

Schedule B

[see regulation 5(5)(b)(viii)]

Format for furnishing information regarding determining capacity of Petroleum and Petroleum Products Pipeline

1	Name of Entity	INDIAN OIL CORPORATION LIMITED
2	Address and Contact details of Entity	Southern Eastern Region Pipelines 3 rd Floor Alok Bharti Tower Saheed Nagar, Bhubaneswar Odisha- 751007
3	Name of Petroleum and Petroleum Products Pipeline	PARADIP-RAIPUR RANCHI PIPELINE (PRRPL)
4	Name of Software package used for determining capacity	Pipeline Studio
5	Approved Flow equation used (mention name of flow equation)	Colebrooke White Equation
6	Details of injection/entry point and delivery/exit points and sections on the pipeline	Entry Point : Paradip Pumping Station Delivery Points: Jatni, Raipur Terminal, Korba Terminal, Jharsugda, and Khunti (Ranchi) Terminal Sections : Paradip- Jatni- Sambalpur Sambalpur-Saraipali Saraipali- Korba Saraipali- Raipur Sambalpur- Jharsugda- Khunti (Ranchi)
7	Quality of various products being transported in the pipeline	BS-IV HSD, BS-IV MS and SKO are transported through the pipeline which conform to IS-1460:2005, IS-2796:2008 and IS-1459:1974 respectively with their amendments
8	Constant and variable parameters used under steady state conditions for determining capacity of the pipeline	Details Enclosed as Annexure-I
9	Entity agrees to have considered the Technical standards, specifications and safety standards as specified by the Board	Yes/ No
10	Entity agrees to have considered the relevant provisions of Petroleum and Natural Gas Regulatory Board Regulations	Yes/ No

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11	Quality specifications considered for the purpose of capacity determination	High Speed Diesel with a specific gravity of 0.85 and kinematic viscosity of 5cSt @ 20°C
12	Capacity of the pipeline under existing operating conditions	5 MMTPA
13	Maximum achievable Capacity of the pipeline under steady state conditions as determined under section 5 of these regulations	5 MMTPA considering 8000 Hrs of Operation in a Year and without injection of Flow Enhancers
14	Section wise maximum achievable capacity of the pipeline as determined under section 5 of these regulations	Paradip- Jatni : 5 MMTPA Jatni- Sambalpur : 4.45 MMTPA Sambalpur- Saraipali: 3.00 MMTPA Saraipali- Korba : 0.70 MMTPA Saraipali- Raipur: 2.30 MMTPA Sambalpur- Jharsugda- Khunti(Ranchi): 1.45 MMTPA
	Expected addition of entry points and exit points scheduled in near future	-

Note: Submit the system flow diagram & hydraulic gradient : Enclosed at Annexure-II

Schedule C

[see regulation 6(b)]

Format for declaring capacity of Petroleum, Petroleum Products and Natural Gas Pipeline by
the Petroleum and Natural Gas Regulatory Board

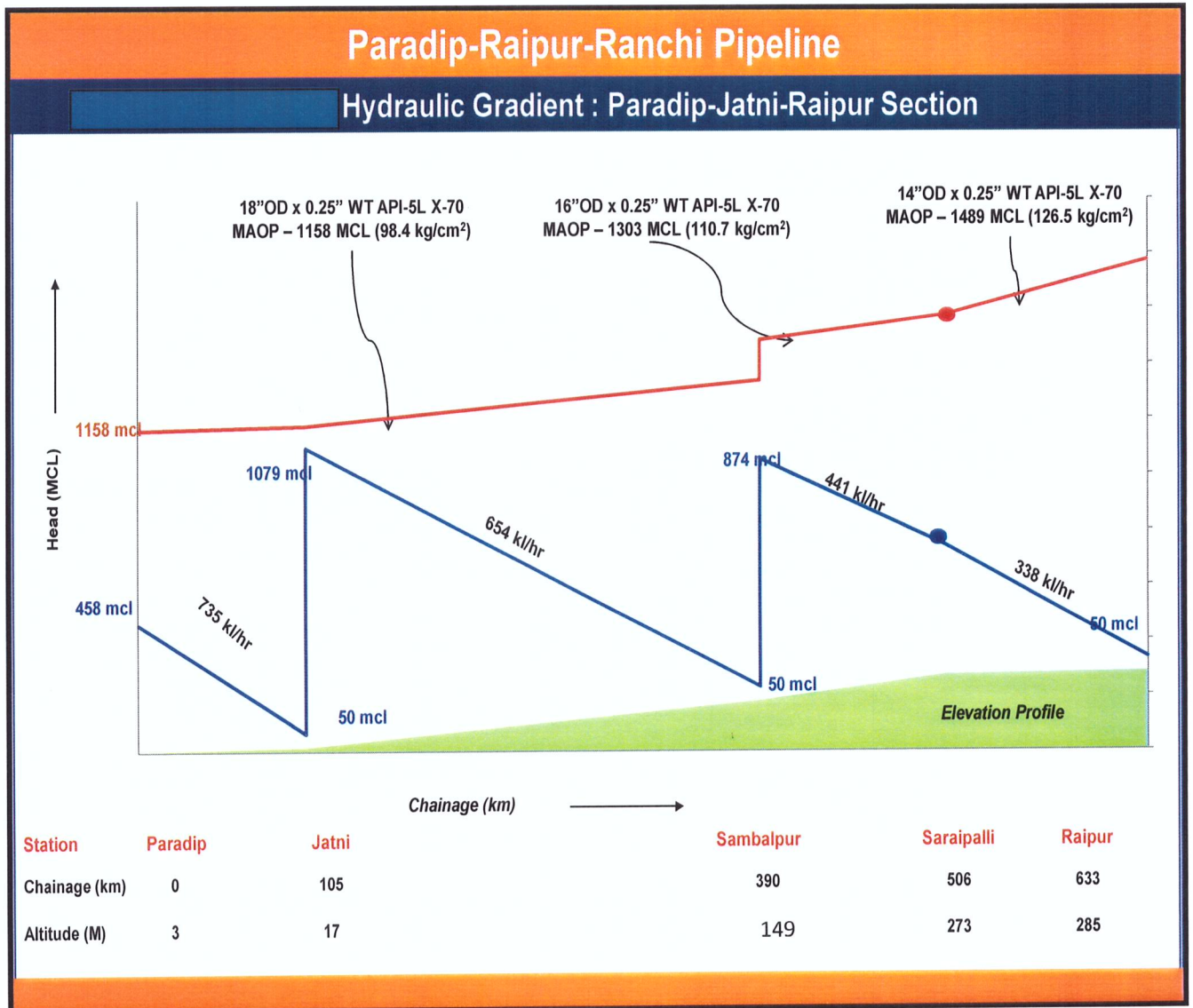
Date of declaration of capacity by the Board: **03/10/2017**

1	Name of Entity	INDIAN OIL CORPORATION LIMITED
2	Address and Contact details of Entity	Southern Eastern Region Pipelines 3 rd Floor Alok Bharti Tower Saheed Nagar, Bhubaneswar Odisha- 751007
3	Name of Pipeline	PARADIP-RAIPUR RANCHI PIPELINE (PRRPL)
4	Details of injection/entry point and delivery/exit points and sections on the pipeline	Entry Point : Paradip Pumping Station Delivery Points: Jatni, Raipur Terminal, Korba Terminal, Jharsugda, and Khunti (Ranchi) Terminal Sections : Paradip- Jatni- Sambalpur Sambalpur-Saraipali Saraipali- Korba Saraipali- Raipur Sambalpur- Jharsugda- Khunti (Ranchi)
5	Name of the software package used by the entity	Pipeline Studio
6	Flow equation used for the purpose	Colebrooke White Equation
7	Product Quality specifications/gas Parameters considered for the purpose of capacity determination	High Speed Diesel with a specific gravity of 0.85 and kinematic viscosity of 5cSt @ 20°C
8	Maximum achievable capacity of the pipeline under steady state conditions	5 MMTPA considering 8000 Hrs of Operation in a Year and without injection of Flow Enhancers
9	Section wise maximum achievable capacity of the pipeline	Paradip- Jatni : 5 MMTPA Jatni- Sambalpur : 4.45 MMTPA Sambalpur- Saraipali: 3.00 MMTPA Saraipali- Korba : 0.70 MMTPA Saraipali- Raipur: 2.30 MMTPA Sambalpur- Jharsugda- Khunti(Ranchi): 1.45 MMTPA

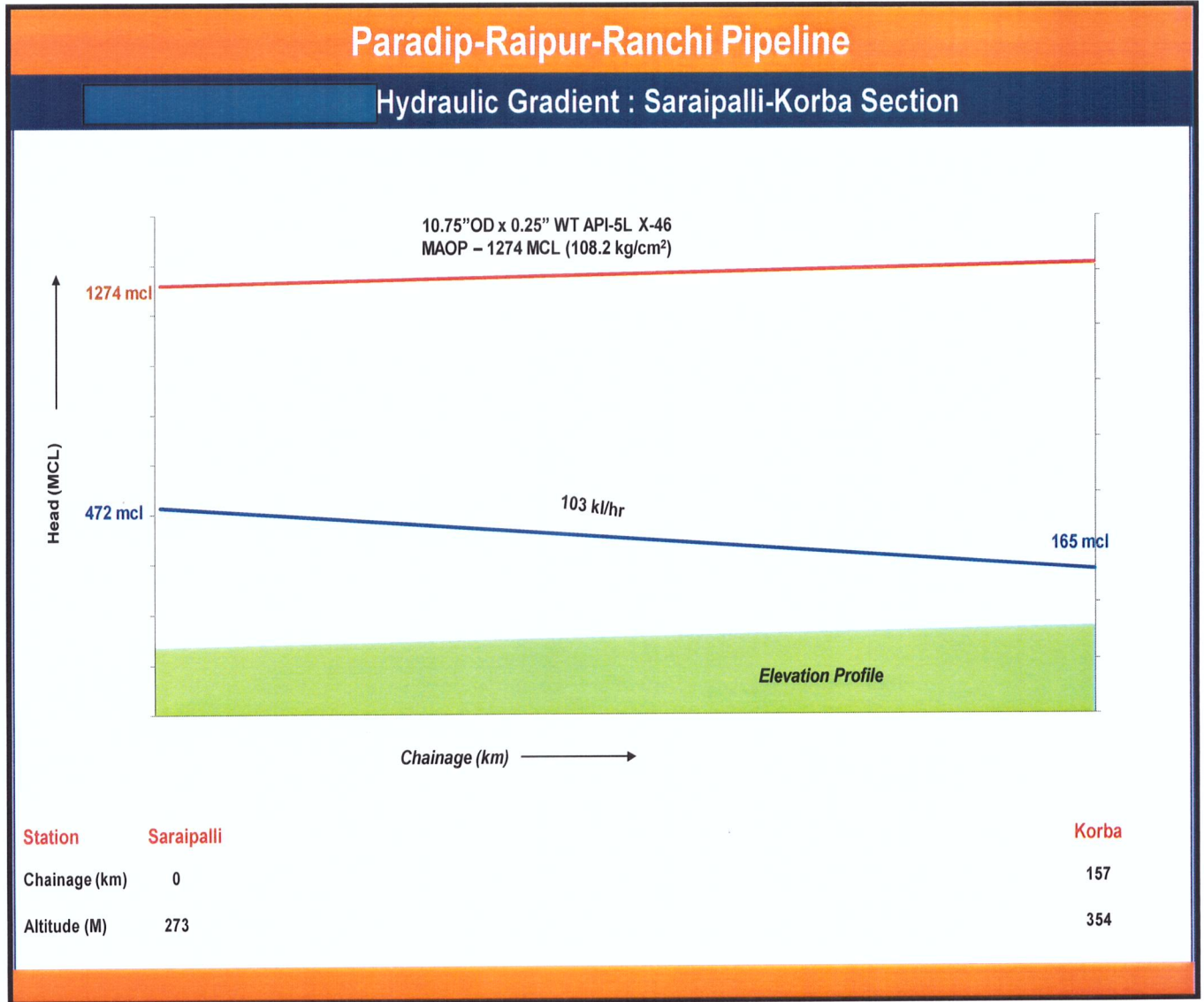


CONSTANT PARAMETERS		
S. No.	Parameter	Details
1	Outer Diameter	Paradip- Jatni- Sambalpur: 18” Sambalpur-Saraipali: 16” Saraipali- Korba: 10.75” Saraipali- Raipur: 14” Sambalpur- Jharsugda- Khunti (Ranchi): 12.75”
2	Length	Paradip- Jatni- Sambalpur: 390 Km Sambalpur-Saraipali: 117 Km Saraipali- Korba: 157 Km Saraipali- Raipur: 127 Km Sambalpur- Jharsugda- Khunti (Ranchi): 282 Km
3	Roughness	45 microns
4	Velocity	2 m/s (Max)
VARIABLE PARAMETERS		
1	Operating Temperature	30 °C (Summer/ Winter)
2	Inlet Temperature	20-45 °C
3	Outlet Temperature	20-45 °C
4	Source Supply Flow	735 Kl/Hr (Rated Flow Rate)
5	Delivery Flow	Jatni- 735 Kl/Hr (Rated Flow Rate) Sambalpur: 655 Kl/hr Raipur: 338 Kl/Hr Korba: 103 Kl/hr Kunti(Ranchi): 214 Kl/hr

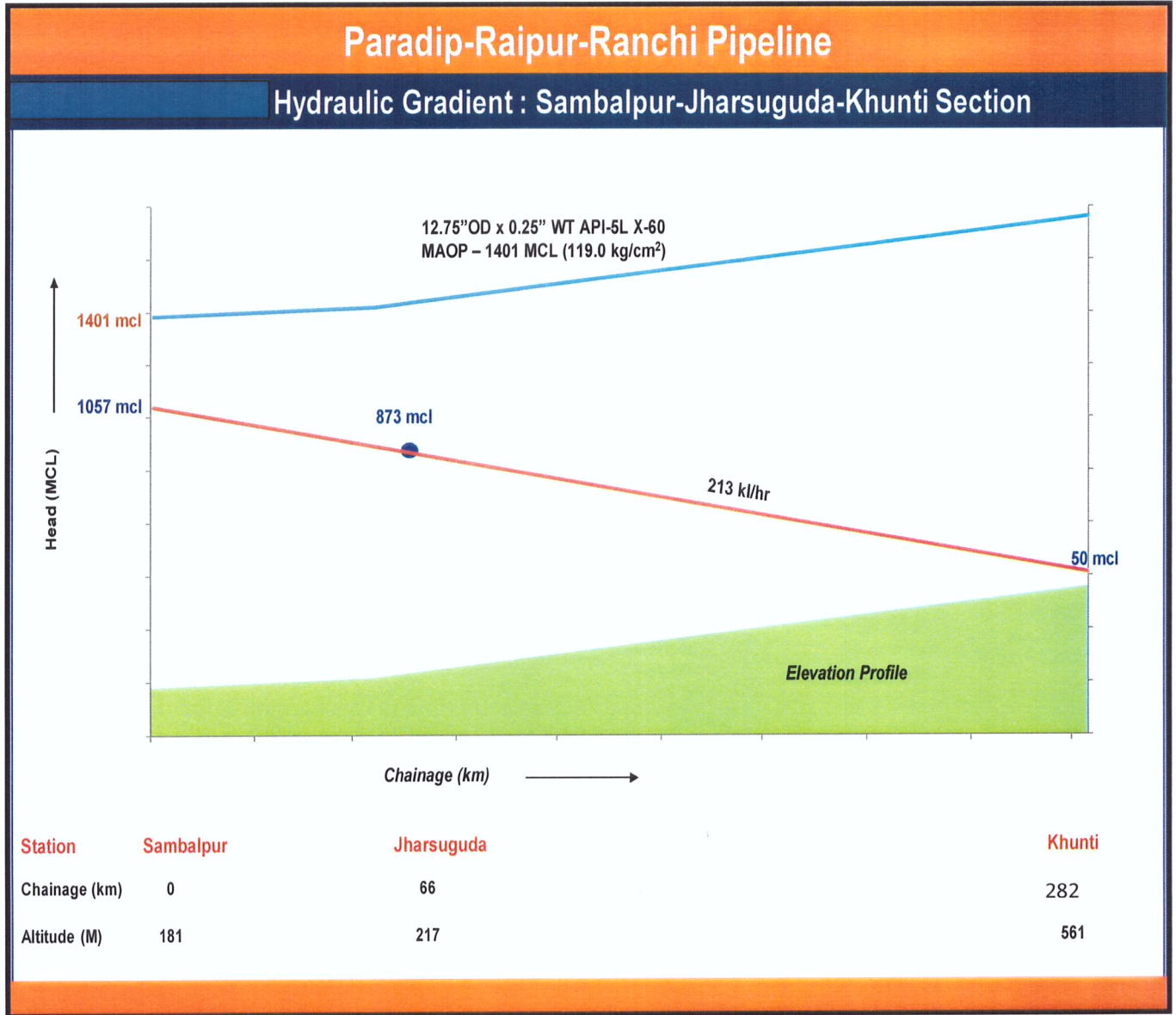
HYDRAULIC GRADIENT- PRRPL



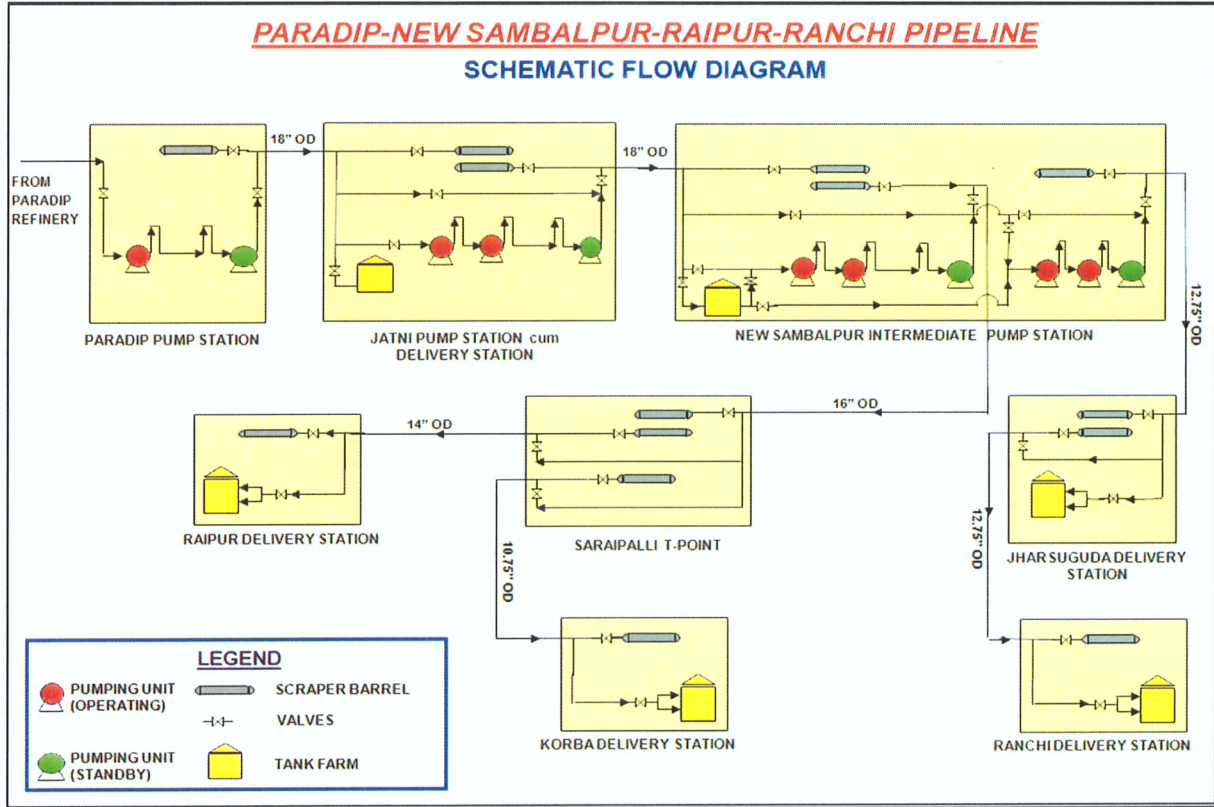
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Sam Singh



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