

**GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT**

Letter No.11542 /GP/TSiPASS/SNG/2018,

Dated:30.01.2019.

Sir,

Sub:- Telangana State Ground Water Department – M/s Everest Organics Limited - Permission for withdrawal of Ground Water – Ground Water Investigation Report - Submitted – Reg.

Ref:- 1. CAF of M/s Everest Organics Limited, Aroor Village, Sadasivpet Mandal, Sangareddy District.
Unique ID No.MIC024004016303.
Pre-Scrutiny completed dated:28.12.2018.

2. LR.No.2058/GWD/T/2016-17, dt:29.01.2019, of the District Ground water Officer, Ground Water Department, Sangareddy.

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With reference to the subject and reference cited, it is to submit that, the District Ground Water Officer, Ground Water Department, Sangareddy has conducted groundwater investigations in the extent of 141640.10.80 Sq.mts of land bearing Survey no.38, 38a, 39, 40, 40a, M/s Everest Organics Limited, located in Aroor Village, Sadasivpet Mandal, Sangareddy District to study the feasibility for extraction of 270 KLD of ground water and submitted the report to the undersigned vide reference 2nd cited.

After scrutiny of the report, the permission is hereby accorded for withdrawal of 230 KLD (125+105 already permitted) ground water from earlier recommended borewells (Vide Lr.No.GWD/T/2058/2014-15, dated:15.07.2015) against the requirement of 270 KLD for the firm subject to the following terms and conditions.

- The firm is permitted to draw the 230 KLD of water from earlier recommended borewells.
- The Firm must fix flow meter to maintain daily ground water withdrawal and keep the record for inspection and also send to District Ground Water Office once in six months.
- Suitable Rainwater Harvesting Structures must be constructed at proposed locations in the premises to augment rainwater and recharge to ground water.
- The Government of Telangana reserves the right to stop from using of ground water during emergencies or whenever the plant deviates the terms and conditions.
- The Firm must conduct pumping test once in every six months and preserve the data for inspection by authorities.
- The Firm must establish observation wells and they should monitor the water levels once in a month (last week of a month) and quality twice a year (Pre and Post monsoon periods) and record the data for further technical use.
- The Firm must send half yearly reports on the above studies regularly to the District Ground Water Officer, Ground Water Department, Sangareddy.

- The effluents must be treated properly and must be free from all toxic materials. Colour and turbidity harmful to human beings, plants and animals.
- The effluents before or after treatment must not be let out into any surface or groundwater bodies. Used water must be recycled for reuse.
- Officers of Ground Water Department must be allowed to inspect the wells, plant area, and data whenever found necessary by the Department.

The investigation report is herewith uploaded in to the TSIPASS web portal for necessary further action. As per TSIPASS webportal payment of Rs.26000/- is paid by online, but not yet received to this office. Please arrange to send the investigation charges to the undersigned.

Yours faithfully,


DIRECTOR

Copy to District Ground Water Officer, Ground Water Department, Sangareddy.

**GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT**



***A REPORT ON GROUND WATER INVESTIGATION IN THE PREMESIS OF M/S
EVEREST ORGANICS LTD AT AROOR VILLAGE, SADASIVPET MANDAL,
SANGAREDDY DISTRICT.***

Dt: 28-01-2019.

DEPUTY DIRECTOR
GROUNDWATER DEPARTMENT
SANGAREDDY

**A REPORT ON GROUND WATER INVESTIGATION IN THE PREMESIS OF M/S
EVEREST ORGANICS LTD AT AROOR VILLAGE,SADASIVPET MANDAL,
SANGAREDDY DISTRICT.**

INTRODUCTION:

As per the Common Application Form (CAF) with UID No. MIC024004016303 of TSiPASS application received from the Director, Ground Water Department, the groundwater investigations were carried out in the premises of M/S Everest Organics Ltd, Aroor Village, Sadasivpet Mandal bearing Survey No.38, 38a, 39, 40, with an extent of 142651.80 sq.mt. The management of the industry requires 270 KLD for the industry and drinking purpose.

LOCATION:

The study area is located 1.7 km North - West of the Aroor Village, Sadasivpet Mandal. The scheme area falls in Survey of India Toposheet No 56G/14. The Geo-Coordinates of the site are Lat: 17°38'42.10"N & Long: 77°51'48.00"E.

PHYSIOGRAPHY AND DRAINAGE:

The area is plain with general slope towards North. The drainage in the study area exhibits dendritic to sub-dendritic pattern with moderate density.

CLIMATE:

The study area exhibits the semi-arid climate and the temperatures in the winter are cool ranging from 10°C to 28°C and in the summer the temperatures are hot ranging from 30°C to 45°C. The normal rainfall in the study area is 736 mm. The area receives 75 % of the rainfall through south west monsoon.

SOIL TYPE & CROPPING PATTERN:

The scheme area is covered with Black Cotton Soils. The thickness of the soil varies from 1m to 3 m. It is observed that the general crops grown in the area are Cotton and Vegetables.

HYDROGEOLOGICAL SET UP OF THE SURVEYED AREA:

Pink Granites exposed in the area are classified stratigraphically under the Archaean Group of rocks. The observed texture is Coarse grained. From the well inventory, it is observed that the depth of weathering extends from 3 to 20 m followed by semi weathered and fractured

zones. The groundwater occurs under water table as well as semi confined conditions in the weathered and fractured zones.

WELL INVENTORY:

During the field visit, one existing bore well is observed in surroundings of the M/s Everest Organics Ltd, Aroor Village. The reported depth to water level in the area is 16 mbgl. The details of the well inventory in and around the investigated area is furnished in the following table-I.

Table-I Details of the Well Inventory in Surroundings of the Scheme Area

Sl. No.	Well inventory (Existing Borewells) Geo-Coordinates	Depth (m) & Dia(mm)	Water Level (m.bgl)	Yield of the borewell	Remarks
1	Farmer 17°38'41.2"N 77°51'32.2"E	100/165	16	1500 GPH	

DEPTH TO WATER LEVELS:

The depth to water level in the piezometer of Sadasivpet Village and Mandal is recorded as 16.09 m bgl during the month of September 2018. Water level fluctuations of pre and post monsoon seasons of eleven years i.e. from 2007 to 2018 are showing decline trend furnished in the figures -1 and 2

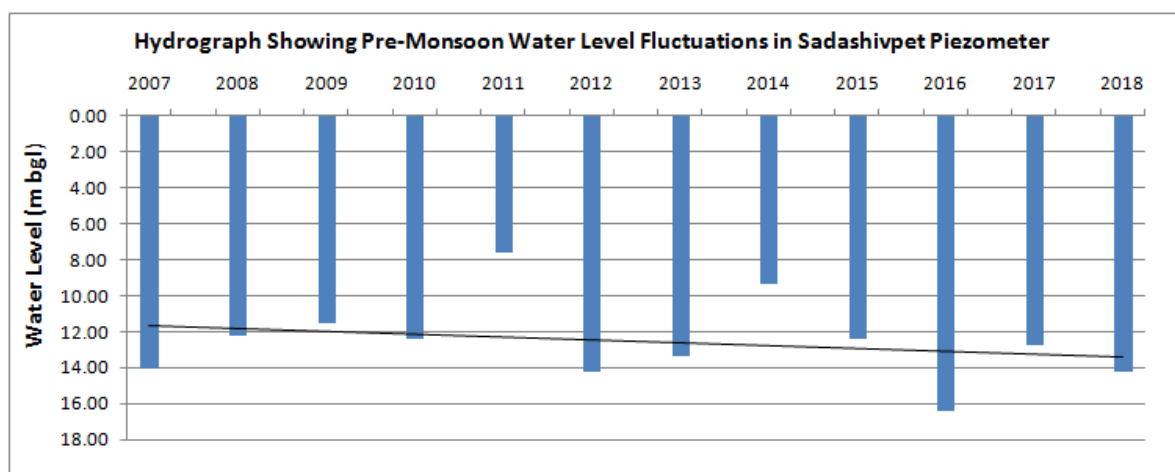


Fig-1 Hydrograph Showing Pre-Monsoon Water Level Fluctuations in Sadasivpet Piezometer.

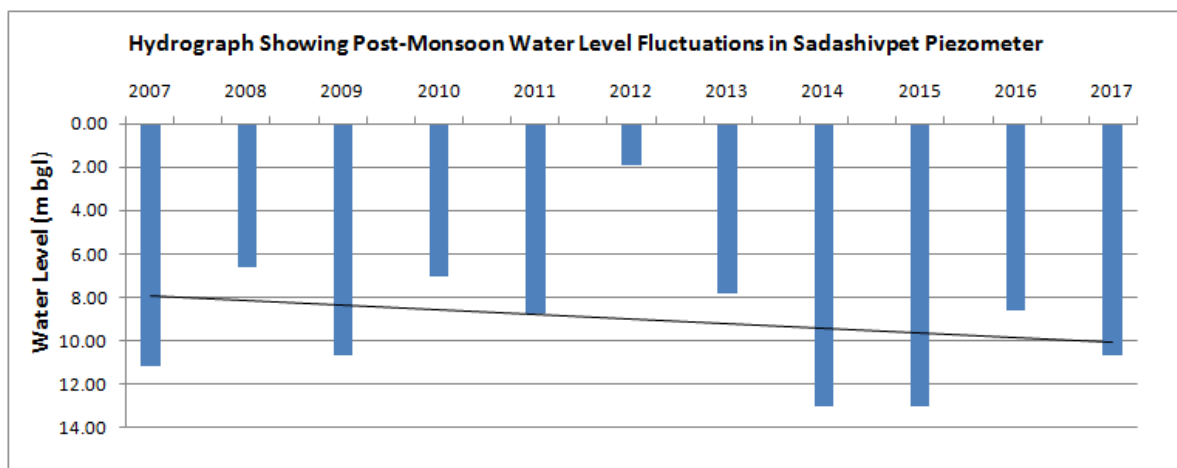


Fig-2 Hydrograph Showing Post-Monsoon Water Level Fluctuations in Sadasivpet Piezometer.

QUALITY OF THE WATER:

The Analytical report of the water samples collected from the Piezometer of Sadasivpet Village and Mandal during post-monsoon, 2017 is given in the following table - II. The major parameters of the water sample of Sadasivpet Piezometer are falling under the permissible limits except the Nitrate content is slightly high. However, this water has to be pre-processed before using for the drinking purpose.

Parameters	pH	TDS mg/l	CO ₃ -2 as CaCO ₃ mg/l	HCO ₃ - as CaCO ₃ mg/l	Cl - mg/l	F - mg/l	NO ₃ as N ₂ mg/l	SO ₄ -2 mg/l	Na+ mg/l	K+ mg/l	Ca+2 mg/l	Mg+2 mg/l
BIS Limits	6.50 to 8.50	500-2000	200-600	200-600	250-1000	1.0-1.5	45	200-400	No Guidelines	No Guidelines	75-200	30-100
	7.45	1285	0	327	360	0.92	155	33	215	6	144	44

TABLE-II: Analytical data of the Water Sample collected from the Piezometer of Sadasivpet Village during post-monsoon, 2017.

DYNAMIC GROUNDWATER RESOURCE ESTIMATION:

Ground Water Department has been conducting periodical exercise to estimate the basin wise ground water resource, draft and balance, and the stage of ground water development (extraction). The M/s Everest Organics Ltd, Aroor Village, Sadasivpet Mandal are falling in the Mdk-E-Mjr-Munipally-NC sub basin. As per the Ground Water Resource Estimation for the base year 2012-13, the Village and Sub Basin are categorized as “Safe” accordingly with 35%, and 33% of stage of ground water development (extraction) respectively. Details are given in the following tables – III & IV.

TABLE-III

Name of the Village	Resource in Ha.m	Draft in Ha.m	Balance in Ha.m	% of Development	Category
Aroor	68	23	45	33	Safe

TABLE-IV

Name of the Basin	Resource in Ha.m	Draft in Ha.m	Balance in Ha.m	% of development	Category
Mdk-E-Mjr-Munipally-NC	1178	418	760	35	Safe

YIELD TEST:

The ground water department has accorded permission earlier wide Lr.No.GWD/T/2058/2014-15. Dt: 15-07-2015. The M/S Everest Organics Ltd is having four borewells in their premises yield test has been conducted on each borewell to assess the discharge of the borewells. The details are as follows.

Sl. No.	Well inventory (Existing Borewells) Geo-Coordinates	Depth (m) & Dia(mm)	Water Level (m.bgl)	Yield of the borewell	Remarks
BW1	17°38'29.30"N 77°51'46.40"E	120/165	18.23	7200 LPH	
BW2	17°38'38.10"N 77°51'47.60"E	67/165	13.44	6900 LPH	
BW3	17°38'36.70"N 77°51'54.00"E	92/165	14.30	7200 LPH	
BW4	17°38'43.00"N 77°51'45.90"E	110/165	11.10	7500 LPH	

The static water level of each bore well has measured before conducting the yield test. One hour yield test has been conducted. The replenishment of each bore well also observed after 30 minutes of conducting the yield test and the water level of BW:1 is 17.81 mbgl, BW: 2 is 13.05 mbgl, BW: 3 is 14.21 and BW:4 is 10.95 mbgl.

RECHARGE STRUCTURES:

- Two recharge pits of 5x5x3 m are recommended surrounding to the BW2 and BW3.
- One recharge pit of 10x5x3 is recommended in the open space opposite to the Administrative block.
- One Percolation Tank 20x10x3 m is recommended beside the BW4.

The roof top rain water collected through pipes should be released into the above recommended recharge structure and the waste water which is let out after purification should be diverted into the above recharge structures, so that the water table is maintained in sustainable condition.

CONCLUSIONS AND RECOMMENDATIONS:

The ground water department has accorded permission to use 105 KLD of Ground water previously vide Lr.No.GWD/T/2058/2014-15. Dt: 15-07-2015. The firm has again applied for 270 KLD as they are going for expansion. The survey has been carried out in the premises of Ms. Everest Organics Ltd. Based on the field survey it is observed that the firm is having four bore wells in their premises. The measured yields of these borewells are as follows BW1: 7200 LPH, BW2: 6900 LPH, BW3: 7200 LPH and BW: 7500 LPH. The total yield from the borewells with 8 hours pumping is 230 KLD. It is recommended to use 230 KLD of groundwater against 270 KLD.

TERMS AND CONDITIONS:-

1. Rain Water Harvesting Structure must be constructed at the recommended location in the premises of the industry in which roof top rain water should be released to augment groundwater.
2. The firm is restricted to use 230 KLD of groundwater from their premises.
3. The firm should take conscious steps so as not to pollute ground water in and around the scheme area and will be liable for suitable punitive action for damage to the aquifer if any.
4. Pumping tests must be conducted periodically by the party on the well recommended and data should be sent to the concerned District Ground Water Officer, Ground Water Department in the District.
5. Observation wells must be established by the party and they should be monitored for the water levels once in a last week of a month and quality twice a year (Pre and Post monsoon seasons) and record the data.

6. Half yearly reports on the above must be sent by the party to the concerned District Ground Water Officer, Ground Water Department.
7. Artificial recharge structures capable of recharging twice the quantum of ground water extracted by the plant must be constructed in or on the upstream side of the plant area/ outside the plant area and must be properly maintained by the industry.
8. Officers of the Ground Water Department must be allowed to inspect the wells, plant area, recharge structures and data whenever found necessary by them.
9. The recommendations hold good subject to the normal rainfall conditions and stage of ground water development (extraction) in the area.
10. The Government of Telangana / Ground Water Department reserve the right to stop the plant from using ground water during emergencies or whenever the plant deviates from the terms and conditions.
11. The party has to give their consent to the above terms and conditions within a week compliance regarding grounding of the recommendations and terms and conditions within a month or receipt of the report/ recommendations.


DEPUTY DIRECTOR
GROUND WATER DEPARTMENT
SANGAREDDY

GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT

From,
Sri. K. Venkatewara Rao B.E, Civil
Deputy Director,
Ground Water Department,
Sangareddy

To,
M/s Everest Organics Limited
Konapur Post
Aroor Village
Sadashivpet Mandal
Medak District

Lr. No. GWD/T/2058/ 2015-14. Dt: 15-07-2015.

Sir,

Sub:- Deputy Director- Ground Water Department -Medak District at
Sangareddy- Single Window Clearance - furnishing of ground water
investigation Report of M/s Everst Organics , Aroor Village of Shashivpet
Mandal, Medak District - Reg.

Ref:- Lr.No. 3166/HII/2015, 30.06.2015.From Joint Director & HOD Ground
Water Department Hyderabad

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I am herewith enclosed the report on the recommendations of the ground water
investigations carried out to M/s Everst Organics, Aroor Village of Shashivapet Mandal,
Medak District, bearing Sy.No.377, with an Extent of 33.00Acres. It is restricted to
use 105kld ^{o}} ground water requirement for industry only

Yours faithfully,

Encls: - Investigation report along with location map.

Deputy Director

Copy to the Copy submitted to the Commissioner of Industries, Govt of Telangana Chirag Ali
Lane for information.

Copy to The Joint Director, & HOD Ground Water Department, Hyderabad for information



GOVERNMENT OF TELANGANA
GROUNDWATER DEPARTMENT,

**A REPORT ON GROUND WATER INVESTIGATIONS FOR SELECTION
OF BORE WELLS IN THE PREMESIS OF M/S EVEREST ORGANICS
LIMITED SITUATED AT AROOR VILLAGE, SADASHIVPET MANDAL,
MEDAK DISTRICT.**

Dt: 14-07-2015.

OFFICE OF THE DEPUTY DIRECTOR
GROUND WATER DEPARTMENT
SANGAREDDY.

**A REPORT ON GROUND WATER INVESTIGATIONS FOR SELECTION OF BORE WELLS
IN THE PREMESIS OF M/S EVEREST ORGANICS LIMITED SITUATED AT AROOR
VILLAGE, SADASHIVPET MANDAL, MEDAK DISTRICT.**

INTRODUCTION: At the instance of the Joint Director, Ground Water Department, Medak at Sangareddy, Vide reference. Lr. No. 3166/HGII/2015, Dt:30/6/2015 proceeded to field on 03.07.2015 to carry out the Hydrogeological and Geophysical investigations in the premises of M/S Everest Organics Limited with an Extent of 33 Acres being situated in Aroor Village Sadasivpet Mandal, Medak District. The Scheme Area falls in the survey of India Topo Sheet No. 56 G/14. The management of the industry requires 105 kld of water both for domestic as well as for Industrial use.

Location: The study area is located 2.5 kms West of Aroor Village, Sadasivpet, Mandal with the Lat: 17°38'31.2" Long: 77°51'44.7" and the Village is located to the South of Medak District.

Climate: The study area exhibits the semi-arid climate and the temperatures in the winter are cool ranges from 10°C to 28°C and in the summer the temperatures are hot ranges from 30°C to 43°C. The Normal rainfall in the study area is 816 mm and the area receives 75 % of the rainfall through south west monsoon.

Physiography and Drainage: The study area is covered by block cotton soil underlain by laterites of Deccan traps, stratigraphically the study area has been classified under Deccan Trap group of rocks. The observed texture of the exposed rocks is to medium grained. The study area is covered by Brown to Block Cotton soils whose thickness is ranging from 1.5 to 2.0mtrs. The study area exhibits plain to slopy topography and exhibits subdentrific drainage pattern and the drainage density is moderate.

Hydrogeological set up of the surveyed area:

The study area is covered by Block Cotton soils and the thickness of the soil varies from 1.5m to 2.0m. From the well inventory it is observed that the depth of weathering extends from 1.5m to 15m followed by Semi weathered and Fractured Zones. The yield of the existing borewells in the Aroor Village ranges from 1000 to 1500 Gph.

Well Inventory: - A bore well is functioning at the adjacent 300 mts of distance in 2 Acres of land which belongs to the industry i.e. M/s Everest Organics Limited and there are no irrigation as well as drinking water wells as per WALTA.

Quality of Water : The Analytical report of water sample No's Collected from the Sadasivpet Peizometer during the month of June - 2014, indicates that all the parameters are within the permissible limits.

GEC: As per the ground water estimation-2010-11, the stage of development of the Aroor Village, Sadasivpet, Mandal is 38% and the village falls under Safe category and the assessment unit of the village fall in Mdk-E-Mjr-Municipally-NC. Ground Water Basic As per GEC the total Ground Water availability of the village is 83 Ha.m and the ground water draft in the village is 32 Ha.m.

Recharge Structures: The following structures to be taken up on priority basis to sustain the Ground Water table in the vicinity.

- (1) A trench at west side in the premises with the dimension of 100x2x2 mts.
- (2) A percolation tank at North-East corner is recommended.

Conclusions and Recommendations: Based on the field Investigation it is observed that the depth of Weathering and fracture zone is found to be potential at Ves. No.(8), Ves No. (3) and Ves No. (5) as per as ground water point of view is concern. Based on all favorable recharging conditions and sub surface findings three site are recommended for the construction of Bore Wells. The anticipated yield of the Bore Wells at Ves. No. (8) is 1000 Gph, Ves. No. (3) is 1000 Gph and Ves. No. (5) is 1000 Gph. By keeping 7 hours pumping a day the draft of the ground water may be 110 KLD . As the requirement of M/s. Everest Organics. Ltd. is 105 KLD it is restricted to use only 105 KLD only. All the recommended

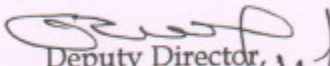
borewell sites may be constructed with recharging pits on priority basis to sustain ground water table. The activity may be considered very important prior to the ground water draft from the study Area.

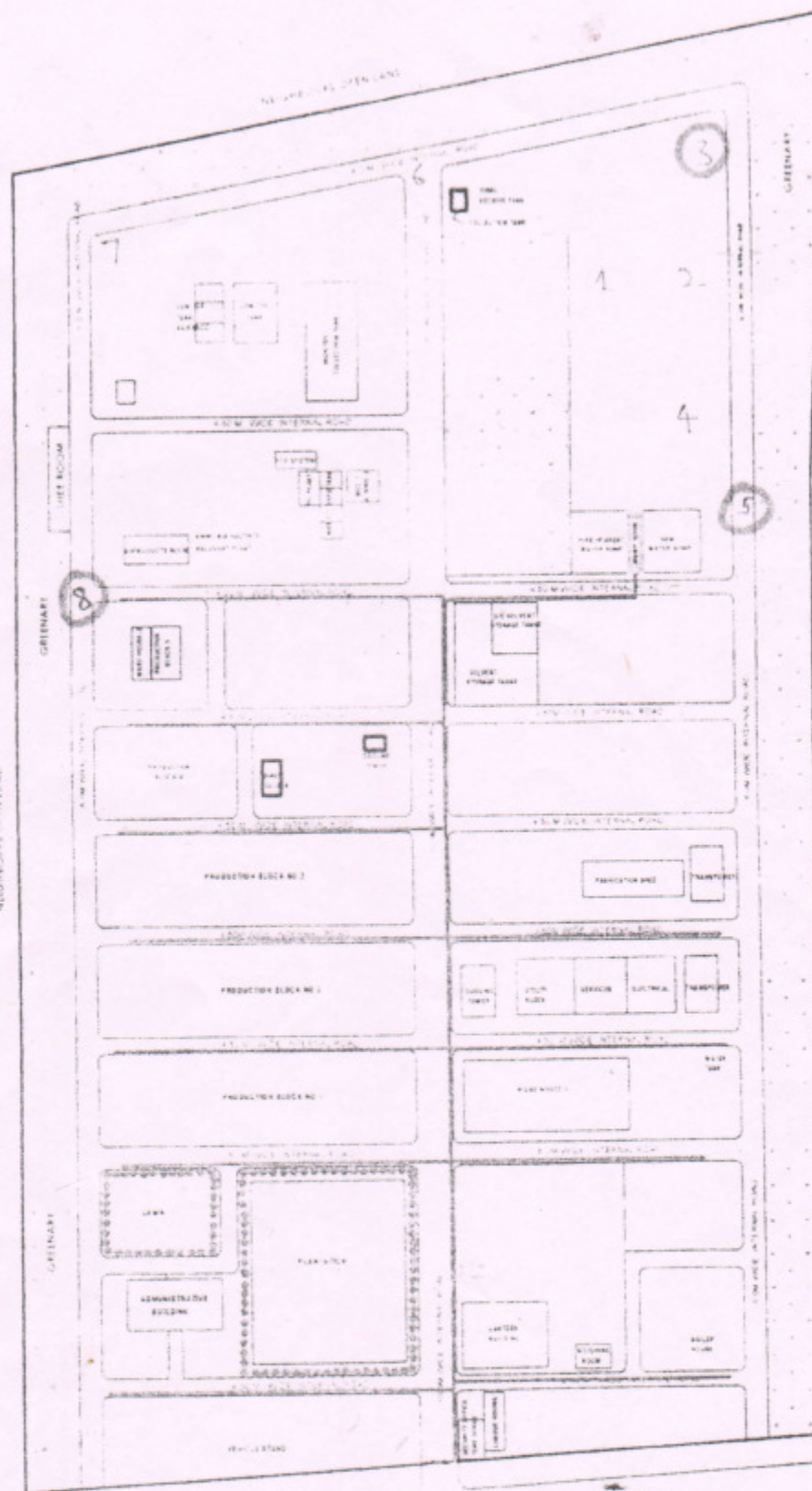
Sl.No.	Ves No.	Location of the Recommended site.	Dia of B.W. in mm	Casing in mts	Depth in mts	Anticipated yield
1.	(3)	North East corner of Plant area.	165 mm	20 mts	70 mts	1000 Gph
2.	(5)	East side of the Plant.	165 mm	20 mts	70 mts	1000 Gph
3.	(8)	West side of the plant nearby products area.	165 mm	20 mts	100 mts	1500 Gph

TERMS AND CONDITIONS:-

1. The wells must be pumped for the recommended numbers of hour / day with recommended discharge.
2. Pumping tests must be conducted by the party on all the wells recommended and data sent to the concerned deputy director, Ground Water department in the district.
3. Observation wells must be established by the party and they should monitor the Water levels once a month last week of a month) and quality twice a year (Pre and post monsoon period) and record the data.
4. Half yearly reports on the above must be sent by the party to the concerned District Deputy Director, Ground Water Department.
5. The effluents must subject to the preliminary treatment should be free from all toxic materials, colour, odour and turbidity harmful to human beings, plants and animals.
6. The effluents before or after treatment must not be let out into any surface or ground water bodies..
7. The harvesting structure should be taken up in priority basis to augment the ground water recharge and maintained properly.
8. Artificial recharge structures capable of recharging twice the quantum of ground water extracted by the plant must be constructed in or on the upstream side of the plant area/ outside the plant area and must be properly maintained by them.
9. Officers of the Ground Water Department must be allowed to inspect the wells, plant area, recharge structures & data whenever found necessary by them.

10. The recommendations hold good subject to the normal rainfall conditions and stage of ground water development in the area.
11. The Government of Telangana / Ground Water Department reserve the right to stop the plant from using ground water during emergencies or whenever the plant deviates from the terms and conditions.
12. The party has to given their consent to the above terms and conditions within a week compliance regarding grounding of the recommendations and terms and conditions within a month or receipt of the report/ recommendations.


Deputy Director, 12/7/15
Ground Water Department/
Sangareddy.



1-8 = YES
Conduct

3-5-8 = YES
Recommend

EXI. SITE PLAN

PLAN SHOWING THE EXISTING M/S EVEREST ORGANIC
ON SY.NO. 38,39 AND 40 BY AROOR GRAM ANCHAYAT,
SADASIVPET(M),MEDAK -DIST. (SITE PLAN)