TEST REPORT

Name and Address of Customer	:	M/s Almega Paints Pvt. Ltd. Vill+ P.O.- Tulsiberia, Uluberia, Howrah, PIN- 711 401
Sample Description	:	ETP Sludge
Sample Collected by	:	WBWML
Date of Sampling	:	12th August 2013
Sample Registration No. and Date	:	CA – 13/135, 19th August 2013
Sample Receipt Condition	:	Sample Recd. In plastic pouch
Analysis Starting Date	:	19th August 2013
Analysis Completion Date	:	22nd August 2013
Test Required	:	Comprehensive Analysis
Report No. and Date	:	CAR – 13/135, 22nd August 2013
Sub-contracting of Analysis	:	None

TEST RESULT

Sl. no.	Parameter	Unit	Method	Observation / Result	CPCB Std. and WLT / TCLP Limit for Direct Landfill
1	**Physical State**	–	Visual observation	Dry Solid	–
2	**Color**	–	Visual observation	White	–
3	**Texture**	–	Visual observation	Hard Lumps	–
4	**Bulk Density**	gm/cc	ASTM Std. : D 5057 – 1990 (Reapproved 2001)	0.84	–
5	**Paint Filter Liquid Test**	–	SW-846 : 9095A	NA	**Pass**
6	**pH** (at 30.0 ^{O}C)	–	SW-846 : 9040B, 9045C	7.20	**4.0-12.0**
7	**Calorific Value**	kcal/kg	IS : 1350 (Part II) – 1970 (Reaffirmed 1983)	< 250	**< 2500.0**
8	**Flash Point**	^{O}C	SW-846 : 1020A	> 60.0	**> 60.0**
9	**Loss on Drying at 103-105 ^{O}C**	% (w/w)	Std. Methods : 2540 G	3.51	–
10	**Loss on Ignition at 550 ^{O}C (Dry Basis)**	% (w/w)	Std. Methods : 2540 G	12.87	**< 20.0 (non-biodegradables)** **< 5.0 (biodegradables)**
11	**Reactive Cyanide**	mg/kg	SW-846 : Ch. 7 (7.3.3), 9014	< 1.00	–
12	**Reactive Sulfide**	mg/kg	SW-846 : Ch. 7 (7.3.4), 9034	< 5.00	–
13	**Water Soluble Compounds Except Salts – In WLT Extract**	% (w/w)	DIN : 38414 Part 4 (S4) Std. Methods : 2540 B, G	4.67	**< 10.0**
14	**Oil and Grease (As n-Hexane Extractable)**	% (w/w)	Std. Methods : 5520 E	0.29	**< 4.0**
15	**Cyanide – Total**	mg/kg	SW-846 : 9010B, 9014	< 1.00	–
16	**Cyanide – WLT**	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-CN^{-} C SW-846 : 9014	< 0.05	**< 2.0**
17	**Fluoride – Total**	mg/kg	Std. Methods : 4500-F^{-} B, D	< 1.00	–

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18	**Fluoride – WLT**	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500F^- B, D	< 1.00	**< 50.0**
19	**Nitrate – WLT**	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NO_3^- E	< 0.10	**< 30.0**
20	**Ammonia – WLT**	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 4500-NH_3 B, C	< 5.00	**< 1000.0**
21	**Arsenic – Total**	mg/kg	SW-846 : 3050B Std. Methods : 3500-As B	< 1.00	–
22	**Arsenic – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A Std. Methods : 3500-As B	< 0.10	**< 1.0**
23	**Cadmium – Total**	mg/kg	SW-846 : 3050B, 7130	< 1.00	–
24	**Cadmium – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7130	< 0.02	**< 0.20**
25	**Chromium – Total**	mg/kg	SW-846 : 3050B, 7190	9.31	–
26	**Chromium (VI) – WLT**	mg/L	DIN : 38414 Part 4 (S4) Std. Methods : 3500-Cr B	< 0.10	**< 0.50**
27	**Chromium – TCLP**	mg/L	SW-846 : 1311 SW-846 : 3010A, 7190	< 0.20	**< 5.0**
28	**Copper – Total**	mg/kg	SW-846 : 3050B, 7210	6.57	–
29	**Copper – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7210	< 0.02	**< 10.0**
30	**Lead – Total**	mg/kg	SW-846 : 3050B, 7420	4.39	–
31	**Lead – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7420	< 0.20	**< 2.0**
32	**Mercury – Total**	mg/kg	SW-846 : 7471A Std. Methods : 3112B	NA	–
33	**Mercury – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 7470A Std. Methods : 3112B	NA	**< 0.10**
34	**Nickel – Total**	mg/kg	SW-846 : 3050B, 7520	3.82	–
35	**Nickel – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7520	< 0.04	**< 3.0**
36	**Vanadium – Total**	mg/kg	SW-846 : 3050B, 7910	NA	–
37	**Vanadium – WLT**	mg/L	SW-846 : 3010A, 7910	NA	**< 0.20 ***
38	**Zinc – Total**	mg/kg	SW-846 : 3050B, 7950	1157.17	–
39	**Zinc – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 3010A, 7950	0.14	**< 10.0**
40	**Phenol – WLT**	mg/L	DIN : 38414 Part 4 (S4) SW-846 : 9065	< 1.00	**< 100.0**
41	**Benzene**	mg/L	GC-MS	ND	**< 0.50**
42	**Carbon tetrachloride**	mg/L	GC-MS	ND	**< 0.50**
43	**Chlordane**	mg/L	GC-MS	ND	**< 0.03**
44	**Chlorobenzene**	mg/L	GC-MS	ND	**< 100.0**
45	**Chloroform**	mg/L	GC-MS	ND	**< 6.0**
46	**o-, m-, p-Cresol**	mg/L	GC-MS	ND	**< 200.0 each**
47	**Endrin**	mg/L	GC-MS	ND	**< 0.02**
48	**Ethyl Methyl Ketone**	mg/L	GC-MS	ND	**< 200.0**
49	**Heptachlor (and its epoxide)**	mg/L	GC-MS	ND	**< 0.008**
50	**Hexachlorobenzene**	mg/L	GC-MS	ND	**< 0.13**
51	**Hexachlorobutadiene**	mg/L	GC-MS	ND	**<0.50**

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52	**Hexachloroethane**	mg/L	GC-MS	ND	**< 3.0**
53	**Lindane**	mg/L	GC-MS	ND	**< 0.40**
54	**Methoxychlor**	mg/L	GC-MS	ND	**< 10.0**
55	**Nitrobenzene**	mg/L	GC-MS	ND	**< 2.0**
56	**Pentachlorphenol**	mg/L	GC-MS	ND	**< 100.0**
57	**Pyridine**	mg/L	GC-MS	ND	**< 5.0**
58	**Tetrachloroethylene**	mg/L	GC-MS	ND	**< 0.70**
59	**Toxaphene**	mg/L	GC-MS	ND	**< 0.50**
60	**Trichloroethylene**	mg/L	GC-MS	ND	**< 0.50**
61	**Vinyl Chloride**	mg/L	GC-MS	ND	**< 0.20**
62	**1,1-Dichloroethylene**	mg/L	GC-MS	ND	**< 0.70**
63	**1,2-Dichloroethane**	mg/L	GC-MS	ND	**< 0.50**
64	**1,4-Dichlorobenzene**	mg/L	GC-MS	ND	**< 7.50**
65	**2,4–D**	mg/L	GC-MS	ND	**< 10.0**
66	**2,4-Dinitrotoluene**	mg/L	GC-MS	ND	**< 0.13**
67	**2,4,5-TP (Silvex)**	mg/L	GC-MS	ND	**< 1.0**
68	**2,4,5-Trichlorophenol**	mg/L	GC-MS	ND	**< 400.0**
69	**2,4,6-Trichlorophenol**	mg/L	GC-MS	ND	**< 2.0**

Enclosed GC-MS Chromatogram D:\GC-MS Analysis - Solvent DCM\Data File\Single processing\CA - 13.135 Almega Paints- ETP Sludge.qgd

Note

CPCB – Central Pollution Control Board

WLT – Water Leaching Test

TCLP – Toxicity Characteristics Leaching Procedure

ASTM – American Society for Testing and Materials

IS – Indian Standard

SW 846 – Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, USEPA, May 1997

Std. Methods – Standard Methods for the Examination of Water & Wastewater, 22nd Edition, APHA/AWWA/WEF, 2012

DIN : 38414 Part 4 (S4) – German Standard Procedure for Water, Wastewater, and Sediment Testing-Group S (Sludge and Sediment); Determination of Leachability (S4), 1984

* – CPCB General Environmental Standard for Discharge of Effluent in Inland Surface Water Applies

NA – Not Analyzed, ND – Not Detected

The comprehensive analysis report refers only to the 'as received' sample of waste

The relevance vis-à-vis applicability of the report solely relates to the category no. as per the latest Hazardous Waste Rules as or as would be assigned by the concerned statutory authority

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Checked by
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