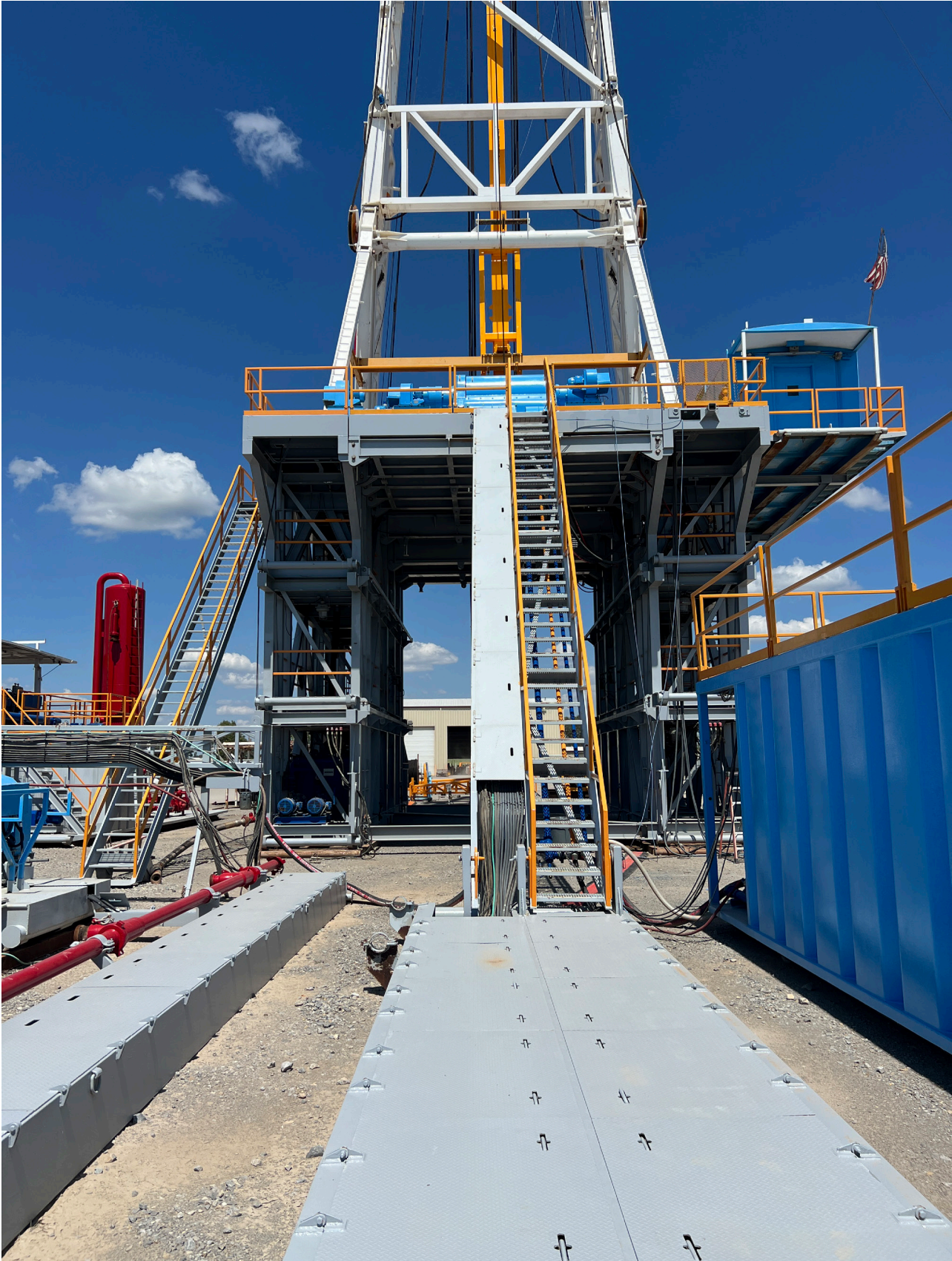
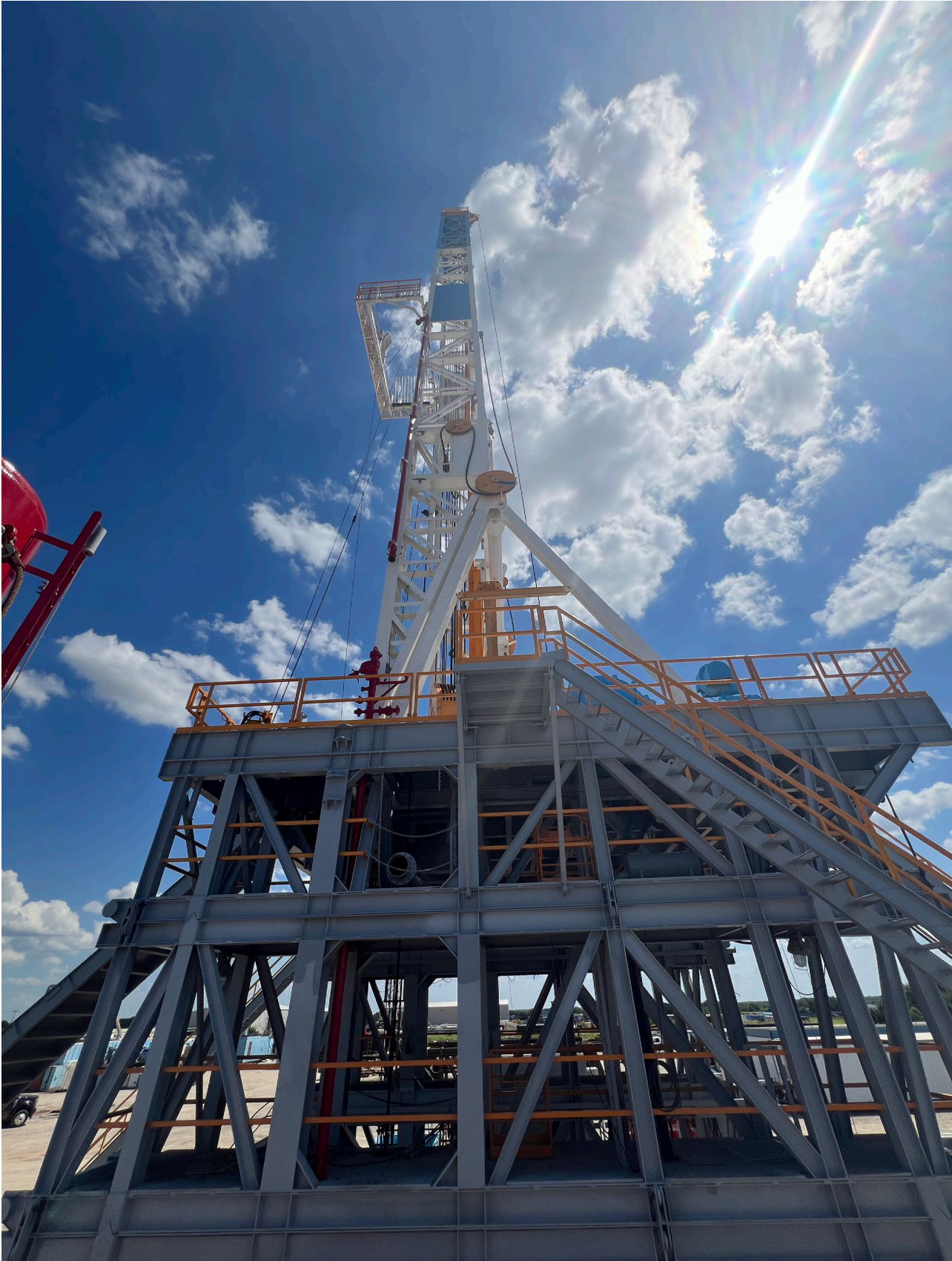


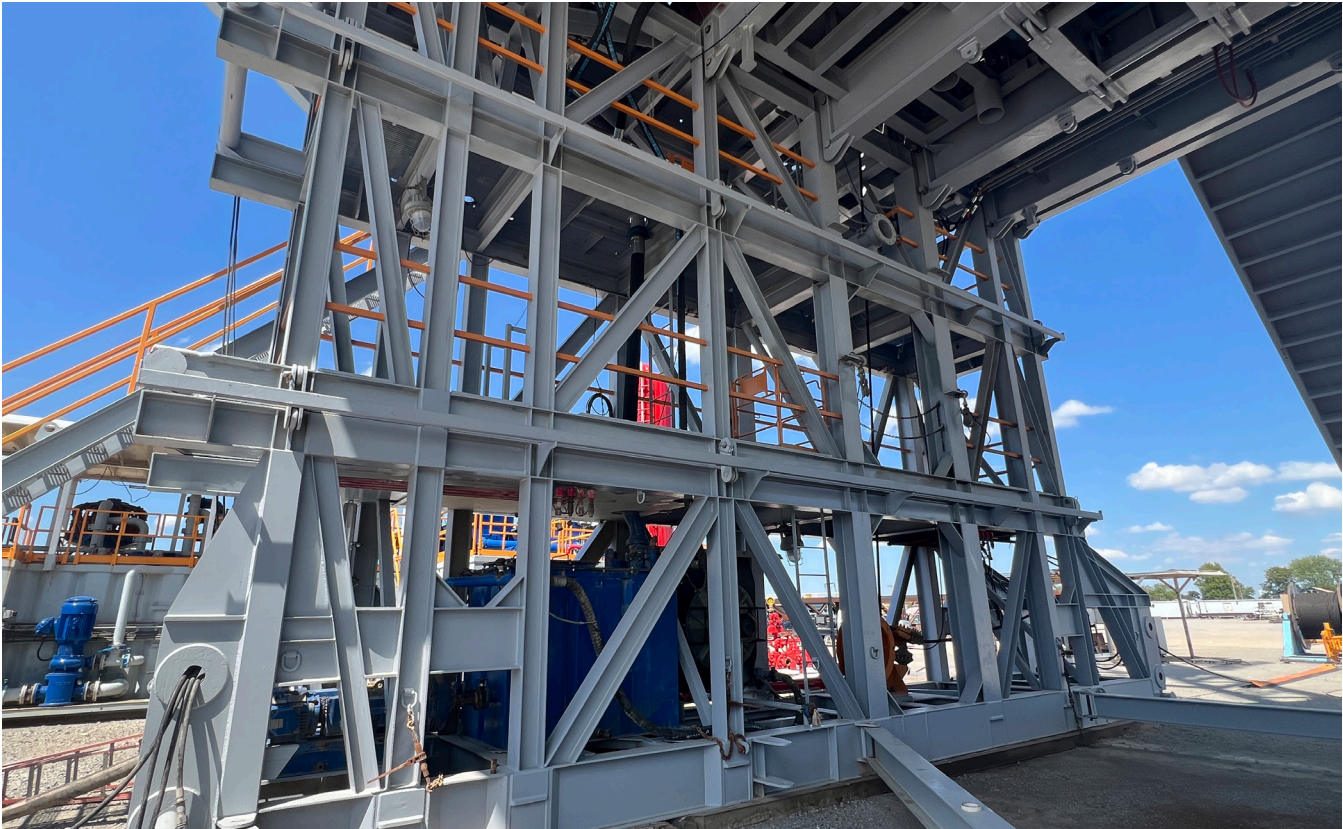
# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



# RIG 16 | Substructure



## DRILCO INSPECTION REPORT

Inspection Date:	12/15/2023	
Invoice #:	23349162718	Authorization #:
Equipment Desc:	Sub Structure Beam 1	
Tool Serial No:	N/A	

CUSTOMER:	Rig Name & #:	Lease:	AFE:
Latshaw Drilling	Rig 16		
Well Name:	Equipment Supplier:	Inspectors:	
		Rodrigo Tobias	

### Inspection Methods Used

Visual (VT)     
  Magnetic Particle (MT)     
  Liquid Penetrant (PT)     
  Ultrasonic (UT)

### VISUAL TESTING (MT)

White Light Meter Reading: 50 (foot-candles)

### MAGNETIC PARTICLE TESTING (MT)

Yoke: X    Coil:    AC: X    DC:   

Continuous: X    Residual:    Wet Method:    Dry Method: X

Amp Turns:    Circular Amps:    Demagnetized:

U.V Lamp Intensity at tool:    Uw/cm<sup>2</sup>    Particle Concentration:    ml per 100 ml Tube

Inspected Areas	Inspection					Surface Indication			Disposition		
	VT	DI	MT	PT	UT	None	Allowable	Not-Acceptable Minor - Major	Use	Repair	Replace
1 Welds	X		X			X			X		
2 Welds	X		X			X			X		
3 Beam	X		X			X			X		
4											
5											
6											

Comments relevant to Inspection: Dry Powder Batch: 23J014

Component was VT,MT on both sides

18 Beams Inspected / 1 Beam cracked sepret report on cracked beam



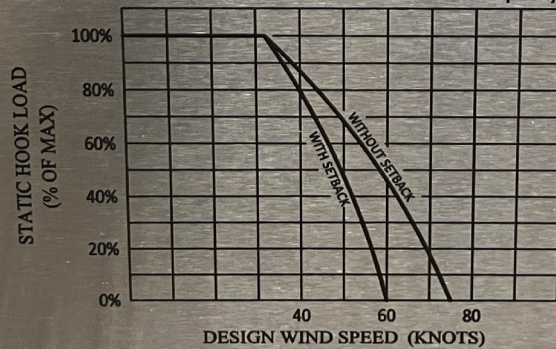


11419 DOVER | HOUSTON, TX 77031 | USA | [www.veristic.com](http://www.veristic.com)

MANUFACTURED BY	INTERNATIONAL DERRICK SERVICE
DATE OF MANUFACTURE	JULY 2008
DATE OF MODIFICATION	JANUARY 2024
MODIFIED BY	LATSHAW DRILLING
SERIAL NUMBER	M-1758
DRILLING CONTRACTOR	LATSHAW DRILLING
RIG NUMBER	16
MAST TYPE	CANTILEVER

SPECIFICATIONS	METRIC	US CUST.
HEIGHT	46.9 m	154 ft
MAX STATIC HOOK LOAD ON 14 LINES	6220 kN	700 T
MAX STATIC HOOK LOAD ON 12 LINES	5530 kN	621 T
MAX STATIC HOOK LOAD ON 10 LINES	4780 kN	537 T
MAX STATIC SETBACK LOAD	3550 kN	400 T
MAX DESIGN OPERATING WIND VELOCITY	16.4 m/s	32 knots
MAX DESIGN WIND VELOCITY WITH PIPE SETBACK	30.8 m/s	60 knots
MAX DESIGN WIND VELOCITY WITHOUT PIPE SETBACK	38.5 m/s	75 knots
ELEVATION OF BASE OF MAST ABOVE MEAN SEA LEVEL	9.14 m	30 ft

CAUTION: Acceleration or impact, also setback, rods and wind loads will reduce the maximum static hook load capacity.





Veristic Technologies, Inc.  
 11419 Dover  
 Houston, TX 77031  
 281-879-4573  
 ar@veristic.com

Invoice 1246

AUG 31 2023

<b>BILL TO</b>	<b>SHIP TO</b>
LATSHAW DRILLING	LATSHAW DRILLING
ATTN: ACCOUNS PAYABLE	ATTN: ACCOUNS PAYABLE
P.O. BOX 691017	P.O. BOX 691017
TULSA, OK 74169	TULSA, OK 74169

DATE  
08/24/2023

PLEASE PAY  
\$59,985.00

DUE DATE  
09/23/2023

**BUYER**  
Trent Latshaw

DESCRIPTION	QTY	RATE	AMOUNT
API SPEC 4F, 4TH ED ANALYSIS OF LATSHAW DRILLING BOX-ON-BOX SUB AND CANTILEVER MAST	1	96,750.00	96,750.00
Field Survey	1	21,150.00	
<ul style="list-style-type: none"> <li>• 3D laser scan of mast and/or substructure</li> <li>• Survey critical connections</li> <li>• Import, register, index 3d scans</li> <li>• Fit beams to scan</li> <li>• Extract frame geometry</li> <li>• Model critical connections as necessary</li> </ul>			
API Spec 4F Engineering Analysis:	1	42,000.00	
<ul style="list-style-type: none"> <li>• Build three (3x) analysis models: operating, mast raising, and rig walking</li> <li>• Define material properties</li> <li>• Apply member sections</li> <li>• Create load combinations</li> <li>• Calculate force vectors for dead weight, hook load, rotary load, setback load, wind on setback, and erection</li> <li>• Apply boundary conditions</li> <li>• Model connections</li> <li>• Review results</li> <li>• Redesign failed members</li> <li>• FEA of locking dog connection between mast starter section and mast middle section</li> <li>• Calculate moment on racking board with resepect to axis of mast</li> </ul>			
API Spec 4F Calculations:	1	16,000.00	
<ul style="list-style-type: none"> <li>Calculate shear, bending, bearing, rupture, and weld stress of critical connections:</li> <li>• Drill floor connections</li> <li>• Mast splices</li> <li>• Mast shoes</li> <li>• Crown shaft, pillow block, and API Spec 8C bearing</li> <li>• Racking board connection and knee brace connection</li> <li>• Top box support columns</li> <li>• Mast raising cylinder connection</li> <li>• Substructure raising cylinder connection</li> <li>• Mast telescoping cylinder connection</li> <li>• Deadline anchor support</li> <li>• Overturning and sliding</li> </ul>			

#16

CAPEL M/S  
59,985-

DESCRIPTION	QTY	RATE	AMOUNT
API Spec 4F Modeling and Design: • Model structural members (frame only) • Model reinforcements • Model new connections (if required) Deliverables: Assembly, fabrication, machine, and part detail drawings of new reinforcements and new connections. Plate parts in dxf format. Parts list is xls format.	1	14,000.00	
Day rate for travel to and/or from work site. Price per engineer.	2	1,200.00	
Travel & Expenses (estimate)	1	1,200.00	
Sales Discount	1	-	-36,765.00
			36,765.00

REMIT BY WIRE:  
JPMORGAN CHASE BANK, N.A.  
DALLAS, TX 75201  
VERISTIC TECHNOLOGIES, INC.  
ROUTING: 111000614  
ACCOUNT: 659251425  
NOTIFICATION OF REMITTANCE:  
ar@veristic.com

TOTAL DUE

**\$59,985.00**

THANK YOU.

REMIT BY MAIL:  
VERISTIC TECHNOLOGIES, INC.  
ATTN: CHARLES VORA  
11419 DOVER ST.  
HOUSTON, TX 77031