

## JUSTIFICATION

In continuation of the requirements of Environmental parameters, construction methodologies to be adopted for different terrain encountered enroute, design and engineering factors, availability of logistic support during construction, operation and maintenance of pipeline, various feasible routes were identified by the consultant **Multi Mantech International Pvt. Ltd.** based on desk study of relevant topographic maps of survey of India.

The study was subsequently supplemented with field reconnaissance and data collection along the feasible routes. Finally the optimum route was arrived at after analyzing the various data and conducting in depth study of topographic maps based on field data.

The route is finalized. **The route for laying 4" Dia Steel Gas Pipeline Connectivity of Kanubhai Rabari SGL CNG Station, Dehgam Ta: Dehgam, Dist: Gandhinagar. (0.04324 Ha)**

Sr. No.	Description	Length (mt)	Width (mt)	Trench width (mt)	Area (Sq.m)	Area (Ha.)	Division
1	Parallel of Naroda Dehgam SH-68 Road Protected Forest. @ch 1065 to @ch 2122	1057	-	0.4	422.8	0.04228	Gandhinagar
2	Crossing of Naroda Dehgam SH-68 Road Protected Forest. @ch 2122 to @ch 2146	-	24	0.4	9.6	0.00096	Gandhinagar
<b>Diversion Area</b>					<b>432.4</b>	<b>0.04324</b>	

The pipeline will be laid at minimum 1.2m below ground level and as per the requirement of the authority.

The pipeline will be passing through protected forest land for about 432.4 Sq.m. i.e. 0.04324 Hectares of land as per enclosed **Annexure-7**.

### Factors considered:

While identifying the various alternatives for selection of the optimum route following factors were considered.

- **Pipeline route has been finalized in such a way that minimum forest land will be utilized as well as tree cutting will be minimum.**
  - Demand and supply center.
  - Compliance with environmental regulations.



- Safety of people and property.
- Shortest possible pipeline length.
- Minimum number of bends.
- Favorable ground profile for pipeline hydraulics.
- Accessibility to pipeline route during construction maintenance and other operation.
- Location of pipeline facilities and access there to
- Avoidance of mining protected and reserved forest archaeological and other sensitive areas.
- Avoidance of unstable ground features.
- Minimizing road, rail, rivers and flood prone areas.
- Avoidance of rocky stretches
- Avoidance of areas reserved for planned future development.
- Feasibility for future expansion.

Based on the above detailed route surveys have been carried out to finalize the exact corridor for laying the pipeline.

**For, Sabarmati Gas Limited.**



**(Mehul Surani)**

**Chief Manager (TS&P)**

