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Underground Cylindrical Oil/Water Separator Installation Start-up Checklist

This form is intended to document all of the important information regarding the installation and start-up of your Highland Tank Oil/Water Separator (OWS).

For accuracy, to ensure proper installation, and keep any warranty in force, this important document should be completed at the time of start-up. A copy of this document should be maintained at the OWS installation site, maintenance office and owner's office.

Person Conducting Start-up.	
Print name:	Title:
Signature:	Date:
Installation Acceptance (see last page for any installation co	omments)
Customer	
Print name:	Title:
Signature:	Date:
Installer	
Print name:	Title:
Signature:	Date:

Highland Tank
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Stoystown, PA 15563
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PH: 814-893-5701



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General Operating Notes

Periodic maintenance is required to remove sand, trash, sludge and oil from the coalescers and the unit as a whole. For units processing any rainwater, an inspection after a heavy rainfall event is recommended.

It is recommended that the OWS be cleaned at least once a year. Annual cleaning consists of removing the oil buildup on the surfaces of the OWS walls and coalescer plates with steam or high-pressure water. Prior to performing any maintenance, stop all flow to the OWS. Then, using suction, remove all fluid and solids from the OWS and dispose of properly.

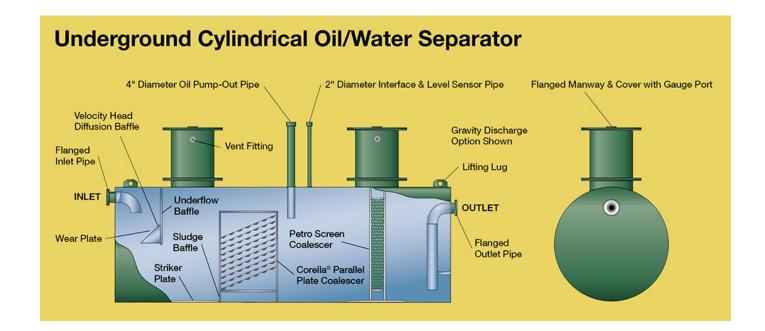
Perform maintenance according to Highland Tank Underground Rectangular User's Manual available at www.highlandtank.com/AdminHighlandData/FileDataAdditional/resource_106.pdf. Since OWS designs will vary with sites, it is essential to adhere strictly to the manufacturer's instructions for cleaning and maintenance.

If contaminants are present, or if detergents are used in the cleaning process, always be sure to pump out before reactivating the system and reopening the valve on the influent line.

Factors that adversely affect OWS performance

- Excessive turbulence
- Excessive influent flow rate
- · Excessive oil storage

- Pumping into the OWS
- Detergents or surfactants
- Excessive sludge build-up



IMPORTANT: OWS is to be filled with clean/fresh water prior to being put into service.



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Underground Cylindrical Oil/Water Separator Start-up Report

Owner of OWS:	Installation Date:
Location of OWS:	
Model / Size:	Start-up Date:
Sold to	Start-up Attendees (Please print)
Customer:	
Address:	
City: State: Zip:	
Phone: ()	
Contact:	
Installation Site	
Customer:	
Address:	
City: State: Zip:	
Phone: ()	
Contact:	
Installing Company	Highland Representative
Company Name:	Name:
Installer Contact:	Phone: ()
Phone: ()	Email:

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Underground Cylindrical Oil/Water Separator Start-up Report

OWS Specifications:				
Model:	Highland Work Order #:			
Set up for GPM flow rate Serial Number: (HighGuard)				
Construction: SW or DW (circle one)	Serial Number: (UL)			
Inlet size: Outlet size:	Serial Number (other):			
Manways:				
#1 Diameter, Extension Height,	#2 Diameter, Extension Height		<u>"</u> ,	
#3 Diameter, Extension Height,	meter, Extension Height, #4 Diameter, Extension Height			
Exterior Coating:	Interior Lining: None			
HighGuard Polyurethane	Polyurethane			
ACT-100U or STI-P3 Polyurethane (circle one)	Epoxy Other			
Installation Questionnaire		Circle	One	
Have the OWS and all accessories been checked to ver	ify that all items and			
correct items were received?		Yes	No	
		N/A		
Has the OWS been installed in accordance with the High installation instructions and Highland Tank Underground				
OWS User's Manual?	- Cymranoar Cii/Water	Yes	No	
Available at www.highlandtank.com/AdminHighlandData	/FileDataAdditional/resource 106 pdf	N/A		
Has the HighGuard (or other) protection system installat	ion checklist been completed in full?	Yes	No	
		N/A Yes		
Has the OWS been installed level in accordance with installation instruction specifications?				
Has the OWS been installed with a separate atmospheri		Yes		
accordance with applicable code requirements? (Not applicable on systems with Pumped influent)				
Has the OWS been installed with a separate atmospheri				
accordance with applicable code requirements? (Not ap	plicable on systems with Pumped effluent)	Yes N/A	No	
Has the OWS been installed with separate atmospheric	vents from the OWS body	Voo	No	
in accordance with applicable code requirements?	inetaller?	Yes Yes		
Have all accessories been received and installed by the	iristaller :	N/A	INO	
Healtha OMS been filled with aloga/freeh water prior to being not into consider				
Has the OWS been filled with clean/fresh water prior to being put into service?			No	
Has the operation of the OWS detailed in the Highland T	ank Underground	N/A		
Cylindrical OWS User's Manual been explained to appropriate personnel?				

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Available at www.highlandtank.com/AdminHighlandData/FileDataAdditional/resource 106.pdf

Has the need for periodic maintenance and the recommended procedure for this maintenance been explained to the appropriate personnel?

Yes No N/A

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Underground Cylindrical Oil/Water Separator Start-up Report

OWS Installation Information

Backfill material used:			
Hold-Down Pad or Deadmen (circle one):	Yes	No	
	N/A		
Hold-Down Straps with Liners:	Yes	No	
	N/A		
Oil Skimmer Is the OWS equipped with an oil-skimming device?	Yes	No	
Skimmer Type: Model #			
Has skimmer been installed in accordance with manufacturer's instructions? Has it been tested	Yes N/A	No	
and is it working properly?			
If "No", have you explained to the operator how to adjust the skimmer?			
	N/A		
Sensor(s) and Alarm/Control Panel			
Is OWS equipped with an Alarm/Control Panel and Sensor(s)?	Yes	No	
Alarm/Control Panel Model: Incoming Voltage: VAC, Phas	е		
Has the Alarm/Control Panel been installed in accordance with manufacturer's instructions? Has it been tested and is it working properly?	Yes N/A	No	
Has the Oil Interface Level Sensor been installed in accordance with manufacturer's instructions? Has it been tested and is it working properly?	Yes N/A	No	
Has the High Fluid Level Sensor been installed in accordance with manufacturer's instructions? Has it been tested and is it working properly?	Yes N/A	No	

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Pumps Is OWS equipped with an influent pump system?					
Pump: Make - Model – Type:					
Is pump mounting and piping configuration correct based on the manufacturer's specifications?	Yes	No			
Is OWS equipped with an effluent pump system?	Yes	No			
Pump: Make - Model - Type:					
Has the operation of the Alarm Panel, sensor(s) and pump system been fully explained to the appropriate personnel?					
IMPORTANT: OWS is to be filled with clean/fresh water prior to being put into service.					
Underground Cylindrical Oil/Water Separator Start-up Report Application					
Application					
How is this OWS going to be used?					
What type of Hydrocarbon is to be separated?					
Specific Gravity(s):					
Are there any detergents or solvents being used that will flow into the OWS?	Yes	No			
	N/A				
If yes, what are they?					
Have the effects of detergents/solvents been explained?	Yes	No			
	N/A				
Where will this unit be discharging?					
Have the effects of an emulsifying influent pump been explained?	Yes	No			

N/A



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Maintenance		
Does the customer have a copy of Highland Tank Underground Cylindrical		
OWS User's Manual?	Yes	No
	N/A	
Have the installation, operation and maintenance instructions been discussed with the customer?	Yes	Nο
discussed with the dustomer:	N/A	140
	IN/A	
IMPORTANT: OWS is to be filled with clean/fresh water prior to being put into service.		
Underground Cylindrical Oil/Water Separator Start-up Report		
Differences noted (Missing or incorrect items):		
Follow-up required:		
Corrective action:		

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Start-up date: / / By:	
Notes:	
Local Highland Representative:	Phone: ()
Email:	