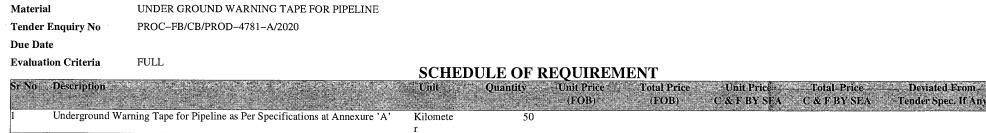
OIL & GAS DEVELOPMENT COMPANY LIMITED PROCUREMENT DEPARTMENT, ISLAMABAD FOREIGN SECTION B

(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'



Note: (1) BID BOND AMOUNT: USD 640/- OR EQUIVALENT PAK RUPEES (2) EVALUATION CRITERIA: FULL CONSIGNMENT WISE ON CFR BY SEA KARACHI PAKISTAN BASIS (3) DELIVERY PERIOD IS 120 DAYS FROM DATE OF ESTABLISHMENT OF LETTER OF CREDIT (4) TENDER DOCUMENTS AVAILABLE ON OGDCL'S WEBSITE UNDER TAB "MASTER SET OF FOREIGN TENDER DOCUMENTS (PRESS-SINGLE STAGE TWO ENVELOP) – UPDATED"

Annexure-A



SPECIFICATION FOR UNDERGROUND WARNING TAPES FOR OIL & GAS PIPELINE

1.	SCO	PE	3			
2.	CRO	SS REFERENCES TO OTHER STANDARDS	3			
3.	APP	LICABLE CODES AND STANDARDS	3			
4.	MA	TERIAL, DESIGN AND CONSTRUCTION REQUIREMENTS	3			
5.	5. TESTING AND INSPECTION					
6.	5. SUBMITTALS					
		SUBMITTALS REQUIRED WITH TENDER/INQUIRY				
	6.2.	SUBMITTALS REQUIRED FOLLOWING AWARD OF CONTRACT	1			
7.	TEC	HNICAL DATA SCHEDULE	5			
8.	DRA	WING	7			

1. Scope

This Specification specifies the minimum technical requirements of underground warning tapes to identify and give early warning to excavators that a pipeline is buried underneath.

2. CROSS REFERENCES TO OTHER STANDARDS

N/A

3. APPLICABLE CODES AND STANDARDS

The latest revision of the following codes and standards shall be applicable for the equipment/materials covered in this specification. In case of any deviation, the vendor/manufacturer may propose equipment/materials conforming to alternate codes or standards. However, the provisions of these standards shall supersede the provisions of alternate standards in case of any difference.

Table 1: List of applicable standards

Standard #	Title
ASTM D792	Test Methods for Density and Specific Gravity (Relative Density) of
ASTIVI D792	Plastics by Displacement
ASTM D882	Test Method for Tensile Properties of Thin Plastic Films
ASTM D2103	Specification for Polyethylene Film and Sheeting
ASTM D2578	Test Method for Wetting Tension of Polyethylene and Polypropylene
ASTM D2578	Films

4. MATERIAL, DESIGN AND CONSTRUCTION REQUIREMENTS

• All warning tapes shall be manufactured from high-grade virgin materials of low density polyethylene polymers.

- The warning tapes should be resistant to most soil types including alkaline and acidic soils.
- Warning tapes shall have a minimum thickness of $200\mu m$ with allowable tolerance of $+50\mu m$.
- Warning tapes shall have a width of 150mm and a roll size of 500m.
- The imprints in the warning tapes shall be indelible, lead-free, black color and shall be over coated to protect the imprints from acids, alkalis, and other soil substances.

5. TESTING AND INSPECTION

All underground warning tapes shall be tested in conformance with the applicable clauses of the standards mentioned in this specification.

6. SUBMITTALS

6.1. SUBMITTALS REQUIRED WITH TENDER/INQUIRY

- 6.1.1 Compliance to SOR and this specification (Sign & stamped by the bidder)
- 6.1.2 Manufacturer's Catalogue
- 6.1.3 Certificate stating that the raw material has been sampled, tested and inspected in accordance with relevant standard specifications.
- 6.1.4 Filled-up technical data schedule of the item offered
- 6.1.5 Proof that the product offered is already been supplied and used in Oil
- 6.1.6 & Gas Companies.
- 6.1.7 USB Flash Drive containing e-copy of all the documents mentioned above

6.2. SUBMITTALS REQUIRED FOLLOWING AWARD OF CONTRACT

- 6.2.1 Samples
- 6.2.2 Quality assurance tests
- 6.2.3 Manufacturing and routine test schedules

7. TECHNICAL DATA SCHEDULE

Table 2: Technical Data Schedule

No	Description	OGDCL Specified Values (*)	Vendor Proposed Values (**)
1	Warning Tape		
1.1	Material (Virgin Grade)	Low Density Polyethylene Film	
1.2	Resistant to most soil types including alkaline and acidic soils	Yes	
1.3	Thickness + Tolerance	$200\mu m + 50\mu m$	
1.4	Width	150mm	
1.5	Roll Size	500m	
1.6	Color	Red Stripes over White	
2	Imprints		
2.1	Color	Black & White	
2.2	Material	Indelible Lead-Free	
2.3	Design	As specified	
2.4	Overlay Clear Coating	Yes	
	Manufacturer	**	
	Manufacturer Catalogue Number	**	
	Country of Origin	**	
	Submittals Required with Tender/Inquiry Included or Not?	**	

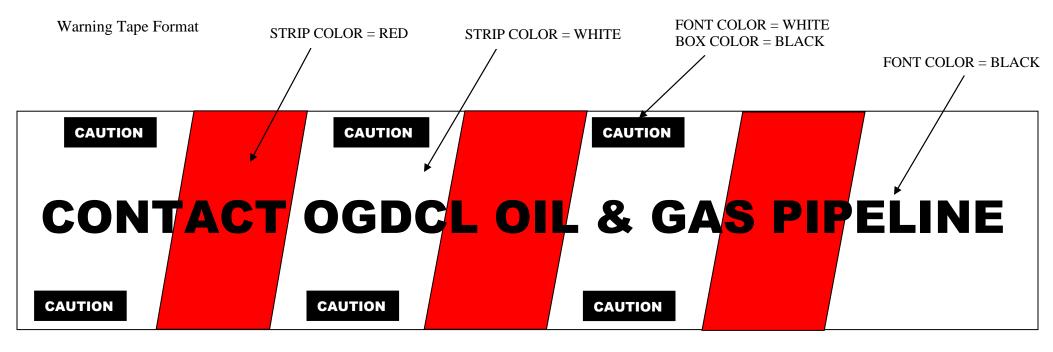
Warning Tape

- Additional Technical Information or Features Specified by OGDCL
- Additional Supplementary Data or Features Proposed by Bidder/Vendor/Supplier.
- Other Particulars to be filled-up by the Bidder/Vendor/Supplier.
- List of Deviations and Clauses to which exception is taken by the Bidder/Vendor/Supplier. (Use separate sheet, if necessary).

Description	Manufacturer of Material/Equipment	Vendor/Supplier
Name of Company		
Location and Office Address		
Name and Signature of Authorized Representative with Date		
Official Seal / Stamp		

6

TECHNICAL DATA SCHEDULE



0.75-Inch

4-Inch

3-Inch

Notes:

1.Width: 150mm

2.Roll Size: 500m

3.Thickness: 200µm

4.Font Size:

5.Printing on Both side.

6.Shrink packaging (individual roll in a shrink packaging) with transparent bag and then put into carton.

7.Non-Detectable (Without tracer wire)