भारत सरकार

GOVERNMENT OF INDIA पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

क्षेत्रीय कार्यालय, पश्चिम मध्य क्षेत्र, Regional Office (WCZ) Ground Floor, East Wing ''भू-तल पूर्व बिंग''

"New Secretariate Building" न्यू सचिवालय भवन,

Civil Lines, सिविल लाईन्स,

SPEED POST

दूरभाष /Phone: 0712-2531318/19

नागपुर (महा.)/Nagpur-440001 (Mah.)

अणुडाक /E-mail: moefregionalofficenagpur@gmail.com

Dated: 08.12.2015

No: 3-27/2007(Env)/1330

To,
Dr. U. Shridharam,
Director (IA)/Scientist F,
Ministry of Environment, Forest and CC,
Indira Paryavaran Bhawan,
Aliganj, Jor Bagh,
New Delhi-110003

Sub: Meghare Bauxite mine of M/s Shri Manohar V Daryanai at village Meghare tehsil Shrivardhan in District Raigarh in Maharashtra. - regarding.

Ref: Ministry's letter No. J-11015/156/2007-IA. II (M) dated 24.07.2007

महोदय.

मंत्रालय के उपरोक्त संदर्भित पत्रांकों के संदर्भ में उक्त परियोजना को पर्यावरणीय दृष्टिकोण से अनुमित देते समय अनुबद्ध शर्तों के अनुपालन एवं अनुवीक्षण प्रतिवेदन (मॉनिटरिंग रिपोर्ट) एतद् द्वारा संलग्न कर प्रेषित है । अनुवीक्षण प्रतिवेदन मंत्रालय की वेबसाइट पर भी अपलोड की जा रही है । उपरोक्त अनुवीक्षण प्रतिवेदन (मॉनिटरिंग रिपोर्ट) सक्षम अधिकारी (अति.अपर प्रधान मुख्य वन संरक्षक, केन्द्रीय) द्वारा अनुमोदित है।

भवदीय.

संलग्नः उपरोक्तानुसार ।

(डॉ. एस. के. लाल) वैज्ञानिक 'बी'

प्रतिलिपि: 1.Deputy Director (Monitoring Cell), Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhawan, Aliganj, Jor Bagh, New Delhi-110003 – for information and n/a.

2. Shri Rajnikan Pajwani POA Holder, M/s Alatge Stone Crushing Industries, House no. 148, at Arathi, Post & Tal. Shriwardhan, Dist. Raigad – 402110 -Maharahstra- for information.

(डॉ. एस. के. लाल)

वैज्ञानिक 'बी'

Monitoring the Implementation of Environmental Safeguards Ministry of Environment, Forest & Climate Change Western Region, Regional Office, Bhopal MONITORING REPORT PART – I

DATA SHEET

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1.	Project type: River- valley/ Mining/ Industry /	••	Mining			
	Thermal / Nuclear/Other (specify)					
2.	Name of the project	:	Meghare Bauxite Mine, M/s Shri Manohar V.			
	1 3		Daryanani at village Meghare, in district			
			Raigarh in Mahrashtra.			
3.	Clearance letter (s)/OM No. & date	:	J-11015/156/2007-IA.II (M) dated 24.07. 2007			
4.	Location:	:				
	a) District (s)	:	Raigarh			
	b) State (s)	:	Maharashtra			
	c) Latitude/Longitude	:	18°06'03.3" to 18°06'55.8" N. / 73°02'30.7" to			
	,		73°01'52.8" E			
5.	Address for correspondence	:	Jayant Jani, Mine Agent,			
	a. Address of the Concerned Project Chief	:	M/s Manohar V. Daryanai			
	Engineer (with Pin Code & telephone/ telex/		House no. 148, at Arathi,			
	fax numbers)		Post & Tal. Shriwardhan,			
			Dist. Raigad, Mah. – 402110			
	b. Address of the Executive Project Engineer /	:	Krishnat Belewar, Sr. Manager – Env.,			
	Manager (with Pin Code & telephone/ telex/		M/s Alatge Stone Crushing Industries,			
	fax numbers)		Jeevan Udyog Building, 3 rd Floor,			
			278, D.N. Road Fort,			
			Mumbai - 400001			
6	Colient feetures					

6. Salient features

Of the project

Mining Lease over an area of 55.06 ha was granted in favor of Manohar V. Daryanani by Industries Energy & Labor Department Mumbai, Govt. of Maharashtra vide letter no.- MMN/1320/8113/Udyog-9 dated 03.01.2004

Ore	Bauxite
Mining Methodology	Opencast; Other than fully mechanised method
Mine Machinery	Hydraulic excavator, Loader
Haulage/Transportation	Trucks/tippers on hire
Water requirement	15 m³/day
Source of water	Ground and Surface water
Total Minable reserve	1.16 Million tonnes
Rate of Production	0.13 MTPA
Life of mine	6 year

a. Of the EMP

Air Quality Management:Dust is the major pollutant generated from the mining operations. Dust would be generated during mining, control the fugitive dust released during the ore production are given below:

S. No.	Dust Source		Control measure		
1	Haul Road	•	Compaction, gradation and drainage on both sides.		
		•	Proper maintenance.		
		•	Regular water spraying.		
2	Truck Movement	•	No overloading of trucks.		

		 Trucks to be covered with tarpaulin while transporting ore. Enforcing speed limit.
3	Waste dumps	 Terraced dumping and compaction. Plantation on dumps.
4	Mine pit	 Regular water spraying in working areas. Green belt surrounding ML Simultaneous backfilling of completely worked out portions and plantation over the backfilled surface.

Water Pollution control measures:

Following measures are proposed as part of the management plan to check the pollution of surface water bodies due to mining and dumping.

- Proper drainage will be done to divert the Run-off from the mining area to settling ponds to allow settling of solid particles.
- Contour bunding and trenches are proposed to minimize soil erosion.
- Water quality monitoring will be carried out in all the seasons.

The impact on the surrounding water regime can thus be minimized ensuring flow of fairly clean water out of the leasehold area.

Noise Pollution Control:

In an operational mine major noise sources are operation of mine machineries, equipment & plying vehicles. Noise generation may be for an instant, intermittent or continuous periods, with low to high decibels.

The management plan for controlling noise pollution is as given below.

- Selection of suitable machinery and equipment, proper mounting of equipment, providing noise insulation/padding wherever practicable and machinery fitted with properly designed silencers.
- Proper maintenance of noise generating parts of the machine.
- Provision of earmuffs to workers as a measure to protect their ears.

· Thick plantation in and around the mine.

7.	Breakup of the project area a. Submergence area: forest & non-Forest b. Others		Total Area: 55.06 ha Nil Pvt. 55.06 ha
8.	Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers/artisans a. SC, ST/Adivasi b. Others	:	No any population is affected. There is no any adverse impact on Agricultural land or houses or dwelling units.
9.	Financial details: a) Project cost as originally planned and subsequent revised estimates and the year of price reference b) Allocation made for EMP with item wise and year wise break-up c) BC ratio/IRR and the year of assessment d) Whether (C) includes the cost of EM as shown in the above e) Actual expenditure incurred on the project so far f) Actual expenditure incurred on the EMP so far		 a) The Project Cost is Rs. 1.50 Cr. b) Allocation made towards EMP has been provided as Annexed. c) Not Available d) Not Applicable f) Actual expenditure incurred on EMP is given as Annexed.
10.	Forest land requirement a. The status of approval for diversion of forest land for non-forestry use	:	Not Applicable as there is no forest land.

	a. The dates on which the project was monitored	:	19.03.2008
	a. The dates on which the project was monitored by the RO on previous occasions, if any	:	19.03.2008
	b. b) Date of site visits for this monitoring report	:	02.11.2015
15.	Details of correspondence with PA for obtaining act on plans/information on status of compliance to safeguards other than the routine letters for logistic support for site visits.	:	As below
Date		D	ate Reply from PA
Date	e Letter from RO		1
-	•	25	5.06.2013 Six monthly report submit.
-	-	1(0.06.2015 Request for compliance certification
	1.2015 Point wise information called.	25	3.07.2015 Information submitted.

PART - II & III

DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO CONDITIONS OF ENVIRONMENTAL CLEARANCE AND ENVIRONMENTAL MANAGEMENT O.M. No.: J-11015/156/2007-IA.II (M) dated 24.07.2007

i.	The mining operations shall be restricted to	PA assured that mining will not be done up to
	above ground water table and it shall not intersect ground water table. Prior approval of the Ministry and CGWA shall be obtained for mining below water table.	the depth of 5-6 m. The mine is located at hilly area and ground water level is at a depth of 20 m. Thus there is no possibility of intersection o mining with ground water table. Being complied.
ii.	Top soil, if any shall be stacked properly with proper slope with adequate safeguards and shall not be used for reclamation and rehabilitation of mined out area.	It is informed that the entire mine lease area is having laterite capping and the top soi generation is negligible & whenever encountered is being kept at designated place for reclaiming the mined out area. Compliance in progress.
iii.	OB shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and over all slope of the dump shall not exceed 280. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the MOEF on six monthly basis.	The overburden generated is being used to fil the exhausted pit the initial stage. Some of the OB is being stacked. The PA has been advised to maintain the dump and terracing/slop is to be maintained. PA assured that monitoring and management of rehabilitated areas will continue until the vegetation becomes self-sustaining. In the year 2014-15, 500 nos. of saplings are planted within mining lease area of various species mainly— Cashew—Anacardium occidental Jamun—Eugenia Jambolina, Kokam—Artocarpus integrifolia, Jack fruit—Artocarpus heterophyllus. Compliance in progress.
iv.	Garland drains shall be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	During reporting period a garland drain has been constructed around waste dump of length 20 m height 1.5 m and width 1.0 m for control of soil erosion. It is observed that catch drains and check dam are being constructed to arrest silt and sediments flowing from the mining operations. PA has been advised that the drains should be regularly desilted and maintained properly. Agreed to comply with.

V.	The PP shall ensure that no natural water course shall be obstructed due to mining operation.	PA assured that mining will not obstructed natural water course during mining operation. Agreed to comply with.
vi.	Blasting operations shall be carried out only during the day time. Controlled blasting shall be practiced. The drills should be operated with drill extractors. The mitigative measures for control of ground vibrations and to arrest fly rocks shall be implemented.	Controlled blasting operations are carried out as per DGMS and will be done using ANFO Slurry as approved by Explosive department. Being complied.
vii.	Plantation shall be raised in an area of 13 ha including green belt of adequate width by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation.	It is observed that few plantations are being carried out around ML area, haulage road, dumps as per approved mining plan. Only 500 nos, saplings have been planted during 2014 within ML area. PA has been directed to carry out the plantation as per the stipulation and a report be submitted with post mansoon data. Agreed to comply with.
viii.	The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	PA submitted the data of total rainfall in area is 4 m/ year. As per approved mining scheme, the void generation during 5 year plan period will be 4.645 ha. i.e., 46450 sq. m / 5 year, which is 9290 sq. m/per year. The amount of rainwater that would be accumulated in the pits would be 9290 sq. m X 4 m rain water = 37160 cu. m. Considering 50% of the water can be recharged, the total recharge potential would be 18580 cu.m. However no report from Regional director CGWB is submitted during the visit. Partly complied.
ix.	Regular water sprinkling shall be carried in critical areas prone to air pollution and having level of SPM and RSPM such as haul road, loading, unloading and transfer points and other vulnerable area. It should be ensured that the AAQ parameters conform to the norms prescribed by the CPCB in this regard.	Water sprinkling for dust suppression is being carried out on haulage road, loading point and unloading point. It is observed that only one tanker of 12 Kl. Has been used to control fugitive dust emissions by water spraying Compliance in progress.
х.	Regular monitoring of ground water level quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year-pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regular to MOEF, CGA and Regional Director CGWB.	Regular monitoring of water quality and level is being carried out and reports are submitted to MPCB. A comprehensive hydro geological study is also carried out for the entire area by CGWA. The report of the study carried by CGWB is available at http://cgwb.gov.in/District_profile/Maharastra. Compliance in progress.
xi.	Rainwater harvesting measures on long term basis shall be planned and implemented I consultation with Regional Director, CGWB.	The total rainfall in this area is 4 m/year. As per approved mining scheme, the void generation during 5 year plan period will be 0.0994 ha. this may be calculated as 199 sq. m/per year. Considering average pit depth as 5 m after

		backfilling, the void generated will be of 199 cu. m/per year. The amount of rainwater that would be accumulated in the pits will be 796 cu.m. Considering 50% of the water can be recharged, the total recharge potential would be 398 cu.m. However PA has been advised to submit a long term plan in consultation in CGWB. Agreed to comply with.
xii.	Prior permission from the competent authority shall be obtained for drawl of ground water, if any.	PA submitted as per CGWB report of Raigad the entire area falls under safe category with stage of ground water development is 23.20%. CGWB guidelines for abstraction of ground water dated 15.11.2012 states that prior permission from Competent Authority for drawl of water for Industrial usage below 100 m³/day is not required. The withdrawal of 17 KLD of water for dust suppression and gardening purpose. Agreed to comply with.
xiii.	Existing ecological status of the project area shall be conserved and protected. The project proponent should take all possible precautionary measures during mining operation for conservation and protection of endangered fauna.	PA submitted that no endangered flora/fauna are present in the area. As such no scientific study has been carried out nor has any action plan been prepared.PA has been advised to carry out scientific study as stipulated in consultation with state forest and wildlife department and submit a report within 3 months time. Agreed to comply with.
xiv.	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.	Total 12 - 20 vehicles are used in mining and transportation and are maintained on regular basis to have emission under control. All the vehicles are made mandatory to carry PUC certificate. Transportation of ore is being done through tarpaulin covered trucks only and there is no overloading of trucks. Compliance in progress.
XV.	A comprehensive report on the details of land oustees, their socio-economic profile and action plant for their rehabilitation including formation of self help groups who can facilitate promotion of economic opportunity for local indigenous people shall be submitted for record.	Not applicable.
xvi.	The company shall implement occupational health and safety measures for the workers and engage a qualified doctor who is trained in occupational health surveillance.	Periodic health checkup of workers is carried from authorized Medical practioner and records are maintained at site. Occupational Health Surveillance of the employed 20 workers is being done periodically to observe any contraction due to exposure to dust and records are maintained. PPEs like helmet, safety shoe, dust mask, ear plugs etc. are provided to workers. Training & awareness for using these PPEs is being provided to workers on regular basis. Being complied.

xvii.	The base map of the ML area along with revenue map confirming that the ML area does not fall under CRZ shall be submitted to the Ministry.	PA informed that already submitted. Being complied.
xviii.	A final mine closure plan, along with details of corpus fund, shall be submitted to the MOEF 5 years in advance of final mine closure for approval.	The life of mine is 10 years. Agreed to comply with.
GENE	ERAL CONDITIONS:	
i.	No change in mining technology and scope of working shall be made without prior approval of the MOEF.	Agreed upon.
ii.	No change in the calendar plan including excavation, quantum of mineral bauxite ore and waste shall be made.	Agreed to comply with.
iii.	Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.	PA submitted that no endangered flora/fauna are present in the area. No scientific study has been carried out nor has any action plan been prepared in compliance. PA has been advised to carry out scientific study as stipulated in consultation with state forest and wildlife department and submit a report within 3 months time. Agreed to comply with.
iv.	Four AAQ monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO2, NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the SPCB.	PA submitted that Four monitoring stations are selected as suggested in consultation of MPCB. One ambient air quality monitoring stations is established in core zone viz., Mine pit. Similarly 4 stations are established in buffer zone i.e. Kurwade Village, Maral Village, Devghar Village and Bhattichamaal Village. The data has been submitted with six monthly reports. Compliance in progress.
٧.	Data on AAQ (RPM, SPM, SO ₂ NOx) should be regularly submitted to the Ministry including its RO located at Bhopal and the MPCB/CPCB once in six months.	Data on ambient air quality is regularly monitored and recorded. The data has been submitted with six monthly reports. Compliance in progress.
vi.	Fugitive dust emissions for all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.	It is observed that only one tanker of 12 Kl. Has been used to control fugitive dust emissions water spraying on the haulage roads loading and unloading and at transfer points. Compliance in progress.
vii.	Measures shall be taken for control of noise level below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs/muffs.	PA assured that adequate measures are being taken to minimize the noise level by doing regular maintenance of all machineries. Plantation is done along the periphery of mining lease area. Workers engaged in noisy area are provided with PPEs. Being complied.
viii.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19.05.1993 and 31.12.1993 or as amended	No workshop established within the mining lease. Maintenance of all the vehicles and machineries are done at Shriwardhan in private garages. Waste water from the mine is not discharged into surface water and diverted to

	from time. Oil and grease trap shall be installed before discharge of workshop effluents.	settling pond to Being complies	recharge the wa	ater level.
ix.	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	PA informed that personnel working in dust areas are being provided with respiratory device like masks and goggles and also are provide with PPEs. Being complied.		
X.	Occupational health surveillance program of workers shall be undertaken periodically to observed any contractions due to exposure to dust and take corrective measures, if needed.	Periodic health checkup of workers is carried from authorized Medical practioner and record are maintained at site. Occupational Health Surveillance of the employed 20 workers is being done periodically to observe any contraction due to exposure to dust and record are maintained. Being complied. PA informed that separate EMC is opened headed by Sr. Environment Manager who is directly reporting to head of the organization. PA has been advised to employ technically educated persons with experience to look after environment. Agreed to comply with. This is an ongoing project. Agreed to comply with.		
xi.	A separate environment management cell with suitable qualified personnel shall be set-up under the control of a senior executive, who will report directly to the head of the organization.			
xii.	The PA shall inform to the RO located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.			
xiii.	The funds earmarked for environmental protective measure shall be kept in separate account shall not be diverted for other purpose. Year wise expenditure shall be reported to the	protection work expenditure occ	arked for Environments is kept separate turred for above s Rs. 3,16,750/-	ely. The
	Ministry and its RO located at Bhopal.	Particular of the job	Capital Exp.	Recurring Cost. (Rs.)
		Afforestation & Aftercare	Nil	20,000/-
		Settling Ponds	Nil	15,000
		Environmental	Nil	1,00,000/-
		Monitoring		33,747,247
		Dust Suppression	Nil	1,60,750/-
		Others (Road	Nil	21,000/-
		maintenance)	. 111	21,000/-
		TOTAL	/	3,16,750/-
		Compliance in	progress.	
xiv.	The PA shall inform to the RO located at Bhopal regarding date of financial closure and final approval of the project by the concerned authority and the date of start of land development work.	At present not applicable.		
XV.	The RO of the Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The PA should extend full	Agreed.		

	cooperation to the officer (s) of the RO by furnishing the requisite data/information/monitoring reports.	
xvi.	A copy of clearance letter will be marked to concerned panchayat/ local NGO, if any, from whom suggestion/representation has been received while processing the proposal.	PA submitted that a copy of the EC has been marked to concerned Panchayat / local NGO, Complied.
xvii.	SPCB should display a copy of the EC letter at the RO, district industry centre and collector's office/Tehsildar's Office for 30 days.	Pertains to MPCB.
xviii.	The project authorities should advertise at least in two local newspapers widely circulated, on of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded EC and a copy of the clearance letter is available with the SPCB and also at web site of the MOEF at http://envfor.nic.in and a copy of the same shall be forwarded to the RO Bhopal.	PA has published in two local newspapers of the area "Danik Lokmat" & "Daily Sagar" Raigad on 30.07.2007. However the EC accorded on 24.07.2007 Complied.
5.	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment of Environment (P) act, 1986.	Agreed.
6.	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (P) Act, 1986.	Agreed upon.
7.	The above conditions will be enforced interalo under the provisions of the water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, The Environment (Protection) Act, 1986 and the Public liability Insurance Act, 1991 along with their amendments and rules.	Agreed.

SUMMERY NOTE:

- 1. Implementation of Conditions: It is inferred from the above that the implementations of environmental safeguards some are found satisfactory and some compliance are in improvement stage are to be taken up as per stipulations and fully complied with. PA has been advised for implementation is to be taken up in the spirit of EC compliance and most care is to be given to the vital conditions like top soil management, reclamation and ground water monitoring, green belt development, drains preparation and submission /uploading of six monthly compliance reports as per the stipulation.
- 2. Review w.r.f to MOEFs letter dated 30.5.2012: The above mentioned report is prepared after site visit on 02.11.2015 for the proposed expansion of Bauxite Mining from 0.075 MTPA to 0.13 MTPA which is planned to enhance production within the existing facilities at Meghare Bauxite Mine of M/s Shri Manohar V. Daryanani, Raigad located in village Meghare, District Raigad, Maharashtra for which TOR is being granted vide letter dated 13.02.2015.

- 3. Court Cases and show cause/closure notices: PA submitted that there is no court case against the project during last 3 years and show cause notice issued by the MPCB U/s 26 of water (P&CP) Act 1974 & 21 of Air (P &CP) Act, 1981 & Hazardous Wastes (MHTM) Rules, 2008, on 12.02.2015 & reply was submitted by M/s Shri Manohar V. Daryanani, dated 18.03.2015
- 4. **Uploading of compliance on web site:** With regard to uploading of EC and compliance of conditions along with analytical reports on the web site of the company, PA has agreed to upload the same. However, Ministry may like to take up the matter with PA during presentation of expansion project.

Scientist 'B