

**CHHATTISGARH STATE POWER
TRANSMISSION COMPANY LIMITED (CSPTCL)**

**DGPS Survey of Forest Patches for Diversion
Proposal of Forest Land in Surajpur district for
132KV DCSSEHT Transmission Line from
Vishrampur to Parsa**



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DGPS SURVEY AND GIS MAPPING DONE BY:
Geotrax International Services
Raipur, Chhattisgarh.



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1. Introduction and Background

Government of India, Ministry of Coal has allotted Parsa East & Kente Basen Coal block situated at Village: Parsa, Tehsil-Udaipur, Distt-Surguja to M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited for fulfilling the requirement of Coal for Thermal Power Stations situated at Kalisindh & Chhabra in the State of Rajasthan.

Further to the above approvals, for fulfilling the power requirements at PEKB Open cast Coal Mines, Chhattisgarh State Power Distribution Company Limited has sanctioned 15MVA Load Requirement vides letter no: 02-02/EE-IV/BLS-309/4473 dated 21/03/2013. Further Chhattisgarh State power Transmission Company limited Raipur has approved the final Route of transmission line from 220/132kv Substation situated at Vishrampur, Dist.-Surguja to 132/33kV substation situated at Village: Parsa. Total Route length of transmission line is 80.4kms (approx.).

132kV Vishrampur-Parsa Transmission line passes through two Districts, i.e. Surajpur & Surguja, and five tehsils of these districts. It passes through two forests Division; Surajpur Forest Division, Surajpur & Surguja forest Division Ambikapur.

In Surajpur forest Division, Transmission line passes through two forests ranges i.e. Surajpur forest Range & Ramanujnagar/Premnagar forest Range. Total Revenue forest land proposed to be diverted in the Surajpur Division is 15.766 Ha.

In Surguja forest Division, Transmission line passes through three forest ranges i.e. Ambikapur, Lakhanpur & Udaipur Forest Ranges, Total Revenue forest land proposed to be diverted in this division is 3.619 Ha.

This transmission line only Infringing REVNEUE FOREST LAND, and there is no Reserved and Protected forest land in the proposed transmission line corridor.

Total Forest land proposed for diversion is 19.385 Ha.

Specially designed towers are used for transmission line passing through the forest patches such that the ground clearance of bottom conductor is above 14 meters.

This Project will overcome all the drawbacks of existing power system, since this proposed land is best located for the incoming & Outgoing Vishramapur-Parsa transmission line with proper road Connectivity. This Project will also fulfill the Electrical Connectivity for upcoming power requirements.

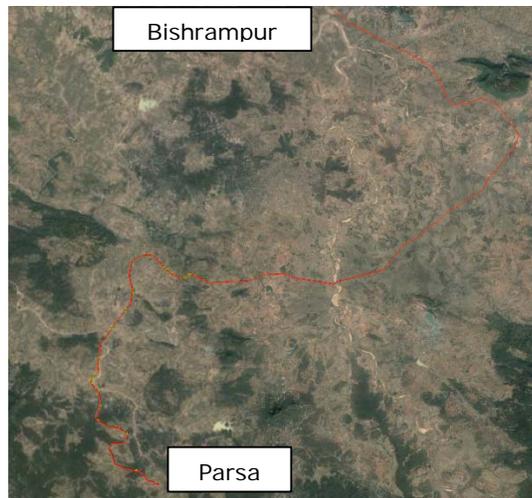


Fig-1: 132KV Transmission Line Corridor on Satellite Imagery

As per directives of Ministry of Environment & Forests dated 8th July 2011; all applications seeking diversion of forest land for non-forest purpose under Forest Conservation Act, 1980 must be accompanied with Geo-referenced shape file (both soft copy and hard copy maps) of the forest land proposed for diversion prepared using Differential GPS (DGPS).

To meet this requirement of MoEF, CSPTCL entrusted the DGPS survey work to M/s Geotrax International Services, Raipur, which is specializing in such assignments.

2. Scope of Work

1. Establishment of one base station for DGPS Survey and temporary benchmarks at every 10km.
2. Fixation of corridor boundary point by DGPS (Boundary point fixed at every corner and turning point. It also includes
 - a. DGPS survey to collect the 132KV Pylon/Tower coordinates
 - b. DGPS Survey of revenue forest khasra boundaries
3. Data processing and Interpretation
 - a. Geo-referencing of cadastral map and identification of revenue forest khasras
 - b. Creation of Tower centerline layer using DGPS coordinates and creation of conductor corridor
 - c. Superimposition of Tower corridor layer on Georeferenced cadastral maps
 - d. Creation of forest patches (comprise one or more adjoining forest khasras) from the Geo-referenced cadastral maps and computation of forest area of individual forest patches, per village
 - e. Preparation of Geo-referenced forest map and creation of an area statement showing proposed area for forest diversion
 - f. Preparation of DGPS survey report along with soft copy of – maps in shapefile format and kml file
4. Printing of report and Geo-referenced maps (7sets) and Technical compliance.

3. Deliverables

The deliverables envisaged for the assignment are described below

1. Post processed DGPS observations data as well as raw data in RINEX format.
2. DGPS Reports - Base line & network adjustment report for the primary and temporary benchmarks.
3. Geo-referenced cadastral maps & forest block maps (for PF/RF areas, if any) based on DGPS observations.
4. Geo-reference shape file (Soft copy) of Forest Patches, tower ceterline and conductor corridor.
5. Area statement as per DGPS Survey showing proposed area for forest diversion
6. DGPS Survey and mapping report

4. Brief description of the Technical approach

4.1 Input Data

The land plan and maps required for geo-referencing were provided by Sarguja Rail Corridor Private limited to M/s Geotrax International Services. The certified revenue maps and No Objection Certificate (NOC) (pertaining to revenue forest land) is given by honorable District Collector of Surajpur and Surguja Districts. This NOC was used to identify the revenue forest khasras falling in the transmission line corridor.

न्यायालय, कलेक्टर, जिला सूरजपुर

क्रमांक २२/वाचक/२०१५

रा०प्र०क० १७ बा १२१/१४-१५
सूरजपुर, दिनांक २०/०५/२०१५

:: अनापत्ति प्रमाण पत्र ::

कार्यपालक अभियंता, अडवा-निर्माण-संभाग: हर विपारेकलर्या: कोरबा को गेसर्द राजस्थान राज्य विद्युत उत्पादन लिमिटेड को आर्दित कोल ब्लोक गरसा पूरा एल केते बासेन तक, बाम सतपता (दिशामपुर) से १३२ केंव्ही.डी.सी.एस.एस.ई.एच.पी. ७९ कि०मी० विद्युत लाईन निछाले जाने की स्वीकृति प्राप्त होने पर, उपरोक्त प्रस्तावित विद्युत लाईन बिछाले जाने से बाम तेलईकछार तहसील सूरजपुर, पार्यतीपुर, उमेश्वरपुर, जयपुर, सुन्दावन, सरस्वतीपुर, शिवनगर एच सलका तहसील प्रेमनगर के बामे में स्थित अनूसूची-१ में अंकित, प्रभावित राजस्व वन भूमि को रैर वानिकी उपयोग हेतु अनापत्ति प्रमाण पत्र चहा गया है-

:: अनुसूची -१::

क्र.	ग्राम का नाम	तहसील	असय नम्बर	कुल रकबा हे० मी०	कमक ४ में अंकित रकबा में से उपयोग हेतु नांग की रायी भूमि का रकबा हे.मै.	भूमि का किसम
१	तेलईकछार	सूरजपुर	१९५२	०.६७०	०.२५०	छोटे झाड़ का जंगल
			१	०.६७०	०.२५०	
२	पार्यतीपुर	प्रेमनगर	४१८	१०.०००	०.६१३	छोटे झाड़ का जंगल
			४९१	०.५७०	०.१०९	छोटे झाड़ का जंगल
			४९२	०.०५०	०.०२८	छोटे झाड़ का जंगल
			४९८	०.३८०	०.०७०	छोटे झाड़ का जंगल
			४९९	२.६२०	०.१९७	छोटे झाड़ का जंगल
			४६९	०.३६०	०.०९१	छोटे झाड़ का जंगल
			४७१	०.६७०	०.०९६	छोटे झाड़ का जंगल
			५४४	०.१६०	०.१०५	छोटे झाड़ का जंगल
			५४६	०.०८०	०.०२८	छोटे झाड़ का जंगल
			५५१	०.२६०	०.०२७	छोटे झाड़ का जंगल
			६०३	०.६९०	०.१०९	छोटे झाड़ का जंगल
			६०९	०.६००	०.१९०	छोटे झाड़ का जंगल
			६१६	०.०४०	०.०२९	छोटे झाड़ का जंगल
			७६६	०.६५०	०.१४०	छोटे झाड़ का जंगल
			२५३६	३.६००	०.१०३	छोटे झाड़ का जंगल
			२५३७	३.५८०	०.१९४	छोटे झाड़ का जंगल
			२५६४	१.१७०	०.१३६	छोटे झाड़ का जंगल
२६२१	२.१३०	०.०५८	छोटे झाड़ का जंगल			
२६२५	०.७००	०.११५	छोटे झाड़ का जंगल			
२६३४	३.३६०	०.५२७	छोटे झाड़ का जंगल			
२६३५	२.०८०	०.०४५	छोटे झाड़ का जंगल			
२६४१	०.७८०	०.०८४	छोटे झाड़ का जंगल			
	योग	२२	२६.१७०	३.१९८		
३	उमेश्वरपुर	प्रेमनगर	६७५	०.२३०	०.१६३	छोटे झाड़ का जंगल
			९९०	०.०००	०.३१६	छोटे झाड़ का जंगल
			१२५३	०.५५०	०.११६	छोटे झाड़ का जंगल
			१७५७	०.११०	०.०६१	छोटे झाड़ का जंगल



			1759	0.480	0.096	छोटे झाड़ का जंगल
			1783	0.530	0.116	छोटे झाड़ का जंगल
			1784	0.100	0.032	छोटे झाड़ का जंगल
		योग	7	2.060	0.620	
4	जयपुर	प्रेमनगर	297	0.470	0.094	छोटे झाड़ का जंगल
			295	5.050	0.684	छोटे झाड़ का जंगल
			7	3.020	0.288	छोटे झाड़ का जंगल
			14	0.300	0.086	छोटे झाड़ का जंगल
			13	0.140	0.085	बड़े झाड़ का जंगल
			25	0.790	0.282	बड़े झाड़ का जंगल
			56	0.300	0.021	बड़े झाड़ का जंगल
			57	1.350	0.320	बड़े झाड़ का जंगल
			59	0.720	0.005	बड़े झाड़ का जंगल
		योग	9	12.940	1.587	
5	बूढावन	प्रेमनगर	369	1.160	0.036	बड़े झाड़ का जंगल
			369/1028	0.470	0.169	बड़े झाड़ का जंगल
			497	0.030	0.030	छोटे झाड़ का जंगल
			534	0.030	0.021	छोटे झाड़ का जंगल
			415	0.090	0.016	छोटे झाड़ का जंगल
			444	3.500	0.153	छोटे झाड़ का जंगल
			445	0.190	0.112	छोटे झाड़ का जंगल
			479	0.970	0.067	छोटे झाड़ का जंगल
			533	0.060	0.040	छोटे झाड़ का जंगल
			593	0.220	0.044	छोटे झाड़ का जंगल
			456	4.380	0.418	छोटे झाड़ का जंगल
			658	2.130	0.107	छोटे झाड़ का जंगल
			655	0.270	0.089	छोटे झाड़ का जंगल
			659	0.220	0.091	छोटे झाड़ का जंगल
		योग	14	13.720	1.293	
6	सरस्वतीपुर	प्रेमनगर	140	6.590	0.218	छोटे झाड़ का जंगल
			144	4.110	0.610	छोटे झाड़ का जंगल
			145	1.180	0.105	छोटे झाड़ का जंगल
			146	6.550	0.347	छोटे झाड़ का जंगल
			148	0.590	1.174	छोटे झाड़ का जंगल
			203	4.220	3.557	छोटे झाड़ का जंगल
			285	0.500	0.052	छोटे झाड़ का जंगल
			297	1.510	0.112	छोटे झाड़ का जंगल
			319	0.370	0.081	छोटे झाड़ का जंगल
		योग	9	25.590	2.196	
7	शिवनगर	प्रेमनगर	3	0.040	0.040	छोटे झाड़ का जंगल
			441	0.750	0.275	छोटे झाड़ का जंगल
			457	0.550	0.187	छोटे झाड़ का जंगल
			570	0.550	0.239	छोटे झाड़ का जंगल
			64	2.140	0.204	छोटे झाड़ का जंगल
			65	0.650	0.270	छोटे झाड़ का जंगल
			37	1.320	0.204	छोटे झाड़ का जंगल
			589	0.110	0.039	छोटे झाड़ का जंगल
		योग	8	6.590	1.458	
8	सलका	प्रेमनगर	31	19.170	0.121	छोटे झाड़ का जंगल
			38	3.640	0.408	छोटे झाड़ का जंगल



	39	1.070	0.138	छोटे झाड़ का जंगल
	70	1.350	0.039	छोटे झाड़ का जंगल
	82	0.500	1.728	छोटे झाड़ का जंगल
	86	0.750	1.149	छोटे झाड़ का जंगल
	97	17.400	0.928	छोटे झाड़ का जंगल
	287	10.150	0.910	छोटे झाड़ का जंगल
	2957	6.400	0.350	छोटे झाड़ का जंगल
	329	24.320	0.666	छोटे झाड़ का जंगल
	337	2.050	0.718	छोटे झाड़ का जंगल
योग	11	95.020	5.164	
कुल योग	81	104.760	15.766	

उपरोक्त धुंगे की जांच करके अनुविभागीय अधिकारी सूरजपुर से प्रतिवेदन प्राप्त किया गया। अनुविभागीय अधिकारी द्वारा प्रतिवेदन किया गया है कि उपरोक्त प्रस्तावित भूमि को गैर वाणिज्यीक प्रयोजन हेतु व्यपवर्तित किये जाने से कोई आपत्ती नहीं है।

अतः अनुसूची -1 में अंकित कालम नम्बर 4 के अलावा एच कालम नम्बर 5 में अंकित रकबा में से प्लान नम्बर 6 में अंकित रकबा, कुल रकबा 15.766 हे० भूमि को वन संरक्षण अधिनियम 1980 के तहत गैर वाणिज्यीक प्रयोजन हेतु उपयोग करने हेतु व्यपवर्तन की अनुमति यदि किसी संकम विभाग द्वारा दिया जाता है तो, राजस्व विभाग को कोई आपत्ति नहीं है।


कलेक्टर

जिला-सूरजपुर,छ०ग०
सूरजपुर दिनांक /06/2015

पृ०कमांक /वाचक/2015
प्रतिशोध-

1. मुख्य वन संरक्षक (भू प्रबंध) कार्यालय मुख्य वन संरक्षक छ०ग० अरुण भावन मेडिकल कालेज रोड रायपुर की ओर सूचनाई।
2. वन मंडलाधिकारी सूरजपुर वनमंडल की ओर सूचनाई।
3. कार्यपालन अभियंता,अउदा-निर्माण-संभाग:छटाविपरकमर्या: कोटा को सूचनाई।




कलेक्टर 27/15/15
जिला- सूरजपुर,छ०ग०

4.2 GIS Data Preparation

Based on the input data (maps, tower details) and information provided by *Revenue Department of Surguja and Surajpur*, the DGPS base station - Primary and Temporary Benchmarks Control Points (PCP and TBM) in the project area are planned. One PCP with 72 hours observation was planned and established on the roof top of the Forest Department Guest House (Shiv Park), Surajpur. Using satellite imagery TBM are planned at an average of every 10km distance along the 132 KV Towerline.

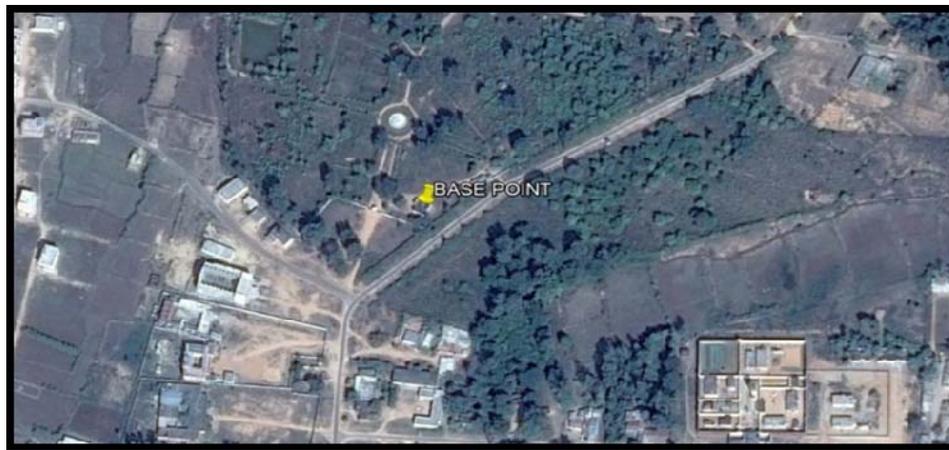


Fig-2: Satellite Image showing the location of the Primary Control Point

4.3 Establishment of Primary Control Point

The Primary Control Point (PCP) with 72 hours of DGPS Observation was established as the DGPS base station. The PCP was established in the roof top of the Forest Department Guest House (Shiv Park) in Surajpur. As per Survey of India (SOI) Guideline, the PCP is to be fixed through continuous observation for 72 hours duration. The 72 hours of observation was carried out using DGPS from 21stJan 2016 to 23rdJan 2016. The observed data was processed with reference to the data of International GNSS Service (IGS) stations as per SOI guideline (IGS processed report is enclosed as Annexure-1).

The coordinate of the PCP is as follows:

Latitude: N23°12'52.39830", Longitude: E82°52'59.05540"

Easting: 692697.708m, Northing: 2568519.766m (as per UTM Zone 44N)

Elevation (EGM2008): 546.155m, Ellipsoidal Height: 486.573 m.



Fig-4: Images showing Primary Control Point (PCP)

4.4 Establishment of Temporary Benchmarks (TBM)

The Temporary Control Point with 4-6 hours of static observation was established at an average of 10km distance on near permanent locations along the 132 KV tower corridor. All the TBM's are connected to the Primary Control Point (PCP).

Below table lists the coordinates of TBMs:

Point Id	Latitude	Longitude	Ellipsoidal Height (m)	Easting (m)	Northing (m)	EGM96 Height (m)
TBM_1	23°10'38.71605"N	082°56'58.19404"E	492.0627	699552.2575	2564496.97	551.55108
TBM_2	23°04'54.85331"N	083°05'34.66846"E	518.3599	714393.7152	2554122.17	577.69118
TBM_3	22°59'13.05503"N	082°56'30.45343"E	504.9623	699043.6476	2543393.73	564.74607
TBM_4	22°52'35.94602"N	082°47'30.32419"E	441.1331	683809.4341	2530982.78	501.27169



4.5 DGPS Survey

DGPS survey was carried out using a pair of DGPS instrument. One DGPS Instrument was used as Base Station. The Base station for the survey was established at the nearest TBM. The distance between the Base Station PCP/TBM and rover was always less than 5km.

The other DGPS instrument was working as Rover. The survey was conducted in Real Time Kinematic (RTK) mode. The Survey team carried out DGPS Survey of 132KV tower centerline by walking along the corridor. DGPS readings were collected at every 50m distance along 132KV transmission line and at prominent locations such as culverts, bridges etc. were recorded. For Geo-referencing village maps on an average of 10 GCPs were collected for each village.

The static data is Post Processed using Trimble Business Centre software for obtaining the TBM coordinates.

4.6 Creation of Vector Layers of the 132KV Transmission Line

The power line centerline points captured through DGPS were plotted in the GIS Software and the centerline was created by joining the points. Along with power line centerline, the corridor points captured using DGPS were also plotted and the corridors were created. Several DGPS points (TBM) taken at prominent near-permanent locations were also plotted. After editing the layers, the final centerline and Tower line corridor is created as per the requirement of CSPTCL.

4.7 Geo-referencing of cadastral map

The Ground Control Points (GCP) fixed through DGPS survey were used to geo-reference the digitized cadastral maps by applying the co-ordinate value of the field observation to the corresponding point on the map.

Table of DGPS Surveyed GCP's for Geo-referencing Cadastral Maps					
Sl.No.	Name of the Village	Northing (m)	Easting (m)	Latitude	Longitude
1	Bankipur	2555104.798	714263.696	23°5' 26.848" N	83°5' 30.596" E
2	Bankipur	2555104.731	714263.73	23°5' 26.845" N	83°5' 30.597" E
3	Bankipur	2555214.596	713991.612	23°5' 30.542" N	83°5' 21.093" E
4	Bankipur	2555748.261	714062.544	23°5' 47.853" N	83°5' 23.853" E
5	Bankipur	2555828.688	714339.502	23°5' 50.337" N	83°5' 33.623" E
6	Bankipur	2556112.58	714224.304	23°5' 59.617" N	83°5' 29.719" E
7	Bankipur	2555603.132	714325.38	23°5' 43.014" N	83°5' 33.013" E
8	Bankipur	2555683.812	714321.712	23°5' 45.637" N	83°5' 32.925" E
9	Bankipur	2555979.453	715067.252	23°5' 54.897" N	83°5' 59.265" E
10	Bankipur	2555385.877	715298.063	23°5' 35.499" N	83°6' 7.073" E
11	Bankipur	2555263.635	715290.435	23°5' 31.530" N	83°6' 6.744" E
12	Brindawan	2539130.2	682536.367	22°57' 1.279" N	82°46' 49.125" E
13	Brindawan	2539584.379	682463.857	22°57' 16.071" N	82°46' 46.773" E
14	Brindawan	2539559.404	682199.751	22°57' 15.363" N	82°46' 37.492" E
15	Brindawan	2539565.941	682113.89	22°57' 15.609" N	82°46' 34.481" E
16	Brindawan	2539569.875	681799.038	22°57' 15.861" N	82°46' 23.432" E
17	Brindawan	2539397.094	681259.719	22°57' 10.456" N	82°46' 4.429" E
18	Brindawan	2539488.471	680760.588	22°57' 13.621" N	82°45' 46.948" E
19	Brindawan	2539659.536	682733.588	22°57' 18.408" N	82°46' 56.272" E
20	Brindawan	2539627.388	682753.048	22°57' 17.355" N	82°46' 56.941" E
21	Brindawan	2539465.819	683485.392	22°57' 11.814" N	82°47' 22.577" E
22	Brindawan	2539523.262	683585.425	22°57' 13.641" N	82°47' 26.113" E
23	Brindawan	2539740.87	683717.985	22°57' 20.662" N	82°47' 30.859" E
24	Brindawan	2540322.608	684031.6	22°57' 39.447" N	82°47' 42.116" E
25	Brindawan	2540325.044	683984.373	22°57' 39.545" N	82°47' 40.460" E
26	Brindawan	2540348.502	683940.348	22°57' 40.325" N	82°47' 38.924" E
27	Brindawan	2540378.864	683871.793	22°57' 41.339" N	82°47' 36.531" E
28	Brindawan	2540448.107	684009.531	22°57' 43.535" N	82°47' 41.395" E
29	Brindawan	2540448.262	684009.411	22°57' 43.540" N	82°47' 41.391" E
30	Brindawan	2540635.156	682970.041	22°57' 50.027" N	82°47' 4.988" E
31	Brindawan	2540529.667	682717.036	22°57' 46.698" N	82°46' 56.062" E
32	Brindawan	2539627.388	682753.048	22°57' 17.355" N	82°46' 56.941" E
33	Brindawan	2539465.819	683485.392	22°57' 11.814" N	82°47' 22.577" E
34	Brindawan	2539523.262	683585.425	22°57' 13.641" N	82°47' 26.113" E
35	Brindawan	2539740.87	683717.985	22°57' 20.662" N	82°47' 30.859" E
36	Brindawan	2540322.608	684031.6	22°57' 39.447" N	82°47' 42.116" E

4.8 Creation of Forest Patches

After application of geometric corrections (geo-referencing of cadastral), and overlaying the 132KV power line corridor layer, the forest patches were extracted from individual cadastral map (as per land schedule revenue forest and non-forest khasra are identified) along with computation of DGPS coordinates of forest land patch boundary.

The geo-referenced forest land map (showing forest patches) was prepared by integrating the geo-referenced cadastral map sheets and 132KV power line vector layers (tower centerline along with corridor).



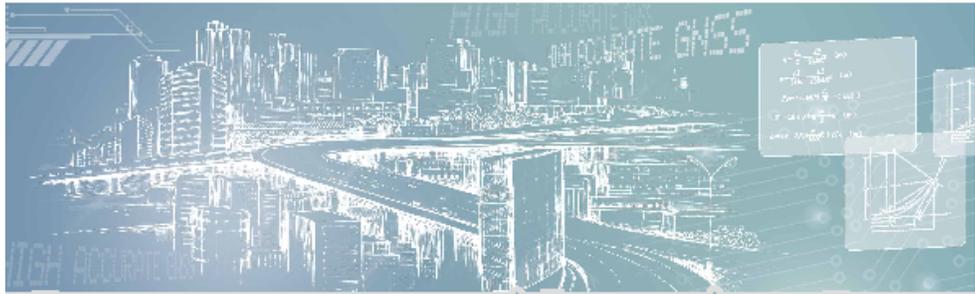
Fig-2: Image showing DGPS Survey alignment of 132KV transmission line on cadastral map of Village Parvatipur in Surajpur district.

4.9 Specification of DGPS Equipment

Geotrax deployed the most advance and hi-precision devices to carry out the DGPS survey. The DGPS performance specifications are given below. The corresponding fact sheets are placed below for ready reference.

COMNAV

T300 GNSS Receiver





RTK robust enough for challenging environments, in a device that is light and easy to carry

With decades of experience in the surveying GNSS receiver, the T300 is a product which combines lots of market proved advantages together. It can track all the working GNSS constellations. By using ComNav's unique QUAN™ algorithm technology, it can function in RTK mode with all the GNSS constellations or by using any single GNSS constellation such as GLONASS or BeiDou. The strong anti-interference ability of the receiver makes it possible to work in any environment.

Design driven to improve user experience

Our R&D people are always thinking about how to improve the physical experience of users and workflow in the field. With this in mind, the T300 integrates a cutting edge GNSS board, Bluetooth®, UHF (Rx&Tx) into a compact board. Smart design makes the T300 the lightest and smallest (volume) receiver in the world.

Features

- *Ultra small*
- *Super light*
- *Many user-friendly conveniences built in*
- *GPS L1/L2/L5, BeiDou B1/B2/B3, GLONASS L1/L2*
- *Low power consumption*
- *Support long baseline E-RTK**

Hot swap battery design

Extending the field working time is also a passion for our R&D people. They do lots of tests and analysis to reduce the power consumption, and make the whole system work more efficiently. In parallel, they've designed in the capability to hot swap the battery source. When the warning sounds and LED flashes, put your second battery in place. Then recharge the first while you keep working.

Consumer grade batteries... always available

Losing power in the field is significantly inconvenient for users, as the batteries for GNSS receivers are often unusual types and not readily available. Once again our R&D people developed a solution so that the T300 runs on normal consumer batteries.

Technical Specifications

T300

Signal Tracking

- 256 channels with simultaneously tracked satellite signals
- GPS: L1 C/A, L1 C, L2 P, L5
- BeiDou: B1, B2, B3
- GLONASS: L1, L2
- SBAS: WAAS, EGNOS, MSAS, GAGAN

Performance Specifications

- Cold start: <50 s
- Warm start: <30 s
- Hot start: <15 s
- Initialization time: <10 s
- Singal re-acquisition: <2 s
- Initialization reliability: >99.9%

Positioning Specifications

- Post Processing Static
 - Horizontal: 2.5 mm + 0.5 ppm RMS
 - Vertical: 5 mm + 0.5 ppm RMS
- Real Time Kinematic
 - Horizontal: 8 mm + 1 ppm RMS
 - Vertical: 15 mm + 1 ppm RMS
- E-RTK¹ (baseline<100 km)
 - Horizontal: 0.2 m + 1 ppm RMS
 - Vertical: 0.4 m + 1 ppm RMS
- Code differential GNSS positioning
 - Horizontal: 0.25 m+ 1 ppm RMS
 - Vertical: 0.5 m + 1 ppm RMS
- SBAS: Typically <1 m 3D RMS
- Standalone: <1.5 m 3D RMS

Communications and Memory

- 1 Serial port (7 pin Lemo), Baud rates up to 921,600 bps.
- Radio modem: Tx/Rx with full frequency range from 410-470 MHz²
 - Transmit power: 0.5-2W adjustable
 - Range: 1-4 km
- Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz
- 5 LEDs (indicating Power, Satellite Tracking, Bluetooth[®] and Differential Data)
- Bluetooth[®]: V 2.X protocol, work compatible with Windows 7, Windows mobile and Android

Data Format

- Correction data I/O:
 - RTCM 2.x, 3.x, CMR (GPS only), CMR+ (GPS only).
- Position data output:
 - ASCII: NMEA-0183 GSV, RMC, HDT, VHD, GGA, GSA, ZDA, VTG, GST, PJK, PTNL
 - ComNav Binary update to 20 Hz

Physical

- Size(WxH): 15.8 cm x 7.5 cm
- Weight: 0.95 kg (include 2 batteries)

Environmental

- Operating temperature: -40 °C to +65 °C (40 °F to 149 °F)
- Storage temperature: -40 °C to +85 °C (40 °F to 185 °F)
- Humidity: 100% condensation
- Waterproof and dust proof: IP67 protected from temporary immersion to depth of 1 meter, floats
- Shock: survives a 2 meter drop on to concrete

Electrical

- Input Voltage: 5-27 VDC
- Power consumption: 2.85 W (3 constellations)³
- Li-ion battery capacity: 2 x 1800 mAh, up to 8 hours typically
- Memory: 256 MB internal with up to 16 GB pluggable memory card

Software

- ComNav field data collection software CGSurvey
- Carlson's SurvCE field data collection software (optional)
- MicroSurvey's FieldGenius field data collection software (optional)

¹ E-RTK, BeiDou B3 signal used in RTK calculate engine; concern the current situation, this mode can be used in APAC.

² 410-470 MHz, 3 frequency range, 410-430, 430-460, 460-470, need to clarify when place the order.

³ Power consumption will increase if using internal radio modem transmitter.

Specifications subject to change without notice.

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5. Results

The forest area proposed for diversion is computed from the Geo-referenced map and the area of each Revenue Forest Khasra was compared with the village ROR data given by Revenue Department. DGPS Survey processing report and co-ordinates of the PCP are in Annexure-1, and DGPS coordinates of TBM and 132KV transmission line Centerline coordinates is in Annexure-2. The geo-referenced co-ordinates of forest land patches for each village is in Annexure -3.

The area statement is given in the following below tables:

Total Forest Diversion Area Summary

Area Statement of Forest Area proposed for diversion			
Sl.No.	District Name	Revenue Forest Area as per NOC (Ha)	Revenue Forest Area calculated through DGPS Survey (Ha)
1	Surguja	3.619	3.619
2	Surajpur	15.766	15.766
	TOTAL	19.385	19.385

Forest Diversion Area Details in Surajpur District

Sl.No	District	Tehsil	Village	Khasra Number	Type Of Land	Proposed Area (Ha)
1	Surajpur	Premnagar	Brindawan	645	Revenue Forest	0.089
2				648		0.107
3				533		0.04
4				503		0.044
5				466		0.418
6				469		0.091
7				479		0.067
8				444		0.153
9				445		0.012
10				415		0.016
11				369		0.036
12				369/1028		0.169
13		534	0.021			
14		497	0.03			
15		Premnagar	Jaipur	13	0.085	
16	56			0.021		

Sl.No	District	Tehsil	Village	Khasra Number	Type Of Land	Proposed Area (Ha)
17				7		0.288
18				14		0.088
19				15		0.282
20				57		0.32
21				297		0.094
22				295		0.404
23				59		0.005
24				2635		0.045
25				2634		0.527
26				2624		0.115
27				2621		0.038
28				2544		0.136
29				2536		0.163
30				2537		0.194
31				438		0.07
32				443		0.197
33				431		0.103
34				418		0.613
35		Premnagar	Parvatipur	469		0.091
36				2641		0.084
37				766		0.14
38				471		0.096
39				611		0.19
40				603		0.189
41				546		0.038
42				544		0.105
43				551		0.027
44				614		0.009
45				432		0.028
46				97		0.928
47				86		0.149
48				84		0.528
49				70		0.039
50				33		0.321
51		Premnagar	Salka	38		0.408
52				39		0.138
53				287		0.919
54				295		0.35
55				329		0.666
56				337		0.718
57				319		0.081
58		Premnagar	Saraswatipur	297		0.112
59				283		0.557
60				285		0.092

Sl.No	District	Tehsil	Village	Khasra Number	Type Of Land	Proposed Area (Ha)
61				144		0.61
62				140		0.118
63				145		0.105
64				146		0.347
65				148		0.174
66		Premnagar	Shivnagar	37		0.204
67				64		0.204
68				65		0.27
69				441		0.275
70				570		0.239
71				467		0.187
72				589		0.039
73				3		0.04
74		Surajpur	Telaikachhar	1952		0.25
75		Premnagar	Umeshwarpur	1253		0.118
76				1757		0.061
77				1759		0.096
78				1783		0.116
79				1784		0.052
80				875		0.163
81				920		0.014
Total Area						15.766

Non-Forest Area statement in Surajpur district

Sl.No	District	Tehsil	Village	Proposed Area (Ha)
1	Surajpur	Surajpur	Keshabnagar	0.162
2			Satpata	4.661
3			Kunjnagar	4.922
4			Jaynagar	4.464
5			Telaikachhar	5.973
6			Kailashpur	3.95
7			Paraspara/Amapara	3.712
8		Premnagar	Saraswatipur	2.33
9			Parvatipur	4.899
10			Umeshwarpur	11.000
11			Jaipur	3.437
12			Brindawan	5.489
13			Salka	12.414
14			Shivnagar	9.184
Total Non-Forest Area (in Ha)				76.597



6. Background of Organization

6.1 Company Profile: Geotrax

Geotrax International Services (www.geotrax.in) is a Professional Land Mapping and Services provider across India established in the year 1999. During the last 14+ years, we had an opportunity to execute a variety of surveying jobs all over India and in the Middle East to various customer specifications for RIS, LIS, and Municipal GIS oriented jobs. Cadastral Surveys using ETS/DGPS and Provision of Ground control conforming to stringent accuracy standards using high end instruments as RTK/GPRS DGPS is our specialty. We also have a UAV (Drone) and Ground Penetrating Radar (on Roaster).

Geotrax is headed by Mr. V.V.S Bandhakavi (Ex-Survey of India employee) who has more than 40+ years' experience in the field of surveying in India and abroad.

Some of our major clients include:

- Odisha Space Application Centre (ORSAC)
- Steel Authority of India (SAIL)
- National Thermal Power Corporation (NTPC)
- Survey Settlement and Land Records Department (Govt. Of Gujarat)
- Survey Settlement and Land Records Department (Govt. Of Madhya Pradesh)
- Irrigation Dept. (Govt. of Jammu and Kashmir)
- National Remote Sensing Agency (Hyderabad)
- Meinhardt India Private Limited (Delhi),
- Nagarjuna Construction Company (NCC, Hyderabad)
- Consulting Engineering Services (CES, New Delhi)
- Lee Associates of South Asia (LASA, Delhi)
- Power development Corporation (Govt. of Jammu and Kashmir)

Geotrax expertise covers:

- ❖ DGPS Surveys for Mining lease boundary, and Forest Diversion
- ❖ Consultancy services for Mining Plan & EIA
- ❖ Boundary and cadastral surveys using DGPS and Total station;
- ❖ Topographic surveys.
- ❖ Ground control surveys for photogrammetric projects, including Airborne GPS.
- ❖ Only one of the two companies in India who are empanelled by NRSA for DGPS survey for ground control point collection
- ❖ Route and alignment surveys combining conventional and photogrammetric methods.
- ❖ Construction and cross-section surveys (from road design to precision layout and quality control).

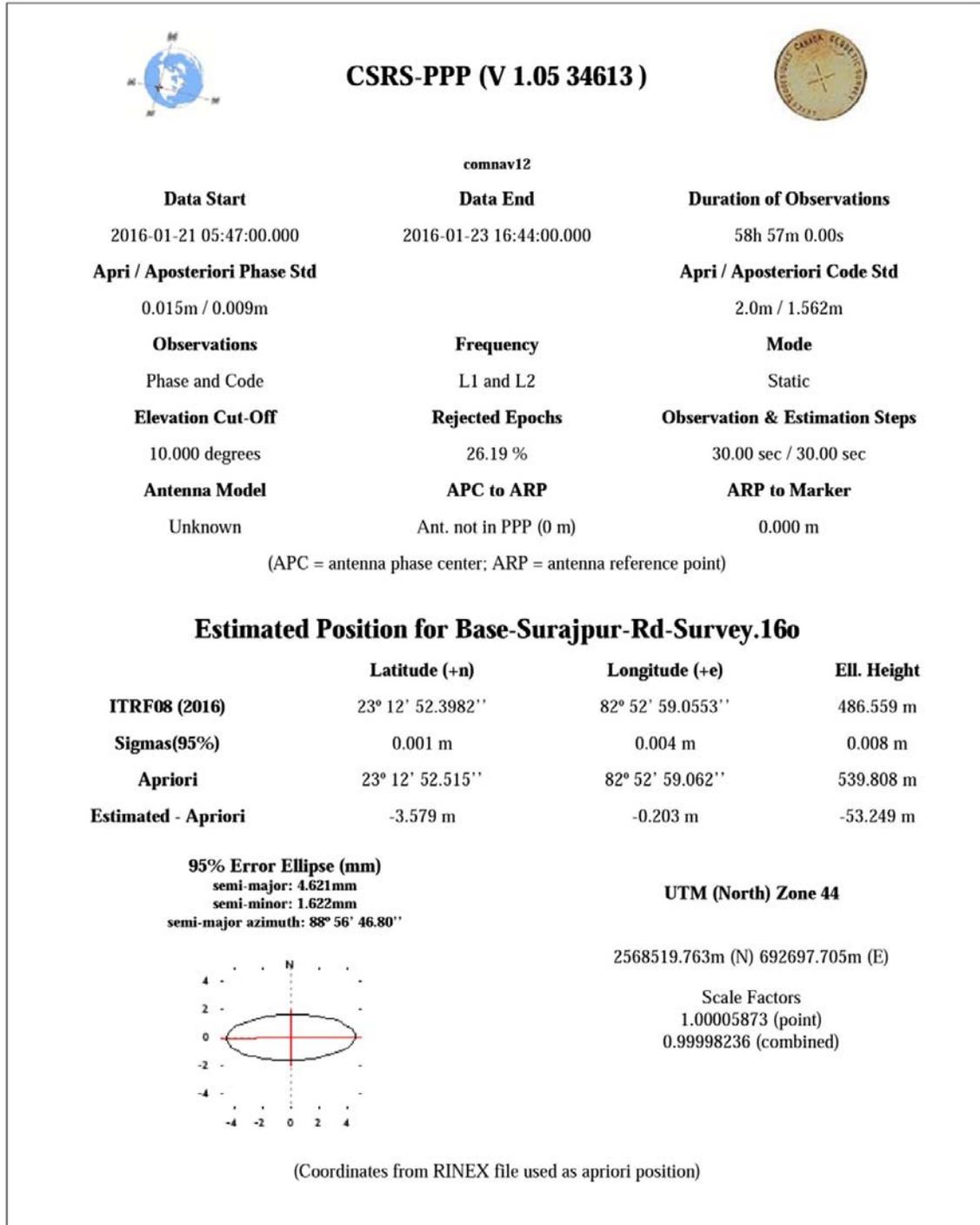


Being a client focused organization, Geotrax's combination of survey equipment, personnel, and computer resources allow for the tailoring of the project approach to match the orders of accuracy and precision requirements for each project. Geotrax's equipment resources include 250 DGPS, 33 hand-held GPS units, theodolites, electronic digital and automatic levels, 19 Electronic Total Stations, and data collectors.

On the mapping side, our CAD and GIS professionals assist the survey projects by creating accurate maps. We have dedicated CAD experts who have extensive experience with different CAD software.

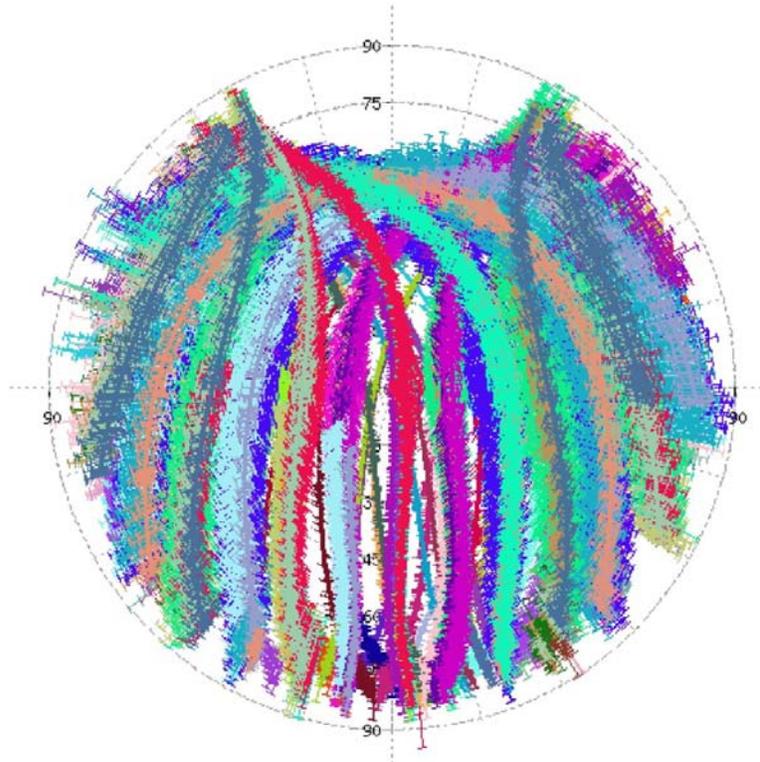
7. Annexures

7.1 Annexure – 1: PCP Observation Processing Report

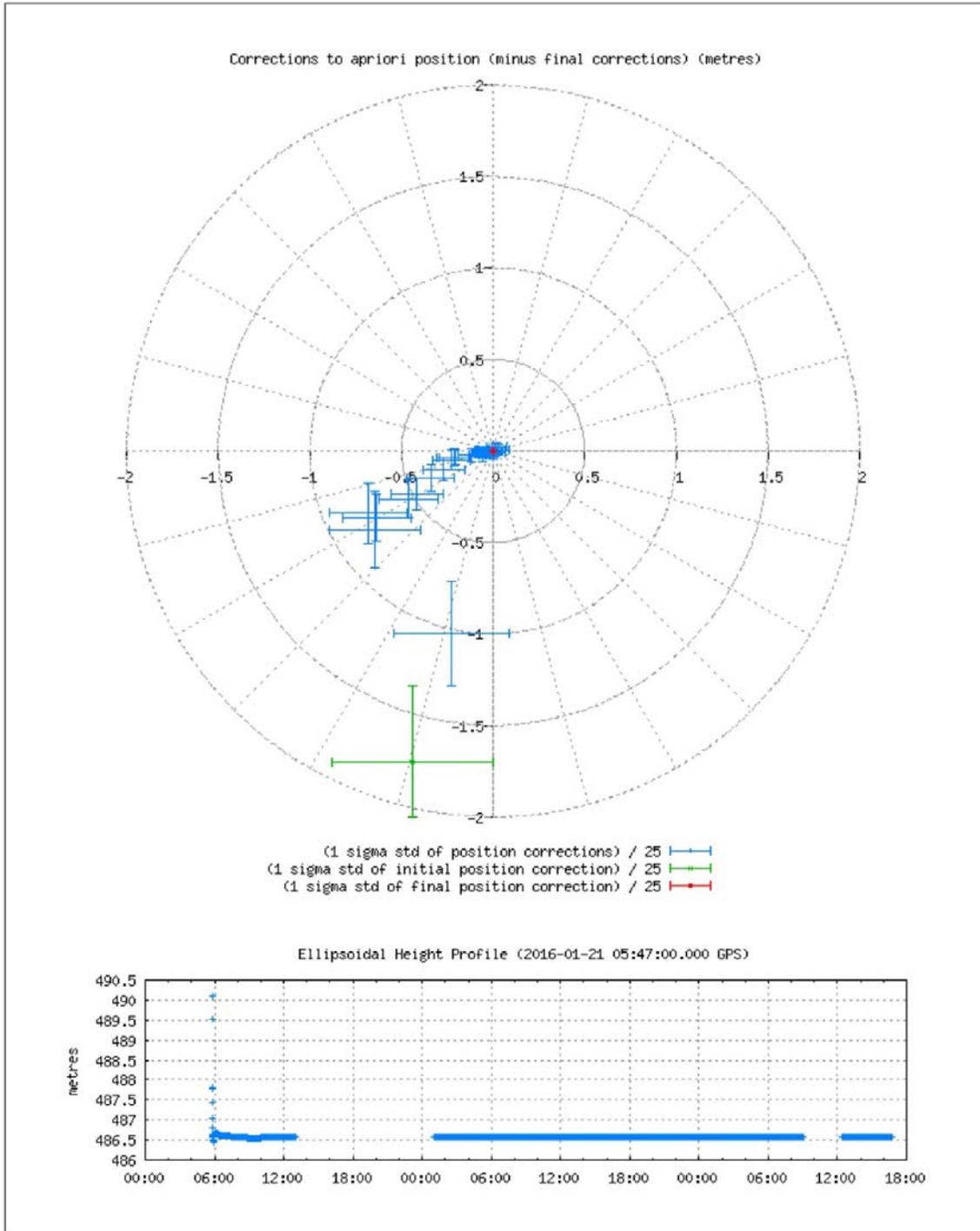


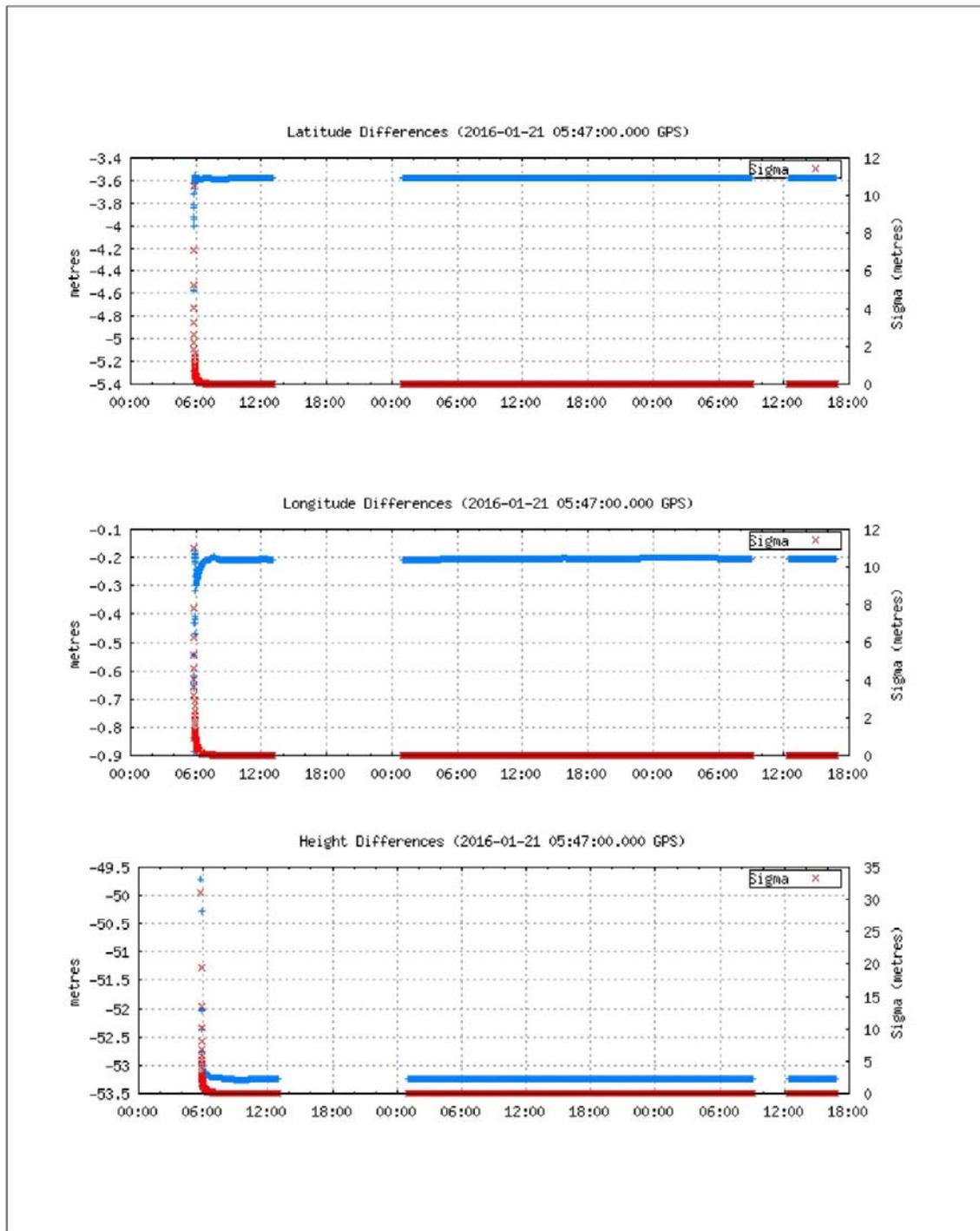
Estimated Parameters & Observations Statistics

Pseudo-Range Residuals Sky Distribution



PRN01	PRN09	PRN16	PRN23	PRN30	R__05	R__12	R__20
PRN02	PRN10	PRN17	PRN24	PRN31	R__06	R__13	R__21
PRN03	PRN11	PRN18	PRN25	PRN32	R__07	R__14	R__22
PRN05	PRN12	PRN19	PRN26	R__01	R__08	R__15	R__23
PRN06	PRN13	PRN20	PRN27	R__02	R__09	R__16	R__24
PRN07	PRN14	PRN21	PRN28	R__03	R__10	R__18	
PRN08	PRN15	PRN22	PRN29	R__04	R__11	R__19	

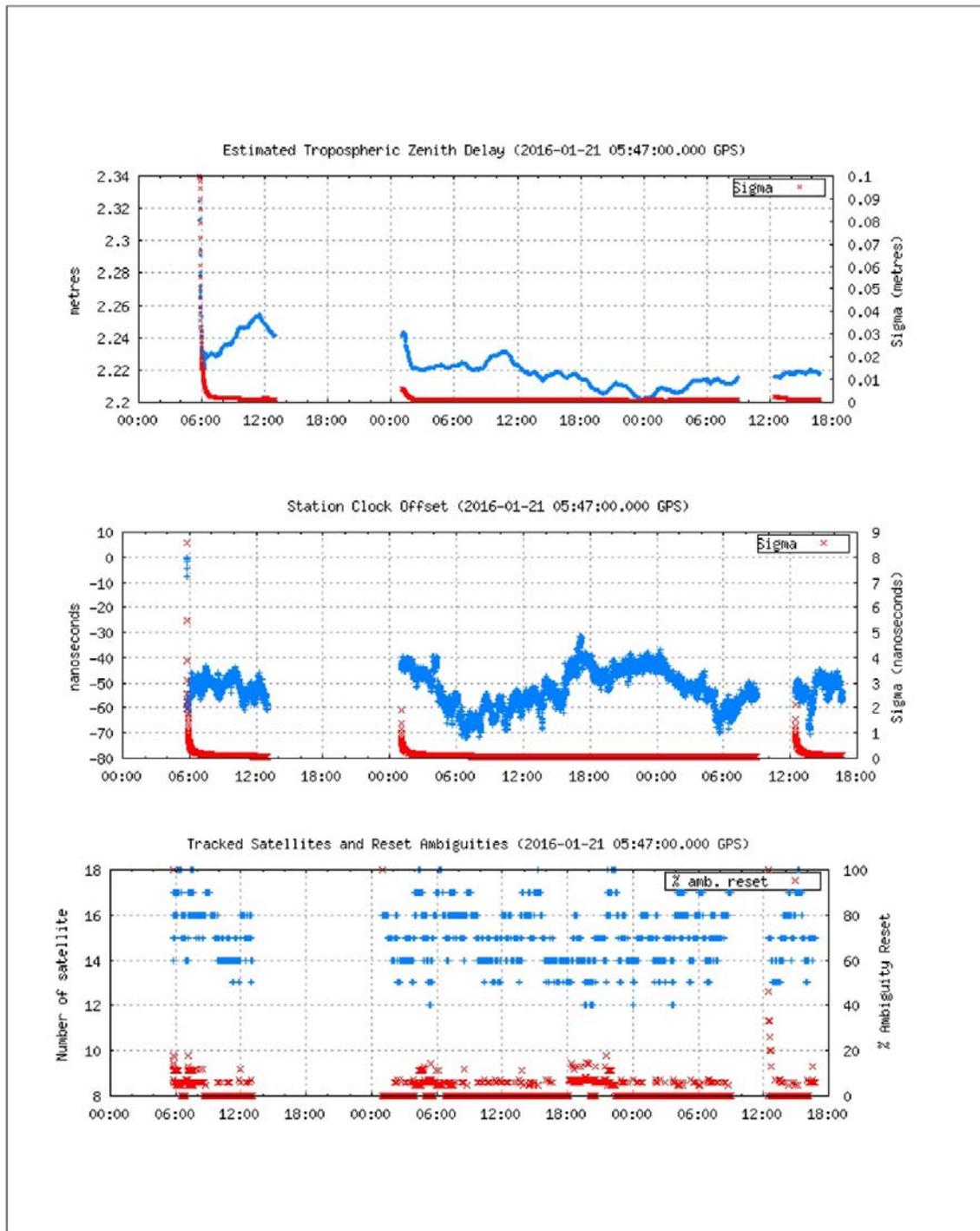




IGS Final

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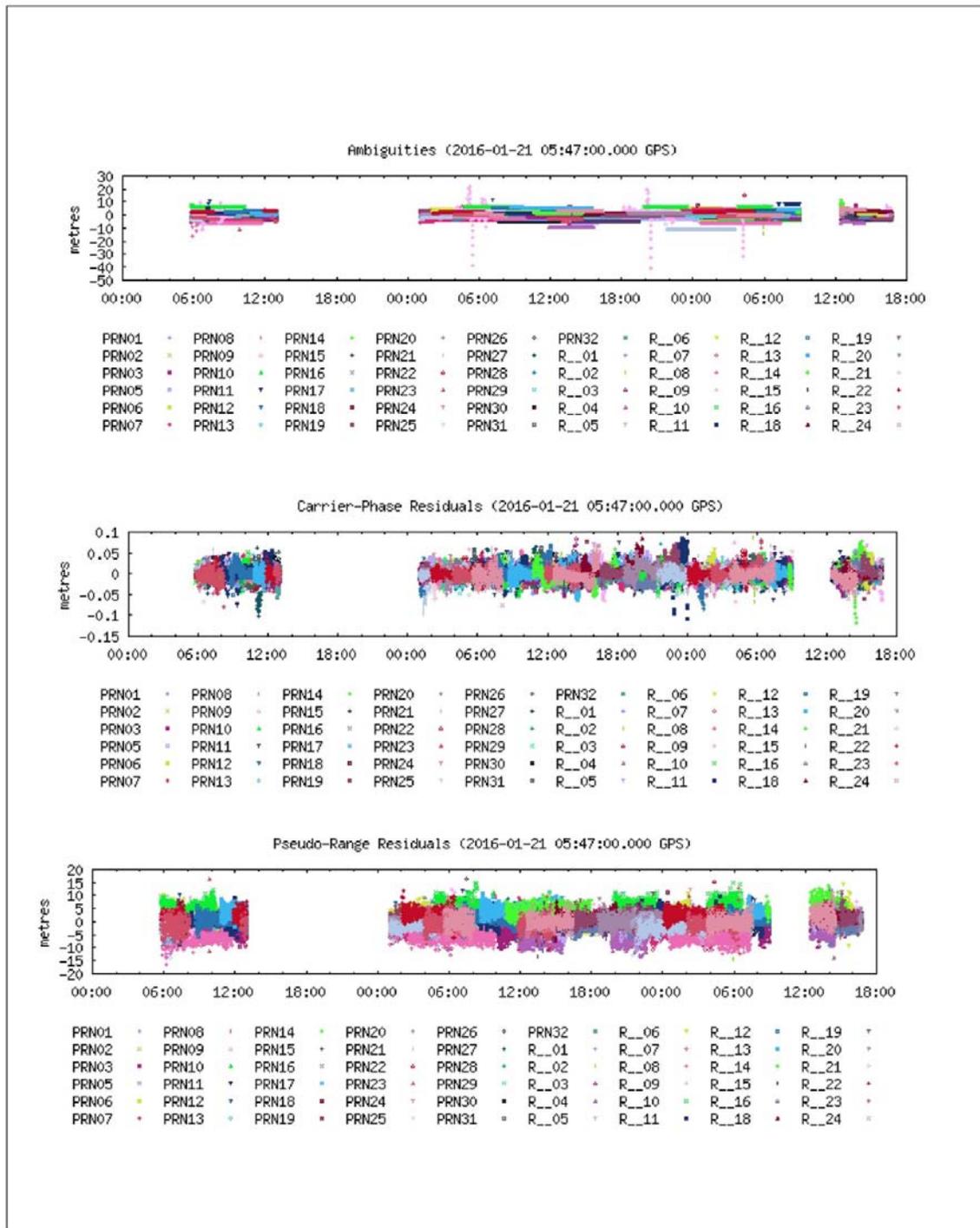
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00:50:44 UTC 2016/05/02 / Base-Surajpur-Rd-Survey.16o

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IGS Final



~~~ Disclaimer ~~~

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**If you have any questions, please feel free to contact:**

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Canada Centre for Remote Sensing  
Natural Resources Canada  
Government of Canada  
615 Booth Street, Room 440  
Ottawa, Ontario K1A 0E9  
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EMail: [information@geod.nrcan.gc.ca](mailto:information@geod.nrcan.gc.ca)**



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada

## 7.2 Annexure – 2: DGPS Surveyed co-ordinates of Centreline

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
|--------|-----------|-------------|--------------|-----------------|-----------------|
| 1      | AP-1      | 699869.683  | 2564445.341  | 23°10'36.89989" | 82°57'09.32844" |
| 2      | AP-2      | 700830.326  | 2563685.125  | 23°10'11.77252" | 82°57'42.73831" |
| 3      | AP-3      | 701114.024  | 2563510.144  | 23°10'05.96119" | 82°57'52.62777" |
| 4      | AP-4      | 702313.237  | 2562990.827  | 23°09'48.55567" | 82°58'34.53367" |
| 5      | AP-5      | 704035.239  | 2562055.461  | 23°09'17.39343" | 82°59'34.61133" |
| 6      | AP-6      | 704222.595  | 2562000.378  | 23°09'15.51988" | 82°59'41.16984" |
| 7      | AP-7      | 705145.384  | 2561588.531  | 23°09'01.72328" | 83°00'13.40386" |
| 8      | AP-8      | 707484.224  | 2560306.288  | 23°08'18.99971" | 83°01'34.97683" |
| 9      | AP-9      | 708421.911  | 2558547.942  | 23°07'21.43011" | 83°02'07.06648" |
| 10     | AP-10     | 709261.646  | 2557307.553  | 23°06'40.73690" | 83°02'35.96235" |
| 11     | AP-11     | 710503.657  | 2557349.350  | 23°06'41.52831" | 83°03'19.62055" |
| 12     | AP-12     | 711435.129  | 2557833.031  | 23°06'56.81993" | 83°03'52.58774" |
| 13     | AP-13     | 712712.371  | 2557416.971  | 23°06'42.70937" | 83°04'37.25583" |
| 14     | AP-14     | 714475.829  | 2554972.218  | 23°05'22.44014" | 83°05'37.98085" |
| 15     | AP-15     | 714179.099  | 2554085.897  | 23°04'53.77439" | 83°05'27.11162" |
| 16     | AP-16     | 712400.452  | 2551735.482  | 23°03'38.21280" | 83°04'23.46338" |
| 17     | AP-17     | 712124.188  | 2551580.773  | 23°03'33.31217" | 83°04'13.68379" |
| 18     | AP-18     | 711774.350  | 2550674.329  | 23°03'04.01458" | 83°04'00.94731" |
| 19     | AP-19     | 709384.220  | 2549084.654  | 23°02'13.44251" | 83°02'36.22898" |
| 20     | AP-20     | 709096.571  | 2548949.159  | 23°02'09.16943" | 83°02'26.06171" |
| 21     | AP-21     | 706717.741  | 2546868.622  | 23°01'02.62364" | 83°01'01.52145" |
| 22     | AP-22     | 705490.642  | 2546207.090  | 23°00'41.67121" | 83°00'18.11878" |
| 23     | AP-23     | 703974.151  | 2544236.534  | 22°59'38.29881" | 82°59'23.93561" |
| 24     | AP-24     | 700320.577  | 2543223.255  | 22°59'06.96307" | 82°57'15.19965" |
| 25     | AP-25     | 700021.570  | 2543013.108  | 22°59'00.26237" | 82°57'04.60517" |
| 26     | AP-26     | 696860.620  | 2543484.619  | 22°59'16.94338" | 82°55'13.86025" |
| 27     | AP-27     | 695952.598  | 2543791.208  | 22°59'27.29381" | 82°54'42.12402" |
| 28     | AP-28     | 694317.961  | 2543682.314  | 22°59'24.44424" | 82°53'44.68826" |
| 29     | AP-29     | 694061.362  | 2543491.297  | 22°59'18.34344" | 82°53'35.59341" |
| 30     | AP-30     | 693213.604  | 2543183.212  | 22°59'08.68476" | 82°53'05.69291" |
| 31     | AP-31     | 690083.998  | 2543026.888  | 22°59'04.90039" | 82°51'15.75604" |
| 32     | AP-32     | 688658.563  | 2543689.294  | 22°59'27.01452" | 82°50'26.00656" |
| 33     | AP-33     | 688102.409  | 2543352.277  | 22°59'16.28678" | 82°50'06.33318" |
| 34     | AP-34     | 687223.460  | 2543602.019  | 22°59'24.76100" | 82°49'35.58500" |
| 35     | AP-35     | 686529.312  | 2544167.726  | 22°59'43.42922" | 82°49'11.46142" |
| 36     | AP-36     | 686103.798  | 2544701.033  | 23°00'00.93532" | 82°48'56.75382" |
| 37     | AP-37     | 685645.448  | 2545108.316  | 23°00'14.35799" | 82°48'40.83756" |
| 38     | AP-38     | 684981.957  | 2545130.734  | 23°00'15.35273" | 82°48'17.55093" |
| 39     | AP-39     | 684324.833  | 2544890.139  | 23°00'07.79492" | 82°47'54.37437" |
| 40     | AP-40     | 684016.232  | 2544714.181  | 23°00'02.19849" | 82°47'43.46325" |
| 41     | AP-41     | 683772.097  | 2543504.756  | 22°59'22.98395" | 82°47'34.37213" |

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
|--------|-----------|-------------|--------------|-----------------|-----------------|
| 42     | AP-42     | 683862.307  | 2543167.376  | 22°59'11.98175" | 82°47'37.39439" |
| 43     | AP-43     | 683947.787  | 2542842.131  | 22°59'01.37585" | 82°47'40.25568" |
| 44     | AP-44     | 683998.464  | 2541987.511  | 22°58'33.57674" | 82°47'41.66772" |
| 45     | AP-45     | 683923.959  | 2541322.394  | 22°58'11.98706" | 82°47'38.76679" |
| 46     | AP-46     | 682243.427  | 2539032.072  | 22°56'58.20517" | 82°46'38.80114" |
| 47     | AP-47     | 682081.498  | 2538740.550  | 22°56'48.79293" | 82°46'32.99403" |
| 48     | AP-48     | 681919.606  | 2538473.997  | 22°56'40.19222" | 82°46'27.19902" |
| 49     | AP-49     | 681657.092  | 2538300.877  | 22°56'34.66791" | 82°46'17.91229" |
| 50     | AP-50     | 681539.842  | 2537976.186  | 22°56'24.15976" | 82°46'13.65990" |
| 51     | AP-51     | 681603.238  | 2537623.898  | 22°56'12.68378" | 82°46'15.73585" |
| 52     | AP-52     | 681571.884  | 2537305.311  | 22°56'02.34037" | 82°46'14.50078" |
| 53     | AP-53     | 681463.317  | 2537014.820  | 22°55'52.94043" | 82°46'10.56796" |
| 54     | AP-54     | 681448.670  | 2536722.187  | 22°55'43.43409" | 82°46'09.93034" |
| 55     | AP-55     | 681396.285  | 2536443.396  | 22°55'34.39244" | 82°46'07.97428" |
| 56     | AP-56     | 681391.180  | 2536275.470  | 22°55'28.93598" | 82°46'07.72425" |
| 57     | AP-57     | 681458.339  | 2535958.030  | 22°55'18.59129" | 82°46'09.94696" |
| 58     | AP-58     | 680990.360  | 2535440.195  | 22°55'01.94172" | 82°45'53.30691" |
| 59     | AP-59     | 680845.528  | 2535125.636  | 22°54'51.77336" | 82°45'48.09241" |
| 60     | AP-60     | 680966.402  | 2534811.883  | 22°54'41.52762" | 82°45'52.20177" |
| 61     | AP-61     | 681435.305  | 2534345.355  | 22°54'26.18000" | 82°46'08.45814" |
| 62     | AP-62     | 681623.024  | 2533650.556  | 22°54'03.52202" | 82°46'14.75140" |
| 63     | AP-63     | 681640.659  | 2533312.060  | 22°53'52.51224" | 82°46'15.22726" |
| 64     | AP-64     | 681305.894  | 2532288.653  | 22°53'19.37688" | 82°46'03.05095" |
| 65     | AP-65     | 681373.596  | 2532082.231  | 22°53'12.64065" | 82°46'05.33917" |
| 66     | AP-66     | 682363.815  | 2531544.529  | 22°52'54.77508" | 82°46'39.85055" |
| 67     | AP-67     | 683053.623  | 2531488.763  | 22°52'52.69129" | 82°47'04.02585" |
| 68     | AP-68     | 683632.472  | 2531142.984  | 22°52'41.22347" | 82°47'24.18477" |
| 69     | AP-69     | 683781.116  | 2530966.239  | 22°52'35.41966" | 82°47'29.32376" |
| 70     | AP-70     | 683704.344  | 2530484.920  | 22°52'19.80474" | 82°47'26.42547" |
| 71     | AP-71     | 683479.103  | 2530237.420  | 22°52'11.84865" | 82°47'18.41908" |
| 72     | AP-72     | 682678.193  | 2530272.842  | 22°52'13.31529" | 82°46'50.34004" |
| 73     | AP-73     | 682529.000  | 2530036.000  | 22°52'05.67526" | 82°46'45.00638" |
| 74     | AP-74     | 682393.355  | 2529899.604  | 22°52'01.29488" | 82°46'40.19061" |
| 75     | AP-75     | 682384.715  | 2529728.676  | 22°51'55.74222" | 82°46'39.81523" |
| 76     | AP-76     | 682558.372  | 2529439.914  | 22°51'46.28784" | 82°46'45.78427" |
| 77     | AP-77     | 682819.000  | 2528638.000  | 22°51'20.11915" | 82°46'54.58611" |
| 78     | AP-79     | 683820.663  | 2528248.142  | 22°51'07.05231" | 82°47'29.55223" |
| 79     | AP-80     | 683949.780  | 2528290.336  | 22°51'08.37283" | 82°47'34.09873" |
| 80     | AP-81     | 684245.587  | 2528177.743  | 22°51'04.59602" | 82°47'44.42547" |
| 81     | AP-82     | 684521.871  | 2528129.331  | 22°51'02.91298" | 82°47'54.09477" |
| 82     | AP-83     | 685035.124  | 2527924.060  | 22°50'56.03698" | 82°48'12.00777" |
| 83     | AP-84     | 685220.795  | 2527655.654  | 22°50'47.23867" | 82°48'18.40441" |
| 84     | AP-85     | 685340.646  | 2527457.574  | 22°50'40.75243" | 82°48'22.52267" |
| 85     | AP-86     | 685577.978  | 2527271.836  | 22°50'34.62055" | 82°48'30.76621" |

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
|--------|-----------|-------------|--------------|-----------------|-----------------|
| 86     | AP-87     | 685892.373  | 2527265.732  | 22°50'34.29677" | 82°48'41.78950" |
| 87     | AP-88     | 685941.574  | 2527241.189  | 22°50'33.47937" | 82°48'43.50441" |
| 88     | AP-89     | 685952.405  | 2527129.529  | 22°50'29.84557" | 82°48'43.83616" |
| 89     | AP-90     | 686020.485  | 2527077.742  | 22°50'28.13506" | 82°48'46.20140" |
| 90     | AP-91     | 686131.690  | 2527084.226  | 22°50'28.30140" | 82°48'50.10412" |
| 91     | AP-92     | 686243.325  | 2527101.530  | 22°50'28.81924" | 82°48'54.02659" |
| 92     | AP-93     | 686305.945  | 2527081.385  | 22°50'28.13939" | 82°48'56.21396" |
| 93     | AP-94     | 686319.278  | 2527023.926  | 22°50'26.26637" | 82°48'56.65675" |
| 94     | AP-8D     | 708111.923  | 2559133.872  | 23°07'40.61294" | 83°01'56.46110" |
| 95     | AP-10A    | 709535.068  | 2557316.115  | 23°06'40.89063" | 83°02'45.57316" |
| 96     | AP-10B    | 709826.904  | 2557326.039  | 23°06'41.08006" | 83°02'55.83161" |
| 97     | AP-10C    | 710175.593  | 2557338.258  | 23°06'41.31791" | 83°03'08.08869" |
| 98     | AP-11A    | 710802.860  | 2557504.409  | 23°06'46.43047" | 83°03'30.20975" |
| 99     | AP-11B    | 711097.954  | 2557658.623  | 23°06'51.30684" | 83°03'40.65436" |
| 100    | AP-12A    | 711746.510  | 2557730.856  | 23°06'53.35605" | 83°04'03.47734" |
| 101    | AP-13A    | 712870.077  | 2557195.306  | 23°06'35.43261" | 83°04'42.68575" |
| 102    | AP-13B    | 713056.968  | 2556935.288  | 23°06'26.89588" | 83°04'49.12165" |
| 103    | AP-13C    | 713253.963  | 2556661.124  | 23°06'17.89468" | 83°04'55.90522" |
| 104    | AP-13D    | 713427.442  | 2556424.193  | 23°06'10.11434" | 83°05'01.88106" |
| 105    | AP-13E    | 713607.249  | 2556178.192  | 23°06'02.03625" | 83°05'08.07448" |
| 106    | AP-13F    | 713783.230  | 2555937.133  | 23°05'54.12049" | 83°05'14.13577" |
| 107    | AP-13G    | 713942.172  | 2555715.862  | 23°05'46.85568" | 83°05'19.60824" |
| 108    | AP-13H    | 714101.798  | 2555494.642  | 23°05'39.59216" | 83°05'25.10460" |
| 109    | AP-13I    | 714292.934  | 2555229.097  | 23°05'30.87345" | 83°05'31.68540" |
| 110    | AP-14A    | 714376.792  | 2554679.118  | 23°05'12.96104" | 83°05'34.35433" |
| 111    | AP-14B    | 714271.624  | 2554362.122  | 23°05'02.70818" | 83°05'30.50059" |
| 112    | AP-15A    | 713383.695  | 2553030.608  | 23°04'19.84837" | 83°04'58.64378" |
| 113    | AP-15-B   | 712784.665  | 2552244.186  | 23°03'54.56780" | 83°04'37.21108" |
| 114    | AP-15-C   | 712598.742  | 2551998.220  | 23°03'46.66004" | 83°04'30.55847" |
| 115    | AP-17A    | 712003.629  | 2551273.271  | 23°03'23.37417" | 83°04'09.29686" |
| 116    | AP-17B    | 711884.250  | 2550963.184  | 23°03'13.35156" | 83°04'04.95028" |
| 117    | AP-18A    | 711505.101  | 2550492.173  | 23°02'58.21826" | 83°03'51.40139" |
| 118    | AP-18B    | 711230.830  | 2550310.363  | 23°02'52.43532" | 83°03'41.67949" |
| 119    | AP-18C    | 710980.879  | 2550144.727  | 23°02'47.16671" | 83°03'32.81987" |
| 120    | AP-18D    | 710711.146  | 2549965.996  | 23°02'41.48140" | 83°03'23.25928" |
| 121    | AP-18E    | 710443.725  | 2549788.355  | 23°02'35.83029" | 83°03'13.78064" |
| 122    | AP-18F    | 710194.524  | 2549623.768  | 23°02'30.59495" | 83°03'04.94845" |
| 123    | AP-18G    | 709915.715  | 2549437.822  | 23°02'24.67877" | 83°02'55.06623" |
| 124    | AP-18H    | 709647.010  | 2549259.541  | 23°02'19.00692" | 83°02'45.54281" |
| 125    | AP-20A    | 708853.236  | 2548736.984  | 23°02'02.38402" | 83°02'17.41320" |
| 126    | AP-20B    | 708620.728  | 2548533.192  | 23°01'55.86601" | 83°02'09.14920" |
| 127    | AP-20C    | 708386.671  | 2548328.215  | 23°01'49.31006" | 83°02'00.83045" |
| 128    | AP-20D    | 708148.016  | 2548120.334  | 23°01'42.66166" | 83°01'52.34905" |
| 129    | AP-20E    | 707921.028  | 2547922.191  | 23°01'36.32434" | 83°01'44.28229" |

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
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| 130    | AP-20F    | 707708.699  | 2547736.477  | 23°01'30.38424" | 83°01'36.73649" |
| 131    | AP-20G    | 707455.132  | 2547514.294  | 23°01'23.27732" | 83°01'27.72521" |
| 132    | AP-20H    | 707222.631  | 2547310.951  | 23°01'16.77308" | 83°01'19.46298" |
| 133    | AP-20I    | 706972.046  | 2547091.802  | 23°01'09.76311" | 83°01'10.55837" |
| 134    | AP-21A    | 706503.599  | 2546753.239  | 23°00'58.96947" | 83°00'53.94699" |
| 135    | AP-21B    | 706221.860  | 2546602.816  | 23°00'54.20657" | 83°00'43.98238" |
| 136    | AP-21C    | 705943.545  | 2546452.052  | 23°00'49.43087" | 83°00'34.13800" |
| 137    | AP-21D    | 705717.845  | 2546329.675  | 23°00'45.55414" | 83°00'26.15476" |
| 138    | AP-22A    | 705292.876  | 2545949.955  | 23°00'33.40214" | 83°00'11.05185" |
| 139    | AP-22B    | 705108.765  | 2545711.442  | 23°00'25.73212" | 83°00'04.47350" |
| 140    | AP-22C    | 704907.633  | 2545449.745  | 23°00'17.31607" | 82°59'57.28669" |
| 141    | AP-22D    | 704718.219  | 2545203.685  | 23°00'09.40294" | 82°59'50.51899" |
| 142    | AP-22E    | 704520.337  | 2544947.237  | 23°00'01.15583" | 82°59'43.44927" |
| 143    | AP-22F    | 704338.505  | 2544711.509  | 22°59'53.57493" | 82°59'36.95314" |
| 144    | AP-22G    | 704132.336  | 2544443.623  | 22°59'44.95954" | 82°59'29.58751" |
| 145    | AP-23A    | 703722.665  | 2544164.985  | 22°59'36.08428" | 82°59'15.07302" |
| 146    | AP-23B    | 703394.980  | 2544074.979  | 22°59'33.30327" | 82°59'03.52676" |
| 147    | AP-23C    | 703097.659  | 2543989.812  | 22°59'30.66594" | 82°58'53.04883" |
| 148    | AP-23D    | 702782.155  | 2543902.331  | 22°59'27.96118" | 82°58'41.93160" |
| 149    | AP-23E    | 702491.584  | 2543821.984  | 22°59'25.47715" | 82°58'31.69311" |
| 150    | AP-23F    | 702169.381  | 2543732.624  | 22°59'22.71381" | 82°58'20.34002" |
| 151    | AP-23G    | 701845.286  | 2543643.541  | 22°59'19.96007" | 82°58'08.92076" |
| 152    | AP-23H    | 701536.631  | 2543558.840  | 22°59'17.34179" | 82°57'58.04569" |
| 153    | AP-23I    | 701237.066  | 2543475.905  | 22°59'14.77673" | 82°57'47.49064" |
| 154    | AP-23J    | 700918.414  | 2543388.256  | 22°59'12.06655" | 82°57'36.26345" |
| 155    | AP-23K    | 700638.752  | 2543310.710  | 22°59'09.66759" | 82°57'26.40980" |
| 156    | AP-25A    | 699697.578  | 2543062.557  | 22°59'02.00951" | 82°56'53.25495" |
| 157    | AP-25B    | 699397.282  | 2543107.306  | 22°59'03.59346" | 82°56'42.73427" |
| 158    | AP-25C    | 699070.560  | 2543156.000  | 22°59'05.31681" | 82°56'31.28767" |
| 159    | AP-25D    | 698745.415  | 2543204.307  | 22°59'07.02668" | 82°56'19.89616" |
| 160    | AP-25E    | 698453.439  | 2543247.716  | 22°59'08.56291" | 82°56'09.66666" |
| 161    | AP-25F    | 698126.709  | 2543296.288  | 22°59'10.28165" | 82°55'58.21945" |
| 162    | AP-25G    | 697796.821  | 2543345.822  | 22°59'12.03278" | 82°55'46.66172" |
| 163    | AP-25H    | 697523.126  | 2543386.571  | 22°59'13.47417" | 82°55'37.07249" |
| 164    | AP-25I    | 697185.011  | 2543437.028  | 22°59'15.25839" | 82°55'25.22619" |
| 165    | AP-26A    | 696536.724  | 2543593.239  | 22°59'20.61151" | 82°55'02.53961" |
| 166    | AP-26B    | 696226.749  | 2543697.512  | 22°59'24.13224" | 82°54'51.70550" |
| 167    | AP-27A    | 695618.784  | 2543768.387  | 22°59'26.69340" | 82°54'30.39461" |
| 168    | AP-27B    | 695283.771  | 2543745.654  | 22°59'26.09612" | 82°54'18.62316" |
| 169    | AP-27C    | 694969.525  | 2543724.739  | 22°59'25.54892" | 82°54'07.58160" |
| 170    | AP-27D    | 694627.463  | 2543701.730  | 22°59'24.94516" | 82°53'55.56258" |
| 171    | AP-29A    | 693759.651  | 2543381.694  | 22°59'14.90754" | 82°53'24.95193" |
| 172    | AP-29B    | 693503.305  | 2543288.884  | 22°59'11.99828" | 82°53'15.91075" |
| 173    | AP-30A    | 692906.487  | 2543167.847  | 22°59'08.31353" | 82°52'54.90448" |

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
|--------|-----------|-------------|--------------|-----------------|-----------------|
| 174    | AP-30B    | 692565.085  | 2543150.646  | 22°59'07.89670" | 82°52'42.91164" |
| 175    | AP-30C    | 692240.433  | 2543134.946  | 22°59'07.52145" | 82°52'31.50748" |
| 176    | AP-30D    | 691900.746  | 2543118.393  | 22°59'07.12447" | 82°52'19.57514" |
| 177    | AP-30E    | 691304.983  | 2543089.157  | 22°59'06.42099" | 82°51'58.64739" |
| 178    | AP-30F    | 691045.573  | 2543076.136  | 22°59'06.10497" | 82°51'49.53480" |
| 179    | AP-30G    | 690706.461  | 2543059.589  | 22°59'05.70708" | 82°51'37.62265" |
| 180    | AP-30H    | 690377.008  | 2543042.876  | 22°59'05.29956" | 82°51'26.04950" |
| 181    | AP-31A    | 689768.682  | 2543173.853  | 22°59'09.80672" | 82°51'04.75172" |
| 182    | AP-31B    | 689465.975  | 2543314.838  | 22°59'14.51331" | 82°50'54.18718" |
| 183    | AP-31C    | 689216.712  | 2543430.623  | 22°59'18.37877" | 82°50'45.48754" |
| 184    | AP-31D    | 688951.098  | 2543553.909  | 22°59'22.49460" | 82°50'36.21704" |
| 185    | AP-32A    | 688372.821  | 2543518.847  | 22°59'21.59086" | 82°50'15.89982" |
| 186    | AP-33A    | 687816.432  | 2543432.334  | 22°59'19.00516" | 82°49'56.32848" |
| 187    | AP-33B    | 687517.820  | 2543518.170  | 22°59'21.91632" | 82°49'45.88261" |
| 188    | AP-34A    | 686997.805  | 2543786.008  | 22°59'30.83266" | 82°49'27.74311" |
| 189    | AP-34-B   | 686787.498  | 2543958.285  | 22°59'36.51734" | 82°49'20.43475" |
| 190    | AP-35A    | 686402.057  | 2544327.092  | 22°59'48.66058" | 82°49'07.06300" |
| 191    | AP-35-B   | 686298.737  | 2544456.272  | 22°59'52.90109" | 82°49'03.49169" |
| 192    | AP-36A    | 685866.017  | 2544911.181  | 23°00'07.86166" | 82°48'48.49646" |
| 193    | AP-37A    | 685315.885  | 2545119.814  | 23°00'14.86400" | 82°48'29.27102" |
| 194    | AP-38A    | 684655.665  | 2545011.377  | 23°00'11.60361" | 82°48'06.04267" |
| 195    | AP-3A     | 701452.134  | 2563395.279  | 23°10'02.07960" | 82°58'04.45817" |
| 196    | AP-3B     | 701763.245  | 2563244.777  | 23°09'57.05144" | 82°58'15.32238" |
| 197    | AP-3C     | 702041.525  | 2563122.309  | 23°09'52.94867" | 82°58'25.04569" |
| 198    | AP-40A    | 683950.269  | 2544428.621  | 22°59'52.94280" | 82°47'41.02447" |
| 199    | AP-40B    | 683889.876  | 2544115.173  | 22°59'42.77839" | 82°47'38.76937" |
| 200    | AP-40C    | 683826.905  | 2543786.563  | 22°59'32.12215" | 82°47'36.41735" |
| 201    | AP-43A    | 684024.530  | 2542550.476  | 22°58'51.86524" | 82°47'42.82457" |
| 202    | AP-43B    | 684098.166  | 2542272.542  | 22°58'42.80186" | 82°47'45.29020" |
| 203    | AP-43C    | 684097.292  | 2542260.429  | 22°58'42.40848" | 82°47'45.25432" |
| 204    | AP-44A    | 683960.844  | 2541657.623  | 22°58'22.86885" | 82°47'40.20546" |
| 205    | AP-45A    | 683744.776  | 2541076.961  | 22°58'04.08053" | 82°47'32.37168" |
| 206    | AP-45B    | 683561.636  | 2540827.474  | 22°57'56.04371" | 82°47'25.83614" |
| 207    | AP-45C    | 683370.916  | 2540568.438  | 22°57'47.69941" | 82°47'19.03067" |
| 208    | AP-45D    | 683180.448  | 2540308.939  | 22°57'39.33987" | 82°47'12.23409" |
| 209    | AP-45E    | 682987.818  | 2540043.744  | 22°57'30.79594" | 82°47'05.35942" |
| 210    | AP-45F    | 682791.668  | 2539778.991  | 22°57'22.26766" | 82°46'58.36164" |
| 211    | AP-45G    | 682618.718  | 2539543.225  | 22°57'14.67235" | 82°46'52.19074" |
| 212    | AP-45H    | 682422.558  | 2539275.626  | 22°57'06.05137" | 82°46'45.19187" |
| 213    | AP-4A     | 702597.752  | 2562836.333  | 23°09'43.40898" | 82°58'44.46048" |
| 214    | AP-4B     | 702883.428  | 2562682.192  | 23°09'38.27309" | 82°58'54.42805" |
| 215    | AP-4C     | 703173.832  | 2562525.481  | 23°09'33.05142" | 82°59'04.56035" |
| 216    | AP-4D     | 703463.492  | 2562368.958  | 23°09'27.83602" | 82°59'14.66637" |
| 217    | AP-4E     | 703754.170  | 2562211.997  | 23°09'22.60577" | 82°59'24.80772" |

| Sl.No. | Pillar Id | Easting (m) | Northing (m) | Latitude "N"    | Longitude "E"   |
|--------|-----------|-------------|--------------|-----------------|-----------------|
| 218    | AP-57A    | 681227.165  | 2535700.208  | 22°55'10.30108" | 82°46'01.72605" |
| 219    | AP-60A    | 681199.700  | 2534576.458  | 22°54'33.78406" | 82°46'00.28869" |
| 220    | AP-61A    | 681541.853  | 2533962.565  | 22°54'13.69568" | 82°46'12.03510" |
| 221    | AP-63A    | 681510.921  | 2532917.739  | 22°53'39.74545" | 82°46'10.50909" |
| 222    | AP-6A     | 704517.488  | 2561834.364  | 23°09'09.99309" | 82°59'51.45440" |
| 223    | AP-6B     | 704808.879  | 2561675.016  | 23°09'04.68433" | 83°00'01.61885" |
| 224    | AP-78A    | 683581.002  | 2528311.925  | 22°51'09.22015" | 82°47'21.17376" |
| 225    | AP-7A     | 705441.515  | 2561433.886  | 23°08'56.56488" | 83°00'23.73674" |
| 226    | AP-7B     | 705731.178  | 2561268.220  | 23°08'51.05103" | 83°00'33.83673" |
| 227    | AP-7C     | 706015.183  | 2561112.433  | 23°08'45.86061" | 83°00'43.74243" |
| 228    | AP-7D     | 706313.197  | 2560949.295  | 23°08'40.42484" | 83°00'54.13666" |
| 229    | AP-7E     | 706607.415  | 2560787.901  | 23°08'35.04728" | 83°01'04.39810" |
| 230    | AP-7F     | 706898.447  | 2560628.103  | 23°08'29.72286" | 83°01'14.54811" |
| 231    | AP-7G     | 707193.512  | 2560466.488  | 23°08'24.33739" | 83°01'24.83873" |
| 232    | AP-82A    | 684802.601  | 2528081.604  | 22°51'01.25027" | 82°48'03.92021" |
| 233    | AP-85A    | 685461.000  | 2527353.000  | 22°50'37.30536" | 82°48'26.69864" |
| 234    | AP-8A     | 707642.720  | 2560014.230  | 23°08'09.43636" | 83°01'40.40393" |
| 235    | AP-8B     | 707801.448  | 2559720.366  | 23°07'59.81417" | 83°01'45.83809" |
| 236    | AP-8C     | 707956.039  | 2559428.479  | 23°07'50.25807" | 83°01'51.12764" |
| 237    | AP-8E     | 708265.557  | 2558843.613  | 23°07'31.11011" | 83°02'01.71743" |
| 238    | AP-9A     | 708565.110  | 2558277.924  | 23°07'12.58976" | 83°02'11.96569" |
| 239    | AP-9B     | 708705.457  | 2558012.771  | 23°07'03.90877" | 83°02'16.76691" |
| 240    | AP-9C     | 708848.085  | 2557743.600  | 23°06'55.09614" | 83°02'21.64613" |
| 241    | AP-9D     | 708983.369  | 2557486.079  | 23°06'46.66542" | 83°02'26.27289" |
| 242    | GE        | 699749.841  | 2564504.843  | 23°10'38.88599" | 82°57'05.14359" |
| 243    | GE        | 699750.858  | 2564506.849  | 23°10'38.95074" | 82°57'05.18029" |
| 244    | GE        | 699753.835  | 2564505.832  | 23°10'38.91639" | 82°57'05.28446" |
| 245    | GE        | 699752.530  | 2564503.261  | 23°10'38.83340" | 82°57'05.23737" |

### 7.3 Annexure – 3: DGPS Surveyed co-ordinates of Forest Patches

| Sl. No. | Pillar ID | Patch No    | Easting    | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|------------|-------------|-----------------|-----------------|
| 1       | 1         | Patch No-1  | 706097.694 | 2561082.655 | 23°08'44.85581" | 83°00'46.62779" |
| 2       | 2         |             | 706184.935 | 2561034.898 | 23°08'43.26454" | 83°00'49.67060" |
| 3       | 3         |             | 706186.857 | 2561016.924 | 23°08'42.67953" | 83°00'49.72940" |
| 4       | 4         |             | 706160.407 | 2561017.544 | 23°08'42.71157" | 83°00'48.80016" |
| 5       | 5         |             | 706101.780 | 2561049.638 | 23°08'43.78091" | 83°00'46.75536" |
| 6       | 6         |             | 706098.552 | 2561068.518 | 23°08'44.39597" | 83°00'46.65105" |
| 7       | 94        | Patch No-14 | 689663.524 | 2543237.723 | 22°59'11.92583" | 82°51'01.08830" |
| 8       | 95        |             | 689704.872 | 2543218.465 | 22°59'11.28293" | 82°51'02.53134" |
| 9       | 96        |             | 689697.536 | 2543197.833 | 22°59'10.61534" | 82°51'02.26466" |
| 10      | 97        |             | 689686.562 | 2543202.944 | 22°59'10.78595" | 82°51'01.88170" |
| 11      | 98        |             | 689679.460 | 2543208.634 | 22°59'10.97381" | 82°51'01.63488" |
| 12      | 99        |             | 689667.280 | 2543216.348 | 22°59'11.22953" | 82°51'01.21071" |
| 13      | 100       | Patch No-15 | 689664.235 | 2543228.325 | 22°59'11.62007" | 82°51'01.10911" |
| 14      | 101       |             | 689259.108 | 2543415.568 | 22°59'17.87208" | 82°50'46.96928" |
| 15      | 102       |             | 689255.353 | 2543397.789 | 22°59'17.29573" | 82°50'46.82959" |
| 16      | 103       |             | 689175.920 | 2543434.674 | 22°59'18.52711" | 82°50'44.05724" |
| 17      | 104       |             | 689178.931 | 2543439.009 | 22°59'18.66679" | 82°50'44.16489" |
| 18      | 105       |             | 689179.713 | 2543443.356 | 22°59'18.80778" | 82°50'44.19424" |
| 19      | 106       | Patch No-16 | 689213.138 | 2543431.218 | 22°59'18.39956" | 82°50'45.36234" |
| 20      | 107       |             | 689227.711 | 2543424.951 | 22°59'18.18991" | 82°50'45.87117" |
| 21      | 108       |             | 689246.477 | 2543419.899 | 22°59'18.01801" | 82°50'46.52775" |
| 22      | 109       |             | 689072.896 | 2543482.493 | 22°59'20.12354" | 82°50'40.46149" |
| 23      | 110       |             | 688902.179 | 2543561.673 | 22°59'22.76693" | 82°50'34.50306" |
| 24      | 111       |             | 688851.644 | 2543585.060 | 22°59'23.54775" | 82°50'32.73922" |
| 25      | 112       | Patch No-17 | 688867.456 | 2543604.001 | 22°59'24.15694" | 82°50'33.30270" |
| 26      | 113       |             | 688886.149 | 2543590.408 | 22°59'23.70747" | 82°50'33.95295" |
| 27      | 114       |             | 688896.203 | 2543584.322 | 22°59'23.50556" | 82°50'34.30325" |
| 28      | 115       |             | 688869.559 | 2543606.521 | 22°59'24.23797" | 82°50'33.37764" |
| 29      | 116       |             | 689082.307 | 2543507.891 | 22°59'20.94523" | 82°50'40.80309" |
| 30      | 117       |             | 689082.437 | 2543501.243 | 22°59'20.72908" | 82°50'40.80474" |
| 31      | 118       | Patch No-17 | 688732.676 | 2543640.119 | 22°59'25.38592" | 82°50'28.58682" |
| 32      | 119       |             | 688659.359 | 2543674.050 | 22°59'26.51871" | 82°50'26.02781" |
| 33      | 120       |             | 688560.178 | 2543614.887 | 22°59'24.63616" | 82°50'22.51971" |
| 34      | 121       |             | 688543.578 | 2543620.243 | 22°59'24.81701" | 82°50'21.93928" |
| 35      | 122       |             | 688527.465 | 2543626.812 | 22°59'25.03711" | 82°50'21.37649" |
| 36      | 123       |             | 688651.647 | 2543700.835 | 22°59'27.39247" | 82°50'25.76885" |
| 37      | 124       |             | 688658.563 | 2543702.794 | 22°59'27.45332" | 82°50'26.01251" |
| 38      | 125       |             | 688668.252 | 2543699.701 | 22°59'27.34885" | 82°50'26.35131" |
| 39      | 126       |             | 688752.755 | 2543660.578 | 22°59'26.04270" | 82°50'29.30077" |
| 40      | 127       |             | 688743.957 | 2543652.210 | 22°59'25.77432" | 82°50'28.98821" |
| 41      | 128       |             | 688738.004 | 2543647.580 | 22°59'25.62625" | 82°50'28.77717" |
| 42      | 129       |             | 688512.089 | 2543586.202 | 22°59'23.72339" | 82°50'20.81881" |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing    | Latitude "N"    | Longitude "E"   |                 |
|---------|-----------|-------------|-------------|-------------|-----------------|-----------------|-----------------|
| 43      | 130       |             | 688511.298  | 2543590.609 | 22°59'23.86698" | 82°50'20.79299" |                 |
| 44      | 131       |             | 688497.847  | 2543609.145 | 22°59'24.47493" | 82°50'20.32890" |                 |
| 45      | 132       |             | 688483.447  | 2543569.117 | 22°59'23.17974" | 82°50'19.80573" |                 |
| 46      | 133       |             | 688461.607  | 2543587.528 | 22°59'23.78707" | 82°50'19.04711" |                 |
| 47      | 134       |             | 688381.789  | 2543508.477 | 22°59'21.25016" | 82°50'16.21011" |                 |
| 48      | 135       |             | 688340.784  | 2543514.969 | 22°59'21.47785" | 82°50'14.77339" |                 |
| 49      | 136       |             | 688334.750  | 2543493.525 | 22°59'20.78330" | 82°50'14.55212" |                 |
| 50      | 137       |             | 688324.874  | 2543473.457 | 22°59'20.13504" | 82°50'14.19658" |                 |
| 51      | 138       |             | 688295.455  | 2543455.335 | 22°59'19.55799" | 82°50'13.15576" |                 |
| 52      | 139       |             | 688263.173  | 2543467.161 | 22°59'19.95552" | 82°50'12.02764" |                 |
| 53      | 140       |             | Patch No-18 | 688252.458  | 2543455.736     | 22°59'19.58852" | 82°50'11.64644" |
| 54      | 141       |             |             | 688264.364  | 2543452.428     | 22°59'19.47618" | 82°50'12.06298" |
| 55      | 142       | 688271.971  |             | 2543447.798 | 22°59'19.32258" | 82°50'12.32800" |                 |
| 56      | 143       | 688272.278  |             | 2543441.058 | 22°59'19.10339" | 82°50'12.33583" |                 |
| 57      | 144       | 688228.944  |             | 2543414.365 | 22°59'18.25340" | 82°50'10.80274" |                 |
| 58      | 145       | 688226.992  |             | 2543421.340 | 22°59'18.48089" | 82°50'10.73727" |                 |
| 59      | 146       | 688229.307  |             | 2543427.954 | 22°59'18.69495" | 82°50'10.82146" |                 |
| 60      | 147       | 688241.544  |             | 2543443.829 | 22°59'19.20597" | 82°50'11.25804" |                 |
| 61      | 148       | Patch No-19 | 688181.125  | 2543416.621 | 22°59'18.34618" | 82°50'09.12496" |                 |
| 62      | 149       |             | 688192.731  | 2543392.059 | 22°59'17.54309" | 82°50'09.52162" |                 |
| 63      | 150       |             | 688165.188  | 2543375.092 | 22°59'17.00283" | 82°50'08.54720" |                 |
| 64      | 151       |             | 688169.865  | 2543388.658 | 22°59'17.44186" | 82°50'08.71735" |                 |
| 65      | 152       |             | 688109.159  | 2543340.586 | 22°59'15.90403" | 82°50'06.56502" |                 |
| 66      | 153       |             | 688100.647  | 2543338.892 | 22°59'15.85246" | 82°50'06.26544" |                 |
| 67      | 154       |             | 687975.866  | 2543373.683 | 22°59'17.03400" | 82°50'01.90004" |                 |
| 68      | 155       |             | 687987.918  | 2543398.347 | 22°59'17.83077" | 82°50'02.33398" |                 |
| 69      | 156       |             | 688100.359  | 2543366.870 | 22°59'16.76194" | 82°50'06.26762" |                 |
| 70      | 157       |             | 688148.989  | 2543396.825 | 22°59'17.71581" | 82°50'07.98803" |                 |
| 71      | 158       | Patch No-20 | 687846.346  | 2543409.941 | 22°59'18.26515" | 82°49'57.36884" |                 |
| 72      | 159       |             | 687799.994  | 2543423.012 | 22°59'18.70884" | 82°49'55.74731" |                 |
| 73      | 160       |             | 687817.436  | 2543446.092 | 22°59'19.45194" | 82°49'56.36977" |                 |
| 74      | 161       |             | 687852.880  | 2543436.150 | 22°59'19.11438" | 82°49'57.60973" |                 |
| 75      | 162       | Patch No-21 | 687740.686  | 2543440.061 | 22°59'19.28706" | 82°49'53.67262" |                 |
| 76      | 163       |             | 687724.663  | 2543444.666 | 22°59'19.44326" | 82°49'53.11212" |                 |
| 77      | 164       |             | 687731.122  | 2543457.182 | 22°59'19.84745" | 82°49'53.34437" |                 |
| 78      | 165       |             | 687732.445  | 2543466.443 | 22°59'20.14791" | 82°49'53.39488" |                 |
| 79      | 166       |             | 687735.968  | 2543469.510 | 22°59'20.24618" | 82°49'53.51992" |                 |
| 80      | 167       |             | 687749.417  | 2543465.644 | 22°59'20.11507" | 82°49'53.99038" |                 |
| 81      | 168       |             | 687744.682  | 2543457.513 | 22°59'19.85270" | 82°49'53.82057" |                 |
| 82      | 169       |             | 687741.705  | 2543450.237 | 22°59'19.61741" | 82°49'53.71288" |                 |
| 83      | 170       | Patch No-22 | 687366.234  | 2543547.312 | 22°59'22.92500" | 82°49'40.57356" |                 |
| 84      | 171       |             | 687296.452  | 2543567.190 | 22°59'23.59937" | 82°49'38.13234" |                 |
| 85      | 172       |             | 687307.590  | 2543592.091 | 22°59'24.40425" | 82°49'38.53429" |                 |
| 86      | 173       |             | 687334.399  | 2543584.455 | 22°59'24.14517" | 82°49'39.47215" |                 |
| 87      | 174       |             | 687228.256  | 2543586.616 | 22°59'24.25840" | 82°49'35.74665" |                 |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing        | Latitude "N"    | Longitude "E"   |                 |
|---------|-----------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|
| 88      | 175       |             | 687231.363  | 2543598.148     | 22°59'24.63198" | 82°49'35.86076" |                 |
| 89      | 176       |             | 687238.819  | 2543611.681     | 22°59'25.06883" | 82°49'36.12847" |                 |
| 90      | 177       |             | 687217.489  | 2543589.911     | 22°59'24.36987" | 82°49'35.37008" |                 |
| 91      | 178       |             | 687180.520  | 2543619.612     | 22°59'25.35021" | 82°49'34.08516" |                 |
| 92      | 179       |             | 687187.952  | 2543648.389     | 22°59'26.28259" | 82°49'34.35867" |                 |
| 93      | 180       |             | 687229.834  | 2543614.240     | 22°59'25.15566" | 82°49'35.81414" |                 |
| 94      | 181       |             | Patch No-23 | 687121.530      | 2543702.547     | 22°59'28.06981" | 82°49'32.05038" |
| 95      | 182       |             |             | 687110.726      | 2543676.518     | 22°59'27.22814" | 82°49'31.65973" |
| 96      | 183       |             |             | 687027.200      | 2543744.622     | 22°59'29.47556" | 82°49'28.75704" |
| 97      | 184       |             |             | 687046.452      | 2543745.356     | 22°59'29.49163" | 82°49'29.43325" |
| 98      | 185       | 687070.721  |             | 2543740.539     | 22°59'29.32524" | 82°49'30.28319" |                 |
| 99      | 186       | 687073.439  |             | 2543724.718     | 22°59'28.80991" | 82°49'30.37171" |                 |
| 100     | 187       | 687077.011  |             | 2543719.559     | 22°59'28.64077" | 82°49'30.49486" |                 |
| 101     | 188       | 687083.758  |             | 2543717.575     | 22°59'28.57354" | 82°49'30.73086" |                 |
| 102     | 189       | 687092.092  |             | 2543716.384     | 22°59'28.53147" | 82°49'31.02295" |                 |
| 103     | 190       | 687097.405  |             | 2543722.218     | 22°59'28.71894" | 82°49'31.21200" |                 |
| 104     | 191       | 687014.916  |             | 2543754.638     | 22°59'29.80608" | 82°49'28.33015" |                 |
| 105     | 192       | 687018.240  |             | 2543757.560     | 22°59'29.89972" | 82°49'28.44813" |                 |
| 106     | 193       | 687027.832  |             | 2543760.536     | 22°59'29.99259" | 82°49'28.78616" |                 |
| 107     | 194       | 687039.407  |             | 2543761.529     | 22°59'30.02016" | 82°49'29.19299" |                 |
| 108     | 195       | 687044.717  |             | 2543765.177     | 22°59'30.13659" | 82°49'29.38101" |                 |
| 109     | 196       | 687070.786  |             | 2543743.921     | 22°59'29.43516" | 82°49'30.28695" |                 |
| 110     | 197       | Patch No-24 |             | 686956.475      | 2543837.315     | 22°59'32.51706" | 82°49'26.31449" |
| 111     | 198       |             |             | 686955.389      | 2543836.267     | 22°59'32.48344" | 82°49'26.27590" |
| 112     | 199       |             |             | 686958.035      | 2543831.637     | 22°59'32.33187" | 82°49'26.36676" |
| 113     | 200       |             |             | 686960.548      | 2543829.785     | 22°59'32.27065" | 82°49'26.45420" |
| 114     | 201       |             | 686960.945  | 2543825.287     | 22°59'32.12429" | 82°49'26.46617" |                 |
| 115     | 202       |             | 686958.696  | 2543821.186     | 22°59'31.99190" | 82°49'26.38542" |                 |
| 116     | 203       |             | 686955.786  | 2543817.482     | 22°59'31.87268" | 82°49'26.28163" |                 |
| 117     | 204       |             | 686951.870  | 2543806.185     | 22°59'31.50707" | 82°49'26.13923" |                 |
| 118     | 205       |             | 686945.509  | 2543811.396     | 22°59'31.67900" | 82°49'25.91818" |                 |
| 119     | 206       |             | 686949.845  | 2543825.822     | 22°59'32.14617" | 82°49'26.07671" |                 |
| 120     | 207       |             | 686948.978  | 2543843.457     | 22°59'32.71973" | 82°49'26.05394" |                 |
| 121     | 208       |             | 686916.541  | 2543835.125     | 22°59'32.46202" | 82°49'24.91152" |                 |
| 122     | 209       | 686921.500  | 2543865.966 | 22°59'33.46245" | 82°49'25.09909" |                 |                 |
| 123     | 210       | Patch No-25 | 686809.643  | 2543922.693     | 22°59'35.35152" | 82°49'21.19670" |                 |
| 124     | 211       |             | 686743.401  | 2543976.673     | 22°59'37.13283" | 82°49'18.89460" |                 |
| 125     | 212       |             | 686755.191  | 2543980.009     | 22°59'37.23649" | 82°49'19.30997" |                 |
| 126     | 213       |             | 686762.732  | 2543984.374     | 22°59'37.37534" | 82°49'19.57662" |                 |
| 127     | 214       |             | 686768.171  | 2543991.346     | 22°59'37.59977" | 82°49'19.77063" |                 |
| 128     | 215       |             | 686820.153  | 2543948.986     | 22°59'36.20190" | 82°49'21.57717" |                 |
| 129     | 216       | Patch No-26 | 686730.784  | 2543986.908     | 22°59'37.47062" | 82°49'18.45607" |                 |
| 130     | 217       |             | 686655.014  | 2544048.373     | 22°59'39.49905" | 82°49'15.82268" |                 |
| 131     | 218       |             | 686654.989  | 2544056.611     | 22°59'39.76683" | 82°49'15.82540" |                 |
| 132     | 219       |             | 686650.019  | 2544067.057     | 22°59'40.10836" | 82°49'15.65546" |                 |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing        | Latitude "N"    | Longitude "E"   |                 |
|---------|-----------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|
| 133     | 220       |             | 686643.140  | 2544072.348     | 22°59'40.28314" | 82°49'15.41625" |                 |
| 134     | 221       |             | 686636.790  | 2544071.290     | 22°59'40.25130" | 82°49'15.19285" |                 |
| 135     | 222       |             | 686635.736  | 2544064.011     | 22°59'40.01513" | 82°49'15.15269" |                 |
| 136     | 223       |             | 686620.129  | 2544076.672     | 22°59'40.43295" | 82°49'14.61025" |                 |
| 137     | 224       |             | 686618.798  | 2544087.165     | 22°59'40.77457" | 82°49'14.56809" |                 |
| 138     | 225       |             | 686614.565  | 2544102.511     | 22°59'41.27508" | 82°49'14.42616" |                 |
| 139     | 226       |             | 686612.874  | 2544117.324     | 22°59'41.75723" | 82°49'14.37325" |                 |
| 140     | 227       |             | 686755.364  | 2544001.736     | 22°59'37.94264" | 82°49'19.32551" |                 |
| 141     | 228       |             | 686744.211  | 2543995.619     | 22°59'37.74833" | 82°49'18.93128" |                 |
| 142     | 229       |             | 686735.215  | 2543995.090     | 22°59'37.73476" | 82°49'18.61522" |                 |
| 143     | 230       |             | 686584.275  | 2544105.757     | 22°59'41.39280" | 82°49'13.36411" |                 |
| 144     | 231       |             | 686596.090  | 2544130.939     | 22°59'42.20656" | 82°49'13.78990" |                 |
| 145     | 232       |             | Patch No-27 | 686550.882      | 2544132.845     | 22°59'42.28676" | 82°49'12.20352" |
| 146     | 233       |             |             | 686520.807      | 2544157.242     | 22°59'43.09188" | 82°49'11.15826" |
| 147     | 234       | 686497.557  |             | 2544185.859     | 22°59'44.03144" | 82°49'10.35442" |                 |
| 148     | 235       | 686511.886  |             | 2544183.460     | 22°59'43.94768" | 82°49'10.85648" |                 |
| 149     | 236       | 686524.057  |             | 2544180.285     | 22°59'43.83957" | 82°49'11.28241" |                 |
| 150     | 237       | 686535.501  |             | 2544173.472     | 22°59'43.61351" | 82°49'11.68120" |                 |
| 151     | 238       | 686546.502  |             | 2544171.165     | 22°59'43.53407" | 82°49'12.06644" |                 |
| 152     | 239       | 686563.983  |             | 2544156.984     | 22°59'43.06609" | 82°49'12.67400" |                 |
| 153     | 240       | 686493.472  |             | 2544190.975     | 22°59'44.19935" | 82°49'10.21324" |                 |
| 154     | 241       | 686497.886  |             | 2544199.203     | 22°59'44.46503" | 82°49'10.37178" |                 |
| 155     | 242       | 686499.208  |             | 2544209.787     | 22°59'44.80850" | 82°49'10.42284" |                 |
| 156     | 243       | 686496.563  |             | 2544214.417     | 22°59'44.96007" | 82°49'10.33196" |                 |
| 157     | 244       | 686495.570  |             | 2544219.047     | 22°59'45.11097" | 82°49'10.29914" |                 |
| 158     | 245       | 686499.956  |             | 2544226.125     | 22°59'45.33927" | 82°49'10.45620" |                 |
| 159     | 246       | 686538.951  | 2544177.291 | 22°59'43.73622" | 82°49'11.80399" |                 |                 |
| 160     | 247       | Patch No-28 | 686457.655  | 2544235.829     | 22°59'45.67175" | 82°49'08.97527" |                 |
| 161     | 248       |             | 686450.153  | 2544245.225     | 22°59'45.98017" | 82°49'08.71596" |                 |
| 162     | 249       |             | 686456.588  | 2544250.769     | 22°59'46.15780" | 82°49'08.94433" |                 |
| 163     | 250       |             | 686457.779  | 2544256.326     | 22°59'46.33792" | 82°49'08.98855" |                 |
| 164     | 251       |             | 686453.810  | 2544261.088     | 22°59'46.49432" | 82°49'08.85128" |                 |
| 165     | 252       |             | 686446.438  | 2544249.876     | 22°59'46.13287" | 82°49'08.58758" |                 |
| 166     | 253       |             | 686433.831  | 2544265.665     | 22°59'46.65115" | 82°49'08.15181" |                 |
| 167     | 254       |             | 686433.173  | 2544277.360     | 22°59'47.03155" | 82°49'08.13380" |                 |
| 168     | 255       |             | 686422.539  | 2544279.807     | 22°59'47.11536" | 82°49'07.76151" |                 |
| 169     | 256       |             | 686407.533  | 2544298.600     | 22°59'47.73225" | 82°49'07.24283" |                 |

| Sl. No. | Pillar ID | Patch No    | Easting    | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|------------|-------------|-----------------|-----------------|
| 170     | 257       | Patch No-28 | 686421.266 | 2544298.395 | 22°59'47.72005" | 82°49'07.72493" |
| 171     | 258       |             | 686423.251 | 2544307.523 | 22°59'48.01595" | 82°49'07.79858" |
| 172     | 259       |             | 686433.606 | 2544309.217 | 22°59'48.06683" | 82°49'08.16290" |
| 173     | 260       |             | 686475.066 | 2544257.296 | 22°59'46.36248" | 82°49'09.59590" |
| 174     | 261       |             | 686474.448 | 2544250.373 | 22°59'46.13770" | 82°49'09.57119" |
| 175     | 262       |             | 686470.876 | 2544241.244 | 22°59'45.84244" | 82°49'09.44180" |



| Sl. No. | Pillar ID | Patch No    | Easting    | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|------------|-------------|-----------------|-----------------|
| 176     | 263       | Patch No-29 | 686412.606 | 2544335.516 | 22°59'48.93013" | 82°49'07.43705" |
| 177     | 264       |             | 686384.250 | 2544345.526 | 22°59'49.26694" | 82°49'06.44582" |
| 178     | 265       |             | 686362.051 | 2544355.497 | 22°59'49.59999" | 82°49'05.67077" |
| 179     | 266       |             | 686324.408 | 2544402.562 | 22°59'51.14494" | 82°49'04.36963" |
| 180     | 267       |             | 686344.061 | 2544399.234 | 22°59'51.02886" | 82°49'05.05818" |
| 181     | 268       |             | 686363.352 | 2544397.099 | 22°59'50.95167" | 82°49'05.73455" |
| 182     | 269       | Patch No-30 | 686154.259 | 2544640.370 | 22°59'58.94323" | 82°48'58.49917" |
| 183     | 270       |             | 686135.723 | 2544639.280 | 22°59'58.91524" | 82°48'57.84786" |
| 184     | 271       |             | 686114.522 | 2544665.899 | 22°59'59.78901" | 82°48'57.11506" |
| 185     | 272       |             | 686114.969 | 2544680.058 | 23°00'00.24905" | 82°48'57.13691" |
| 186     | 273       |             | 686121.319 | 2544691.171 | 23°00'00.60770" | 82°48'57.36470" |
| 187     | 274       |             | 686124.414 | 2544696.818 | 23°00'00.79000" | 82°48'57.47582" |
| 188     | 275       |             | 686139.049 | 2544678.442 | 23°00'00.18682" | 82°48'57.98169" |
| 189     | 276       |             | 686163.145 | 2544648.188 | 22°59'59.19375" | 82°48'58.81453" |
| 190     | 277       | Patch No-31 | 686092.266 | 2544729.241 | 23°00'01.85685" | 82°48'56.36121" |
| 191     | 278       |             | 686069.037 | 2544725.223 | 23°00'01.73557" | 82°48'55.54386" |
| 192     | 279       |             | 686070.387 | 2544748.578 | 23°00'02.49418" | 82°48'55.60141" |
| 193     | 280       | Patch No-32 | 685909.010 | 2544855.168 | 23°00'06.02371" | 82°48'49.98165" |
| 194     | 281       |             | 685880.044 | 2544880.835 | 23°00'06.86963" | 82°48'48.97577" |
| 195     | 282       |             | 685884.327 | 2544886.812 | 23°00'07.06221" | 82°48'49.12877" |
| 196     | 283       |             | 685889.619 | 2544886.151 | 23°00'07.03858" | 82°48'49.31428" |
| 197     | 284       |             | 685912.742 | 2544887.903 | 23°00'07.08623" | 82°48'50.12691" |
| 198     | 285       |             | 685911.778 | 2544870.937 | 23°00'06.53517" | 82°48'50.08570" |
| 199     | 286       |             | 685862.011 | 2544897.161 | 23°00'07.40757" | 82°48'48.34971" |
| 200     | 287       |             | 685841.360 | 2544915.112 | 23°00'07.99935" | 82°48'47.63243" |
| 201     | 288       |             | 685862.742 | 2544915.258 | 23°00'07.99549" | 82°48'48.38326" |
| 202     | 289       |             | 685883.877 | 2544913.413 | 23°00'07.92702" | 82°48'49.12452" |
| 203     | 290       |             | 685895.329 | 2544903.292 | 23°00'07.59343" | 82°48'49.52223" |
| 204     | 291       |             | 685891.603 | 2544897.065 | 23°00'07.39254" | 82°48'49.38870" |
| 205     | 292       | Patch No-33 | 685616.406 | 2545095.821 | 23°00'13.96352" | 82°48'39.81242" |
| 206     | 293       |             | 685602.590 | 2545096.303 | 23°00'13.98474" | 82°48'39.32752" |
| 207     | 294       |             | 685582.371 | 2545105.954 | 23°00'14.30655" | 82°48'38.62180" |
| 208     | 295       |             | 685567.786 | 2545106.360 | 23°00'14.32561" | 82°48'38.10988" |
| 209     | 296       |             | 685563.189 | 2545106.615 | 23°00'14.33576" | 82°48'37.94856" |
| 210     | 297       |             | 685553.928 | 2545110.584 | 23°00'14.46848" | 82°48'37.62513" |
| 211     | 298       |             | 685545.660 | 2545112.899 | 23°00'14.54705" | 82°48'37.33583" |
| 212     | 299       |             | 685532.431 | 2545118.191 | 23°00'14.72436" | 82°48'36.87362" |
| 213     | 300       |             | 685533.797 | 2545125.720 | 23°00'14.96852" | 82°48'36.92486" |
| 214     | 301       |             | 685573.152 | 2545124.347 | 23°00'14.90809" | 82°48'38.30609" |
| 215     | 302       |             | 685625.402 | 2545122.524 | 23°00'14.82785" | 82°48'40.13987" |
| 216     | 303       |             | 685621.066 | 2545113.230 | 23°00'14.52751" | 82°48'39.98362" |
| 217     | 304       | Patch No-34 | 685324.570 | 2545133.019 | 23°00'15.28974" | 82°48'29.58169" |
| 218     | 305       |             | 685279.827 | 2545118.722 | 23°00'14.84295" | 82°48'28.00448" |
| 219     | 306       |             | 685240.576 | 2545118.483 | 23°00'14.85094" | 82°48'26.62620" |
| 220     | 307       |             | 685231.985 | 2545126.459 | 23°00'15.11363" | 82°48'26.32801" |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing        | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|-------------|-----------------|-----------------|-----------------|
| 221     | 308       |             | 685217.674  | 2545136.533     | 23°00'15.44680" | 82°48'25.82991" |
| 222     | 309       | Patch No-35 | 684907.910  | 2545096.740     | 23°00'14.27741" | 82°48'14.93632" |
| 223     | 310       |             | 684907.788  | 2545089.228     | 23°00'14.03330" | 82°48'14.92879" |
| 224     | 311       |             | 684859.427  | 2545071.538     | 23°00'13.47764" | 82°48'13.22309" |
| 225     | 312       |             | 684840.905  | 2545079.145     | 23°00'13.73231" | 82°48'12.57602" |
| 226     | 313       |             | 684840.537  | 2545093.378     | 23°00'14.19508" | 82°48'12.56928" |
| 227     | 314       |             | 684892.107  | 2545112.242     | 23°00'14.78762" | 82°48'14.38814" |
| 228     | 315       |             | 684441.305  | 2544918.444     | 23°00'08.66849" | 82°47'58.47607" |
| 229     | 316       | Patch No-36 | 684426.426  | 2544912.991     | 23°00'08.49719" | 82°47'57.95128" |
| 230     | 317       |             | 684429.047  | 2544926.198     | 23°00'08.92543" | 82°47'58.04900" |
| 231     | 318       |             | 684439.630  | 2544927.852     | 23°00'08.97496" | 82°47'58.42132" |
| 232     | 319       | Patch No-37 | 684027.690  | 2542485.837     | 22°58'49.76293" | 82°47'42.90773" |
| 233     | 320       |             | 684069.191  | 2542434.619     | 22°58'48.08160" | 82°47'44.34266" |
| 234     | 321       |             | 684089.858  | 2542356.614     | 22°58'45.53789" | 82°47'45.03466" |
| 235     | 322       |             | 684099.555  | 2542320.014     | 22°58'44.34436" | 82°47'45.35935" |
| 236     | 323       |             | 684108.337  | 2542286.866     | 22°58'43.26341" | 82°47'45.65341" |
| 237     | 324       |             | 684111.551  | 2542274.304     | 22°58'42.85381" | 82°47'45.76083" |
| 238     | 325       |             | 684110.757  | 2542259.457     | 22°58'42.37154" | 82°47'45.72659" |
| 239     | 326       |             | 684085.882  | 2542189.269     | 22°58'40.10002" | 82°47'44.82318" |
| 240     | 327       |             | 684061.394  | 2542200.946     | 22°58'40.48929" | 82°47'43.96856" |
| 241     | 328       |             | 684083.962  | 2542263.266     | 22°58'42.50602" | 82°47'44.78757" |
| 242     | 329       |             | 684084.539  | 2542271.264     | 22°58'42.76575" | 82°47'44.81126" |
| 243     | 330       |             | 684076.356  | 2542302.151     | 22°58'43.77295" | 82°47'44.53726" |
| 244     | 331       |             | 684068.518  | 2542331.733     | 22°58'44.73761" | 82°47'44.27484" |
| 245     | 332       |             | 684062.071  | 2542356.068     | 22°58'45.53118" | 82°47'44.05895" |
| 246     | 333       |             | 684083.638  | 2542183.072     | 22°58'39.89947" | 82°47'44.74174" |
| 247     | 334       |             | 684079.660  | 2542172.086     | 22°58'39.54397" | 82°47'44.59736" |
| 248     | 335       |             | 684034.974  | 2542048.685     | 22°58'35.55064" | 82°47'42.97566" |
| 249     | 336       | 684022.885  | 2542051.997 | 22°58'35.66310" | 82°47'42.55272" |                 |
| 250     | 337       | Patch No-38 | 684033.204  | 2542084.699     | 22°58'36.72198" | 82°47'42.92900" |
| 251     | 338       |             | 684020.765  | 2542088.746     | 22°58'36.85846" | 82°47'42.49407" |
| 252     | 339       |             | 684057.092  | 2542189.065     | 22°58'40.10483" | 82°47'43.81243" |
| 253     | 340       |             | 684058.109  | 2542191.873     | 22°58'40.19569" | 82°47'43.84933" |
| 254     | 341       |             | 684067.230  | 2542180.575     | 22°58'39.82482" | 82°47'44.16466" |
| 255     | 342       | Patch No-39 | 684024.676  | 2542020.245     | 22°58'34.63033" | 82°47'42.60192" |
| 256     | 343       |             | 684019.203  | 2542005.134     | 22°58'34.14131" | 82°47'42.40333" |
| 257     | 344       |             | 684017.159  | 2542018.337     | 22°58'34.57128" | 82°47'42.33722" |
| 258     | 345       | Patch No-40 | 683676.585  | 2540961.253     | 22°58'00.34655" | 82°47'29.92843" |
| 259     | 346       |             | 683645.766  | 2540919.268     | 22°57'58.99407" | 82°47'28.82859" |
| 260     | 347       |             | 683641.519  | 2540923.511     | 22°57'59.13369" | 82°47'28.68133" |
| 261     | 348       |             | 683636.227  | 2540931.131     | 22°57'59.38347" | 82°47'28.49884" |
| 262     | 349       |             | 683645.752  | 2540955.050     | 22°58'00.15715" | 82°47'28.84344" |
| 263     | 350       |             | 683647.365  | 2540967.075     | 22°58'00.54737" | 82°47'28.90522" |
| 264     | 351       |             | 683654.854  | 2540966.903     | 22°58'00.53883" | 82°47'29.16801" |
| 265     | 352       |             | 683673.057  | 2540963.517     | 22°58'00.42153" | 82°47'29.80554" |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing        | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|-------------|-----------------|-----------------|-----------------|
| 266     | 353       | Patch No-41 | 683637.238  | 2540907.651     | 22°57'58.61986" | 82°47'28.52429" |
| 267     | 354       |             | 683556.332  | 2540797.500     | 22°57'55.07153" | 82°47'25.63712" |
| 268     | 355       |             | 683540.426  | 2540801.951     | 22°57'55.22250" | 82°47'25.08071" |
| 269     | 356       |             | 683532.224  | 2540791.897     | 22°57'54.89895" | 82°47'24.78850" |
| 270     | 357       |             | 683526.668  | 2540788.722     | 22°57'54.79795" | 82°47'24.59210" |
| 271     | 358       |             | 683518.763  | 2540792.013     | 22°57'54.90805" | 82°47'24.31601" |
| 272     | 359       |             | 683616.920  | 2540925.599     | 22°57'59.21131" | 82°47'27.81874" |
| 273     | 360       | Patch No-42 | 683473.615  | 2540730.693     | 22°57'52.93278" | 82°47'22.70500" |
| 274     | 361       |             | 683487.369  | 2540725.193     | 22°57'52.74855" | 82°47'23.18544" |
| 275     | 362       |             | 683485.676  | 2540720.537     | 22°57'52.59786" | 82°47'23.12401" |
| 276     | 363       |             | 683484.701  | 2540700.212     | 22°57'51.93759" | 82°47'23.08110" |
| 277     | 364       |             | 683474.479  | 2540694.960     | 22°57'51.77094" | 82°47'22.72002" |
| 278     | 365       |             | 683472.150  | 2540692.738     | 22°57'51.69963" | 82°47'22.63734" |
| 279     | 366       |             | 683472.264  | 2540683.319     | 22°57'51.39343" | 82°47'22.63729" |
| 280     | 367       |             | 683469.081  | 2540682.895     | 22°57'51.38091" | 82°47'22.52540" |
| 281     | 368       |             | 683466.753  | 2540681.413     | 22°57'51.33368" | 82°47'22.44303" |
| 282     | 369       |             | 683459.662  | 2540695.489     | 22°57'51.79402" | 82°47'22.20016" |
| 283     | 370       |             | 683454.027  | 2540704.089     | 22°57'52.07576" | 82°47'22.00603" |
| 284     | 371       |             | 683457.090  | 2540662.710     | 22°57'50.72956" | 82°47'22.09585" |
| 285     | 372       |             | 683446.983  | 2540648.983     | 22°57'50.28738" | 82°47'21.73522" |
| 286     | 373       | 683441.636  | 2540649.192 | 22°57'50.29627" | 82°47'21.54760" |                 |
| 287     | 374       | 683434.889  | 2540644.958 | 22°57'50.16134" | 82°47'21.30896" |                 |
| 288     | 375       | 683425.232  | 2540640.725 | 22°57'50.02756" | 82°47'20.96816" |                 |
| 289     | 376       | Patch No-43 | 683415.072  | 2540638.740     | 22°57'49.96708" | 82°47'20.61068" |
| 290     | 377       |             | 683402.870  | 2540634.608     | 22°57'49.83758" | 82°47'20.18062" |
| 291     | 378       |             | 683437.280  | 2540681.342     | 22°57'51.34304" | 82°47'21.40844" |
| 292     | 379       |             | 683443.752  | 2540678.825     | 22°57'51.25865" | 82°47'21.63458" |
| 293     | 380       |             | 683450.764  | 2540673.269     | 22°57'51.07527" | 82°47'21.87831" |
| 294     | 381       |             | 683453.542  | 2540668.109     | 22°57'50.90646" | 82°47'21.97362" |
| 295     | 382       |             | 682871.349  | 2539909.217     | 22°57'26.46918" | 82°47'01.21393" |
| 296     | 383       | 682877.944  | 2539909.077 | 22°57'26.46200" | 82°47'01.44538" |                 |
| 297     | 384       | Patch No-44 | 682883.818  | 2539910.823     | 22°57'26.51645" | 82°47'01.65229" |
| 298     | 385       |             | 682894.108  | 2539894.581     | 22°57'25.98445" | 82°47'02.00654" |
| 299     | 386       |             | 682885.882  | 2539894.472     | 22°57'25.98414" | 82°47'01.71776" |
| 300     | 387       |             | 682880.643  | 2539893.837     | 22°57'25.96556" | 82°47'01.53360" |
| 301     | 388       |             | 682869.422  | 2539873.536     | 22°57'25.31011" | 82°47'01.13110" |
| 302     | 389       | Patch No-45 | 682869.845  | 2539868.456     | 22°57'25.14482" | 82°47'01.14379" |
| 303     | 390       |             | 682870.592  | 2539862.841     | 22°57'24.96203" | 82°47'01.16761" |
| 304     | 391       |             | 682846.562  | 2539856.946     | 22°57'24.77990" | 82°47'00.32164" |
| 305     | 392       |             | 682831.409  | 2539855.309     | 22°57'24.73267" | 82°46'59.78907" |
| 306     | 393       |             | 682841.897  | 2539869.465     | 22°57'25.18867" | 82°47'00.16323" |
| 307     | 394       |             | 682850.450  | 2539870.349     | 22°57'25.21403" | 82°47'00.46383" |
| 308     | 395       |             | 682855.452  | 2539870.784     | 22°57'25.22619" | 82°47'00.63958" |
| 309     | 396       |             | Patch No-46 | 682750.105      | 2539699.509     | 22°57'19.70051" |
| 310     | 397       | 682739.855  |             | 2539685.535     | 22°57'19.25033" | 82°46'56.50318" |



| Sl. No. | Pillar ID | Patch No    | Easting    | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|------------|-------------|-----------------|-----------------|
| 311     | 398       | Patch No-47 | 682704.889 | 2539683.518 | 22°57'19.19857" | 82°46'55.27506" |
| 312     | 399       |             | 682713.882 | 2539695.776 | 22°57'19.59347" | 82°46'55.59590" |
| 313     | 400       |             | 682630.316 | 2539556.942 | 22°57'15.11365" | 82°46'52.60367" |
| 314     | 401       |             | 682626.509 | 2539548.870 | 22°57'14.85276" | 82°46'52.46659" |
| 315     | 402       |             | 682619.312 | 2539538.816 | 22°57'14.52879" | 82°46'52.20971" |
| 316     | 403       |             | 682612.327 | 2539545.483 | 22°57'14.74827" | 82°46'51.96738" |
| 317     | 404       |             | 682608.795 | 2539552.522 | 22°57'14.97847" | 82°46'51.84642" |
| 318     | 405       |             | 682617.398 | 2539564.250 | 22°57'15.35627" | 82°46'52.15337" |
| 319     | 406       | Patch No-48 | 682554.752 | 2539433.129 | 22°57'11.11891" | 82°46'49.89874" |
| 320     | 407       |             | 682539.306 | 2539412.057 | 22°57'10.44006" | 82°46'49.34761" |
| 321     | 408       |             | 682514.889 | 2539424.417 | 22°57'10.85145" | 82°46'48.49587" |
| 322     | 409       |             | 682527.772 | 2539441.992 | 22°57'11.41764" | 82°46'48.95553" |
| 323     | 410       |             | 682538.018 | 2539440.137 | 22°57'11.35330" | 82°46'49.31438" |
| 324     | 411       | Patch No-49 | 682478.752 | 2539375.120 | 22°57'09.26328" | 82°46'47.20654" |
| 325     | 412       |             | 682494.692 | 2539351.196 | 22°57'08.47935" | 82°46'47.75583" |
| 326     | 413       |             | 682484.833 | 2539337.747 | 22°57'08.04607" | 82°46'47.40408" |
| 327     | 414       |             | 682479.661 | 2539338.333 | 22°57'08.06715" | 82°46'47.22280" |
| 328     | 415       |             | 682472.294 | 2539366.310 | 22°57'08.97944" | 82°46'46.97610" |
| 329     | 416       |             | 682461.790 | 2539306.311 | 22°57'07.03332" | 82°46'46.58190" |
| 330     | 417       |             | 682453.124 | 2539311.332 | 22°57'07.19995" | 82°46'46.27987" |
| 331     | 418       |             | 682451.377 | 2539317.206 | 22°57'07.39156" | 82°46'46.22108" |
| 332     | 419       |             | 682458.521 | 2539339.113 | 22°57'08.10085" | 82°46'46.48113" |
| 333     | 420       |             | 682461.855 | 2539343.399 | 22°57'08.23886" | 82°46'46.59997" |
| 334     | 421       |             | 682464.395 | 2539349.273 | 22°57'08.42879" | 82°46'46.69162" |
| 335     | 422       |             | 682462.727 | 2539353.259 | 22°57'08.55899" | 82°46'46.63476" |
| 336     | 423       |             | 682376.327 | 2539189.983 | 22°57'03.28574" | 82°46'43.53280" |
| 337     | 424       |             | 682376.113 | 2539199.328 | 22°57'03.58961" | 82°46'43.52926" |
| 338     | 425       |             | 682376.513 | 2539213.396 | 22°57'04.04672" | 82°46'43.54931" |

| Sl. No. | Pillar ID | Patch No    | Easting     | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|-------------|-------------|-----------------|-----------------|
| 339     | 426       | Patch No-49 | 682366.541  | 2539222.248 | 22°57'04.33838" | 82°46'43.20305" |
| 340     | 427       |             | 682454.018  | 2539341.378 | 22°57'08.17623" | 82°46'46.32403" |
| 341     | 428       | Patch No-50 | 682337.173  | 2539136.748 | 22°57'01.57078" | 82°46'42.13595" |
| 342     | 429       |             | 682303.611  | 2539091.116 | 22°57'00.10070" | 82°46'40.93858" |
| 343     | 430       |             | 682293.446  | 2539096.822 | 22°57'00.29019" | 82°46'40.58422" |
| 344     | 431       |             | 682276.842  | 2539100.290 | 22°57'00.40944" | 82°46'40.00294" |
| 345     | 432       |             | 682310.239  | 2539145.697 | 22°57'01.87225" | 82°46'41.19438" |
| 346     | 433       |             | 682317.788  | 2539145.082 | 22°57'01.84930" | 82°46'41.45908" |
| 347     | 434       |             | 682275.606  | 2539092.977 | 22°57'00.17221" | 82°46'39.95645" |
| 348     | 435       |             | 682277.723  | 2539080.938 | 22°56'59.78007" | 82°46'40.02563" |
| 349     | 436       |             | 682272.299  | 2539081.203 | 22°56'59.79080" | 82°46'39.83537" |
| 350     | 437       |             | 682264.732  | 2539083.825 | 22°56'59.87901" | 82°46'39.57091" |
| 351     | 438       |             | Patch No-51 | 682150.701  | 2538892.938     | 22°56'53.71911" |
| 352     | 439       | 682157.298  |             | 2538891.179 | 22°56'53.65931" | 82°46'35.71834" |
| 353     | 440       | 682152.853  |             | 2538884.194 | 22°56'53.43401" | 82°46'35.55937" |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing    | Latitude "N"    | Longitude "E"   |                 |
|---------|-----------|-------------|-------------|-------------|-----------------|-----------------|-----------------|
| 354     | 441       | Patch No-52 | 682147.138  | 2538870.435 | 22°56'52.98904" | 82°46'35.35294" |                 |
| 355     | 442       |             | 682139.101  | 2538872.054 | 22°56'53.04483" | 82°46'35.07155" |                 |
| 356     | 443       |             | 682109.607  | 2538818.956 | 22°56'51.33046" | 82°46'34.01384" |                 |
| 357     | 444       |             | 682120.441  | 2538811.526 | 22°56'51.08469" | 82°46'34.39095" |                 |
| 358     | 445       |             | 682119.647  | 2538806.763 | 22°56'50.93019" | 82°46'34.36107" |                 |
| 359     | 446       |             | 682117.531  | 2538802.001 | 22°56'50.77622" | 82°46'34.28476" |                 |
| 360     | 447       |             | 682115.149  | 2538797.767 | 22°56'50.63955" | 82°46'34.19939" |                 |
| 361     | 448       |             | 682113.297  | 2538790.888 | 22°56'50.41667" | 82°46'34.13146" |                 |
| 362     | 449       |             | 682122.652  | 2538786.838 | 22°56'50.28134" | 82°46'34.45807" |                 |
| 363     | 450       |             | 682093.037  | 2538733.542 | 22°56'48.56060" | 82°46'33.39603" |                 |
| 364     | 451       |             | 682065.872  | 2538740.827 | 22°56'48.80808" | 82°46'32.44569" |                 |
| 365     | 452       |             | 682096.828  | 2538795.951 | 22°56'50.58772" | 82°46'33.55559" |                 |
| 366     | 453       |             | Patch No-53 | 681493.814  | 2537134.981     | 22°55'56.83434" | 82°46'11.68897" |
| 367     | 454       |             |             | 681509.562  | 2537132.117     | 22°55'56.73507" | 82°46'12.24044" |
| 368     | 455       | 681514.060  |             | 2537134.233 | 22°55'56.80211" | 82°46'12.39919" |                 |
| 369     | 456       | 681523.056  |             | 2537154.077 | 22°55'57.44361" | 82°46'12.72327" |                 |
| 370     | 457       | 681525.173  |             | 2537155.400 | 22°55'57.48579" | 82°46'12.79812" |                 |
| 371     | 458       | 681529.271  |             | 2537152.730 | 22°55'57.39741" | 82°46'12.94082" |                 |
| 372     | 459       | 681476.695  |             | 2537012.055 | 22°55'52.84531" | 82°46'11.03629" |                 |
| 373     | 460       | 681467.049  |             | 2536819.327 | 22°55'46.58444" | 82°46'10.61635" |                 |
| 374     | 461       | 681460.871  |             | 2536817.304 | 22°55'46.52111" | 82°46'10.39868" |                 |
| 375     | 462       | 681444.582  |             | 2536788.668 | 22°55'45.59668" | 82°46'09.81497" |                 |
| 376     | 463       | 681438.548  |             | 2536790.012 | 22°55'45.64271" | 82°46'09.60377" |                 |
| 377     | 464       | 681450.277  |             | 2537018.314 | 22°55'53.05911" | 82°46'10.11181" |                 |
| 378     | 465       | Patch No-54 |             | 681429.901  | 2536695.404     | 22°55'42.57086" | 82°46'09.26037" |
| 379     | 466       |             |             | 681457.303  | 2536695.028     | 22°55'42.54791" | 82°46'10.22183" |
| 380     | 467       |             | 681446.710  | 2536638.653 | 22°55'40.71958" | 82°46'09.82628" |                 |
| 381     | 468       |             | 681436.618  | 2536639.615 | 22°55'40.75480" | 82°46'09.47254" |                 |
| 382     | 469       |             | 681420.338  | 2536644.508 | 22°55'40.92021" | 82°46'08.90327" |                 |
| 383     | 470       | Patch No-55 | 681417.220  | 2536627.915 | 22°55'40.38206" | 82°46'08.78685" |                 |
| 384     | 471       |             | 681441.916  | 2536613.139 | 22°55'39.89211" | 82°46'09.64727" |                 |
| 385     | 472       |             | 681409.747  | 2536441.936 | 22°55'34.33971" | 82°46'08.44607" |                 |
| 386     | 473       |             | 681409.064  | 2536419.464 | 22°55'33.60955" | 82°46'08.41261" |                 |
| 387     | 474       |             | 681404.802  | 2536421.333 | 22°55'33.67196" | 82°46'08.26386" |                 |
| 388     | 475       |             | 681401.892  | 2536425.831 | 22°55'33.81931" | 82°46'08.16362" |                 |
| 389     | 476       |             | 681394.483  | 2536428.477 | 22°55'33.90821" | 82°46'07.90476" |                 |
| 390     | 477       |             | 681382.568  | 2536436.447 | 22°55'34.17193" | 82°46'07.48997" |                 |
| 391     | 478       |             | 681382.791  | 2536443.806 | 22°55'34.41105" | 82°46'07.50093" |                 |
| 392     | 479       |             | 681387.856  | 2536225.957 | 22°55'27.32786" | 82°46'07.58671" |                 |
| 393     | 480       | Patch No-56 | 681407.353  | 2536222.062 | 22°55'27.19364" | 82°46'08.26925" |                 |
| 394     | 481       |             | 681396.625  | 2536184.510 | 22°55'25.97718" | 82°46'07.87693" |                 |
| 395     | 482       | Patch No-57 | 681264.667  | 2535721.811 | 22°55'10.98865" | 82°46'03.05115" |                 |
| 396     | 483       |             | 681188.876  | 2535638.118 | 22°55'08.29778" | 82°46'00.35630" |                 |
| 397     | 484       |             | 681174.030  | 2535642.955 | 22°55'08.46080" | 82°45'59.83737" |                 |
| 398     | 485       |             | 681158.207  | 2535644.542 | 22°55'08.51856" | 82°45'59.28282" |                 |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing        | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|-------------|-----------------|-----------------|-----------------|
| 399     | 486       |             | 681250.112  | 2535746.023     | 22°55'11.78134" | 82°46'02.55060" |
| 400     | 487       |             | 681249.833  | 2535734.315     | 22°55'11.40090" | 82°46'02.53588" |
| 401     | 488       |             | 681249.833  | 2535729.024     | 22°55'11.22889" | 82°46'02.53365" |
| 402     | 489       | Patch No-58 | 681054.417  | 2535490.481     | 22°55'03.55129" | 82°45'55.57587" |
| 403     | 490       |             | 681001.748  | 2535432.650     | 22°55'01.69204" | 82°45'53.70335" |
| 404     | 491       |             | 680978.556  | 2535382.279     | 22°55'00.06377" | 82°45'52.86833" |
| 405     | 492       |             | 680936.569  | 2535355.645     | 22°54'59.21438" | 82°45'51.38377" |
| 406     | 493       |             | 680978.669  | 2535446.945     | 22°55'02.16569" | 82°45'52.89950" |
| 407     | 494       |             | 681024.995  | 2535498.273     | 22°55'03.81607" | 82°45'54.54671" |
| 408     | 495       |             | 680955.441  | 2535332.076     | 22°54'58.44089" | 82°45'52.03608" |
| 409     | 496       |             | 680922.836  | 2535315.455     | 22°54'57.91336" | 82°45'50.88498" |
| 410     | 497       |             | 680917.893  | 2535315.083     | 22°54'57.90319" | 82°45'50.71136" |
| 411     | 498       |             | 680870.088  | 2535146.698     | 22°54'52.44843" | 82°45'48.96306" |
| 412     | 499       |             | 680861.639  | 2535192.906     | 22°54'53.95369" | 82°45'48.68602" |
| 413     | 500       | Patch No-59 | 680868.539  | 2535103.459     | 22°54'51.04350" | 82°45'48.89053" |
| 414     | 501       |             | 680938.660  | 2534921.447     | 22°54'45.09983" | 82°45'51.27442" |
| 415     | 502       |             | 680934.292  | 2534920.458     | 22°54'45.06940" | 82°45'51.12076" |
| 416     | 503       |             | 680928.207  | 2534929.983     | 22°54'45.38138" | 82°45'50.91124" |
| 417     | 504       |             | 680906.781  | 2534929.089     | 22°54'45.36068" | 82°45'50.15904" |
| 418     | 505       |             | 680851.507  | 2535072.564     | 22°54'50.04590" | 82°45'48.27988" |
| 419     | 506       | Patch No-60 | 681154.483  | 2534627.242     | 22°54'35.45245" | 82°45'58.72352" |
| 420     | 507       |             | 681167.132  | 2534628.502     | 22°54'35.48847" | 82°45'59.16787" |
| 421     | 508       |             | 681253.684  | 2534542.416     | 22°54'32.65645" | 82°46'02.16854" |
| 422     | 509       |             | 681247.749  | 2534532.124     | 22°54'32.32422" | 82°46'01.95597" |
| 423     | 510       |             | 681236.980  | 2534520.980     | 22°54'31.96619" | 82°46'01.57340" |
| 424     | 511       |             | 681148.957  | 2534608.484     | 22°54'34.84488" | 82°45'58.52172" |
| 425     | 512       | Patch No-61 | 681291.491  | 2534467.511     | 22°54'30.20688" | 82°46'03.46353" |
| 426     | 513       |             | 681302.452  | 2534462.274     | 22°54'30.03236" | 82°46'03.84593" |
| 427     | 514       |             | 681309.728  | 2534457.974     | 22°54'29.88977" | 82°46'04.09942" |
| 428     | 515       |             | 681312.705  | 2534462.935     | 22°54'30.04986" | 82°46'04.20595" |
| 429     | 516       |             | 681310.720  | 2534468.558     | 22°54'30.23339" | 82°46'04.13870" |
| 430     | 517       |             | 681305.098  | 2534472.857     | 22°54'30.37534" | 82°46'03.94323" |
| 431     | 518       |             | 681298.814  | 2534475.172     | 22°54'30.45305" | 82°46'03.72372" |
| 432     | 519       |             | 681294.514  | 2534479.141     | 22°54'30.58374" | 82°46'03.57453" |
| 433     | 520       |             | 681295.264  | 2534490.231     | 22°54'30.94394" | 82°46'03.60551" |
| 434     | 521       |             | 681298.211  | 2534498.740     | 22°54'31.21937" | 82°46'03.71248" |
| 435     | 522       |             | 681447.413  | 2534351.326     | 22°54'26.36935" | 82°46'08.88549" |
| 436     | 523       |             | 681467.470  | 2534280.141     | 22°54'24.04764" | 82°46'09.55922" |
| 437     | 524       |             | 681434.129  | 2534299.234     | 22°54'24.68128" | 82°46'08.39743" |
| 438     | 525       | 681423.269  | 2534338.250 | 22°54'25.95376" | 82°46'08.03284" |                 |
| 439     | 526       | Patch No-62 | 681619.539  | 2533291.064     | 22°53'51.83804" | 82°46'14.47741" |
| 440     | 527       |             | 681647.706  | 2533290.285     | 22°53'51.80167" | 82°46'15.46533" |
| 441     | 528       |             | 681585.833  | 2533102.228     | 22°53'45.71305" | 82°46'13.21515" |
| 442     | 529       |             | 681581.317  | 2533099.592     | 22°53'45.62912" | 82°46'13.05559" |
| 443     | 530       |             | 681564.383  | 2533079.748     | 22°53'44.99071" | 82°46'12.45312" |



| Sl. No. | Pillar ID | Patch No    | Easting     | Northing    | Latitude "N"    | Longitude "E"   |                 |
|---------|-----------|-------------|-------------|-------------|-----------------|-----------------|-----------------|
| 444     | 531       |             | 681569.675  | 2533073.398 | 22°53'44.78223" | 82°46'12.63610" |                 |
| 445     | 532       |             | 681564.913  | 2533058.846 | 22°53'44.31107" | 82°46'12.46287" |                 |
| 446     | 533       |             | 681565.177  | 2533050.644 | 22°53'44.04436" | 82°46'12.46869" |                 |
| 447     | 534       |             | 681567.190  | 2533045.567 | 22°53'43.87855" | 82°46'12.53719" |                 |
| 448     | 535       |             | 681563.695  | 2533034.943 | 22°53'43.53459" | 82°46'12.41007" |                 |
| 449     | 536       |             | 681558.007  | 2533027.810 | 22°53'43.30495" | 82°46'12.20749" |                 |
| 450     | 537       |             | 681547.635  | 2533023.789 | 22°53'43.17828" | 82°46'11.84191" |                 |
| 451     | 538       |             | 681530.110  | 2533019.257 | 22°53'43.03782" | 82°46'11.22514" |                 |
| 452     | 539       |             | Patch No-63 | 681515.869  | 2532889.355     | 22°53'38.82091" | 82°46'10.67073" |
| 453     | 540       |             |             | 681512.157  | 2532877.966     | 22°53'38.45215" | 82°46'10.53570" |
| 454     | 541       | 681502.939  |             | 2532880.358 | 22°53'38.53350" | 82°46'10.21328" |                 |
| 455     | 542       | 681485.173  |             | 2532882.303 | 22°53'38.60366" | 82°46'09.59081" |                 |
| 456     | 543       | 681490.816  |             | 2532899.604 | 22°53'39.16384" | 82°46'09.79609" |                 |
| 457     | 544       | Patch No-64 | 681324.623  | 2532302.552 | 22°53'19.82138" | 82°46'03.71386" |                 |
| 458     | 545       |             | 681292.423  | 2532287.770 | 22°53'19.35343" | 82°46'02.57797" |                 |
| 459     | 546       |             | 681315.825  | 2532362.691 | 22°53'21.77962" | 82°46'03.43053" |                 |
| 460     | 547       |             | 681327.030  | 2532364.462 | 22°53'21.83283" | 82°46'03.82438" |                 |
| 461     | 548       |             | 681347.435  | 2532372.547 | 22°53'22.08766" | 82°46'04.54365" |                 |
| 462     | 549       | Patch No-65 | 681357.398  | 2532088.299 | 22°53'12.84422" | 82°46'04.77347" |                 |
| 463     | 550       |             | 681386.827  | 2532090.408 | 22°53'12.90129" | 82°46'05.80679" |                 |
| 464     | 551       |             | 681431.769  | 2532066.004 | 22°53'12.09048" | 82°46'07.37319" |                 |
| 465     | 552       |             | 681432.637  | 2532053.051 | 22°53'11.66911" | 82°46'07.39818" |                 |
| 466     | 553       |             | 681436.062  | 2532032.949 | 22°53'11.01435" | 82°46'07.50986" |                 |
| 467     | 554       |             | 681364.050  | 2532072.685 | 22°53'12.33408" | 82°46'05.00026" |                 |
| 468     | 555       |             | 681524.197  | 2532015.814 | 22°53'10.42296" | 82°46'10.59462" |                 |
| 469     | 556       |             | 681521.240  | 2531999.023 | 22°53'09.87831" | 82°46'10.48378" |                 |
| 470     | 557       |             | 681520.975  | 2531993.599 | 22°53'09.70211" | 82°46'10.47221" |                 |
| 471     | 558       |             | 681514.644  | 2531990.278 | 22°53'09.59663" | 82°46'10.24870" |                 |
| 472     | 559       | Patch No-66 | 683027.927  | 2531504.384 | 22°52'53.20918" | 82°47'03.13107" |                 |
| 473     | 560       |             | 683056.257  | 2531502.004 | 22°52'53.12064" | 82°47'04.12387" |                 |
| 474     | 561       |             | 683125.369  | 2531461.630 | 22°52'51.78109" | 82°47'06.53120" |                 |
| 475     | 562       |             | 683122.896  | 2531452.927 | 22°52'51.49914" | 82°47'06.44075" |                 |
| 476     | 563       |             | 683120.144  | 2531436.840 | 22°52'50.97732" | 82°47'06.33738" |                 |
| 477     | 564       |             | 683109.439  | 2531442.714 | 22°52'51.17247" | 82°47'05.96434" |                 |
| 478     | 565       |             | 683093.183  | 2531449.406 | 22°52'51.39642" | 82°47'05.39690" |                 |
| 479     | 566       |             | 683094.109  | 2531451.445 | 22°52'51.46232" | 82°47'05.43027" |                 |
| 480     | 567       |             | 683093.699  | 2531455.559 | 22°52'51.59621" | 82°47'05.41763" |                 |
| 481     | 568       |             | 683087.415  | 2531459.197 | 22°52'51.71694" | 82°47'05.19873" |                 |
| 482     | 569       |             | 683073.216  | 2531461.334 | 22°52'51.79198" | 82°47'04.70153" |                 |
| 483     | 570       |             | 683049.400  | 2531475.560 | 22°52'52.26380" | 82°47'03.87210" |                 |
| 484     | 571       |             | 683026.207  | 2531477.435 | 22°52'52.33387" | 82°47'03.05928" |                 |
| 485     | 572       |             | Patch No-67 | 683515.696  | 2531197.016     | 22°52'43.02588" | 82°47'20.11132" |
| 486     | 573       |             |             | 683519.457  | 2531226.219     | 22°52'43.97365" | 82°47'20.25572" |
| 487     | 574       | 683603.847  |             | 2531175.808 | 22°52'42.30173" | 82°47'23.19462" |                 |
| 488     | 575       | 683569.608  |             | 2531175.854 | 22°52'42.31674" | 82°47'21.99353" |                 |

| Sl. No. | Pillar ID | Patch No    | Easting     | Northing    | Latitude "N"    | Longitude "E"   |
|---------|-----------|-------------|-------------|-------------|-----------------|-----------------|
| 489     | 576       | Patch No-68 | 683549.633  | 2531176.743 | 22°52'42.35351" | 82°47'21.29321" |
| 490     | 577       |             | 683666.042  | 2531082.094 | 22°52'39.23098" | 82°47'25.33642" |
| 491     | 578       |             | 683675.894  | 2531084.298 | 22°52'39.29872" | 82°47'25.68298" |
| 492     | 579       |             | 683685.816  | 2531082.975 | 22°52'39.25180" | 82°47'26.03047" |
| 493     | 580       |             | 683693.423  | 2531083.305 | 22°52'39.25955" | 82°47'26.29745" |
| 494     | 581       |             | 683698.281  | 2531085.708 | 22°52'39.33571" | 82°47'26.46892" |
| 495     | 582       |             | 683755.083  | 2531018.168 | 22°52'37.11790" | 82°47'28.43268" |
| 496     | 583       |             | 683752.623  | 2531015.175 | 22°52'37.02158" | 82°47'28.34512" |
| 497     | 584       |             | 683721.610  | 2531016.020 | 22°52'37.06131" | 82°47'27.25756" |
| 498     | 585       |             | Patch No-69 | 683724.748  | 2530698.553     | 22°52'26.74080" |
| 499     | 586       | 683727.817  |             | 2530717.789 | 22°52'27.36485" | 82°47'27.34813" |
| 500     | 587       | 683744.465  |             | 2530716.810 | 22°52'27.32645" | 82°47'27.93170" |
| 501     | 588       | 683749.333  |             | 2530714.905 | 22°52'27.26260" | 82°47'28.10166" |
| 502     | 589       | 683754.181  |             | 2530711.665 | 22°52'27.15539" | 82°47'28.27035" |
| 503     | 590       | 683752.795  |             | 2530702.972 | 22°52'26.87336" | 82°47'28.21800" |
| 504     | 591       | 683744.465  |             | 2530701.358 | 22°52'26.82419" | 82°47'27.92511" |
| 505     | 592       | 683738.750  |             | 2530703.686 | 22°52'26.90213" | 82°47'27.72563" |
| 506     | 593       | 683736.845  |             | 2530703.475 | 22°52'26.89601" | 82°47'27.65871" |
| 507     | 594       | 683730.918  |             | 2530700.723 | 22°52'26.80890" | 82°47'27.44964" |

#### 7.4 Annexure – 4: DGPS Surveyed Map of 132KV Transmission Line showing proposed forest diversion area

