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SLAB
ACCREDITED

ISO/IEC 17025
TL 004 - 01

TEST REPORT

Reference No: SS 1807744

Report to:

Ceylon Petroleum Corporation-Refinery,

P.O. Box 11, Sapugaskanda,

Kelaniya.

Issued by :

Chemical and Microbiological Laboratory

Industrial Technology Institute

2018/07/10

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CHANGE OF CONDITIONS: ITI may at its sole discretion add to or amend the conditions of this report at the time of issue of the report and such additions or amendments shall be binding on the customer.



TEST REPORT

Reference No. SS 1807744

CUSTOMER : Ceylon Petroleum Corporation-Refinery Division P.O. Box 11, Sapugaskanda, Kelaniya.	Test Item: Waste water Service requested : Sampling and analysis for parameters as requested by the customer's letter dated 2018/05/10
Collection point :	API Separator Inlet (process Waste Water Treatment Plant) at above place
Method of sampling :	Grab sampling #
Description of test item at collection :	Black turbid liquid with oily nature
Quantity of test item :	Approximately 09 litres collected into plastic and glass containers and 200 mL in a sterilized bottle
Sampling carried out by :	Mr. Deshan Perera of ITI
Witness :	Mr. R.W.K. Rajapaksha, Deputy Manager- Technical Services from Ceylon Petroleum Corporation
Date & Time of sampling :	2018/06/19 at 12.15p.m (Customer was informed about the visit)
Temperature of test item at collection :	44 °C
Date & Time of reception of test item at ITI :	2018/06/19 at 5.30 p.m.
Temperature of test item at reception :	20 °C
Condition of test item at reception :	Satisfactory
# SLAB Accredited - Method APHA 1060	
Test dates :	2018/06/19 - 2018/07/11



... Continuation Sheet



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SS 1807744

TEST RESULTS :

TEST	UNIT	METHOD	RESULTS	L.O.D	E.U % (K = 2)
# pH at 44 °C *		APHA 4500 - H ⁺ B	7.73	-	-
Temperature *		APHA 2550 B	44	-	-
# Total Suspended Solids at 103 - 105 °C	mg/L	APHA 2540 D	85000	-	-
# Ammoniacal Nitrogen	mg/L	APHA 4500 NH ₃ B & C	6	-	-
# BOD ₅ at 20 °C	mg/L	APHA 5210 D	10000	-	4
Phenolic compounds (as phenols)	mg/L	APHA 5530 B & D	5.0	-	-
COD	mgO ₂ /L	APHA 5220 D	480000	-	-
Oil & Grease	mg/L	APHA 5520 B	318340	-	-
Sulfide (as S ²⁻)	mg/L	APHA 4500 S ²⁻ C & F	300	-	-
Hexavalent Chromium	mg/L	APHA 3500 Cr B	ND	0.05	-
Dissolved phosphate (as P)	mg/L	APHA 4500 B & C	1895	-	-
Faecal Coliforms / 100 mL	-	APHA 9221: C	ND	-	-
<u>Colour</u>					
spectral absorption coefficient at 436 nm	} pH at 7.11	ISO 7887 - 2011	145.4	-	-
spectral absorption coefficient at 525 nm			71.4	-	-
spectral absorption coefficient at 620 nm			18.6	-	-
Iron (as Fe)	mg/L	Microwave digestion/ ICP - MS	144	-	-
Mercury (as Hg)	mg/L		0.2	-	-
Selenium (as Se)	mg/L		0.1	-	-
Zinc (as Zn)	mg/L		23.5	-	-
Nickel (as Ni)	mg/L		5.4	-	-
Cadmium (as Cd)	mg/L		ND	0.1	-
Chromium (as Cr)	mg/L		1.9	-	-
Lead (as Pb)	mg/L		0.1	-	-
Copper (as Cu)	mg/L		1.6	-	-
Arsenic (as As)	mg/L		ND	0.1	-

Total Residual Chlorine, Total Kjeldahl Nitrogen, Fluoride, Cyanide, Sulfate and Pesticides analyses were unable to carryout due to the oily nature and colour interference of the sample.

APHA - Standard Methods for the examination of water and waste water APHA, AWWA, WEF, 2012 22nd edition
* Measured on site # SLAB Accredited test L.O.D - Limit of Detection E. U - Expanded Uncertainty

Analyses were carried out by Mr. Deshan Perera - Research Scientist, Ms. Y. Pitawela, Ms. K. De Alwis - Senior Research Technologists, Ms. S. Malaviarachchi, Ms. S. Karunasagara - Assistant Research Technologists and Ms. S. Aamarasena - Assistant Research Technologist - under supervision of Ms. Y. Pitawela - Senior Research Technologist

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Authorized Signatory
2018/07/10
/war

Dr. H.P.P. Sudarshana Somasiri
B.Sc.(Sp), M.Sc., Ph.D, MChem C.
Senior Deputy Director
Chemical and Microbiology Laboratory
Industrial Technology Institute