



Visiontek Consultancy Services Pvt. Ltd.

(An Enviro Engineering Consulting Cell)

(ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 Certified)



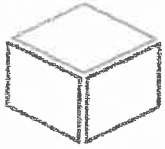
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Certificate No.: TC-7944

Format No.: 7.8.2/FMT/TR/06

Ground Water Quality Period: Oct'18 - Mar'19									
(Piezometer) at Red Mud Pond									
Sl. No.	Parameters	Unit	IS 10500:2012	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1	Color	Hazen, max	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	Odour	--	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
3	pH value	--	6.5-8.5	7.51	7.32	7.39	7.14	7.55	7.69
4	Turbidity	NTU, max	1	0.77	0.54	0.66	0.38	0.6	0.7
5	Total Dissolved Solids (as TDS)	mg/l	500	174	116	155	192	164	211
6	Temperature	°C	-	27	27	27	27	27	28
7	Conductivity	µS/cm	-	288	211.8	286	304	272	352
8	Calcium (as Ca)	mg/l, max	75	36.5	42	49.6	58.6	49.6	44.8
9	Chloride (as Cl)	mg/l, max	250	29.3	36	29.6	31	27.8	27
10	Copper (as Cu)	mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
11	Fluoride (as F)	mg/l, max	1	0.47	0.62	0.79	0.83	0.69	0.33
12	Free residual Chlorine	mg/l, min	0.2	0.2	Nil	Nil	0.3	0.2	0.2
13	Iron (as Fe)	mg/l, max	0.3	0.31	0.18	0.22	0.19	0.12	0.15
14	Magnesium (as Mg)	mg/l, max	30	12.7	14.6	15.6	23.4	27.8	16.52
15	Manganese (as Mn)	mg/l, max	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16	Mineral oil	mg/l, max	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Acidity	mg/l, max	-	1.32	1.81	1.53	1.31	1.12	1.18
18	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, max	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
19	Selenium (as Se)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
20	Sulphate (as SO ₄)	mg/l, max	200	16.3	10.8	15.1	18.7	22.7	17.8
21	Total Alkalinity	mg/l, max	200	144	138	164	152	160	168
22	Total Hardness	mg/l, max	200	172	148	188	176	172	180
23	Zinc (as Zn)	mg/l, max	5	0.23	0.18	0.62	0.54	0.33	0.19





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24	Cadmium (as Cd)	mg/l, max	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
25	Cyanide (as CN)	mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead (as Pb)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
27	Mercury (as Hg)	mg/l, max	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
28	Total arsenic (as As)	mg/l, max	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
29	Pesticide	mg/l, max	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
30	Total Coli forms	MPN/10 0ml	Shall not be detected in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent



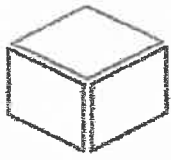
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Utkal Alumina International Ltd.

Expenditure Incurred on Environmental Protection Measures for the Year 2018-19

Sl. No.	Description of Expenditure	Rs. In lakhs)
1	O&M of ESP and Fly Ash Handling of CPP	465.0
2	O&M of Bag Filter and Dust Suppression System of CPP	10.0
3	O&M of ESP of Alumina Refinery	63.3
4	O&M of Bag Filters of Alumina Refinery	27.6
5	O&M of Red Mud Pond & Red Mud Filtration	1973.8
6	Environmental Monitoring, Greenbelt development, AMC of CAAQMS, UPS etc.	127.4
Total (Rs. In Lakhs)		7694.2





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Annexure - III

Ambient Air Quality (FUGITIVE DUST) Monitoring Results Period: Oct'18 - Mar'19 (Monthly Average Values)								
Sl. No.	FUGITIVE DUST	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Half Yearly Average
1	Lime Handling Area	79.0	88.0	81.0	83.0	75.0	79.0	88.8
2	Bauxite Handling Area	81.0	90.0	76.0	70.0	88.0	82.0	85.2
3	Coal Handling Area	73.0	82.0	94.0	89.0	80.0	84.0	86.0
4	Ash Handling Area	69.0	80.0	93.0	90.0	72.0	77.0	78.5
5	Rod Mill Area	85.0	84.0	83.0	74.0	82.0	89.0	80.8
6	Alumina Handling Area	86.0	96.0	83.0	78.0	83.0	76.0	88.0
7	Traffic center	78.0	62.0	88.0	81.0	91.0	86.0	81.2
8	Material gate	71.0	78.0	77.0	82.0	87.0	92.0	79.7

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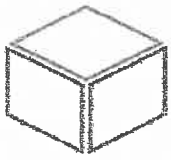
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Certificate No.: TC-79-44
Format No.: 7.8.2/FMT/TR/06

Annexure - N

Stack Monitoring Results								
Period: Oct'18 - Mar'19 (Monthly Average Values)								
1. CALCINER - A								
Parameter	Prescribed Standard	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Six Monthly Average
Temperature °C	....	164.75	160.8	154	168.75	162	169.75	163.3
Velocity m/sec	....	4.93	13.5	9.7	8.86	10.73	9.99	9.6
Particulate Matter mg/Nm ³	50	31.9	30.9	35.6	36.8	28.09	13.68	29.5
SO ₂ (mg/Nm ³)	....	281.5	299	303	295.5	299.25	280.5	293.1
NOx (mg/Nm ³)	....	128.75	110.5	109	103.5	101.5	95	108.0
2. CALCINER -B								
Parameter	Prescribed Standard	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Six Monthly Average
Temperature °C	....	155.75	166.5	163	157	168.25	168.25	163.1
Velocity m/sec	....	3.9	13.6	10.36	8.19	11.4	7.78	9.2
Particulate Matter mg/Nm ³	50	32.7	33.2	32.43	29.3	23.11	9.03	26.6
SO ₂ (mg/Nm ³)	....	290.8	301.5	312.7	298	288.25	274.5	294.3
NOx (mg/Nm ³)	....	106.5	113.5	104.7	95.75	99	96.75	102.7
3. CPP Unit-1 of Power Plant								
Parameter	Prescribed Standard	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Six Monthly Average
Temperature °C	....	100.25	100	97.75	97	101	104.5	100.1
Velocity m/sec	....	9.7	9.1	12.24	11.2	11.53	9.87	10.6
Particulate Matter mg/Nm ³	50	40.0	42.2	40.65	33.75	36.25	37.34	38.4
SO ₂ (mg/Nm ³)	600	397.5	412	404	393	403.75	398.5	401.5





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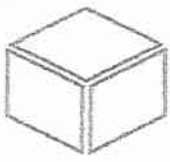
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NOx (mg/Nm ³)	300	177.0	179	186	199.25	200	192.5	189.0
4. CPP Unit-2 of Power Plant								
Parameter	Prescribed Standard	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Six Monthly Average
Temperature °C	....	111	107.5	115.75	112.7	Under Shutdown	Under Shutdown	111.7
Velocity m/sec	....	11.2	10.5	12.12	12.64			11.6
Particulate Matter mg/Nm ³	50	41.6	42.9	41.4	36			40.5
SO ₂ (mg/Nm ³)	600	372.5	371	391	278			353.1
NOx (mg/Nm ³)	300	183.5	197	186.5	92			164.8
5. CPP Unit-3 of Power Plant								
Parameter	Prescribed Standard	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Six Monthly Average
Temperature °C	....	Under Shutdown	120.5	Under Shutdown	115	122.75	129.5	121.9
Velocity m/sec	....		12.14		13.24	10.94	10.75	11.8
Particulate Matter mg/Nm ³	50		42		32.8	38.15	40.93	38.5
SO ₂ (mg/Nm ³)	600		408		374	400.75	382.75	391.4
NOx (mg/Nm ³)	300		182		103	196	186	166.8





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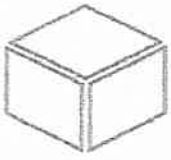
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Ambient Air Quality (AAQ) Monitoring Results Period: Oct'18 - Mar'19 (Monthly Average Values)

AAQ-1	Admin Building	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	57.9	39.6	9.8	19.9	0.26
	Nov-18	63.3	37.11	8.34	18.21	0.2
	Dec-18	59.5	38.6	8.4	16.6	0.24
	Jan-19	59.6	40	9.2	19.2	0.28
	Feb-19	58	37.25	8.71	21	0.27
	Mar-19	59.8	38.33	8.41	17.73	0.28
	Six Months Average	59.7	38.5	8.8	18.8	0.26
AAQ-2	Nuapada	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	58.2	34.1	9.2	17.8	0.31
	Nov-18	58.1	31.22	8.52	19.02	0.26
	Dec-18	58.75	38.9	9.2	19.04	0.3
	Jan-19	59.1	37.6	8.2	17.8	0.29
	Feb-19	57.3	36.62	8.3	19.6	0.3
	Mar-19	55.8	34.33	7.35	15.81	0.33
	Six Months Average	57.9	35.5	8.5	18.2	0.30
AAQ-3	Doraguda	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	56.4	36.6	9.5	18.7	0.3
	Nov-18	59.7	32.89	10.31	20.31	0.28
	Dec-18	58.62	35.38	10.13	20.76	0.31
	Jan-19	58	36	9.4	19.8	0.3
	Feb-19	57.4	34.4	8.91	20.95	0.29
	Mar-19	56.1	37	8.42	19.4	0.29
	Six Months Average	57.7	35.4	9.4	20.0	0.30
AAQ-4	Dimundi Boundary wall	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	58.9	31.2	9.5	20.1	0.32
	Nov-18	59.6	34.67	9.6	20.78	0.27
	Dec-18	65.5	38.87	9.18	18.9	0.28
	Jan-19	57.8	34.8	8.8	20	0.32
	Feb-19	56.4	34.6	8.72	20.1	0.32
	Mar-19	59.1	33.89	7.74	16.64	0.31
	Six Months Average	59.6	34.7	8.9	19.4	0.30





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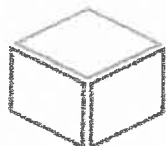


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AAQ-5	Training Center (Inside plant)	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	57.9	35.1	9.4	19.8	0.34
	Nov-18	58.2	36	9.13	20.38	0.29
	Dec-18	58.5	36.4	9.2	19.1	0.33
	Jan-19	57.8	36.6	8.5	18.2	0.3
	Feb-19	58.25	32.4	8.33	20.05	0.32
	Mar-19	57.7	34.33	7.51	16.45	0.33
	Six Months Average	58.1	35.1	8.7	19.0	0.32
AAQ-6	Near BSNL tower (Inside plant)	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
	Oct-18	59.4	36.4	9.3	18.6	0.29
	Nov-18	59	31.11	10.42	21.4	0.32
	Dec-18	56.62	36.25	10.36	20.12	0.33
	Jan-19	57.4	36	8.6	19.8	0.28
	Feb-19	57.1	36.6	8.2	20.5	0.29
	Mar-19	57.9	31.44	7.5	16.91	0.31
	Six Months Average	57.9	34.6	9.1	19.6	0.30

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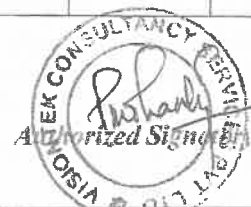
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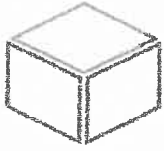


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Ground Water Quality Period: Oct'18 - Mar'19									
GW1: Dimundi									
Sl. No.	Parametres	Unit	IS 10500:2012	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1	Color	Hazen, max	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	Odour	--	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
3	pH value	--	6.5-8.5	7.13	7.48	7.55	7.82	7.63	7.55
4	Turbidity	NTU, max	1	0.71	0.64	0.89	0.67	0.7	0.8
5	Total Dissolved Solids (as TDS)	mg/l	500	138	121	138	150	166	218
6	Temperature	°C	-	27	27	27	27	27	28
7	Conductivity	µS/cm	-	228	206.4	254	224	281	364
8	Calcium (as Ca)	mg/l, max	75	38.4	24.8	43.2	49.8	30	35.2
9	Chloride (as Cl)	mg/l, max	250	19.3	5.6	17.6	23.7	30.8	32.78
10	Copper (as Cu)	mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
11	Fluoride (as F)	mg/l, max	1	0.78	0.82	0.73	0.61	0.13	0.51
12	Free residual Chlorine	mg/l, min	0.2	0.3	Nil	Nil	0.2	0.2	0.2
13	Iron (as Fe)	mg/l, max	0.3	0.25	0.16	0.21	0.27	0.2	0.17
14	Magnesium (as Mg)	mg/l, max	30	7.8	11.2	8.8	10.3	16	10.7
15	Manganese (as Mn)	mg/l, max	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16	Mineral oil	mg/l, max	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Acidity	mg/l, max	-	1.23	1.8	1.31	1.16	1.02	<1.0
18	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, max	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
19	Selenium (as Se)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
20	Sulphate (as SO ₄)	mg/l, max	200	9.8	7.2	12.4	17.5	18.4	21.3
21	Total Alkalinity	mg/l, max	200	112	90	112	144	68	116
22	Total Hardness	mg/l, max	200	128	112	144	132	141	132
23	Zinc (as Zn)	mg/l, max	5	0.11	0.16	0.44	0.31	0.22	0.13





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24	Cadmium (as Cd)	mg/l, max	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
25	Cyanide (as CN)	mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead (as Pb)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
27	Mercury (as Hg)	mg/l, max	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
28	Total arsenic (as As)	mg/l, max	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
29	Pesticide	mg/l, max	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
30	Total Coli forms	MPN/10 0ml	Shall not be detected in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent


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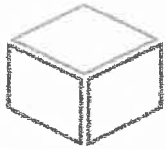
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Ground Water Quality Period: Oct'18 - Mar'19

GW2: Lachuguda

Sl. No.	Parametres	Unit	IS 10500:2012	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1	Color	Hazen, max	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	Odour	--	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
3	pH value	--	6.5-8.5	7.93	7.74	7.83	7.57	7.84	8.07
4	Turbidity	NTU, max	1	0.81	0.64	0.59	0.33	0.5	0.9
5	Total Dissolved Solids (as TDS)	mg/l	500	240	196	188	187	202	233
6	Temperature	°C	-	27	27	27	27	27	28
7	Conductivity	µS/cm	-	338	362.2	324	308	356	388
8	Calcium (as Ca)	mg/l, max	75	43.2	13.2	25.6	33.7	40	46
9	Chloride (as Cl)	mg/l, max	250	25.1	16.4	21.3	15.8	42	54.7
10	Copper (as Cu)	mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
11	Fluoride (as F)	mg/l, max	1	0.69	0.94	0.86	0.77	0.66	0.49
12	Free residual Chlorine	mg/l, min	0.2	0.2	Nil	Nil	0.3	0.2	0.2
13	Iron (as Fe)	mg/l, max	0.3	0.19	0.24	0.16	0.22	0.16	0.09
14	Magnesium (as Mg)	mg/l, max	30	14.5	8.6	12.6	14.6	17.8	16.52
15	Manganese (as Mn)	mg/l, max	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16	Mineral oil	mg/l, max	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Acidity	mg/l, max	-	1.24	1.1	1.1	1.16	1.09	1.14
18	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, max	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
19	Selenium(as Se)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
20	Sulphate (as SO ₄)	mg/l, max	200	14.4	12.1	14.4	20.2	20.9	27.8
21	Total Alkalinity	mg/l, max	200	140	82	128	176	102	160
22	Total Hardness	mg/l, max	200	168	94	116	192	173	188
23	Zinc (as Zn)	mg/l, max	5	0.27	0.32	0.49	0.24	0.29	0.25





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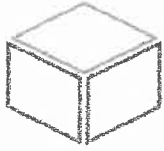
(ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 Certified)

Certificate No.: TC-7944
Format No.: 7.8.2/FME/TR/06

24	Cadmium (as Cd)	mg/l, max	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
25	Cyanide (as CN)	mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead (as Pb)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
27	Mercury (as Hg)	mg/l, max	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
28	Total arsenic (as As)	mg/l, max	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
29	Pesticide	mg/l, max	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
30	Total Coli forms	MPN/10 0ml	Shall not be detected in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent



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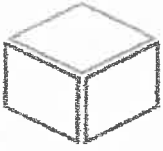
Certificate No.: TC-7944
Format No.: 7.8.2/FMT/TR/06

Ground Water Quality Period: Oct'18 - Mar'19

GW3: Kucheipadar

Sl. No.	Parametres	Unit	IS 10500:2012	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1	Color	Hazen, max	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	Odour	--	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
3	pH value	--	6.5-8.5	7.55	7.28	7.46	7.24	7.58	7.42
4	Turbidity	NTU, max	1	0.65	0.96	0.84	0.54	0.7	0.8
5	Total Dissolved Solids (as TDS)	mg/l	500	190	182	156	180	214	308
6	Temperature	°C	-	27	27	27	27	27	28
7	Conductivity	µS/cm	-	306	326.2	288	276	382	514
8	Calcium (as Ca)	mg/l, max	75	41.6	28	44.8	32.9	43	49.6
9	Chloride (as Cl)	mg/l, max	250	31.4	28.2	36.4	19.28	43	64.8
10	Copper (as Cu)	mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
11	Fluoride (as F)	mg/l, max	1	0.47	0.32	0.48	0.39	0.51	0.66
12	Free residual Chlorine	mg/l, min	0.2	0.2	Nil	Nil	0.2	0.2	0.2
13	Iron (as Fe)	mg/l, max	0.3	0.13	0.24	0.12	0.18	0.14	0.11
14	Magnesium (as Mg)	mg/l, max	30	11.7	13.8	12.6	14.6	19	16.52
15	Manganese (as Mn)	mg/l, max	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16	Mineral oil	mg/l, max	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Acidity	mg/l, max	-	1.19	1.1	1.14	0.93	0.87	<1.0
18	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, max	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
19	Selenium (as Se)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
20	Sulphate (as SO ₄)	mg/l, max	200	10.2	14.2	19.6	23.4	18.6	21.4
21	Total Alkalinity	mg/l, max	200	136	118	148	184	110	164
22	Total Hardness	mg/l, max	200	152	132	164	196	178	192
23	Zinc (as Zn)	mg/l, max	5	0.18	0.18	0.14	0.17	0.14	0.14





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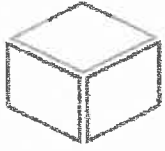
(ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 Certified)

Certificate No.: TC-7944
Format No.: 7.8.2/FMT/TR/06

24	Cadmium (as Cd)	mg/l, max	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
25	Cyanide (as CN)	mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead (as Pb)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
27	Mercury (as Hg)	mg/l, max	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
28	Total arsenic (as As)	mg/l, max	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
29	Pesticide	mg/l, max	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
30	Total Coli forms	MPN/10 0ml	Shall not be defected in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent



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Certificate No.: TC-7944
Format No.: 7.8.2/FMT/TR/06

Ground Water Quality Period: Oct'18 - Mar'19

GW4: Bagrijhala.

Sl. No.	Parametres	Unit	IS 10500:2012	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1	Color	Hazen, max	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2	Odour	--	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
3	pH value	--	6.5-8.5	7.53	7.81	7.64	7.78	7.83	7.74
4	Turbidity	NTU, max	1	0.87	0.72	0.83	0.74	0.8	0.6
5	Total Dissolved Solids (as TDS)	mg/l	500	166	196	168	208	246	260
6	Temperature	°C	-	27	27	27	27	27	28
7	Conductivity	µS/cm	-	277	321.8	307.8	336	412	434
8	Calcium (as Ca)	mg/l, max	75	49.6	52.8	51.2	43.3	52	54.4
9	Chloride (as Cl)	mg/l, max	250	42.8	38	43.2	28.2	48	38.57
10	Copper (as Cu)	mg/l, max	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
11	Fluoride (as F)	mg/l, max	1	0.63	0.41	0.53	0.62	0.57	0.43
12	Free residual Chlorine	mg/l, min	0.2	0.2	Nil	Nil	0.2	0.2	0.2
13	Iron (as Fe)	mg/l, max	0.3	0.22	0.26	0.21	0.17	0.21	0.12
14	Magnesium (as Mg)	mg/l, max	30	13.6	14.8	16.5	18.9	22	8.75
15	Manganese (as Mn)	mg/l, max	0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
16	Mineral oil	mg/l, max	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
17	Acidity	mg/l, max	-	1.14	1.26	1.18	1.03	1.07	1.12
18	Phenolic compounds (as C ₆ H ₅ OH)	mg/l, max	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
19	Selenium(as Se)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
20	Sulphate (as SO ₄)	mg/l, max	200	15.6	12.8	15.6	19.8	18	14.7
21	Total Alkalinity	mg/l, max	200	152	188	164	172	116	144
22	Total Hardness	mg/l, max	200	180	156	196	184	192	172
23	Zinc (as Zn)	mg/l, max	5	0.17	0.24	0.29	0.16	0.11	0.14





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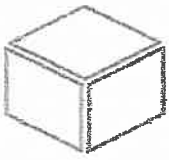
(ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007 Certified)

Certificate No.: TC-7944
Format No.: 7.8.2/FMT/TR/06

24	Cadmium (as Cd)	mg/l, max	0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
25	Cyanide (as CN)	mg/l, max	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
26	Lead (as Pb)	mg/l, max	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
27	Mercury (as Hg)	mg/l, max	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
28	Total arsenic (as As)	mg/l, max	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
29	Pesticide	mg/l, max	0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
30	Total Coli forms	MPN/10 0ml	Shall not be detected in any 100 ml sample	Absent	Absent	Absent	Absent	Absent	Absent



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Certificate No.: TC-7944

Format No.: 7.8.2/FMT/TR/06

Noise Monitoring Results Period: Oct'18 - Mar'19 (Monthly Average Values)

Sl. No	NOISE MONITORING LOCATIONS	Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Six Monthly Average	Day	Night
		Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)			
1	CPP AREA	65.4	53.7	68.6	52.4	72.4	61.6	72.7	58.4	70.9	61.2	72.6	63.5	59.5		49.5
2	NEAR MAIN GATE	60.9	56.1	69.5	61.2	67.8	59.9	69.9	51.8	71.8	63.3	72.1	61.4	63.7		56.2
3	CCR	63.7	56.2	68.3	50.8	71.6	53.2	70.4	55.7	72.6	60.8	71.4	63.6	69.2		55.6
4	ALUMINA HANDLING AREA	69.2	55.6	66.8	60.8	65.5	56.3	69.7	61.6	72.4	59.3	70.9	60.3	60.9		56.1

Ambient Air Quality Standards in respect of Noise for Industrial Area

BUFFER ZONE NOISE

Sl. No	NOISE MONITORING LOCATIONS	Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Six Monthly Average	Day	Night
		Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)	Results in dB(A)Leq (Day)	Results in dB(A)Leq (Night)					
1	TOWNSHIP	45.4	37.8	50.2	41.8	51.7	38.8	51.5	40.4	50.9	39.7	51.3	38.5	50.2		39.5
2	DIMUNDI	52.9	40.4	52.8	42.6	53.8	42.4	52	42.9	52.6	39.2	52.5	41.6	52.8		41.5
3	POLICE STATION DORAGUDA	52.4	40.3	52.5	42.8	49.6	39.7	51.6	41.7	52.2	41	51.4	39.5	51.6		40.8
4	NIPAPADA	49.6	41.7	49.7	38.9	53.4	40.2	50.3	39.6	51.8	42.3	49.8	40.2	50.8		40.5
5	KITICIRIPADA	46.2	40.3	49.6	41.2	50.2	40.4	49.7	38.4	50.3	39.2	48.6	40.3	49.1		40.0
6	DORAGUDA	47.8	38.2	48.4	40.8	52.2	41.2	48.8	42.3	49.6	40.8	49.3	41.9	49.4		40.9

Ambient Air Quality Standards in respect of Noise for Residential Area

Authorised Signatory



Annexure - II

CSR Expenditure (FY 2018-19) Utkal Alumina International Ltd. Doraguda, Rayagada		
Sl. No.	Focus Areas wise Activity	Rs. in (Lakh)
1	Education	
	School Education Project	232.74
	Education Support Project	1.66
	School Infrastructure	17.01
	Sub-Total	251.41
2	Health Care	
	Preventive Health Care	0.6
	Curative Health Care	268.77
	Health Support Program	13.1
	Health Infrastructure	21.43
	Sub-Total	303.9
3	Sustainable Livelihood	
	Agriculture and Farm Based	79.38
	Animal Husbandry Based	1.93
	Skill development & alternate Livelihood	8.61
	Natural Resource conservation programs & Non conventional Energy	0.31
	Livelihood infrastructure	46.25
	Sub-Total	136.48
4	Rural Infrastructure Development other than Health /Education /Livelihood	
	Roads/Culverts/Bridges/Bus Stands	74.17
	Community Halls	106.37
	Sub-Total	180.54
5	Social Empowerment	
	Institutional building & strengthening	0.44
	Social Security	7.56
	Awareness programmes	8.22
	Social Events	0.92
	Promotion of heritage/culture/Sports	23.62
	Sub-Total	40.76
	Grand Total	913.09



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ENTERPRISE SOCIAL COMMITMENT (FY 2018-19)
UTKAL ALUMINA INTERNATIONAL LTD.

Sl. No.	Project	Village	Type of intervention	Spending FY 18- 19 (Rs. In lakhs)
1	Construction of School building upto +2 Science.	Oshapada		11.33
2	Infrastructure for Govt. Schools in the periphery	Khotlapadar	School boundary wall, Providing Equipments	3.12
		Gokulmunda	School boundary wall, Providing	5.27
		Thutiber	Toilets & Hand basins, Providing	3.48
		Tikiri	Protection wall in Girls High School	2.62
		Makapadar	School boundary wall,Playground,	3.34
3	Construction of Hospital Building at Ushapada			29.39
4	Hospital equipment's and assets for Utkal Hospital			312.19
5	Drinking water facility in the peripheral villages	Kucheipadar	OHT with bore well	4.41
		Dudighat	Swajal Dhara, Dugwells	6.01
		Badlijharan	Swajal Dhara, Tubewell	2.69
		Ghatiguda	Swajal Dhara	5.3
		RR Colony I	Tubewell	1.78
		RR Colny II	OHT	3.66
6	Creation of irrigation infrastructure in the peripheral villages	Gulmijhola	Dam, Irrigation Channel	8.85
		Tharli	Water Harvesting Structure,	1.81
		G.Koral	Water Harvesting Structure,	4.75
		Tikirapada	Irrigation Channel	1.65
		Kucheipadar	Irrigation Channel	14.89
		Bariaguda	Irrigation Channel	1.91
		Upper Kampore	Irrigation Channel	1.33
		Mundagaon	Irrigation Channel	5.83
7	Construction of Community Centres in peripheral villages	D.Koral	Community Hall	5.03
		RR Colony I	Gym building	0.63
		RR Colony II	SHG house	4.07
8	Lemon Grass promotion project	Bagrijhola, Andirakanch, D.Koral, Paikupakhal, etc.		10.06
9	Construction of village infrastructure in the peripheral villages	Tikiri	CC Roads, Drains, Market Platforms,Street lights	20.55
		Bilamal	Drains,road crossing culvert, road	2.19
		Ushapada	CC roads, Drains	3.29
		Nuapada	Protection walls, CC Roads	4.3
		Sakrakhola	CC Roads	3.4
		Bagrijhola	CC Roads, Drains	2.84
		Bhitarmuskuni	Drains,CC Roads	1.15
		Kaliakona	CC Roads	2.3

