



# GUJARAT INDUSTRIES POWER COMPANY LIMITED

## (SURAT LIGNITE POWER PLANT)

At. Nani Naroli, Ta. Mangrol, Dist. Surat - 394 110

Phone : EPABX (02629) 261063 to 261072 Fax : (02629) 261073/74 E-mail : genslpp@gipcl.com

### Courier

SLPP/Vastan Mines/Environment Return/2017/ 220

10.01.2018

To,

Additional Principal Chief Conservator of Forests (C),  
Ministry of Environment, Forest and Climate Change,  
Regional Office (WZ),  
E-5, Kendriya Paryavaran Bhawan,  
E-5 Arera Colony, Link Road-3,  
Ravishankar Nagar, Bhopal – 462016

Sub :-	MOEF's EC & other compliance reports with respect to Vastan Lignite Opencast Mines, Vastan Village, Mangrol Taluka, Surat District, Gujarat State for the period from July 2017 to Dec. 2017.	
Ref :-	1.	Environmental Clearance accorded vide letter no J-11015/40/95-IA. II (M) dated 19 <sup>th</sup> June 1996.
	2.	Your office letter no 4-5/96(ENV) 2534 dated 7 <sup>th</sup> September 1997.

Dear Sir,

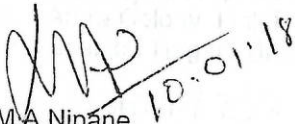
Please find enclosed herewith

- (1) EC compliance report for the period July 2017 to Dec. 2017
- (2) Data sheet Part – I, of six monthly monitoring of the implementation of env. Safeguard and
- (3) Env. Monitoring and analysis report for the period July 2017 to Dec. 2017 with respect to Vastan Lignite Opencast Mines Vastan Village, Mangrol Taluka, Surat District, Gujarat State.

This is for your kind information.

Thanking you,

For Gujarat Industries Power Co. Ltd.

  
M.A. Nipane  
CM (Mines)

Encl :-
1. EC compliance report for the period <u>July 2017 to Dec. 2017</u> as ANNEXURE – A
2. Monitoring of the implementation of env. Safeguard (Data Sheet Part – I). as ANNEXURE – B
3. Environmental Monitoring and analysis Report for period <u>July 2017 to Dec. 2017</u> . ANNEXURE – C
cc :-
Regional Officer, Surat R.O. Gujarat Pollution Control Board, 338, Belgium square, Opp. Linear Bus Stand, Surat.

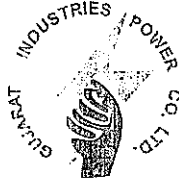
Registered Office & Vadodara Plant :  
P.O. Petrochemical, Dist. Vadodara 391 346 Gujarat - INDIA

AN IMS  
COMPANY

Phone : EPABX (0265) 2232768/2213/0159

Fax : 2231207 E-mail : genbaroda@gipcl.com

Website : www.gipcl.com



# GUJARAT INDUSTRIES POWER COMPANY LIMITED

(SURAT LIGNITE POWER PLANT)

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Phone : EPABX (02629) 261063 to 261072 Fax : (02629) 261073/74 E-mail : genslpp@gipcl.com

SLPP/Mining/Environment Return/2017/ Courier 221

10.01.2018

To,  
Regional Officer,  
Gujarat Pollution Control Board,  
338, Belgium square,  
Opp. Linear Bus Stand, Surat.

Sub :-	Report of monitoring the implementation of environmental safeguards in data sheet, Part - I and in respect of Vastan Lignite Mining project, Vastan Village, Mangrol Taluka, Surat District, Gujarat State for the period from July 2017 to Dec. 2017 .
Ref :-	1. Environmental Clearance accorded vide letter no J-11015/40/95-IA. II (M) dated 19 <sup>th</sup> June 1996. 2. Your office letter no 4-5/96(ENV) 2534 dated 7 <sup>th</sup> September 1997.

Dear Sir,


Please find enclosed herewith


- (1) Data sheet Part - I, of monitoring of the implementation of environmental safeguard and
- (2) Env. Monitoring and analysis report for the period July 2017 to Dec. 2017 with respect to Vastan Lignite Opencast Mines Vastan Village, Mangrol Taluka, Surat District, and Gujarat State.

This is for your kind information.

Thanking you,

For Gujarat Industries Power Co. Ltd.

  
10.01.18  
M.A. Nipane  
CM (Mines)



Encl :-
1. Monitoring of the implementation of env. Safeguard (Data Sheet Part - I). as ANNEXURE - B
2. Environmental Monitoring and analysis Report for period July 2017 to Dec. 2017.
3. ANNEXURE - C

Registered Office & Vadodara Plant :  
P.O. Petrochemical, Dist. Vadodara 391 346 Gujarat - INDIA



Phone : EPABX (0265) 2232768/2213/0159  
Fax : 2231207 E-mail : genbaroda@gipcl.com

Website : www.gipcl.com

Proponent Name - M/s Gujarat Industries Power Company Limited  
 Project Name - Vastan Lignite Mines, EC.No. - J-11015/40/95 – IA.II (M) dated 19-06-1996  
 Period of compliance - from July 17 to Dec. 17

**ANNEXURE – A**

Status of compliance of the conditions under Environment Clearance F.No. J-11015/40/95 – IA.II (M) dated 19-06-1996 by ministry of environment & forest, GOI, for Vastan Lignite Mines of M/s Gujarat Industries Power Company Limited for the period from July 17 to Dec. 17.

Sr. no.	Conditions	Compliance
01	No change in the calendar plan including excavation, quantum of lignite and wastes/OB dumps should be made.	Complied
02	The top soil and OB dumps should be stacked in earmarked dump sites. Garland drains along the lease boundary along with the settling tanks should be made.	<p>In the initial years, top soil and overburden wastes were stacked separately and the top soil has been used for spreading over the reclaimed land of back filled area and external dump for successful grass and tree plantations etc. Currently the top soil that is removed is being used simultaneously for progressive reclamation of back filled area.</p> <p>The external OB dumps have been developed in the Vastan Lease area. The dumps are of approx 50 meter height.</p> <p>The external dump overburden area is 217 Ha to accommodate about 85 M.cum of overburden. The dump has been stabilized and about 125815 plantations have been done in the about 94 Ha area of the external dump.</p> <p>Garland drains and settling tanks are made to arrest silt and sediment flows from soil and before &amp; during 2017 monsoon garland drains &amp; settling tanks were maintained for the same.</p>
03.	The level of SPM should not exceed 500 ug/cum at any station within the leasehold. Emission of SO <sub>2</sub> , Nox and CO should be maintained below the levels prescribed by the competent authority.	<p>The level of SPM, SO<sub>2</sub>, NO<sub>2</sub>, CO emission is being monitored quarterly. Data related with each of the above parameters are within limits prescribed</p> <p>The last quarterly report (i.e. July 17 to Sep. 17) has already submitted vide letters no - SLPP/Vastan Mining / quarterly Env report/4313 date 21.10.2017 and current half yearly report (i.e. July 17 to Dec. 17) is enclosed herewith as <b>ANNEXURE – C</b></p>
04.	The quality of effluent finally discharged should conform to the standards prescribed under GSR422 (E) dated 19.05.1993 and 31.12,1993.	<p>There is no solid or liquid waste being disposed from the mine.</p> <p>Only rain water, which collected in monsoon, season, is pumped out in monsoon period only for resuming the mining activity. This water is being sampled at various stages and analyzed. Result is reported well within the prescribed limits.</p>

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Proponent Name - M/s Gujarat Industries Power Company Limited  
 Project Name - Vastan Lignite Mines, EC.No. - J-110/15/40/95 – IA.II (M) dated 19-06-1996  
 Period of compliance - from July 17 to Dec. 17

Sr. no.	Conditions	Compliance
05.	Regular monitoring of air, water and noise should be made in and around the core zone. Recorded data should be furnished to this ministry (regional office) and the state pollution control board quarterly, Noise levels should not exceed the limit of 85 Ddb, Ear plugs/ear muffs may be provided to the workers engaged in the noisy atmosphere..	Bimonthly & Quarterly monitoring of air, water dust fall, meteorological data of the region and noise level in core and buffer zone are being carried out by M/s. Green Leaf Envirotech Pvt. Ltd., Surat.  Recorded data are being submitted to the regional office of Ministry of Environment, Forest and Climate Change at Bhopal as well as GPCB. Last quarterly report has already submitted vide letters no SLPP/Vastan Mining / quarterly Env report/4313 date 21.10.2017 Noise level at any place in core or buffer zone is not exceeding the 85 dB. However earplugs are provided to the Dozer operators.
06.	The anti-pollution measures with regards to environmental quality prescribed in the EMP should be implemented on schedule in a time bound program.	The anti pollution measures like 1. Water sprinkling on the haul roads and lignite stock, 2. Green Belt Development, 3. Well planned pit drainage system, 4. Making of garland drains around dump, 5. Provision of inner slope on the dumps for proper drainage, 6. Settling tanks for discharging monsoon water, 7. Effective maintenance of the HEMM for controlling exhaust emission level, and 8. Provision of ear plugs/ear muffs in the mine All measures are implemented towards pollution control.
07	A 100- meter greenbelt around the mine lease area should be developed. The density of the trees be at least 1600 saplings /Ha. Mixed species of saplings should be selected for enhancing bio-diversity. Also the reclamation program in the leasehold area should be implemented phase wise as envisaged.	100-meter wide greenbelt is planned for development around the mine lease. Since the initiation of the development year 1996 of this mine, 190 Hacters of greenbelt comprising 269326 Nos. of trees have been developed up to Dec. 2017.  During last monsoon 2017, total 3300 Nos of plantation have been done (i.e. covering 2.38 Ha areas).
08	Three year – stage remote sensing imageries to monitor the changes in the land use pattern and related impacts due to mining in the region should be submitted.	Three year stage remote sensing imagery is procured for mining project from ISRO and gets analyzed through RRSSC – Jodhpur. Imageries were taken for the block year 2015-16 has been done and report has already submitted to MOEF vide letter no SLPP / Vastan Mines / EC-compliance/2016/548, dated -25.01.16.
09.	Environmental Man agent Cell has to be established to carry out functions relating to environmental management actions plans. The head of the cell should directly report to the Chief Executive.	An Environmental Management Cell has been established in the company. GM (Mines) is the head of the cell.
Sr. no.	Conditions	Compliance
10	Adequate fund provision (capital and recurring expenditure) should	Adequate fund provision (Capital and recurring expenditure) is made in the yearly budget of the mining

Proponent Name - M/s Gujarat Industries Power Company Limited

Project Name - Vastan Lignite Mines, EC.No. - J-11015/40/95 – IA.II (M) dated 19-06-1996

Period of compliance - from July 17 to Dec. 17

	<p>be provided for implementation of all safeguards including socio-economic development program. The fund earmarked for environmental measures will not be diverted for any other purpose.</p>	<p>project for implementation of all environmental safeguards and for environmental measures Rs 137.31 Lakh expanded for the year 2017 detail enclosed in data Monitoring Report, Part – I of Data Sheet ANNEXURE - B</p> <p>Moreover the company is also directly funding in CSR (i.e. DEEP) by various means for carrying out the various activities including socio-economic development program.</p>
11	<p>Environmental Compliance Status vis-à-vis project implementation report should be submitted for the scrutiny of this Ministry once in 6 months regularly.</p>	<p>Environmental Compliance Status vis-à-vis project implementation report is being submitted to the Ministry of Environment, Forest and Climate Change, Regional Office (WZ) at Bhopal during once in six month on regular basis.</p> <p>The last six monthly reports (from Jan. 17 to June17) was already submitted vide letter no SLPP/Vastan Mines/ Environment. Return /2017/3192 dated-25.07.17 and currant half yearly report (i.e. July 2017 to Dec. 2017) is enclosed herewith as ANNEXURE – A</p>

AA

**ANNEXURE – B**

**MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS  
MINISTRY OF ENVIRONMENT AND FOREST CLIMATE CHANGE  
REGIONAL OFFICE (W), BHOPAL  
MONITORING REPORT  
PART – I  
DATA SHEET**

S.N.		
1	Project type: River/valley/Mining/Industry/thermal/ nuclear/other /specify	: Mining
2	Name of the project	: Vastan Lignite Mine
3	Clearance letter (s) OM no. and date	: F.No. J-11015/40/95-IA. II (M) dated 19 <sup>th</sup> June 1996
4	a) District	: Surat
	b) State	: Gujarat
	c) Latitude/Longitude	: Latitude- 21 <sup>o</sup> 22' 47" to 21 <sup>o</sup> 26' 42" Longitude: 73 <sup>o</sup> 05' 47" to 73 <sup>o</sup> 08' 47"
5	Address for correspondence	
	a) Address of concerned Project Chief with pin code and Telephone/Telex/Fax No.	: Sri M.A.Nipane Chief Manager (Mines) Vastan Lignite Opencast Mine Surat Lignite Power Plant Village: Nani Naroli, Tal: Mangrol, Dist.: Surat – 394 110 Phone: (M) 9727757613 Fax: 02629-261080
	b) Address of concerned Engineer with pin code and telephone/Telex/Fax No.	: Shri Ajay Kumar Ambastha, Manager (Mines) Vastan Lignite Opencast Mine Surat Lignite Power Plant Village: Nani Naroli, Taluka: Mangrol, Dist.: Surat – 394 110. Phone –(M) 9099045783 Fax: 02629-261080
6	Salient Features of	
	a) the project	: This mining project is linked to Surat Lignite Power Plant under the same management to supply lignite as fuel for captive 2 X 125 MW Power Plant..
	b) Environmental Management Plan	: Greenbelt developments on <b>503.35</b> Hectares of mining lease area comprising of <b>842987</b> no trees have been developed till Dec. 2017.  Plantation of Waste dump: Plantation activity on plane & sloping surface of the waste dump was carried out since the beginning of the mining activities. This was planned for dump stability & also to curb the run-off of loose soil from the external Overburden Dumps. Plantation of on reclaimed area is being done. A brief endeavor of the work done is given in <b>Annexure – I</b> .
	b) Environmental Management Plan	: Environmental monitoring for SPM, NO <sub>x</sub> , SO <sub>x</sub> , CO emission are being carried out as per the condition of Environmental Clearance vide letter no. O. /M letter F.No. J-11015/40/95-IA. II (M) dated 19 <sup>th</sup> June 1996. The detail environmental monitoring report (i.e. from July. 17 to Dec. 17) is enclosed herewith as <b>Annexure – C</b> .

7	Breakup of the project area a) Submergence area: Forest & Non forest b) Others	: There is no forest land in and around of this project. Total areas of 1536 Hectare will be used for mining activity. :
8	Break up of project affected population with enumeration of those losing houses/dwelling units only, agriculture land only, both dwelling unit and agricultural land.  a) Scheduled Cast b) Scheduled Tribe c) Others Please indicate whether these figures are based on any systematic survey carried out or only provisional figures. If any survey is carried out give details and year of survey.	: The most of the mining lease land was previously used for agricultural purpose. There were no dwelling units/ houses previously existing in such area. Following population lost only their agricultural land.  a) 5 nos b) 102 nos c) 400 nos These figures are based on systematic survey carried out in the year December, 1997.
9	Financial Details a) Project cost as originally planned and subsequent revised estimates and the year of price reference. b) Allocation made of environmental Management Plan with item wise & year wise break up. c) Benefit cost ratio/internal rate of return and the year of assessment. d) Whether (c) includes the cost environment management as shown in the above. e) Actual Expenditure incurred so far on the project. f) Actual expenditure incurred on EMP so far ( till Dec. 2016).	: Project cost is 300 Crores based on price reference of the year 1997.  : The details are provided in Annexure – II with this data sheet.  : Rate of return on Investment is 15.34 % for assessment year 2016-17  : Yes  : 244.87 Crores.  : 1741.68 Lakhs for Green belt development, Dump plantation, preparation of silting ponds, Environmental Monitoring instruments studies.
10	Forest Land requirement a) The status of approval for diversion of forestland for non-forestry use. b) The Status of clear felling c) The status of compensatory afforestation, if any d) Comments on viability and sustainability of compensatory afforestation program in the light of actual field experience so far.	: NA  : NA : NA : NA
11	The experience of clear felling in non forest area (Such as submergence area of reservoir, approach road) if any with quantitative information.	: Area where active mining work is in progress contains no such vegetation and there are no such cases of clear felling.

12	Status of construction a) Date of commencement (actual or planned) b) Date of completion (Actual/Planned)	: 31.05.1996 (Actual) : Project is planned for 30 years.
13	Reason for delay if the project is yet to start	: NA
14	Dates of site visits a) The dates on which the project was monitored by Regional Office on previous occasion if any, b) Dates of site visit for this monitoring	: 26.03.2007 29.11.2014 : 29.11.14 by Dr. Ajay Mehrotra, Regional Director (S), Regional Office, Western Region. Bhopal, MP
15	The monitoring report may contain the details of all the letters issued so far (vide the letters as mentioned)	: • Environmental Clearance by OM No. J-11015/40/95/-IA. II (M) dated 19/6/1996. • Letter no 3-5/96(ENV)/1906 dt 4/11/1996

*AA*

*M.A.*  
10.01.18  
M.A. Nipane  
CM (Mines)



## Annexure - I

## PLANTATION ACTIVITY FROM 1997 to Dec. 2017

S. No.	Year	Code	Location	Area (Ha)	No. of trees
(A)	Peripheral green belt development				
1	1997	GBD-A	Lease boundary (Village-Vastan, Jhakharda & Shah)	33	50,967
2	1998	GBD-B	Lease boundary (Village-Vastan & Surali)	21	37,290
3	1999	GBD-C	Lease boundary (Vastan & Shah)	12	21,017
4	2000	GBD-D	Lease boundary (Village- Shah & Cheraetha)	3.5	56,000
5	2001	--	Near Vastan village	04	6,000
6	2002	GBD-J	Lease boundary (Village- Cheretha))	20	31,368
7	2003	GBD-K	Lease boundary (Village- Surali, Naugama & Tadkeshwar)	34	51,000
8	2004	GBD-L	Lease boundary (village-Vastan & Surali)	12	30,000
9	2005	GBD-M	Along Limestone road, & Vastan village)	16	26,550
10	2006	Jetropha	Lease boundary-Vastan & Surali)	05	13,500
11	2008	GBD-N	Lease boundary of South Pit	20	32,000
12	2009	GBD-O	Lease boundary of South Pit	20	32,000
13	2011	GBD-Q	Lease boundary of South Pit near Surali Village	8	12,800
14	2012	GBD-R	South and North pit periphery area	19.5	25,100
15	2013	GBD-S	Lease boundary of Vastan Mines	13.5	16,700
16	2014	GBD-T	Lease boundary of Vastan Mines	3	4,800
17	2015	GBD-U	-	-	-
18	2016	Forest species	Lease boundary near north side of Limestone Pit	2	3,800
19	2017	Forest species	South pit in west side of BC Dump	2.38	3,300
Total (A)				248.88	454,192
(B)	Dump Plantation				
1	1999	---	External dump	2.5	7,500
2	2001	--	External dump	04	12,000
3	2005	--	External dump	02	3,887
4	2006	--	External dump	42	42,549
5	2007	--	External dump	30	38,027
6	2010	---	External dump	5	8,000
7	2011		External dump near ELHS	8	12,800
8	2012	flower plant	External dump	0.5	1,052
9	2013	--	--	--	--
10	2014	-	-	-	-
11	2015	-	-	-	-
12	2016	-	-	-	-
13	2017	-	-	-	-
Total (B)				94	125,815

C) Reclaimed Area Plantation					
1	2007	Jetropha	--	04	11,136
2	2008	Jetropha	--	05	13,504
3	2009	Bamboo Plantation		25	32000
4	2009	Junglee Variety		5	5000
5	2011	Junglee Variety		12	19200
6	2012	Junglee Variety		20	32000
7	2013	Forest Species	--	22	33000
7	2014	Forest Species	-	15	26500
8	2015	Forest Species	-	12.4	18600
9	2016	Forest Species		12.27	18400
10	2017	-	-	-	-
			<b>Total (C)</b>	<b>132.67</b>	<b>209340</b>
(D) Other plantation activity					
1	2000	--	Mines road	02	3100
2	2000	GBD-F	Ambawadi (Near DEEP nursery)	0.5	290
3	2000	GBD-H	Near Demo Shed	03	13,200
4	2001	--	Mines road	1.6	2500
5	2005	--	Mines road	03	400
6	2007	Bamboo plantation	Near DEEP farm house	05	8000
7	2011	General Plantation	Near & at ELHS	2	3200
8	2012		Near & at ELHS	4	9600
9	2013	General Plantation	Near Limestone pit .	1	1200
10	2014	-	--	-	-
11	2015	Forest Species	Near Limestone Crusher	2.67	8000
12	2016	Forest Species	Near East side of Limestone Pit	2.73	4100
		Mango trees	Near Vastan site Office	0.3	50
13	2017	-	-	-	-
			<b>Total (D)</b>	<b>27.80</b>	<b>53640</b>
			<b>GRAND TOTAL (A+B+C+D)</b>	<b>503.35</b>	<b>842987</b>
(E) Seed Spraying					

11/11/17

1	1998	Dump-A	External dump	05	3000 Kg
2	1999	Dump-B	External dump	05	300 Kg
3	2000	Dump-C	External dump	28	790 Kg
4	2001	Dump-D	External dump	124	5760 Kg
5	2003	Dump-E	External dump	54	1620 Kg
6	2011	Dump-F	External dump, Bund near ELHS road	8	450 Kg
7	2012	Dump-G	Vastan Mines Cheretha Site	6	120 Kg
8	2013		Western side edge of Vastan north Pit	2	100kg
9	2014	-	-	-	-
10	2015			-	-
17	2016		Reclaimed area	5	62 KG
18	2017	-	-	-	-
			<b>Total (E)</b>	<b>237</b>	<b>12202 Kg</b>
<b>(F)</b>	<b>Seed spraying by Mining Contractors</b>				
1	1999				2150 Kg
2	2000				550 Kg
3	2001				5760 Kg
4	2002				2600 Kg
5	2003				280 Kg
6	2004				525 Kg
7	2005				1000 Kg
8	2007				1000 Kg
9	2008		External Dump		1000 Kg
10	2009		External Dump		1000 Kg
11	2010		Bund of Garland drains		400 Kg
12	2011		Bund of Garland drains		400 Kg
13	2012		--		NIL
14	2013		--		NIL
15	2014		-		NIL
16	2015		-		NIL
17	2016		-		-
18	2017		South pit west side near BC bund		50Kg
			<b>Total (F)</b>		<b>16715 Kg</b>

*Ac*

*M.A.*  
M.A. Nipane,  
CM (Mines)  
10.01.18

**Annexure - II**  
**Sub: Expenditure made for the Environmental Management Plan with item wise & year wise break-up.**  
 (All figures are in Lac Rs.)

Year →		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	20
Item ↓	Particulars of the activities											
Development & maintenance of Plantation (Greenbelt, Reclaimed area and other)	Greenbelt Development along lease boundary, along Haul road & plantation on reclaimed area in mining premises. 1) New plantation by MDO at peripheral green belt development & maintenance. 2) At peripheral green belt development and maintenance. 3) After preparatory work done at reclaimed area, plantation was done. 4) Preparation of land for plantation	22.72	23.27	15.31	4.91	26.93	40.52	113.70	71.50	94.19	33.65	1.
Dump plantation	Dump plantation maintenance, development and plantation cost	-----	-----	0.47	6.02	4.38	8.29	6.094	0.13	0.10	0.03	
Preparation of settling pond	Silting pond for settlement of suspended solids from the discharge mine water, being pumped out during the monsoon season.	-----	-----	2.70	-----	1.24	1.08	0.30	0.63	0.57	0.30	0.
Monitoring of Environmental parameter	Monitoring of Environmental parameters viz. Air quality (SPM, SO <sub>x</sub> , NO <sub>x</sub> , CO), Water quality (Physical, Chemical & Biological tests), Noise survey & Dust fall measurement in villages peripheral to the mining lease area & Micro meteorological monitoring of the season/quarter.	0.541	1.62	1.93	1.08	0.72	0.87	1.39	1.85	2.31	2.40	2.
Dust suppression measures in mines	Round the clock water spraying and road grading prevents formation & emission of Dust.				80.00	73.00	112.99	105.47	137.28	135.02	89.71	12.
Remote sensing	Three year stage remote sensing.	-----	-----	2.00	-----	-----	1.90	2.00	-	1.99	-	
Total Amount	( in Lac Rs)	23.25	24.89	22.41	92.01	106.28	165.65	228.95	211.39	234.18	126.09	137
Cum. Total	(Period from 1997 to Dec. 17 )	393.33	418.22	440.63	532.64	638.92	803.85	1032.8	1244.10	1478.28	1604.3	1741
												7

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 M. A. Nipane, 10.01  
 CM (Mines)