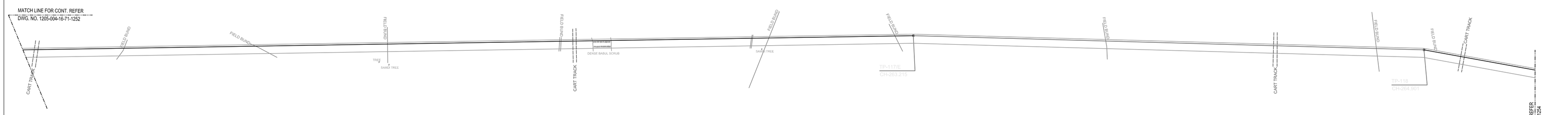
TURNING POINT (TP)	TP-117/E	TP-118	
DEFLECTION ANGLE (°_ ' _")	2°30'00"R	8°45'00"R	
DISTANCE BETWEEN TP's (m)	2940.538	1686.630	372.832
STATE & DISTRICT	DHOLKA	AHEMADABAD	GUJARAT

SURVEY DETAILS



PLANIMETRY

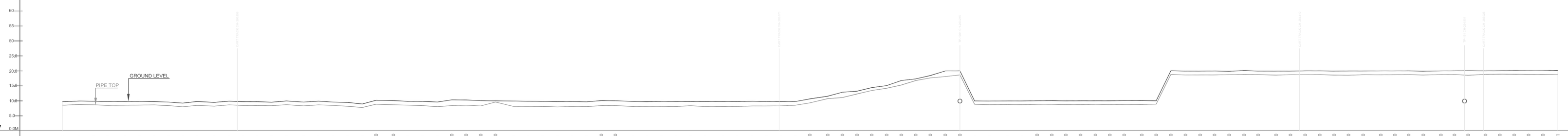
SCALE :-

ALONG LINE 1:5000
ACROSS LINE 1:5000

GROUND PROFILE

SCALE :-

HORIZONTAL 1:5000
VERTICAL 1:500



REFERENCE DATUM

GROUND LEVELS(m)

PIPE TOP LEVELS(m)

DISTANCE BETWEEN LEVEL POINTS (IN METRES)

SURFACE /TERRAIN DETAILS

DENSE BABUL SCRUB

PIPELINE DETAILS

CLASS/ZONE LOCATION	NOT APPLICABLE
DESIGN FACTOR	0.72
LINE PIPE DETAILS – MATERIAL	API 5L Gr. X-70, HSAW
LINE PIPE DETAILS – O.D.X. WALL THICKNESS (mm x mm)	610, 7.1
CUMULATIVE CHAINAGE (KM METRES) (000 + 000)	260.274 … 265.274
SPECIAL PROVISIONS	
PIPE LINE COVER MINIMUM (METRES)	1.0 / 1.2
CROSSINGS	CART TRACK 260+829 260+860; CART TRACK 262+664 262+675; CART TRACK 264+429 264+449; CART TRACK 265+019 265+037
SPECIAL INSTALLATION FITTING/MARKERS	
COATING SCHEME	LINE PIPE: THREE LAYER POLYETHYLENE COATING (3LPE) (MIN. 2.5 mm THK) AS PER SPEC. No. 6-71-0041 AND FIELD JOINT COATING HEAT SHRINK SLEEVE AS PER SPEC. NO. 6-71-0044
CATHODIC PROTECTION INSTALLATIONS	REFER GENERAL NOTE-4

SUB-SOIL DETAILS

SOIL RESISTIVITY (OHM-M)	L-01 L-02; 0.403 L-03; 0.703 L-04; 0.530 L-05; 0.518 L-06; REFER GENERAL NOTE-5; 1.254 L-07; 1.054 L-08; 0.995 L-09; 1.084 L-10; 0.989 L-11; 1.847 L-12
SOIL STRATIFICATION DEPTH IN (m)	REFER GENERAL NOTE-5

TOPOGRAPHIC SYMBOLS

PROPOSED PIPE LINE
EXISTING PIPE LINE
TURNING POINT
INTERMEDIATE POINT
METALLED ROAD
UNMETALLED ROAD
RAILWAY LINE
STREAM > 5m WIDTH
STREAM <5m WIDTH (DRY)
STREAM (PERENNIAL) > 5 m
CANAL (DESCRIBED)
BRIDGE
POWER LINE
TELEPHONE LINE
FENCES
GROUND PROFILE
DAM (DESCRIBED)
WATER TANK, LAKE OR RIESERVOR
QUARRY
SWAMP OR MARSH
MUD
WELL (DESCRIBED)/TUBEWELL
PLACE OF WORSHIP
MONUMENT
HUTS (TEMPORARY)
HUTS (PERMANENT)
GRAVES
TREE

PIPELINE SYMBOLS

CATHODIC PROTECTION TEST STATION
POTENTIAL GRADIENT CONTROL MAT (PGCM)
TRANSFORMER RECTIFIER
AC INTERFERANCE MITIGATION Zn RIBBON PARALLEL TO PIPE
ANODE GROUND BED
EXISTING CABLE/ PIPELINE CROSSING
HOT BEND (R=6D)
CS CODUIT FOR OFC
OFC PULLING PIT
UNCASED CROSSING
CASED CROSSING
CONTINUOUS CONCERETE WEIGHTING
GEOTEXTILE BAGS
INTERMEDIATE SCRAPER STATION
INSULATING JOINT
SCRAPER TRAP
KM MARKER
PIPE LINE WARNING SIGN
AERIAL MARKER
NAVIGABLE WATER WAY PIPE LINE WARNING SIGN
DIRECTION MARKER
HDPE DUCT FOR OFC
SECTIONALISING VALVES
ZINC GROUNDING CELL

SOIL SYMBOLS

CH MEDIUM CLAY WITH HIGH PLASTICITY
CI MEDIUM CLAY WITH MEDIUM PLASTICITY
CL CLAYEY SAND
SM SILTY SAND POORLY GRADED SM VARIANT
CI/OL MEDIUM CLAY WITH LOW PLASTICITY
ML MEDIUM SILTY CLAY WITH MEDIUM PLASTICITY
SW WELL GRADED SAND
CL MEDIUM CLAY WITH LOW PLASTICITY
RGNK ROCK
GW WELL GRADED GRAVELS
SCNK SOFT ROCK WITH KANKRES
WL/WN WHITE LIME WITH KANKARS
SP POORLY GRADED SAND
CL/WN CLAY WITH KARKAR BASALT
GP POORLY GRADED GRAVELS
GM SILTY GRAVELS POORLY GRADED
GC CLAYEY GRAVELS POORLY GRADED
CL/WN CLAY WITH KARKAR
HB WEATHERED BASALT
CL CLAY
SC SILTY CLAY
SS SILTY SAND
SCNK SANDY CLAY WITH KANKAR
WVB MOORUM WITH BOULDERS
HR WEATHERED ROCK
W MOORUM
RCL/WN RED CLAY WITH KANKARS
SM SANDY MOORUM
BR RED ROCK
HR HARD ROCK
WM MOORUM WITH GRAVELS
BR EXPOSED ROCK
GC GREYISH CLAY
BLCK BLACK COTTON SOIL
EWB EXPOSED WEATHERED BASALT
SLWN SILTY CLAY WITH MOORUM
CLWN CLAY WITH MOORUM
BLCW BLACK COTTON SOIL WITH KANKAR
SG SANDY GRAVEL
BCW BLACK COTTON SOIL WITH KANKARS
SCNS SILTY CLAY WITH SAND
SC SANDY CLAY
RN RED ROCK
CLN CLAYEY SILT
CLWN SILTY CLAY WITH KANKARS
SWN SOIL WITH KANKARS
SSN SILTY SAND WITH KANKARS
CSWN CLAYEY SILT WITH KANKARS
BSC BLACK SILTY CLAY
SS SANDY SILT
SWC
EWR EXPOSED WEATHERED ROCK
CLWG CLAY WITH GRAVELS

GENERAL NOTES :-

1. LOCATION OF MARKERS ARE EXACT AS PER FIELD SURVEY.
2. FOR ALL CROSSINGS, THE THICKNESS OF CASING PIPES PROVIDED AS PER SPECIFIC REQUIREMENTS & THE SAME IS TABULATED IN B.O.M. ALL THE CROSSINGS EXECUTED AS PER RELEVANT GR STANDARD/DRAWING.
3. LOCATION OF SLOPE BREAKERS ARE PROVIDED AS PER STANDARD & AS PER INSTRUCTIONS OF ENGINEER-IN-CHARGE.
4. INSTALLATION OF CATHODIC PROTECTION FACILITIES PROVIDED AS PER DRAWINGS/ DOCUMENTS SUBMITTED BY CONTRACTOR AND APPROVED BY COMPANY.
5. FOR DETAILS REGARDING SOIL STRATIFICATION AND SOIL RESISTIVITY ALONG THE ROUTE, REFER M/S PETRO IT'S SOIL INVESTIGATION & RESISTIVITY REPORT.
6. ANTI BUOYANCY CONTROL (CONCRETE WEIGHT COATING) AND GEOTEXTILE BAGS, IF REQUIRE, SHALL BE DECIDED AT SITE (BESIDE THE LOCATION AS SHOWN IN ALIGNMENT SHEET) CASE TO CASE BASIS AND AS PER INSTRUCTION OF ENGINEER-IN-CHARGE.

NOTES :-

1. ALL LEVELS ARE IN "METERS" AND CORRESPOND TO MEAN SEA LEVEL (MSL).
2. O.D.X CHAINAGE CORRESPONDS TO INSULATING JOINT AT VADINAR.
3. ANTI BUOYANCY MEASURES, IF REQUIRED, SHALL BE DECIDED AT SITE IN CONSULTATION WITH ENGINEER-IN-CHARGE.
4. THE EXTENT OF CASED CROSSING PROVIDED AS PER INSTRUCTION OF ENGINEER-IN-CHARGE.

BILL OF MATERIAL FOR THIS DRAWING

610	7.1	3LPE	5000	K.M. POST	3
				DIRECTION MARKER	
				AERIAL MARKER	1
			5000	INSULATING JOINTS	
				HOT BENDS	
				NAVIGABLE WATERWAY WARNING MARKER	4
				OFC JOINT PIT	1
				CP TEST STATION	4

REFERENCE DRAWINGS

TITLE	NUMBER
CROSSING	CHAINAGE(m)
CART TRACK	260859
CART TRACK	262670
CART TRACK	264410
CART TRACK	265025

DESCRIPTION	ECIL	EIL	BORL
AS BUILT DRAWING			

AS BUILT DRAWING

इंजीनियर्स इंडिया लिमिटेड ENGINEERS INDIA LIMITED (A Govt. of India Undertaking)

BHARAT OMAN REFINERIES LIMITED

ESSAR ESSAR CONSTRUCTIONS (INDIA) LIMITED

बीना रिफायनरी परियोजना (वाडीनार बीना पाइपलाइन) — BINA REFINERY PROJECT (VADINAR-BINA PIPELINE)

एलाइनमेन्ट शीट वाडीनार से बीना चेनैज 260.274 से 265.274 कि.मी — ALIGNMENT SHEET VADINAR TO BINA CHAINAGE 260.274 KM TO 265.274 KM

SCALE	JOB NO.	UNIT	DEPT.	SECT.	DWG. NO.	REV.
AS SHOWN	1205	004	16	71	1253	0