

# Natural Gas Transmission Pipeline System Inspection & Maintenance Program 2023

4	Aerial Patrolling	-	-	-	-	-	3M	3M	-	-	-	-	-	1Y	1Y	F-700-700-0015 F-700-700-0022	I-700-2039	E	E	E	R/E	R/E	R/E	Visual & Gas Leakage Check with open vault	
5	Soil Erosion Survey	-	-	-	-	-	1Y	1Y	1Y	-	-	-	-	-	-	F-700-700-0032	I-700-2043	R	R	-	R	R/E	R/E	Except PL region 4, 7	
6	Pipeline Settlement Survey	-	-	-	-	-	-	-	-	-	-	1Y	-	-	-	F-700-700-0030	I-700-2044	R	-	-	R	PE/E	R/E		
7	Offshore platform structure settlement survey	-	-	-	-	2Y	-	-	-	-	-	-	-	-	-	F-700-700-0024	I-700-700-0036	OF	OF	OF	OF	OF/E	OF/E	For platform, Topside will be inspected only	
8	ROV Survey (Visual Inspection, Free span)	5Y	5Y	-	-	-	-	-	-	-	-	-	-	5Y	-	F-700-700-0013	-	OF	OF	OF	OF	OF/E	OF/E		
9	ROV Survey (Visual Inspection, FMD)	-	-	-	-	5Y / 7Y	-	-	-	-	-	-	-	5Y	-	-	-	OF	OF	OF	OF	OF/E	OF/E	ERP 5 Year / PRP 7 Year	
External corrosion control : Cathodic Protection System, Protective Coating system																									
1	P/S Potential Survey (on-off) @ Test Post	-	-	-	-	-	6M	6M	6M	6M	-	-	-	1Y	1Y	F-700-700-0004	I-700-2003	R	-	-	R	E	R/E		
2	Casing Inspection	-	-	-	-	-	6M	6M	6M	-	-	-	-	1Y	-	F-700-700-0006	I-700-2005	R	-	-	R	E	R/E		
3	Bond Box Inspection	-	-	-	-	-	1M/6M	1M/6M	1M/6M	1M/6M	-	-	-	1Y	1Y	F-700-700-0003	I-700-2014	R	-	-	R	E	R/E	Not interrupt CP current / Full inspection	
4	Anode Groundbed Inspection (ICCP)	5Y	5Y	-	-	5Y / 7Y	-	-	1Y	1Y	-	-	-	5Y	-	F-700-700-0019	I-700-2006	R	-	-	R	E	R/E	ERP 5 Year / PRP 7 Year	
5	ROV (Anode/Electrolyte Potential Survey)	-	-	-	-	-	-	-	-	-	1M	-	-	1Y	1Y	F-700-700-0007	I-700-2004	R	-	-	R	E	R/E		
6	CP Transformer Rectifier Inspection	-	-	-	-	-	1Y	1Y	1Y	1Y	-	-	-	-	-	F-700-700-0004	I-700-2003	R	-	-	R	E	R/E		
7	AC Mitigator Inspection (DC Decoupler, Surge protection device, Zn around wire/mat)	-	-	-	-	-	1Y	1Y	1Y	1Y	-	-	-	-	-	-	-	-	-	-	-	-	-		
8	Close Interval P/S Potential Survey (CIPS)	5Y	5Y	-	-	-	5Y	5Y	5Y	5Y	-	-	-	10Y	-	F-700-700-0018	I-700-2009	R	R	R	R	E	R/E		
9	ROV (Pipe/Electrolyte Potential Survey)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0028	I-700-2008	-	-	-	-	-	-		
10	Coating Defect Survey (DCVG), ACVG, PCM	5Y	5Y	-	-	-	5Y	5Y	5Y	5Y	-	-	-	10Y	-	F-700-700-0018	I-700-2018	R	R	R	R	E	R/E		
11	ROV (Voltage Gradient Survey)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0028	I-700-2019	-	-	-	-	-	-		
12	Insulating Joint or Flange Inspection	-	-	-	-	-	-	-	-	-	1Y	-	1Y	-	-	F-700-700-0011	I-700-2015	R	-	-	R	E	R/E		
13	CP Online Calibration (P/S, TR-V, TR-C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0025	I-700-2016	-	-	-	-	-	-		
14	CP Online Calibration (P/S, TR-V, TR-C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0009	I-700-2013	R	-	-	R	E	R/E		
15	CP Online Calibration (P/S, TR-V, TR-C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0010	I-700-2012	-	-	-	-	-	-		
16	CP Online Calibration (P/S, TR-V, TR-C)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	F-700-700-0039	I-700-2046	-	-	-	-	-	-		
External Inspection / Direct Examination																									
1	General surface / coating condition inspection	-	-	1Y	-	1Y	-	-	-	-	1Y	5Y	1Y/5Y	-	-	F-700-700-0053	-	R/OF	-	-	R/OF	E	R/OF/E	For platform, Topside will be inspected only	
2	Splash zone / soil to air piping inspection	-	-	1Y	-	1Y	-	-	-	-	1Y/5Y	-	1Y/5Y	-	-	F-700-700-0017	I-700-2024	R/OF	-	-	R/OF	E	R/OF/E	For pipeline, Visual/Close Visual Inspection	
3	Corrosion under pipe support inspection	-	-	1Y/5Y	-	1Y/5Y	-	-	-	-	1Y/5Y	-	1Y/5Y	-	-	F-700-700-0033	I-700-2023	R/OF	-	-	R/OF	E	R/OF/E	Visual / Full Inspection	
4	Corrosion under insulation (CUI) Inspection	-	-	1Y/5Y	-	1Y/5Y	-	-	-	-	1Y/5Y	-	1Y/5Y	-	-	F-700-700-0036	-	R/OF	R/OF	R/OF	R/OF	E	R/OF/E	Visual / Full Inspection	
5	Wall Thickness Inspection @ critical location	-	-	5Y	5Y	-	-	-	-	-	5Y	5Y	5Y	10Y	-	F-700-700-0020	I-700-2002	R/OF	-	-	R/OF	E	R/OF/E		
6	Crack inspection	-	-	-	5Y	-	-	-	-	-	-	5Y	-	-	-	-	-	OF	OF	OF	OF	E	OF/E	Crack inspection at weld joint	
7	Hottapped Coupon Measurement	EH	EH	-	-	-	EH	EH	EH	EH	-	-	-	-	-	Coupon Inspection	-	-	E	E	R	E	R/E		
8	Excavation & Direct Examination	-	-	-	-	-	EP	EP	EA	-	-	-	-	-	-	F-700-700-0029	-	E	R	R	R/E	E	R/E	Dig site verify after Pigging, DCVG, Hottap	
Internal corrosion control : Chemical Threatment, Moisture dewpoint control																									
1	Moisture control	Monitoring	Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	OF	OF	OF	OF	OF	OF		
2	Inhibitor Injection	Monitoring	Monitoring	-	-	-	-	-	-	-	-	-	-	-	-	-	I-700-700-1066	-	OF	OF	OF	OF	OF		
Internal Inspection : Cleaning, Inline & Sample Inspection																									
1	Cleaning Pig	Cond.	-	-	-	Cond.	Cond.	-	-	-	-	-	-	-	-	F-700-700-0014	-	E/R/OF	R/OF	R/OF	R/OF	E	R/E/OF	For sampling & send deposit/liquid to Q	
2	Corrosion (MFL) Pig	5Y	-	-	-	5Y	5Y	-	-	-	-	-	-	-	-	F-700-700-0013	-	E/R/OF	-	-	R/E/OF	E	R/E/OF		
3	Geometry (Caliper, Gauge, 3D) Pig	5Y	-	-	-	5Y	5Y	-	-	-	-	-	-	-	-	F-700-700-0013	-	E/R/OF	E	E	R/E/OF	E	R/E/OF		
4	Chemical analysis (Deposit, Liquid)	EP	-	-	-	EP	EP	-	-	-	-	-	-	-	-	F-700-700-0013	-	E	Q	Q	R/E/OF	Q	E	From Pig, Filter, Separator, Slug catcher	
5	Corrosion Probe / Coupon Measurement	3Y	-	-	-	3Y	-	-	-	-	-	-	-	-	-	F-700-700-0016	-	E	E	E	R/E/OF	R/E/OF	R/E/OF		
Other																									
1	Location Class Survey	-	-	-	-	5Y	5Y	-	-	-	-	-	-	-	-	F-700-700-0013	-	A	A	A	A	A/E	A/E	Including aerial photo procurement	
Remarks : The above inspection intervals are minimum requirement, more frequent inspection may required at specific location.																									
Schedule / Form:																									
1) F-700-700-0013, Pipeline Integrity Plan																									
2) F-700-700-0014, Cleaning Pig & Instrument Pig Schedule																									
3) F-700-700-0015, Aerial Leakage Survey & Patrolling Schedule																									
4) F-700-700-0016, Corrosion Coupon Inspection Schedule																									
5) F-700-700-0018, Pipeline Indirect Inspection and Integrity assessment plan																									
6) F-700-700-0019, Replacement plan for ICCP Anode grounded																									
7) F-700-700-0028, Distribution P/L Indirect Inspection and Integrity Assessment Plan																									
8) F-700-700-0029, Direct Assessment																									
9) F-700-700-0030, Soil Settlement																									
10) F-700-700-0032, Soil Erosion Correction Plan																									
11) F-700-700-0044, Distribution Pipeline Direct Examination																									



บริษัท ปตท. จำกัด (มหาชน)

รายงานผลการปฏิบัติตามมาตรการป้องกันและแก้ไขผลกระทบสิ่งแวดล้อม  
และมาตรการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม (ระยะดำเนินการ)

โครงการท่อส่งก๊าซธรรมชาติในพื้นที่รับผิดชอบของส่วนปฏิบัติการระบบท่อเขต 11

ปี 2566 (ระหว่างเดือนกรกฎาคม-ธันวาคม)

## ภาคผนวก ณ-2

แผนการบำรุงรักษาระบบท่อส่งก๊าซธรรมชาติ

ประจำปี 2566