

Ethanolamines/Glycol Ethers

Tier 3 Procedure

Section Number: 628
Issue Number: 1.5
Original Date: 08-08-91 **Author:** Dan Jones
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Title: Outfall Oil And Grease Sampling
References: Glossary Of Equipment Identification (Text # 114)

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628. Outfall Oil And Grease Sampling

1.0 Objective:

- 1.1 To develop a standard procedure for sampling of area sumps for oil and grease.

2.0 Responsibility:

- 2.1 It is the responsibility of the operations supervisor and the senior operations specialist to ensure that this procedure is fully complied with.
- 2.2 It is the responsibility of the senior operations specialist and the operations specialist to ensure that this procedure is executed in a safe and environmentally sound manner.

3.0 Special notations:

- 3.1 We must wait until we received the official results of the oil and grease analysis before we dump any sump to the outfall.
- 3.2 Before any total oxygen demand (TOD) or oil and grease sample is caught on any sump, visually inspect the sump for an oil sheen. If an oil sheen is present, please take the necessary actions to remove the sheen (using oil booms or pads to remove the sheen).
- 3.3 Since the oil and grease analysis takes about two hours, it may be better for us to catch our oil and grease samples Monday through Friday if at all possible.

4.0 Safety notation:

- 4.1 Monogoggles and Rubber Gloves are recommended to collect these samples.

5.0 Method: (collection of total oxygen demand sample)

- 5.1 This sample is caught by submerging the 250 ml bottle below the sump level.

6.0 Method: (collection of oil and grease sample)

- 6.1 This sample is caught by skimming the surface of the sump level with the one liter bottle and allowing the sampler to fill from the surface. Allow approx. 2" vapor space in bottle.

7.0 Procedure:

- 7.1 After collecting the sample as described in methods of sampling, visually inspect the sample to ensure there is no oil sheen in the sample bottle. (this may require bringing the sample back to the lab or to an area where there is sufficient lighting)
- 7.2 TOD and oil & grease samples must be preserved with 1:1 HCL within 15 minutes of catching sample. Add 2mls of 1:1 HCL to TOD bottle and about 8 ml to oil & grease bottles and check with pH paper. If pH is not <2, add HCL until it is.
- 7.3 Keep samples in bottom lab refrigerator until it can be taken to environmental services.
- 7.4 Properly label the sample bottle and take it to environmental service for analysis. check the box (LESS THAN 2PH HCL).
- 7.5 Wait until the results of the analysis is obtained and make a decision on what to do with the sump. (either dump if TOD and oil and grease allow or pump to environmental operations.

8.0 Permit Limits:

- 8.1 To drain a permitted sump to an outfall the TOD must be < 200 and the oil and grease < 15 parts per million (ppm). To protect the ethanolamines/glycol ethers plant from non-compliance due to analysis variation the block limits have been set at < 100 ppm. This means that if we analyze a sump and the TOD is 105 ppm we must pump the sump to environmental operations until we can get a verification sample analysis from environmental services.

9.0 Revisions:

Revision No. 1	07-20-93	Yearly review
Revision No. 2	03-28-94	Changed wording "sample collection Device" to "250 ml bottle" in section 628.5.1
	03-28-94	Added last sentence to section 628.6.1
	03-28-94	Added sections 628.7.2&3 and deleted Sections 628.8 & 9
	03-28-94	Added last sentence of section 628.7.4
Revision No. 3	02-24-95	Changes made as a result of the January procedure review (see MOC)
Revision No. 4	03-07-95	Section 628.3.3 - deleted the words (and is not performed on weekends). Section 628.4.1 _ Change the word "REQUIRED" to read "RECOMMENDED". Section 628.7.3 - Added the words "BOTTOM LAB" Section 628.7.4 - Deleted last sentence - Added the words "CHECK THE BOX (LESS THAN 2PH HCL).
Revision No. 5	01-15-98	Added last page (Oil & Grease Samples)

OIL AND GREASE SAMPLES

EACH TIME A SUMP IS DUMPED TO THE OUTFALL, A TOD OF LESS THAN 100 PPM IS REQUIRED. IT IS ALSO REQUIRED THAT AN OIL AND GREASE SAMPLE BE CAUGHT ON THE FIRST TIME A SUMP IS DUMPED EACH MONTH.

ONLY ONE OIL AND GREASE SAMPLE PER SUMP DUMPED IS REQUIRED EACH MONTH. THE OIL AND GREASE SAMPLES REQUIRES THAT IT BE CAUGHT IN A ONE LITER BOTTLE AND THE BOTTLE COMPLETELY FULL. THE FOLLOWING LOG SHEET WILL BE USED TO TRACK THE OIL AND GREASE SAMPLES, IN AN EFFORT TO AVOID CATCHING MORE THAN ONE OIL AND GREASE SAMPLE ON A SUMP PER MONTH. WHEN FILLING OUT SAMPLE TAG FOR OIL AND GREASE SAMPLES, FILL OUT THE TAG JUST AS A TOD SAMPLE, BUT INSTEAD OF TOD, WRITE OIL AND GREASE FOR SAMPLE TYPE. ALSO INCLUDE SUMP OUTFALL NUMBER ON SAMPLE SITE SPACE.

	BY	BY	
JANUARY: OUTFALL 1811 _____	OUTFALL 1821 _____	[AREA ONE]	
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____	OUTFALL 1811	
FEBRUARY: OUTFALL 1811 _____	OUTFALL 1821 _____	[AREA TWO]	
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____	OUTFALL 1821	
MARCH: OUTFALL 1811 _____	OUTFALL 1821 _____	[AREA THREE]	
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____	OUTFALL 1831	
APRIL: OUTFALL 1811 _____	OUTFALL 1821 _____	[AREA EIGHT]	
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____	OUTFALL 1841	
MAY: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
JUNE: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
JULY: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
AUGUST: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
SEPT: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
OCTOBER: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
NOVEMBER: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		
DECEMBER: OUTFALL 1811 _____	OUTFALL 1821 _____		
YEAR _____ OUTFALL 1831 _____	OUTFALL 1841 _____		