# MONITORING FORM

If environmental reviews indicate the need of monitoring by JICA, JICA undertakes monitoring for necessary items that are decided by environmental reviews. JICA undertakes monitoring based o regular reports including measured data submitted by the project proponent. When necessary, th project proponent should refer to the following monitoring form for submitting reports.

When monitoring plans including monitoring items, frequencies and methods are decided, projec phase or project life cycle (such as construction phase and operation phase) should be considered.

# 1 . Responses/Actions to Comments and Guidance from Government Authorities and the **Public**

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ex.) Responses/Actions to Guidance from Government A	m Comments and uthorities	Monitoring Results during Report Period  July 2015 – September 2015	7
2. Mitigation Measures			

# 2. Mitigation Measures

The summary of the Environmental Monitoring is shown below.

[Construction F	hase]
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Item Air	Parameter	Frequency and Duration	
,	PM <sub>10</sub>	2×24hours	Locations( At least
	•	Twice/month	20 locations
Water		During entire civ	1
	Groundwater quality (IS 10500:1991)	Once/6months During entire civil	20 locations
Voise	Noise Level (Leq and Lmax)	24hours Once/week	30 locations
libration	Vibration (RMS)	During entire civil construction stage or even later, if directed by DMRC 24hours Once/week During entire civil	10 locations
ology	Heavy Metal	construction stage or even later, if directed by DMRC Once/6moths	In each Underground Construction Contract
	Felled and planted trees	Once a year till all trees that	All the trees felled and newly planted trees

[Operation Phase]

item	Parameter	Frequency and Duration	Locations		
Air PM <sub>10</sub>		2×24hours Once/month For 3years	10 locations		
Water	Effluent	Once/4months For 3years	3 locations(Depot)		
	Groundwater quality (IS 10500:1991)	Once/year For 3years	3 locations(Depot)		
Noise	Noise Level (Leq)	24hours Once/year For 3years	15 locations (Sensitive Receptors along the elevated section)		
Vibration	Vibration level VdB	24hours Once/year For 3years	15 locations (Sensitive Receptors along the elevated and underground section)		
Ecology	Bird Strike	4times/year(If no bird hit is reported in this duration, then this monitoring may be discontinued, else it will continue). From the beginning, DMRC will instruct its train operator to compulsorily blow the horn while on the bridge across the Yamuna.	On the DMRC Yamuna bridge near Okhla Bird Sanctuary		

### 2.1 During Construction

## Air Quality (Ambient Air Quality)

Date: July 2015

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Location: CC-63 (Badli) (Elevated)

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country's Standards	Referred Internation al Standards	Remarks (Measurement Point, Frequency, Method, etc.)
PM <sub>10</sub>	µg/m³	Badli -165.5	169.73	100 (24hours) (CPCB)	-	2×24hours Twice/month During entire civil construction stage or even later, if directed by DMRC

Date: July 2015

Location: CC-47 (MIA-Tikri Border) (Elevated)

ltem	Unit	Measured Value (Mean)	Measured Value (Max.)	Country 's Standar ds	Referred Internation al Standards	Remarks (Measurement Point, Frequency, Method, etc.)
PM <sub>10</sub>	µg/m³	Mundka-177 MIA-145.5 Ghevra-181 Tikri Kalan-157.5 Tikri Border-161	181 166 193 158 167	100 (24hours) (CPCB)		2×24hours Twice/month During entire civil construction stage or even later, if directed by DMRC

Date: July 2015 Location: CC-04(Azadpur-Mukundpur) (Underground)

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	ļ	Referred Internation al Standards	Remarks (Measurement Point, Frequency, Method, etc.)
PM <sub>10</sub>	μg/m³	Azadpur- 165.96 Mukundpur- 169.07 Mundka CY – 164.76	171.29 173.87 169.56	100 (24hours) (CPCB)	-	2×24hours Twice/month During entire civil construction stage or even later, if directed by DMRC

Attachment 2

Location: CC-32 (IGD-Dwarka Sec. 20) (Elevated)

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country 's Standar ds	Referred Internation al Standards	Remarks (Measurement Point, Frequency, Method, etc.)
PM <sub>10</sub>	hā\w <sub>3</sub>	IGD- 168.5 Palam- 159 Dwarka Sec. 20- 165	173 165 170	100 (24hours) (CPCB)	_	2×24hours Twice/month During entire civil construction stage or even later, if directed by DMRC

# Ground Water Quality (Drinking Water Quality: IS 10500:1991)

Date: September 2015

Date: July 2015

Location: Dwarka CC-29 (Elevated)

	<del></del>	<del>,</del>				•
Item	Unit	Measure d Value (Mean)	Measured Value (Max.)	Country's Standards	Referred Internation al Standards	Remarks (Measurem ent Point, Frequency, Method, etc.)
Color,Hazen units,Max			<5	5(25)	-	20 locations Once/6
Odour	-		Unobjection able	Unobjection able	-	months
Taste	-		Agreeable	Agreeable	_	During
Turbidity,NTU, Max	-		2	5(10)	-	entire civil
pH Value			7.6	6.5-8.5	-	stage or
Total Hardness (as CaCO <sub>3</sub> ), Max	mg/l		120	300(600)	<b>-</b> .	even later, if directed by DMRC
Iron(as Fe) ,max	mg/l		0.02	0.3(1.0)	-	
Chloride(as Cl), Max	mg/l		168	250(1000)	_	
Residual free Chlorine, Min	mg/l		Nil	0.2	-	
Fluoride(as F), Max	mg/l		0.5	1.0(1.5)	-	
Dissolved solids, Max	mg/l		625	500(2000)	-	
Calcium(as Ca), Max	mg/l		22	75(200)	-	
Magnesium(as Mg), Max	mg/i		6	30(100)		
Copper(as Cu), Max	mg/l		0.004	0.05(1.5)		

Manganese(as		<del></del>		<del></del>		A	ttachment 2
Mn), Max	mg/l		0.03	0.1(0.3)	-		
Sulphate(as SO <sub>4</sub> ), Max	mg/l		102	200(400)	-		
Nitrate(as NO₂), Max	mg/l		3	45(100)	**		
Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),Max	mg/l		Nil	0.001(0.002)	_		
Mercury(as Hg), Max	mg/i		Nil	0.001	-		•
Cadmium(as Cd), Max	mg/l		Nil	0.01			
Selenium(as Se), Max	mg/l		-	0.01	-		
Arsenic( as As), Max	mg/l		Nil	0.05	_		
Cyanide(as CN), Max	mg/l			0.05		1	
Lead(as Pb), Max	mg/l		Nil	0.05	_		
Zinc(as Zn), Max Anionic	mg/l	·	0.03	5(15)			
Detergents (as MBAS),Max	mg/l		Nil	0.2(1.0)	-		
Chromium (as Cr6 <sup>+</sup> ),Max Polynuclear	mg/l		0.002	0.05	-	·	
aromatic hydrocarbons( as PAH),Max	mg/l	·	-	-	-		
Mineral Oil	mg/l		-	0.01			
Pesticides, Max	mg/l		-	Absent	-		
Radioactive Materials, Max a) Alpha emitters	Bq/I			-(0.1)			
Radioactive Materials, Max b) Beta emitters	Pci/l		-	-(1) =	-		
Alkalinity, Max	mg/i		142	200(600)	-		
Aluminum(as Al), Max	mg/l		0.002	0.03(0.2)			
Boron,Max	mg/l		0.03	1(5)			
			1		<u>-</u> <u>-</u> <u>_</u>		

Date: September 2015

Location: Palam CC-32 (Underground)

Item	Unit	Measure d Value (Mean)	Measured Value (Max.)	d Country's Standards		Frequency.
Color,Hazen units,Max	_ ]		<5	5(25)	-	20 locations
Odour	_		Agreeable	Unobjection able	า -	Once/6 months
Taste			Agreeable		<del>-</del>	During
Turbidity,NTU, Max	-		0.4	5(10)		entire civil construction
pH Value	<u> </u>		8.0	6.5-8.5	<del></del>	stage or
Total Hardness (as CaCO <sub>3</sub> ) Max			396	300(600)	-	even later, if directed by DMRC
Iron(as Fe) ,max	mg/l		0.09	0.3(1.0)	-	
Chloride(as Cl), Max	mg/l		610	250(1000)		
Residual free Chlorine, Min	mg/l		Nil	0.2	-	
Fluoride(as F), Max	mg/l		0.41	1.0(1.5)	**	-
Dissolved solids, Max	mg/l		1470	500(2000)	-	
Calcium(as Ca), Max	mg/l		85	75(200)	-	
Magnesium(as Mg), Max	mg/l		44	30(100)	-	
Copper(as Cu), Max	mg/l		Absent	0.05(1.5)	-	
Manganese(as Mn), Max	mg/l		Absent	0.1(0.3)	-	
Sulphate(as SO <sub>4</sub> ), Max	mg/l		169	200(400)	<u>-</u>	
Nitrate(as NO <sub>2</sub> ), Max	mg/l		3.5	45(100)	-	
Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH),Max	mg/l		Absent	0.001(0.002)	<u>-</u>	·
Mercury(as Hg), Max	mg/l		Absent	0.001		
Cadmium(as Cd), Max	mg/l	School of the Control	Absent	0.01	-	

Attachmen	
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Selenium(as		7	<del></del>	<del></del>	•	Atta
Se), Max	mg/l		Absent	0.01	-	
Arsenic( as As), Max	mg/l		Absent	0.05		-
Cyanide(as CN), Max	mg/l	·	Absent	0.05	-	
Lead(as Pb), Max	mg/l		Absent	0.05	-	1
Zinc(as Zn), Max	mg/l		Absent	5(15)	-	-
Anionic Detergents (as MBAS),Max	mg/l		Absent	0.2(1.0)	-	
Chromium (as Cr6 <sup>†</sup> ),Max	mg/i		Absent	0.05	-	-
Polynuclear aromatic hydrocarbons( as PAH),Max	mg/l		Absent		-	
Mineral Oil	mg/l		-	0.01		
Pesticides, Max	mg/l		-	Absent		
Radioactive Materials, Max c) Alpha emitters	Bq/I		-	-(0.1)	<u>-</u>	
Radioactive Materials, Max d) Beta emitters	Pci/l		-	-(1)	-	
Alkalinity, Max	mg/l		381	200(600)	-	
Aluminum(as Al), Max	mg/l		Absent	0.03(0.2)	- (	·
Boron,Max	mg/l		Absent	1(5)	-	

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Location: Mayapuri CC-20(Underground)

Item -	Unit	Measure d Value (Mean)	Measured Value (Max.)	Standards Internation al Standards		Remarks (Measurem ent Point, Frequency, Method, etc.)
Color,Hazen units,Max			Colourless	5(25)		20 locations Once/6
Odour			Unobjectio nable	Unobjection able		months
Taste			Caustic	Agreeable		During
Turbidity,NTU, Max	-		36	5(10)		entire civil
pH Value			7.92	6.5-8.5		stageor
Total Hardness (as CaCO <sub>3</sub> ), Max	mg/l		839	300(600)	-	even later, if directed by DMRC

Fe  max	Iron(as	<del></del>	<del>-,</del>			<u> </u>		ttachment 2
CD,   Max   Residual free   Pluoride(as F),   mg/l     Nil   0.2	Fe) ,max	mg/	1	0.48	0.3(1.0)	-		The state of the s
Chiorine, Min   Figuri   Max   Dissolved   Ship   Max   Dissolved   Ship   Max   Dissolved   Ship   Max	Cl), Max	mg/	I		250(1000)	-		
Max	Chlorine, Min	_		Nil	0.2	-		
Sociolics	Max	mg/l		3.87	1.0(1.5)	-		
Ca   Max   Magnesium(as   Mg/l   Max   Magnesium(as   Mg/l   Max   Magnesium(as   Mg/l   Max   Manganese(as   Mg/l   Max   Max   May   Max   M	solids,	mg/l		3427	500(2000)	-		
Mg, Max	Ca), Max				75(200)	-		
Max         righ         0.05(1.5)           Manganese(as Mrh), Max         mg/l         0.1(0.3)           Sulphate(as SQ <sub>4</sub> ), Max         mg/l         200(400)           Nitrate(as NC <sub>2</sub> ), Max         mg/l         45(100)           Phenolic compounds (as Gas Gas (as Gas Gas)         0.001(0.002)         -           Hg), Max         mg/l         0.001         -           Hg), Max         mg/l         0.001         -           Selenium(as Selenium mg/l         BDL         0.05         -           Max         BDL         0.05         -         -         -         -           Cyanide(as Ch), Max         BDL         0.05         -	Mg), Max	ing/i			30(100)	-		
Mn   Max   Sulphate(as   SCo_l),   mg/l   Max   Max	Max	mg/i		BDL	0.05(1.5)	<u>:</u>		
SC4),   mg/l   200(400)   -	Mn), Max			BDL	0.1(0.3)	-	-	
NO2   Max	SO₄), Max	mg/l		469	200(400)	1		
Compounds (as	NO₂), Max	mg/l		81	45(100)	-		
Hg),   mg/l	compounds (as C₅H₅OH),Max	mg/l		BDL	0.001(0.002)	-		
Cd),   mg/l   0.01   -	Hg), Max	mg/l		BDL	0.001	-		
Se),   mg/l   0.01   -	Cd), Max	mg/l		BDL	0.01	-		
As   mg/l	Se), Max	mg/l		BDL	0.01			
CN),   mg/l   0.05   -	As), Max	mg/l		BDL	0.05	_		
Max         mg/l         0.05         -           Zinc(as Zn), Max         mg/l         1.64         5(15)         -           Anionic Detergents (as (as (as Chromium (as Cr6+), Max)         mg/l         0.2(1.0)         -           BDL (as Cr6+), Max         mg/l         BDL (0.05)         -           Polynuclear aromatic         mg/l         BDL (0.05)         -	CN),	mg/l		BDL	0.05	-		
Max   Mg/I   5(15)   -	Max	mg/l		BDL	0.05	-		
Anionic Detergents (as (as MBAS),Max Chromium (as Cr6*),Max Polynuclear aromatic  Anionic BDL 0.2(1.0)  BDL 0.05  BDL		mg/l		1.64	5(15)	<del>-</del> .		
Chromium (as Cr6*),Max  Polynuclear aromatic  mg/l  BDL 0:05	Anionic Detergents (as	mg/l		BDL	0.2(1.0)			
Polynuclear mg/l BDL	Chromium	mg/i		BDL	0:05			
	Polynuclear	mg/l		BDL			TORREST TO THE STATE OF THE STA	•

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hydrocarbons(		-		T	· · · · · · · · · · · · · · · · · · ·	Attachme
as PAH),Max `	1	1				
Mineral Oil	mg/l	<del>                                     </del>	BDL		<del> </del>	
Pesticides,	1	· · · · · · · · · · · · · · · · · · ·		0.01	<u>-</u>	_
Max	mg/l		_	Absent	-	·
Radioactive			<del></del>		<del> </del>	
Materials, Max	D. 0	ļ	-			
e) Alpha	Bq/I	1	1	-(0.1)	_	
emitters	İ	ļ	}		,	
Radioactive					<del></del>	]
Materials, Max	Doin					,
1 '	PCI/I		ļ	-(1)	_	
	<u> </u>	ı	1			
Alkalinity, Max	mg/l		359	200(600)	<del></del>	}
		<del></del>	<del></del>	200(000)	<del>-</del>	
1 7	mg/i		<del>-</del>	0.03(0.2)		
		•	1	0.00(0.2)	-	
Boron,Max	mg/i		BDL	1(5)	<del></del>	
f) Beta emitters Alkalinity, Max Aluminum(as Al), Max Boron,Max	mg/l		359 BDL BDL	-(1) 200(600) 0.03(0.2) 1(5)	-	

Location: Shiv Vihar CC-41 (Elevated)

ltem	Unit	Measure d Value (Mean)	Measured Value (Max.)	Country's Standards	Referred Internation al Standards	Frequency, Method,
Color,Hazen units,Max			<5.0	5(25)		etc.) 20 locations
Odour	-		Agreeable	Unobjection able	-	Once/6 months
Taste	<u> -</u>		Agreeable	Agreeable		During
Turbidity,NTU, Max	- ,		<1.0	5(10)	-	entire civil
pH Value	ļ <u>-</u>		7.14	6.5-8.5	-	stage or
Total Hardness (as CaCO <sub>3</sub> ), Max	mg/i		1300	300(600)		even later, if directed by DMRC
Iron(as Fe) ,max	mg/l		0.11	0.3(1.0)	-	
Chloride(as Cl), Max	mg/i		496	250(1000)	-	
Residual free Chlorine, Min	mg/l		. Nil	0.2	-	
Fluoride(as F), Max	mg/l		80.0	1.0(1.5)	-	
Dissolved solids, Max	-mg/i		1300	500(2000)	<u>-</u>	
Calcium(as Ca), Max	mg/l		171	75(200)	_	
Magnesium(as Mg), Max	mg/l	·	37.5	30(100)		
Copper(as Cu), Max	mg/l	7.2.	ND.	0.05(1.5)		
Manganese(as Mn),	mg/i		0.08	0.1(0.3)	-	

Max					<del></del>	•	Attachment 2
Sulphate(as SO <sub>4</sub> ), Max	mg,	1	132	200(400)			
Nitrate(as NO <sub>2</sub> ), Max	mg/	1	5.0	45(100)			
Phenolic compounds (as C <sub>6</sub> H₅OH),Max	mg/	1	<0.001	0.001(0.002)	) -		
Mercury(as Hg), Max	mg/l		ND	0.001	-		
Cadmium(as Cd), Max	mg/l		ND	0.01	-	_	
Selenium(as Se), Max Arsenic( as	mg/l		ND	0.01	-	_	
Arsenic( as As), Max Cyanide(as	mg/l		ND	0.05	_		
CN), Max Lead(as Pb),	mg/i		ND	. 0.05	_		
Max Zinc(as Zn),	mg/l		ND	0.05	-	_	
Max Anionic	mg/i		0.06	5(15)	-		
Detergents (as MBAS),Max	mg/l		ND	0.2(1.0)	-		
Chromium (as Cr6 <sup>+</sup> ),Max	mg/l		ND	0.05	-	-	
Polynuclear aromatic hydrocarbons( as PAH),Max	mg/l	-	ND	-	-	-	
Mineral Oil Pesticides,	mg/l		ND	0.01		_	
<u>Max</u>	mg/l		ND	Absent	_		
Radioactive Materials, Max a) Alpha emitters	Bq/I		-	-(0.1)	_		
Radioactive Materials, Max ) Beta emitters	- Pci/I		-	-(1)	•		
lkalinity, Max luminum(as	mg/i		414	200(600)		<b>-</b>	
l), lax	mg/i		ND	0.03(0.2)			
oron,Max	mg/l		ND	1(5)	-		

### Noise / Vibration

Date: July 2015

Location: CC-04 (Azadpur-Mukundpur) (Underground)

		Measured	T		<del></del>	Remarks
Item	Unit	Unit Value (L <sub>eq</sub> ) ured Stan Value (Enviro (L <sub>Max</sub> ) Mana		Standards	i	ment Point, Frequen
Noise						cy, Method,
level (Leq) and Lmax	dB(A)	Azadpur Leq(Day)- 70.77 Leq(night)- 48.82 Lmin- 39.5	74.2	National Standard Area Leq(a) Leq(n) Resi 5 45 Comm 6	5 5	all street stree
		Mukundpur Leq(Day)- 69.54 Leq(night)- 53.46 Lmin- 41.1	73.5	Indstl 7 70 Silence 50 40  DMRC Env Manual		During entire civil constructi on stage or even later, if
		Mundka Leq(Day)-68.48 Leq(night)– 50.11 Lmin- 40.5	75.5	construction levels are not known) Resi Lmax Daytime:	Commerci al / residence	directed by DMRC
Vibration	2010			Nighttime: 65 Comm & and Indstl At all time: 85		
Vibration level	RMS (mm/s)			Structures in good condition:25 in fair condition:12 in poor condition:5 Water supply Structures:5 Heritage structure/ Bridge structures:5	- E	10locations 24hours/time 20nce/week  Ouring entire civil construction stage r even ater, if irected y DMRC

Location: CC-32 (IGD-Dwarka Sec. 20) (Underground)

Item	Unit	Measured Value (L <sub>eq</sub> )	Measu red Value (L <sub>Max</sub> )	Country's Standards (Environmental Management Manual by DMRC)	Occupancy	Remarks (Measure- ment Point, Frequenc y, Method, etc.)
Noise level (Leq) and Lmax	dB(A)	Palam Leq(Day)–63.9 Leq(night)–56.6 Lmin- 51.6 Dwarka Sec. 20	76.5	National Standards Area Leq(d) Leq(n) Resi 55 45 Comm 65 55 Indstl 75		30location s 24hours/ti me Once/wee k
		Leq(Day)–66.7 Leq(night)–56.2 Lmin- 53.7 IGD Leq(Day)–67.6	75.7 79.3	70 Silence 50 40  DMRC Env Manual (when pre construction levels are not known)	·	entire civil constructio n stage or even later, if directed by DMRC
		Leq(night)–56.6 Lmin- 49.4		Resi Lmax Daytime: 75	Commerci al / residence	
Vibration level	RMS (mm/s)	•		Structures in good condition:25 in fair condition:12 in poor condition:5 Vater supply Structures:5 leritage structure/ Bridge structures:5	i i	10location s 24hours/ti me Once/wee C Ouring entire civil construction stage or even later, directed y DMRC

Location: CC-47(MIA- Tikri Border) (Elevated)

Item	Unit	Measured Value (L <sub>eq</sub> )	Meas ured Value	Country's Standards (Environmental	Оссирапсу	Remarks (Measure- ment Point,
			(L <sub>Max</sub> )	Management Manual by DMRC)		Frequency , Method, etc.)
Noise level (Leq) and Lmax	dB(A)	MIA Leq(Day) – 67.8 Leq(night)–62.7 Lmin - 51.8 Ghevra Leq (day) – 75.8 Leq(Night)–70.3 Lmin – 50.2 Tikri Kalan	86.0 81.6	National           Standards           Area         Leq(d)           Leq(n)         55           45         65           Comm         65           55         Indstl         75           70         75		30locations 24hours/tim e Once/week  During entire civil constructio n stage or even later,
		Leq(Day) - 75.3 Leq(Night)-65.4 Lmin - 56.9 Casting Yard Leq (Day)- 78.4 Leq(Night)-68.0 Lmin - 51.5	81.8 84.7	Silence 50 40  DMRCEnv Manual (when pre construction levels are not known) Resi Lmax	Commerci al / residence	if directed by DMRC
		Tikri Border Leq(Day) – 75.9 Leq(Night)-72.8 Lmin – 59.0	82.2	Daytime: 75 Nighttime: 65 Comm & and Indstl At all time: 85		
Vibration level	RMS (mm/s)	•		Structures in good condition:25 in fair condition:12 in poor condition:5 Water supply Structures:5 Heritage structure/ Bridge structures:5		10locations 24hours/tim e Once/week  During entire civil constructio n stage or even later, if directed by DMRC

Location: CC-63 (Badli) (Elevated)

Item	Unit	Measured Value (L <sub>eq</sub> )	Meas ured Value (L <sub>Max</sub> )	Country's Standards (Environmental Management Manual by DMRC)	Occupancy	Remarks (Measure- ment Point, Frequency, Method, etc.)
Noise level (Leq) and Lmax	dB(A)	Leq (Day)- 71.5 Leq(night)-49.0 9 Lmin- 40.7	75.8	National Standards Area Leg(d) Leg(n) Resi 55 45 Comm 65 55 Indstl 75 70 Silence 50 40  DMRC Env Manual (when pre construction levels are not known) Resi Lmax Daytime: 75 Nighttime: 65 Comm & and Indstl At all time: 85	Commerci al / residence	30locations 24hours/tim e Once/week  During entire civil constructio n stage or even later, if directed by DMRC
Vibration level	RMS (mm/s)			structures in good condition:25 in fair condition:12 in poor condition:5 Water supply Structures:5 Heritage structure/ Bridge structures:5		10locations 24hours/tim e Once/week  During entire civil constructio n stage or even later, if directed by DMRC

#### **Excavated soil (Leaching test)**

Date: September 2015

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Location: IGD CC-32 (Underground)

Item	Unit	Measured Value (Mean)	Country's Standards	Referred International Standards	Remarks (Measurement Point, Frequency, Method, etc.)
Mercury(as Hg)	mg/l	Absent	-	0.0005	In each Underground
Cadmium(as Cd)	mg/l	Absent	<del>-</del>	0.01	Construction Contract Once/6months During entire civil construction stage Samples should be taken from
Arsenic( as As)	mg/l	Absent	-	0.01	
Cyanide(as CN)	mg/l	Absent	_	Not detected	
Lead(as Pb)	mg/l	Absent	<del>-</del> .	0.01	
Chromium(as Cr6 <sup>+</sup> )	mg/i	Absent	-	0.05	the underground lowest point.

Date: July 2015

Location: Narayana Vihar CC-20 (Underground)

ltem .	Unit	Measured Value (Mean)	Country's Standards	Referred International Standards	Remarks (Measurement Point, Frequency, Method, etc.)	
Mercury(as Hg)	mg/l	ND	-	0.0005	In each Underground Construction Contract Once/6months During entire civil construction stage Samples should be taken from the underground	
Cadmium(as Cd)	mg/l	NĎ	-	0.01		
Arsenic( as As)	mg/l	ND	-	0.01		
Cyanide(as CN)	mg/l	ND	-	Not detected		
Lead(as Pb)	mg/l	ND	- -	0.01		
Chromium(as Cr6⁺)	mg/l	ND	<del>-</del>	0.05	lowest point.	

#### **Excavated soil (Amount)**

Date:

Line	Excavated Amou Approx.('000 m <sup>3</sup> )	Name of Disposed Site	Disposed Amount Approx.('000 m3)	
Line-2	Nil	•	Nil	
Line-6	39206.98	Mukundpur, DDA Dhirpur	39206.98	
Line-7	192326.4	Mukundpur, Vinod nagar, Ghaziabad.	187753.4	

			Atta	achment 2
Line-8	80945.56	Dwarka Sector 25, RSS Dhaula Kuan, etc.	67777.56	

The data collection for **soil excavation & tree cutting** is under process and complete details will be provided in next report.

### **Ecological Monitoring (Flora Monitoring)**

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<u>(</u>)

CPM	Permission to fell trees	No. of trees actually felled	No of trees planted	No of trees transplanted	Location of plantation
CPM-1	Nil Nil	Nil	Nil	Nil	
CPM-2	126	. 0	0	0	· · · · · · · · · · · · · · · · · · ·
CPM-3	Available	3	0	0	<u> </u>
CPM-4	3575	5	0	0	
CPM-5	Nil	Nil	Nil	Nil	
CPM-6	Nil	Nil	Nil	Nil	
CPM-7	Nil	Nil	Nil	Nil	<u> </u>
CPM-8	Available	2	1100	0	Waqf Border land near ITO,Delhi gate
CPM-9	Nil	Nil	Nil	Nil	110,Denn gate
CPM-10	513	98	0	7	