SOP 52 – Quality benchmark for run off and surface water effluent	
Responsibility	Technical staff and trained operators
Frequency	Daily, Weekly, Monthly, and on a batch basis.
Point of Contact	Site Manager and Lab Manager
Overview / Purpose	**Purpose:** The purpose of this SOP is to establish a sampling regime and quality benchmark levels for surface water discharge from the Brocklesby Limited site discharged to swale from discharge point W1.

1) Critical parameters and frequencies for sampling and management of surface water at W1

		Frequency of Testing (1) Turnaround/ reporting (hours/ days) (2) Calibration (3) Maintenance/ servicing (4)						
Parameter	**Method**	**(1)**	**(2)**	**(3)**	**(4)**	**Interferences**	**LOD**	**Expected range**
Fats and oils	**Visual and centrifuging**	**Weekly for W1, and on a batch basis for tank farm bund release**	**1 h**			**NA.**	**<1%.**	**Traces**
pH	**pH strips and pH meter**	**Weekly for W1, and on a batch basis for tank farm bund release**	**1 h**	**Weekly**	**Annual**	**Not known**		**5-9**
COD	**Adapted from EPA 410.4**	**Weekly for W1, and on a batch basis for tank farm bund release**	**6 h**	**Weekly**	**As required**	**Chloride interference removed by mercuric salt.**	**30 mg/L**	**<180 mg/L**
Methanol content	**Adapted from EN 14016 and EN14010**	**Weekly for W1**	**1 day**	**Monthly /weekly**	**Annual**	**Other VOCs unlikely to be found in NCL processing**	**0.5 wt%**	**<0.5 wt%**
Total suspended solids	**BSEN 872**	**Weekly for W1, and on a batch basis for tank farm bund release**	**1 day**	**Weekly**	**As required**	**Not known**	**0.5mg**	**20-30 mg/L**

For the **equipment employed** please refer to the relevant **LTM** plus **SOP** methods

2) Documentation, reporting and record keeping

Electronic and hard copies of results and calibration logs will be kept and maintained by the relevant staff (operators and technical). These records will be available to senior management in order to monitor quality and make decision about the performance of the water treatment system.

3) Training of staff

Qualified and competent staff will be responsible for training the operators and technicians in the relevant LTMs and SOPs for analysis of surface water. Training records will be kept according to the approved management procedure. The person responsible for the training will be also in charged to advise in any corrective actions or additional training required by staff.

4) Supporting documents

LTM 08 - Centrifuge testing of oil samples for Moisture and Impurities
LTM 09 - Measurement of pH using panpeha strips
LTM 13 - Determination of Chemical Oxygen Demand
LTM 14 - Determination of Methanol content in aqueous samples
LTM 17 - Measurement of Total Suspended Solids
QAP 07 – Training Document

5) References

ISO 17025 General requirements for the competence of testing and calibration laboratories
EPA 410.4- The determination of chemical oxygen demand by semi-automated colorimetry.
EN 14106 - Fat and oil derivatives - Fatty Acid Methyl Esters (FAME) - Determination of free glycerol content
EN 14110: Fatty Acid Methyl Ester (FAME) Determination
of Methanol.
BS EN 872:2005 Water quality. Determination of suspended solids. Method by filtration through glass fibre filters
Procedure in line with the M18 Agency Guidance

Health & Safety Aspects :

When handling the effluent stream from the drain, correct PPE (chemical resistant gloves, eye protection, etc) must be worn to prevent contamination from chemical / biological hazards.

For information about adequate PPE to be employed please refer to the relevant LTM plus COSSH assessment.

Corrective Action :
If any result identified does not meet the stated specification, this must be reported to the Site Manager as soon as possible. In the case of batches of water tested arising from the tank farm bund, no discharge will be made if benchmark ranges are not achieved.