



# BOTTOM HOLE ASSURANCE, INC.

NDE Inspection Services

No. IR 50624TT-6

Email: BHAInc@bottomholeassurance.com  
107 Citron Drive • Youngsville, LA 70592


**Office: (337) 857-8994    Fax: (337) 857-8964**  
**Bottomholeassurance.com**

CUSTOMER HALLIBURTON ICC		3rd PARTY <input type="checkbox"/>	FACILITY / LOCATION TEST TOOLS	AUTHORIZED BY BOBBY CHOATE		INVOICE NO.		
RIG		OCS-G & WELL NO.		PROJECT IN HOUSE	P.O. NO. / JOB NO. 1017510022	DATE 5/6/2024		
SERIAL NO.	DESCRIPTION		PIN	BOX	I.D.	O.D.	LENGTH	
1	EQ# 10315017	7" CHAMP IV PACKER						
2	B7394191	TOP ADAPTER - ACC		INT - ACC	3 7/8" CAS - ACC	2 3/8	5	1.13
3		SAP# 100071685						
4	C3519695-1	UPPER MANDREL - ACC		INT x INT - ACC				
5		SAP# 10004100						
6	AHY136901-#6	FLOATING PISTON - ACC						
7		SAP# 100012595						
8	AHY2318503-#7	BALANCING COUPLING - ACC			INT x INT - ACC			
9		SAP# 100004114						
10	BBM221009-2	PORTED HOUSING - ACC		INT - ACC				
11		SAP# 100004113						
12	BAC22A1475-1	UPPER BODY - ACC		INT - ACC	INT - ACC			
13		SAP# 100071683						
14	ZU1121090-3	BYPASS SLEEVE - ACC						
15		SAP# 100004115						
16	BBM195126.1	CENTER MANDREL - ACC		INT x INT - ACC				
17		SAP# 100004116						
18	AJY096257-12	SHOE COUPLING - ACC		INT - ACC	INT - ACC			
19		SAP# 100071678						
20	AG1223205	PACKER MANDREL - ACC		INT - ACC				
21		SAP# 100012603						
22	KM-10-24278-02	MECH SLIP BODY - ACC		INT - ACC	INT - ACC			
23		SAP# 100012604						
24	FA140266-004	SPLIT RING COLLAR - (3 COMPONENTS) ACC						
25		SAP# 100012555						
26	AME22J0444-07	DRAG BLOCK SLEEVE - ACC						
27		SAP# 100004034						
28	C2551972-1	LOWER MANDREL - ACC		3 7/8" CAS - ACC	INT - ACC	2 1/2	4 3/4	1.00
29		SAP# 100012606						
30	CK1048902-12	HYDRAULIC SLIP - ACC						
31	CK19422-19	SAP# 100012598						
32	B4515556-38,4,59,30							
33								
34	AN1472D99-100,46	MECHANICAL SLIPS - ACC						
35	AN1423D99-177,137,169,167	SAP# 100012556						
36								
37	BAC1936872-2	HYDRAULIC HOLD DOWN BODY - ACC		INT - ACC				
38		SAP# 100071668						
39	AN15856711	STRAPS - ACC						
40		SAP# 100004101						

**SUMMARY:** FULL BODY INSP. BSM-GOM-HAL-TT-201 REV. 6

Batch # Info.	Connection Inspection		Body Inspection			Body Dry M.P.I		
20-B 23K007	Wet Flour. M.P.I. <input checked="" type="checkbox"/>	Dry M.P.I. <input type="checkbox"/>	Wet Flour. M.P.I. <input checked="" type="checkbox"/>	Residual <input type="checkbox"/>	Residual <input type="checkbox"/>	Dry M.P.I. <input type="checkbox"/>	Residual <input type="checkbox"/>	
Dry Powder	Vis. Liq. Pen. <input type="checkbox"/>	Residual <input type="checkbox"/>	Vis. Liq. Pen. <input type="checkbox"/>	Continuous <input checked="" type="checkbox"/>	Continuous <input type="checkbox"/>	Long. Insp. <input type="checkbox"/>	Continuous <input type="checkbox"/>	
7-HF	Flour Liq. Pen. <input type="checkbox"/>	Continuous <input checked="" type="checkbox"/>	Flour Liq. Pen. <input type="checkbox"/>	AC Current <input type="checkbox"/>	Trans. Insp. <input type="checkbox"/>	AC Current <input type="checkbox"/>	AC Current <input type="checkbox"/>	
White Contrast	Long. Insp. <input checked="" type="checkbox"/>	AC Current <input type="checkbox"/>	Long. Insp. <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	DC Current <input type="checkbox"/>	DC Current <input type="checkbox"/>	
14-A	Trans. Insp. <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	Trans. Insp. <input checked="" type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>			

System Effectiveness: LP-Comparative Block  Dry MP-Castrol Strip  Wet MP-Castrol Strip

Blacklight Inspection	Equipment / Inspector Information
Blacklight Intensity: <u>2224</u> Bath Mixture: <u>0.25</u> Whitelight: <u>0.1</u>	Equipment Used From Unit # <u>13</u> Qual. Date(s) MT <u>2/16/2023</u> PT <u>8/9/2023</u>
<b>Liquid Penetrant Inspection</b> Whitelight: _____ Magnaflux Developer: SKD-S2 Magnaflux Penetrant: <input type="checkbox"/> SKL-WP2 <input type="checkbox"/> ZL-60D (Check one) Batch # _____ Batch # _____ Dwell Time: _____ min Dwell Time: _____ min	3rd Party Rep: _____ Signature: _____ Level II Inspector: <b>BRONZE POIRIER</b> Signature:  <small>Signature guarantees that I took thru of job and job site</small>
<b>Job Information</b> B <u>  </u> BP <u>  </u> V <u>  </u> BP <u>  </u> D <u>  </u> P <u>  </u> BP <u>  </u>	Customer Rep Signoff: _____ <div style="text-align: center;"><b>APPROVED</b></div>



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CUSTOMER HALLIBURTON ICC		3rd PARTY <input type="checkbox"/>	FACILITY / LOCATION TEST TOOLS	AUTHORIZED BY BOBBY CHOATE		INVOICE NO.		
RIG		OCS-G & WELL NO.		PROJECT IN HOUSE	P.O. NO. / JOB NO. 1017510022	DATE 5/6/2024		
SERIAL NO.	DESCRIPTION		PIN	BOX	I.D.	O.D.	LENGTH	
1	EQ# 10315017	7" CHAMP IV PACKER						
2	B3440024-1	LOWER SHOE-ACC						
3		SAP#100071660						
4	AHY136863-#1	UPPER SHOE-ACC						
5		SAP#100071659						
6	AN1977564-22	DRAG BLOCKS-ACC						
7	AN187337-5,3	SAP#100004074						
8	B37042-078							
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SUMMARY: FULL BODY INSP. BSM-GOM-HAL-TT-201 REV. 6

Batch # Info.	Connection Inspection		Body Inspection				Body Dry M.P.I	
20-B 23K007	Wet Flour. M.P.I. <input checked="" type="checkbox"/>	Dry M.P.I. <input type="checkbox"/>	Wet Flour. M.P.I. <input checked="" type="checkbox"/>	Residual <input type="checkbox"/>	Dry M.P.I. <input type="checkbox"/>	Residual <input type="checkbox"/>	Long. Insp. <input type="checkbox"/>	Residual <input type="checkbox"/>
Dry Powder	Vis. Liq. Pen. <input type="checkbox"/>	Residual <input type="checkbox"/>	Vis. Liq. Pen. <input type="checkbox"/>	Continuous <input checked="" type="checkbox"/>	Long. Insp. <input type="checkbox"/>	Continuous <input type="checkbox"/>	Trans. Insp. <input type="checkbox"/>	Continuous <input type="checkbox"/>
7-HF	Flour Liq. Pen. <input type="checkbox"/>	Continuous <input checked="" type="checkbox"/>	Flour Liq. Pen. <input type="checkbox"/>	AC Current <input type="checkbox"/>	Trans. Insp. <input type="checkbox"/>	AC Current <input type="checkbox"/>	DC Current <input type="checkbox"/>	DC Current <input type="checkbox"/>
White Contrast	Long. Insp. <input checked="" type="checkbox"/>	AC Current <input type="checkbox"/>	Long. Insp. <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	DC Current <input type="checkbox"/>	DC Current <input type="checkbox"/>	DC Current <input type="checkbox"/>
14-A	Trans. Insp. <input checked="" type="checkbox"/>	DC Current <input checked="" type="checkbox"/>	Trans. Insp. <input checked="" type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>	Visible M.P.I. <input type="checkbox"/>

System Effectiveness: LP-Comparative Block  Dry MP-Castrol Strip  Wet MP-Castrol Strip

Blacklight Inspection	Equipment / Inspector Information
Blacklight Intensity: <u>4452</u> Bath Mixture: <u>0.25</u> Whitelight: <u>0.1</u>	Equipment Used From Unit # <u>13</u> Qual. Date(s) MT <u>2/16/2023</u> PT <u>8/9/2023</u>
<b>Liquid Penetrant Inspection</b> Whitelight: _____ Magnaflux Developer: SKD-S2 Magnaflux Penetrant: (Check one) <input type="checkbox"/> SKL-WP2 <input type="checkbox"/> ZL-60D Batch # _____ Batch # _____ Dwell Time: _____ min Dwell Time: _____ min	3rd Party Rep: _____ Signature: _____ Level II Inspector: BRONZE POIRIER Signature: <u>Bronze Poirier</u> <small>Signature guarantees full walk thru of job and job site</small>
<b>Job Information</b> B <u>BP</u> V <u>BP</u> D _____ P <u>BP</u>	Customer Rep Signoff: _____



# MAINTENANCE CHECK SHEETS - Page 1 of 1

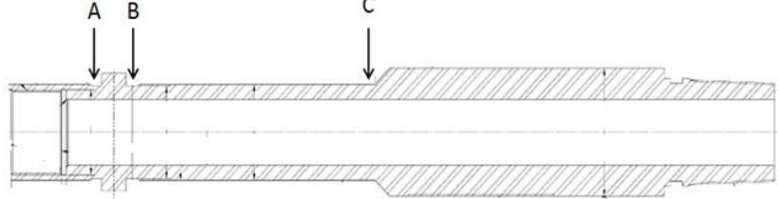
SAP#

Tool ID Number:

10315017

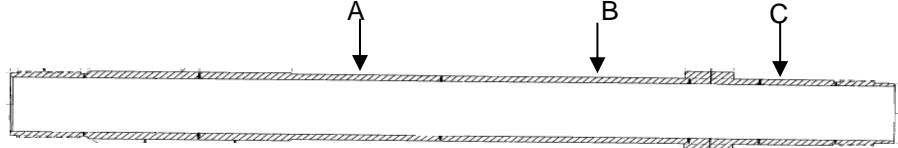
## ULTRASONIC THICKNESS MEASUREMENT LOG SHEET

Lug Mandrel  
102018706  
Nominal ID: 2.44"



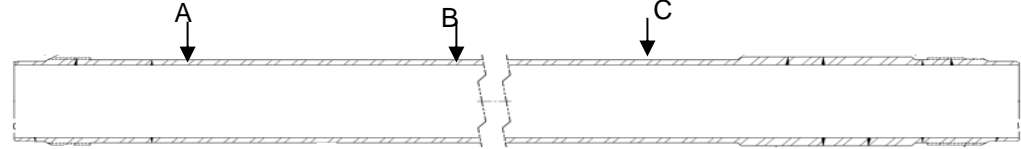
Thickness Measurements	A1:		B1:		C1:	
	A2:		B2:		C2:	
	A3:		B3:		C3:	
	A4:		B4:		C4:	
	Min:	<b>0.490</b>	Min:	<b>0.490</b>	Min:	<b>0.54</b>

Splined Mandrel  
100004100  
Nominal ID: 2.37"



Thickness Measurements	A1:	0.261	B1:	0.261	C1:	0.261
	A2:	0.261	B2:	0.261	C2:	0.261
	A3:	0.261	B3:	0.261	C3:	0.261
	A4:	0.261	B4:	0.261	C4:	0.261
	Min:	<b>0.245</b>	Min:	<b>0.245</b>	Min:	<b>0.245</b>

Bypass Mandrel  
100004116  
Nominal ID: 2.37"



Thickness Measurements	A1:	0.228	B1:	0.228	C1:	0.228
	A2:	0.228	B2:	0.228	C2:	0.228
	A3:	0.228	B3:	0.228	C3:	0.228
	A4:	0.228	B4:	0.228	C4:	0.228
	Min:	<b>0.205</b>	Min:	<b>0.205</b>	Min:	<b>0.205</b>

**Instructions for Performing Ultrasonic Wall Thickness Measurements:**

- 1.) Ensure that areas to be tested are free of grit, grease and grime.
- 2.) Prepare Ultrasonic Testing device per manufacturers instructions.
- 3.) Take readings 90° apart at each indicated location ensuring that readings are within +/- .010 of each other.
- 4.) Record measurements above.
- 5.) Components with measurements below the indicated minimum thickness tolerance must be discarded and replaced with new components

Test Performed By: Brandon K. Smith Date: 5/6/2024

Supervisor Sign Off: [Signature] Date: 5/6/2024