



## NABHA POWER LIMITED

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E-mail: [sk.narang@larsentoubro.com](mailto:sk.narang@larsentoubro.com)

Ref: NPL/SKN/MOEF/ 1854

Dated: 20<sup>th</sup> Feb, 2013

To,

**Mr. Surendra Kumar  
Director (S),  
Government of India,  
Ministry of Environment & Forests  
Northern Regional Office,  
Chandigarh-160030, Punjab**

**Sub: 1400 MW Rajpura Thermal Power Project at village Nalash, District Patiala,  
Punjab by M/s Nabha Power Limited- Environmental Clearance regarding**

Ref: Your Letter No. 5-120/2008-RO (NZ)/2166 dated 14<sup>th</sup> Jun, 2011  
Letter No. 5-120/2008-RO (NZ) dated 16<sup>th</sup> May, 2011  
Letter No J-13011/44/3008-IA.II(T) dated 03<sup>rd</sup> Oct, 2008  
Letter No J-13011/44/3008-IA.II(T) dated 15<sup>th</sup> Nov, 2010

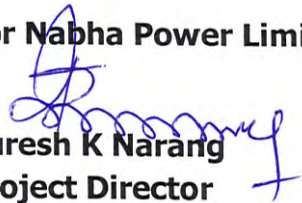
Dear Sir,

With reference to the environmental clearance accorded to 2x700 MW Super Critical Thermal Power Plant, we are submitting herewith the Environment Monitoring Report for the month of January, 2013 for your kind reference.

Thanking you,

Yours faithfully

**For Nabha Power Limited**

  
**Suresh K Narang  
Project Director**

Cc: Sr. Environmental Engineer, Punjab Pollution Control Board, Patiala.

Wholly Owned Subsidiary of L&T Power Development Limited

Corporate Office: L&T House, N M Marg, Ballard Estate, Mumbai 400 001

Regd. Office: PO Box no. 28, Near Village Nalash, Rajpura - 140401, Punjab



**TEST REPORT**

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
NOISE MONITORING

Report No.: 130108093/1301080260

Date: 14-Jan-2013  
DOR 08-Jan 2013

Phone/Fax:  
Kind Attn.:

Your Ref. No.:

ID : 1301080260

**NOISE MONITORING REPORT**

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date of Monitoring	08/01/2013
Noise Standards in Ambient Air for Industrial Zone	Day Time – 75 dB(A)

S. No.	Location	Results dB(A)
1	Near Coal Handling Plant	61
2	Near Admn. Block	64
3	Near Boiler & Chimney Area	69
4	Near Fabrication Yard	68
5	Near Switch Yard	63



*Analyst*  
Analyst

ID-PB11RA0001A2247



TRA - 031889

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



## TEST REPORT

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Report No.: 130108094/1301080261  
Sample Description :  
AMBIENT AIR QUALITY

Date: 14-Jan-2013  
DOR 08-Jan 2013

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301080261

### AMBIENT AIR QUALITY ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date of Sample Collection	08/01/2013
Duration of Monitoring, minutes	1440
Average Flow Rate, m <sup>3</sup> /min	1.01
Volume of air sampled, m <sup>3</sup>	1454.4

S. No.	Parameters	Results	*Standard (µg/m <sup>3</sup> )	Method
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	14.2	80 Max.	APHA-Air(Improved West & Gaek Method)
2.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	45.5	80 Max.	Emission Regulation-III(Modified Jacob & Hochheiser Method)
3.	Particulate Matter(PM <sub>10</sub> ), µg/m <sup>3</sup>	78	100 Max.	APHA-Air(Gravimetric)
4.	Particulate Matter(PM <sub>2.5</sub> ), µg/m <sup>3</sup>	46	60 Max.	APHA-Air(Gravimetric)
5.	Ozone(O <sub>3</sub> ), µg/m <sup>3</sup>	12	180 Max.	APHA-Air(UV Photometric)
6.	Lead as Pb, µg/m <sup>3</sup>	N.D.	1.0 Max.	APHA-Air by AAS
7.	Carbon Monoxide(CO), µg/m <sup>3</sup>	920	4000 Max.	IS: 5182 (P-10)
8.	Ammonia(NH <sub>3</sub> ), µg/m <sup>3</sup>	N.D.	400 Max.	APHA-Air(Indophenols' Blue Method)
9.	Benzene(C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>	N.D.	5 Max.	Adsorption & Desorption followed by GC Analysis
10.	Benzo(a) Pyrene (BaP)- Particulate Phase only, µg/m <sup>3</sup>	N.D.	1 Max.	Solvent Extraction followed by GC Analysis
11.	Arsenic(As), µg/m <sup>3</sup>	N.D.	6 Max.	APHA-Air by AAS
12.	Nickel(Ni), µg/m <sup>3</sup>	N.D.	20 Max.	APHA-Air by AAS

\*NAAQS, CPCB New

N.D. - Not Detected

Authorised Signatory

TRA - 031890

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf





## TEST REPORT

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Report No.: 130108094/1301080261  
Sample Description :  
AMBIENT AIR QUALITY

Date: 14-Jan-2013  
DOR 08-Jan 2013

Phone/Fax:  
Kind Attn.:

Your Ref. No.:

ID : 1301080261

### AMBIENT AIR QUALITY ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date of Sample Collection	08/01/2013
Duration of Monitoring, minutes	1440
Average Flow Rate, m <sup>3</sup> /min	1.03
Volume of air sampled, m <sup>3</sup>	1483.2

S. No.	Parameters	Results	*Standard (µg/m <sup>3</sup> )	Method
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	15.1	80 Max.	APHA-Air(Improved West & Gaek Method)
2.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	29.7	80 Max.	Emission Regulation-III(Modified Jacob & Hochheiser Method)
3.	Particulate Matter(PM <sub>10</sub> ), µg/m <sup>3</sup>	62	100 Max.	APHA-Air(Gravimetric)
4.	Particulate Matter(PM <sub>2.5</sub> ), µg/m <sup>3</sup>	44	60 Max.	APHA-Air(Gravimetric)
5.	Ozone(O <sub>3</sub> ), µg/m <sup>3</sup>	10	180 Max.	APHA-Air(UV Photometric)
6.	Lead as Pb, µg/m <sup>3</sup>	N.D.	1.0 Max.	APHA-Air by AAS
7.	Carbon Monoxide(CO), µg/m <sup>3</sup>	842	4000 Max.	IS: 5182 (P-10)
8.	Ammonia(NH <sub>3</sub> ), µg/m <sup>3</sup>	N.D.	400 Max.	APHA-Air(Indophenols' Blue Method)
9.	Benzene(C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>	N.D.	5 Max.	Adsorption & Desorption followed by GC Analysis
10.	Benzo(a) Pyrene (BaP)-Particulate Phase only, µg/m <sup>3</sup>	N.D.	1 Max.	Solvent Exatration followed by GC Analysis
11.	Arsenic(As), µg/m <sup>3</sup>	N.D.	6 Max.	APHA-Air by AAS
12.	Nickel(Ni), µg/m <sup>3</sup>	N.D.	20 Max.	APHA-Air by AAS

\*NAAQS, CPCB New Notification, dated 18.11.2009 (for Industrial, Residential, Rural and other Area)  
N.D. - Not Detected

Analyst:   
SDD-PB12RA000VA6067



  
Authorised Signatory

TRA - 031891

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



## TEST REPORT

Issued To : NABHA POWER LTD.

VILLAGE- NALASH,

TEHSIL RAJPURA, DISTT- PATIALA

Report No.: 130108094/1301080261

Date: 14-Jan-2013

DOR 08-Jan-2013

Sample Description :  
AMBIENT AIR QUALITY

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301080261

### AMBIENT AIR QUALITY ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date of Sample Collection	08/01/2013
Duration of Monitoring, minutes	1440
Average Flow Rate, m <sup>3</sup> /min	1.03
Volume of air sampled, m <sup>3</sup>	1483.2

S. No.	Parameters	Results	*Standard (µg/m <sup>3</sup> )	Method
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	15.7	80 Max.	APHA-Air(Improved West & Gaek Method)
2.	Nitrogen Dioxide(NO <sub>2</sub> ), µg/m <sup>3</sup>	69.4	80 Max.	Emission Regulation-III(Modified Jacob & Hochheiser Method)
3.	Particulate Matter(PM <sub>10</sub> ), µg/m <sup>3</sup>	75	100 Max.	APHA-Air(Gravimetric)
4.	Particulate Matter(PM <sub>2.5</sub> ), µg/m <sup>3</sup>	40	60 Max.	APHA-Air(Gravimetric)
5.	Ozone(O <sub>3</sub> ), µg/m <sup>3</sup>	11	180 Max.	APHA-Air(UV Photometric)
6.	Lead as Pb, µg/m <sup>3</sup>	N.D.	1.0 Max.	APHA-Air by AAS
7.	Carbon Monoxide(CO), µg/m <sup>3</sup>	916	4000 Max.	IS: 5182 (P-10)
8.	Ammonia(NH <sub>3</sub> ), µg/m <sup>3</sup>	N.D.	400 Max.	APHA-Air(Indophenols' Blue Method)
9.	Benzene(C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>	N.D.	5 Max.	Adsorption & Desorption followed by GC Analysis
10.	Benzo(a) Pyrene (BaP)- Particulate Phase only, µg/m <sup>3</sup>	N.D.	1 Max.	Solvent Exatration followed by GC Analysis
11.	Arsenic(As), µg/m <sup>3</sup>	N.D.	6 Max.	APHA-Air by AAS
12.	Nickel(Ni), µg/m <sup>3</sup>	N.D.	20 Max.	APHA-Air by AAS

\*NAAQS, CPCB New Notification, dated 18.11.2009 (for Industrial, Residential, Rural and other Area)  
N.D. - Not Detected

*Analyst*

LAB-00D-PB131RA0001A6067



*Authorised Signatory*

TRA - 031892

BIS,DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



## TEST REPORT

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
SOIL SAMPLE

Report No.: 130108095/1301080262

Date: 14-Jan-2013  
DOR 08-Jan-2013

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301080262

### SOIL QUALITY ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date & Time of Sample Collection	08/01/2013 at 4:00 P.M.

S. No.	Parameter	Results
1	Moisture (%)	16.4
2	Texture	Loamy Soil
3	pH	7.9
4	Electrical Conductivity ( $\mu\text{mho/cm}$ )	482
5	Organic Carbon, (%)	2.9
6	Available Nitrogen (as N), mg/100 gm	41
7	Available Phosphorous (as P), %	0.89
8	Available Potassium (as K), %	1.42
9	Available Magnesium, (mg/kg)	73
10	Available Calcium, (mg/100 gm)	7.7
11	Cation Exchange Capacity (meq/100 gm)	17.4



*Analyt*  
Analyst

LAB-D-PB11RA0001A13483



*Authorised Signatory*  
Authorised Signatory

TRA - 031893

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



**TEST REPORT**

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
SOIL SAMPLE

Report No.: 130108095/1301080262

Date: 14-Jan-2013  
DOR 08-Jan-2013

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 13014080262

**SOIL QUALITY ANALYSIS REPORT**

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date & Time of Sample Collection	08/01/2013 at 04:30 P.M.

S. No.	Parameter	Results
1	Moisture (%)	15.7
2	Texture	Loamy Soil
3	pH	8.7
4	Electrical Conductivity ( $\mu\text{mho/cm}$ )	598
5	Organic Carbon, (%)	1.37
6	Available Nitrogen (as N), mg/100 gm	43
7	Available Phosphorous (as P), %	0.44
8	Available Potassium (as K), %	1.36
9	Available Magnesium, (mg/kg)	59
10	Available Calcium, (mg/100 gm)	5.8
11	Cation Exchange Capacity (meq/100 gm)	24.9



Analysis ID: PB121RA0001A13483



UMESH GUPTA  
QM. TECHNICAL  
Authorised Signatory

TRA - 031902

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



**TEST REPORT**

Issued To: NABHA POWER LTD.

VILLAGE- NALASH,

TEHSIL RAJPURA, DISTT- PATIALA

Report No.: 130108095/1301080262

Date: 14-Jan-2013

DOR 08-Jan-2013

Sample Description :  
SOIL SAMPLE

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301080262

**SOIL QUALITY ANALYSIS REPORT**

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date & Time of Sample Collection	08/01/2013 at 04:15 P.M.

S. No.	Parameter	Results
1	Moisture (%)	15.3
2	Texture	Loamy Soil
3	pH	7.72
4	Electrical Conductivity ( $\mu\text{mho/cm}$ )	416
5	Organic Carbon, (%)	1.91
6	Available Nitrogen (as N), mg/100 gm	27
7	Available Phosphorous (as P), %	0.92
8	Available Potassium (as K), %	1.47
9	Available Magnesium, (mg/kg)	71
10	Available Calcium, (mg/100 gm)	7.3
11	Cation Exchange Capacity (meq/100 gm)	49.7



*[Signature]*

Analyst: SD-PB12/RA0001A13483



*[Signature]*  
Authorised Signatory

TRA - 031894

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



## TEST REPORT

Issued To : **NABHA POWER LTD.**  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
GROUND WATER

Report No.: 130109083/1301090303

Date: 01-Feb-2013  
DOR 09-Jan 2013

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301090303

### GROUND WATER ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date & Time of Sample Receipt in Lab.	09/01/2013 at 09.30 A.M.

S. No.	Parameter	Results	Desirable Limit (IS 10500)
1	Colour (Hazen unit)	3	5
2	Odour	Unobjectionable	Unobjectionable
3	Taste	Agreeable	Agreeable
4	Turbidity (NTU)	3	5
5	pH	7.1	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> ), mg/l	275	300
7	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	124	200
8	Iron (as Fe) mg/l	0.34	1.0
9	Chloride (as Cl) mg/l	52	250
10	Residual Free Chlorine, mg/l	Not Detected	0.20
11	Calcium Hardness, mg/l	178	200
12	Magnesium Hardness, mg/l	97	100
13	Total Dissolved Solids, mg/l	432	500
14	Suspended Solids, mg/l	Not Detected	-
15	Sulphate (as SO <sub>4</sub> ), mg/l	37	200
16	Fluoride (as F), mg/l	0.45	1.0
17	Nitrate (as NO <sub>3</sub> ), mg/l	4.7	45
18	Cyanide (as CN), mg/l	Not Detected	0.05
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	Not Detected	0.001
20	Chromium (as Cr <sup>6+</sup> ), mg/l	Not Detected	0.05
21	Manganese, mg/l	Not Detected	0.3
22	Zinc, mg/l	1.00	5
23	Lead, mg/l	Not Detected	0.05
24	Arsenic, mg/l	Not Detected	0.05
25	Selenium, mg/l	Not Detected	0.01
26	Cadmium, mg/l	Not Detected	0.01
27	Mercury, mg/l	Not Detected	0.001
28	Aluminum, mg/l	Not Detected	0.2
29	Copper (Cu), mg/l	Not Detected	0.01
30	Boron, mg/l	Not Detected	5
31	Oil & Grease, mg/l	Not Detected	0.01
32	Coliform Organisms, MPN/100ml	Absent	Less than 10
33	E- Colli, per 100 ml	Absent	Absent

Analyst: SOD-PB14\RA0001A12202

Authorised Signatory

TRA - 031897

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



## TEST REPORT

Issued To: **NABHA POWER LTD.**  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
GROUND WATER

Report No.: 130109083/1301090303

Date: 01-Feb-2013

DOR 09-Jan-2013

Phone/Fax:  
Kind Attn.:

Your Ref. No.:

ID : 1301090303

GROUND WATER ANALYSIS REPORT

Name of the Sample Collecting Officer	Mr. Ishan Jain
Date & Time of Sample Receipt in Lab.	09/01/2013 at 09.30 A.M.

S. No.	Parameter	Results	Desirable Limit (IS 10500)
1	Colour (Hazen unit)	<4	5
2	Odour	Unobjectionable	Unobjectionable
3	Taste	Agreeable	Agreeable
4	Turbidity (NTU)	<5	5
5	pH	7.56	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> ), mg/l	265	300
7	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	144	200
8	Iron (as Fe) mg/l	0.09	1.0
9	Chloride (as Cl) mg/l	34	250
10	Residual Free Chlorine, mg/l	Not Detected	0.20
11	Calcium (as Ca) mg/l	170	200
12	Magnesium (as Mg) mg/l	95	100
13	Total Dissolved Solids, mg/l	455	500
14	Suspended Solids, mg/l	Not Detected	-
15	Sulphate (as SO <sub>4</sub> ), mg/l	29	200
16	Fluoride (as F), mg/l	0.24	1.0
17	Nitrate (as NO <sub>3</sub> ), mg/l	4.1	45
18	Cyanide (as CN), mg/l	Not Detected	0.05
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	Not Detected	0.001
20	Chromium (as Cr <sup>6+</sup> ), mg/l	Not Detected	0.05
21	Manganese, mg/l	Not Detected	0.3
22	Zinc, mg/l	0.9	5
23	Lead, mg/l	Not Detected	0.05
24	Arsenic, mg/l	Not Detected	0.05
25	Selenium, mg/l	Not Detected	0.01
26	Cadmium, mg/l	Not Detected	0.01
27	Mercury, mg/l	Not Detected	0.001
28	Aluminum, mg/l	Not Detected	0.2
29	Copper (Cu), mg/l	Not Detected	0.01
30	Boron, mg/l	Not Detected	5
31	Oil & Grease, mg/l	Not Detected	0.01
32	Coliform Organisms, MPN/100ml	Absent	Less than 10
	E. Coli, per 100 ml	Absent	Absent

TRA - 031898

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007  
Subject to Terms & Conditions Overleaf

**Authorised Signatory**  
SPECTRO Laboratory



**TEST REPORT**

Issued To : NABHA POWER LTD.  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
GROUND WATER

Report No.: 130109083/1301090303

Date: 01-Feb-2013  
DOR 09-Jan-2013

Phone/Fax:  
Kind Attn. :

Your Ref. No. :

ID : 1301090303

**GROUND WATER ANALYSIS REPORT**

Name of the Sample Collecting Officer  
Date & Time of Sample Receipt in Lab.

Mr. Ishan Jain  
09/01/2013 at 09.30 A.M.

S. No.	Parameter	Results	Desirable Limit (IS 10500)
1	Colour (Hazen unit)	3	5
2	Odour	Unobjectionable	Unobjectionable
3	Taste	Agreeable	Agreeable
4	Turbidity (NTU)	3	5
5	pH	7.1	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> ), mg/l	275	300
7	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	124	200
8	Iron (as Fe) mg/l	0.34	1.0
9	Chloride (as Cl) mg/l	52	250
10	Residual Free Chlorine, mg/l	Not Detected	0.20
11	Calcium Hardness, mg/l	178	200
12	Magnesium Hardness, mg/l	97	100
13	Total Dissolved Solids, mg/l	432	500
14	Suspended Solids, mg/l	Not Detected	-
15	Sulphate (as SO <sub>4</sub> ), mg/l	37	200
16	Fluoride (as F), mg/l	0.45	1.0
17	Nitrate (as NO <sub>3</sub> ), mg/l	4.7	45
18	Cyanide (as CN), mg/l	Not Detected	0.05
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	Not Detected	0.001
20	Chromium (as Cr <sup>6+</sup> ), mg/l	Not Detected	0.05
21	Manganese, mg/l	Not Detected	0.3
22	Zinc, mg/l	1.00	5
23	Lead, mg/l	Not Detected	0.05
24	Arsenic, mg/l	Not Detected	0.05
25	Selenium, mg/l	Not Detected	0.01
26	Cadmium, mg/l	Not Detected	0.01
27	Mercury, mg/l	Not Detected	0.001
28	Aluminum, mg/l	Not Detected	0.2
29	Copper (Cu), mg/l	Not Detected	0.01
30	Boron, mg/l	Not Detected	5
31	Oil & Grease, mg/l	Not Detected	0.01
32	Coliform Organisms, MPN/100ml	Not Detected	Less than 10
33	E- Colli, per 100 ml	Absent	Absent

Analyst: PBI1RA000IA12202

Authorised Signatory

TRA - 031899

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
Subject to Terms & Conditions Overleaf



**TEST REPORT**

Issued To : **NABHA POWER LTD.**  
VILLAGE- NALASH,  
TEHSIL RAJPURA, DISTT- PATIALA

Sample Description :  
GROUND WATER

Report No.: 130109083/1301090303

Date: 01-Feb-2013  
DOR 09-Jan 2013

Phone/Fax:  
Kind Attn.:

Your Ref. No.:

ID : 1301090303

**GROUND WATER ANALYSIS REPORT**

Name of the Sample Collecting Officer

Mr. Ishan Jain

Date & Time of Sample Receipt in Lab.

09/01/2013 at 09:30 A.M.

S. No.	Parameter	Results	Desirable Limit (IS 10500)
1	Colour (Hazen unit)	Less than 4	5
2	Odour	Unobjectionable	Unobjectionable
3	Taste	Agreeable	Agreeable
4	Turbidity (NTU)	3	5
5	pH	7.38	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> ), mg/l	290	300
7	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l	191	200
8	Iron (as Fe) mg/l	0.40	1.0
9	Chloride (as Cl) mg/l	29	250
10	Residual Free Chlorine, mg/l	Not Detected	0.20
11	Calcium (as Ca) mg/l	192	200
12	Magnesium (as Mg) mg/l	98	100
13	Total Dissolved Solids, mg/l	489	500
14	Suspended Solids, mg/l	N.D.	-
15	Sulphate (as SO <sub>4</sub> ), mg/l	33	200
16	Fluoride (as F), mg/l	0.40	1.0
17	Nitrate (as NO <sub>3</sub> ), mg/l	4.1	45
18	Cyanide (as CN), mg/l	Not Detected	0.05
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l	Not Detected	0.001
20	Chromium (as Cr <sup>6+</sup> ), mg/l	Not Detected	0.05
21	Manganese, mg/l	Not Detected	0.3
22	Zinc, mg/l	0.29	5
23	Lead, mg/l	Not Detected	0.05
24	Arsenic, mg/l	Not Detected	0.05
25	Selenium, mg/l	Not Detected	0.01
26	Cadmium, mg/l	Not Detected	0.01
27	Mercury, mg/l	Not Detected	0.001
28	Aluminum, mg/l	Not Detected	0.2
29	Copper (Cu), mg/l	Not Detected	0.01
30	Boron, mg/l	Not Detected	5
31	Oil & Grease, mg/l	Not Detected	0.01
32	Coliform Organisms, MPN/100ml	Absent	Less than 10
33	E. coli, MPN/100ml	Absent	Absent

TRA - 031900

BIS, DGS & D, DDA, MOEF, DGCA approved,  
ISO-17025, ISO - 9001: 2008, ISO-14001 : 2004 & OHSAS-18001:2007 Certified Laboratory  
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