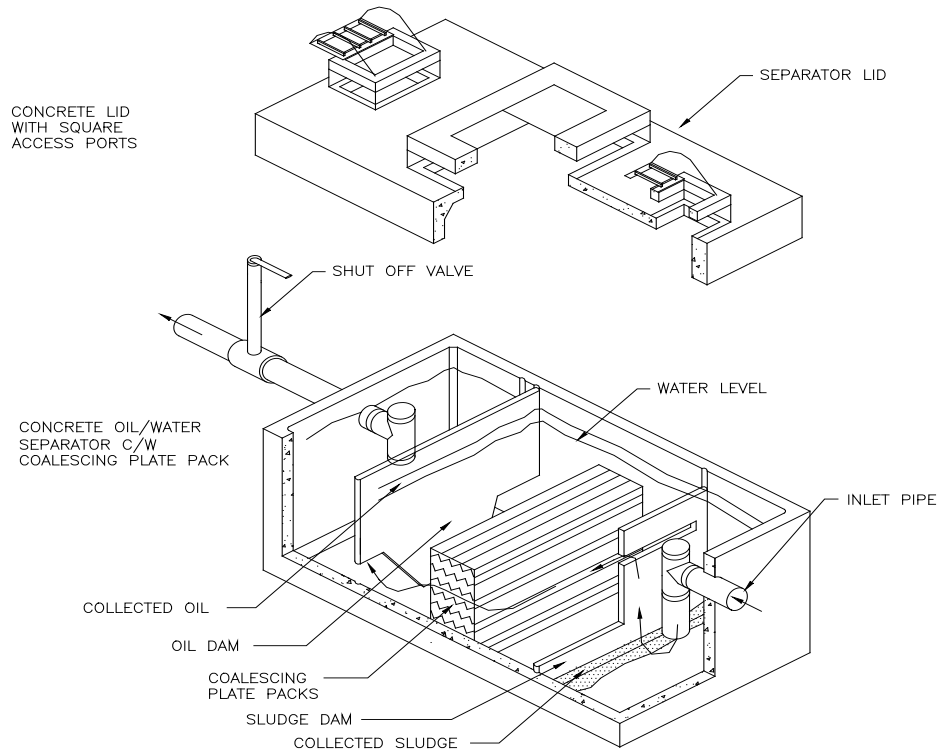




Figure 3 – Basic Fiberglass Tank Oil Water Separator

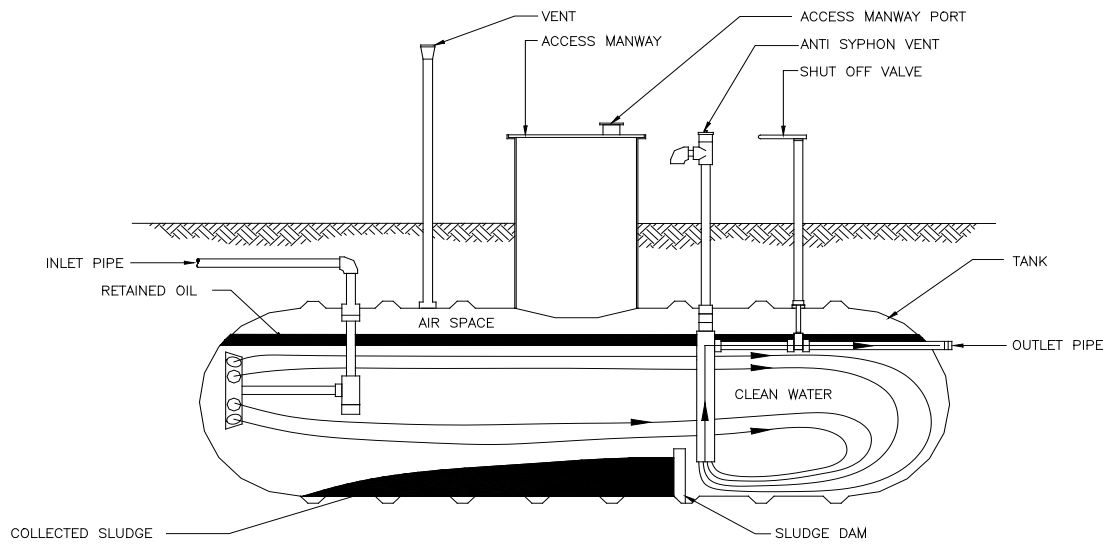


Figure 4 – Fibreglass Tank Oil Water Separator with Coalescing Plates

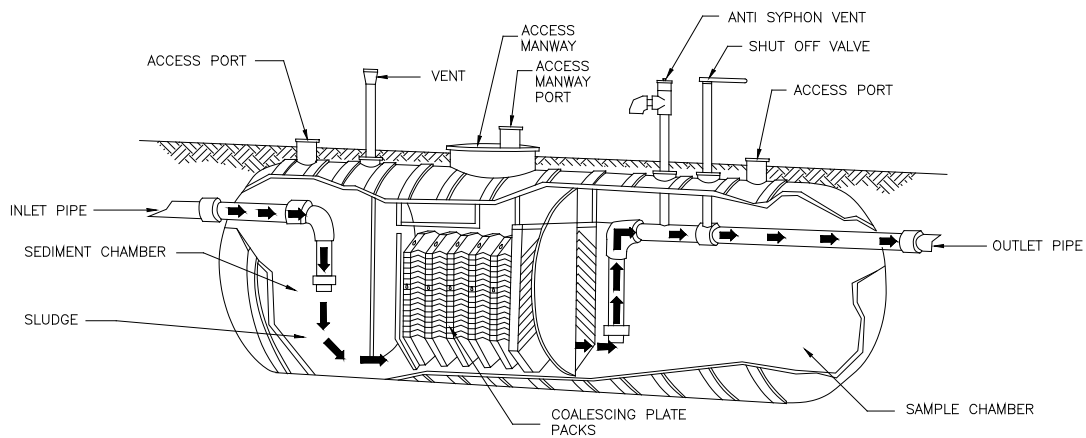




Figure 5 - Tanks-A-Lot Oil Water Separator

