

METER PROVING

SERVICE EXPERTISE

Onshore Meter Proving and Calibration:

- *Production plants*
- *Pipelines*
- *Lease automated custody transfer units (LACTs)*
- *Refineries*
- *Storage tanks & terminals*

Crude Oil Rail-Car Metering and Calibration.

Truck mounted Meter Proving and Calibration.

Meters:

- *Positive Displacement*
- *Turbine*
- *Master*
- *Coriolis*

Materials:

- Crude oil
- Diesel
- ATB
- NAPTHA

PROVER CAPABILITY

Bi-Directional prover units:

- Flowrate: Up to 1300/hr
- Up to 500 PSI
- Hookups/Hose: 2", 3", 4"
- Electronic or Mechanical Pulse Connection

REPORTING

Custom report provides both
accepted methods of proving.
ProveIt program available.



RELIABLE. PRECISE. TRUE.

0411 th Ave. SE PO Box 175 Bellevue, ND 58622-9300		Measurement Services LLC Meter Proving Report <i>Crude Oil</i>		Tel.: 701-559-3252	
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Fed ID#	State ID #	Date	Ambient Temp °F	Report No
Lse Owner	Master Proving Report			
Lse Name				
Legal's				
County				

Prover Data	Volume (Bbl) @ 60.0 F and 0.0 Prig	ID (in)	WT (lb)	Ep	Gc	Serial No.
	3.162660	7.981	0.322	3.00E+07	1.84E-05	719

Previous Report			
Flow Rate	M.F.	CMF	Date

Meter Data	Serial No.	Meter No.	Pulses/Bbl	Temp. Comp.	Manuf.	Size (in)	Model
			10000	No			

N.O. FR	Flow Rate	Non-Reset Totalizer	Previous Reading	Bbls since last Proving
			0	0

Run Data	Avg. Temp	N.O. Pressure	Pressure (Prig)	Total Pulses	Run #	IMF	CTS =	CPS =	CPL =	CTL =
	Temperature (°F) Prover Avg Meter		Pressure (Prig) Prover Meter	Total Pulses Round Trip	Run #		Correction for the effect of Temperature on steel as per API MPMS 12.2.3	Correction for the effect of Pressure on steel as per API MPMS 12.2.3	Correction for the effect of pressure on a liquid as per API MPMS 11.2.1	Correction for the effect of temperature on a liquid as per ASTM-1250 Table 6A
					1					
					2					
					3					
					4					
					5					
					6					
					7					
					8					
					9					
					10					

Avg:				#VALUE!	- Repeatability -	#####
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Liquid Data	Type	Gravity	Obs Gravity	Specific Gravity	R.V. Press.
	This Meter Proving Report to be used for Crude only	(API @ 60.0 F) #NAME?			0.0
			Ob: Temp.		

Field Calculations Based on Average Meter Data Format									
Prover Volume (Bbl) 3.16266	x	CTSp #DIV/0!	x	CPSp #DIV/0!	x	CTLp #DIV/0!	x	CPLp #DIV/0!	= Net Prover Volume (GSTp)
Average Pulses #DIV/0!	/	Pulses/Bbl 10000	=	JTm (Bbl) #DIV/0!	x	CTLm #DIV/0!	x	CPLm #DIV/0!	= Net Meter Volume (JTM)
Net Prover Volume (GSTp)	/	Net Meter Volume (JTM)	=	METER FACTOR #DIV/0!	x	CPL @ (determining)	=	Composite Factor	Factor change since last proving. #VALUE!

Remarks, Repairs, Adjustments, etc., 1" run not used in calculations	Total Temp.	Counts	Avg. Temp. #DIV/0!	Permanent Seals / Date	Seal Number	SEAL	OFF	ON	POSITION

Signature	Effective Date	Company Represented
		Measurement Services LLC

TECHNICIANS COMPLETE RIGOROUS HSE STUDY THAT HAS EARNED MEASUREMENT SERVICES LLC SEVERAL AWARDS FOR ACCIDENT, INJURY AND INCIDENT PREVENTION.

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