Markings removed

## Joint Task Force-Red Hill

# Bi-Monthly Quality Validation Working Group Meeting



24 Aug 2023 (TBD)

This brief is classified: Markings removed

Markings removed Markings removed



### BACKGROUND/DESCRIPTION

**ENSURING A FREE AND OPEN INDO-PACIFIC** 

- On January 27, 2023, the Hawai'i Department of Health (DOH) conditionally approves the Independent Third-Party Quality Validation Plan, with the following conditions:
  - Para #1, Provide resumes of those working QV (31 Jan) OUTSTANDING
  - Para #2, Provide QV Plan Addendum detailing testing requirements that will follow repairs (28 Feb)
  - Para #3a, Provide DoH/EPA our first monthly QV report (23 Feb)
  - Para #3b, Provide list of dates of major repair/inspection events that DoH/EPA can attend (23 Feb)
  - Para #4, Provide final report (last repair + 30 days)



### RFI from DOH

ENSURING A FREE AND OPEN INDO-PACIFIC

- Status of Incremental Reports
  - INC-025: FOR line painting non-repair, determination by Closure 21 Aug
    - Included
  - •INC-027: AFFF sump testing 21 Aug
    - Included
  - •INC-029: (b) (3) (A) -10 Oct
    - •In-progress, will pause for repacking blackout dates
  - •INC-031: (b) (3) (A) 22 Aug
    - Included
  - INC-044: (b) (3) (A) cross over vent 21 Aug
    - Included



# **QV** Accounting

**ENSURING A FREE AND OPEN INDO-PACIFIC** 

- •QV Complete = Sent to DOH/EPA.
  - •"253" = 253/253 repairs
  - "INC" = 43/44; 4 submitted today, 1 remain.
- QV Conditionally Approved
  - •DOH = 253/253, 39/43 Incremental
  - •EPA = 253/253, 39/43 Incremental



# **Quality Validation Report**

ENGLIDING A EDEE AND ODEN INDO DACIEIC

NO.	Validation Complete	Date	Location
INC -025	At the request of NAVSUP FLC, (b) (4) was engaged to evaluate the need for completing maintenance coating of the FOR line. Considering the installation of the (b) (3) (A) and the addition of a jumper connection (b) (3) (A) the FOR line (b) (3) (A) will (b) (3) (A) (b) (3) (A) (b) (4) (b) (5), (b) (3) (A)  Any unexpected weeps can be contained effectively by the existing Spill Mitigation measures.	21 Aug 23	(b) (3) (A)
INC -027	At each sump station, contractor removed manifold connection from each AFFF sump pump and installed an adapter to recirculate pump discharge into the sump. Pumps were run for two minutes to ensure operation; observations were recorded. Recirculated liquid was drummed and transferred to other sump locations to use as test medium. (b) (3) (A) repairs were not performed as operations will not use more than pumps per location. Liquid was transferred into isolated segments of the retention line to ensure line remains leak-free at the recently sealed joints. Liquids were recovered from the retention line from the low point drain (b) (3) (A)  Recovered test liquids were drummed, removed from the tunnel and sampled for off-site disposal.	21 Aug 23	Tank Gallery



# **Quality Validation Report**

	ENSURING A FREE AND OPEN INDO-PACIFIC		
NO.	Validation Complete	Date	Location
INC -031	(b) (3) (A) (refer to page 2 photos), Contractor removed the existing threaded piping at the union within the sump, installed an elbow and piping to allow the (b) (3) (A)  Threaded piping assembly pneumatically tested to verify no leaks at joints. At Main Sump (refer to page 3 photos), Contractor occupied an existing nozzle (b) (3) (A) installing double block and bleed valves at the points of connection. A bracket was anchored to the Main Sump curb to provide support to the piping vertical, with the horizontal being supported by an existing bracket with isolator pad. Body bleed piping on DBB valves were capped with threaded plugs. Applicable weld map, NDE, hydrostatic/pneumatic testing results attached.	22 Aug 23	(b) (3) (A) Sump 2) Main Sump
INC -044	(b) (3) (A)  A Visi-Flow indicator was installed to allow operator to visually confirm packing of the line. Crossover piping was shop fabricated, welds were radiographically tested and assemblies hydrotested prior to installation. Applicable weld map, NDE and hydrostatic testing results attached.	21 Aug 23	(b) (3) (A)

				QUALI	TY VALIDATION (	QV) REPO	ORT			
			1	Red Hill B	ulk Fuel Storage Fac	ility Defue	l		No.	
Vali	dation Firm	HDR Env	ironmental		Repair No.	INC-025				
	Address 9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112							Repair ID	(b) (3)	(A)
C	Contract No. FA890315D0007, D.O. FA8903-19-F-0027							Report Date	21 AUG 2	2023
Q	V Engineer	(b) (6	6)							
	,				VALIDATION					
Sou	urce	F	PDF Page N	o.	Facility Geograph	ic Area		Location	Reference	
(b) (4)		N/A			(b) (3)	(A)				
			er cleanin	corrosion, and bare p og and re-coating on a ing.		Sour	ce Contract Reference	N/A		
Description of Contractor QC Method(s) Used							Contractor QC Records Reviewed		N/A	
Val	otion of QA lidation and bservations	defueling	repair, Wh (b) (4),	at-If Analy (b) (5)	sis and(b) (4)	Analy	sis. For th	e purpose	s of repack	ing and
		Final accep	ptance by go	overnment.	Date: 14 AUG 2023					
	Rework	Needed			Photo Record Attached		Repair	Work Vali	dated as Co	mplete
O	Yes	$\odot$	No		N/A		$\odot$	Yes	0	No
At the request of NAVSUP FLC.(b) (4)  was engaged to evaluate the need for completing maintenance coating of the FOR line.(b) (3) (A)  (b) (3) (A)  (c) (b) (3) (A)  (d) (d) (d) (e) (d)  (e) (3) (A)  (find the formulation of the formu										
					CERTIFICATION					
	tify that repair			QV ENG	INEER SIGNATURE	(b) (	(6)			
report was p report is true	ersonally sub e.	stantiated an	u mis		DATE	21 AUG 2	2023			



TO:(b) (6)

**DATE: August 14, 2023** 

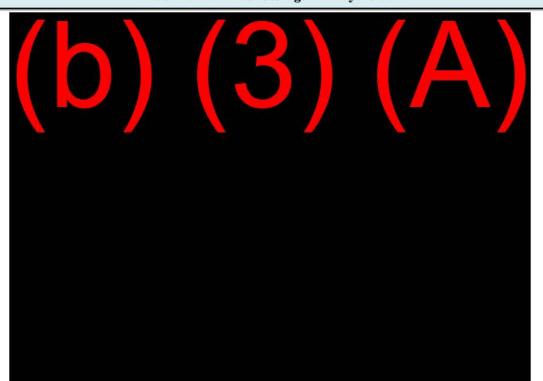
BY: (b) (6)

RE: Risk Assessment for Incremental Recommendation #25 - (b) (3) (A), (b) (5) (b) (3) (A), (b) (5)

(b) (6)

				QUALI	TY VALIDATION (	QV) REPO	ORT			
				Red Hill B	ulk Fuel Storage Fac	ility Defue	el			
Validation Firm HDR Environmental, Operations and Construction, Inc.								Repair No.	INC-027	
	Address 9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112							Repair ID	AFFF.Pur	nps
C	Contract No.	FA89031	5D0007, D	.O. FA890	3-19-F-0027			Report Date	21 AUG 2	2023
Q	V Engineer	(b) (e	6)							
					VALIDATION					
So	urce	I	PDF Page N	lo.	Facility Geograph	ic Area		Location	Reference	
NAVFAC	;	N/A			Tank Gallery		Tank Gal	lery		pro pro
Repair	Description		Check proper operation of AFFF sump pumps				N6247823 Source Contract Reference		3P2503	
Description of Contractor QC Method(s) Used			/procedure	Contra				Daily Reports.  Intractor QC  Is Reviewed		orts.
Va	ption of QA lidation and observations	JTF-RH 9 JTF-RH 0	secondary	QA and 3r	vitnessed operational d Party QV complete tor QC documentation	d <b>.</b>				
		Final acceptance by government. Date: 17 AUG 2023								
	Rework	Needed	Ĭ		Photo Record Attached	1	Repair	r Work Vali	dated as Cor	mplete
O	Yes	$\odot$	No		See Page 2.		$\odot$	Yes	$\circ$	No
At each sump station, contractor removed manifold connection from each AFFF sump pump and installed an adapter to recirculate pump discharge into the sump. Pumps were run for two minutes to ensure operation; observations were recorded. Recirculated liquid was drummed and transferred to other sump locations to use as test medium. (b) (3) (A) (b) (3) (A)  Liquid was transferred into isolated segments of the retention line to ensure line remains leak-free at the recently sealed joints. Liquids were recovered from the retention line from the low point drain next to the Main Sump. Recovered test liquids were drummed, removed from the tunnel and sampled for off-site disposal.  CERTIFICATION										
	tify that repair			QV ENG	INEER SIGNATURE	(b)	(6)			
report is true		estantiated and this			DATE	21 AUG 2	2023			

Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)

	Sump	Pump Testing Che	ck List	
Date:	Ley 11, 207	5	(b) (3	3) (A)
Zone:	(b) (3)			
Tme Start:	0800	160.33		
Time End:	0835			
Result:	(b) (3) (A	4)		
nesun	Pass / Fail	Pass / Par	Pass / Fax	Rass Fail
	Fail	Pass	Pass	(b) (3) (A) were repaired on Aug 10 2023.  (b) (3) (A)
<u>Notes:</u>				Start (b) (3) (A) © 0829 TRIPED Again Start (b) (3) (A) 0880 TRIPED Again Fail
QC Signature:  QA Signature:	(b)	) (	6)	

	Sump	Pump Testing Che	eck List	
Date:	Aug 17 7	057.3	(b) (3	3) (A)
Zone:	(b) (3)			
Tme Start:	0815			
Time End:	0925 En	des test		
	drain Pup at			
Result:	(b) (3) (A	)		
Result.	Pass / Fail	Pass / Fail	Pass / Fail	(Pass) / Fail
	Zmin prime	2 min prime	3 min Prime	3 min Prince
	1 min Run	1 min Run	Imm Run	
	9000.	goo.	2000	das
			O	
				* A-4973
Notes:				
1				
				- 44
QC Signature:	(b)	16		
QA Signature:				Comments

	19413			
	Sump I	Pump Testing Che		
Date:	8/15/23		(b) (	3) (A)
Zone:	(b) (3)	(A)		
Tme Start:	11:00			
Time End:	12 Noon			
Posulte	(b) (3) (A	.)		
Result:	Pass Fail	Pass / Fail	Pass / Fail	Pass / Fail
<u>Notes:</u>	Zmin Peine I min Flush	Zmin Preime I min Flugh	Zmín Prámo I mín Flush	(b) (3) (A)-is good but the discharge gasket failed twen 18.
QC Signature:  QA Signature:	(b)	(6		

	Sump	Pump Testing Ch	neck List	
Date:	15 AVG 2	7	(b) (3	3) (A)
Zone:	(b) (3	3) (A)		, , ,
Tme Start:	0922			
Time End:	0950			
Result:	(b) (3)	(A)		
Notes:	Pass / Fail  2 mm m  2 mm prine	Pass / Fail	Pass Fail  I may man  3 mm prome  Tunger parme  True due to  decreenmy  nater level	Pass / Fail I min run Hum prine
QC Signature: QA Signature:	(b)	(6		

	Sump Dump Tosting Check List
	Sump Pump Testing Check List
Date:	Aug 14. 2023 (b) (3) (A)
Zone:	(b) (3) (A)
Tme Start:	10:20
Time End:	11:20 - Just water pump,
Result:	(b) (3) (A)  Pass / Fail Pass / Fail Pass / Fail
6	X Stacker pumping clean water into pump at 10:20 finish 10:40 with 5 baccels - (b) (3) (A)
Notes:	(b) (3) (A)  @ [1:13' @ 11:06
	11:25 time to pump used water into bassels for transfer 2:20 Per berrel to fill
QC Signature:  QA Signature:	(b) (6)

Date.

Results (B) (A)
(b) (3) (A)
Hr 154 @ 0933
NOTES. STATE BUT OF SS - 800 PROTOL OF ILL STATE
fills @0840 guarhold - weithing his
fills @0840 guphold - waiting on Air-  @0845 goodhold - waiting on Air-  @0845 goodhold - waiting on Air-  37 sec
(b) (3) (A)
1 HR tost 1015 (Pass) / Fail
Notes: did walk and no Leak or Drip on all joints
Welp noted at LPD at (b) (3) (A)
HR + 115 (b) (3) (A) Pass / Fail
Notes: did walk and no LEAK OR Drup on all joints
1 HR HBY 1215 (6) (3) (A)
Pass / Fail
Notes: did walk and NO LEAK OR Drip on all joints
1 FIR fest 1315 Oil Tight Door
Pass / Fail
Notes: Complete walk through all zones and found No LEAKS or Drips on all sections & joints.
QC Signature:
QA Signature:

QUALITY VALIDATION (QV) REPORT									
		1	Red Hill B	ulk Fuel Storage Fa	cility Defue	1		N.	
Validation Firm	HDR Env	ironmenta	, Operatio	ns and Construction,	Inc.		Repair No.	INC-031	
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112						Repair ID	FLC.FOR	Bypass
Contract No.	FA89031	5D0007, D	.O. FA890	3-19-F-0027			Report Date	1 // ALICA /	2023
QV Engineer	(b) (6	3)							
VALIDATION									
Source	F	PDF Page N	lo.	Facility Geograph	ic Area		Location	Reference	
DLA/FLC	N/A			RH Tank Gallery		(b) (	3) (A	()	
Repair Description Install (b) (3) (			۹)			Sour	ce Contract Reference	47QSHA W912DY2 Service C 682/683	21F0025
Contractor QC welded piping received 100 Method(s) Used welded piping received 100			eumatica <b>ll</b> y ved 100% ved 100%			ntractor QC s Reviewed	QCP and Reports.	Daily	
Description of QA Validation and Observations	JTF-RH s JTF-RH (	secondary QV visually	inspected	d Party QV complete I repair & reviewed co		C docume	ntation.		
Rework	Carrier Line and St. P. L. Price and C. P. L. P.	ptance by go		Date: 18 AUG 2023 Photo Record Attached	4	Renair	Work Vali	dated as Co	mplete
O Yes	•	No		See Pages 2-3	-	•	Yes	0	No
Comments  Comments  CERTIFICATION  I hereby certify that repair work validated in this report was personally substantiated and this  QV ENGINEER SIGNATURE  (b) (7)(A)									
report is true.		,		DATE	22 AUG 2	2023			

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

(b) (3) (A)

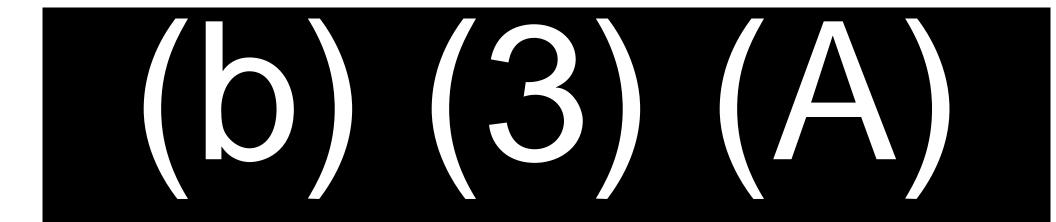
(b) (3) (A)

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

(b) (3) (A)

(b) (3) (A)



#### Legend

DBB - Double Block and Bleed Valve

HPV - High Point Vent

VFI - Visi-Flow Indicator

7		1
	(4	- /

#### RADIOGRAPHIC INSPECTION REPORT

Date: 8://·2>23
Page \_\_\_\_\_ of \_\_\_ 2\_\_\_\_

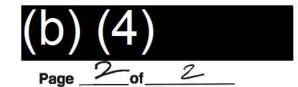
Weld W-2 is not part of the final repair. (b) (3) (A) (refer to attached

PALIT report dated 15 ALIG 2023)

FORM NDT-005.1			AOT Tepo	t date	cu io	700	2020).					
CUSTOME (D)	(4)	CUST JO	В#		SPECIFI	CATION,	ASPLE	sec	ACCEPTA	ANCE ASMEB31.3	1.	Single Wall
PROJECT	\ /	DWG. NO	)		PROCE	URE/4)	17006	REV &	ACC. PRO	oc. 83/.3 REV		
RT SOURCE 12/9	2 FILM Agf	205	PB SCREENS	PEI	ns:AST	MB	SHIMS	AAT'L/TH	IKNS /	MATERIAL CS		
/L\	(0)	/ /	1	TY	PE Wi	re	TECHNI	QUE USI	ED 3	(b) (3) (A		Panoramic
(b)	(3)	( <i> </i>	<b>\</b> )	MA	TERIAL	SS	EXPOSI	JRE TIM	10 sec.		2.	Single Wall
(~)	( )	<b>\'</b>	•/	LO	CATION	F	PROCES	SSING	MANUAL	,		
		NA 554 CAP A	/	//	1/8	1/	8/2/	//	////		T	
* 0	* >	GEOME		/1/2	100	13	200/3	12/2	*/ / ***			Offset
WELD	VIEW#	*UG*	RPNESS	E QUE		\$ \$ \$ \$	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			REMARKS	3.	Double Wall
		4.00	///	/	//	//	//	11	//		4	
(b) (3) (A)		€.02	0				$\vdash$	$\vdash$			4	
_	1-2	-		+								
_	2-0			+		—	++	+			4.	Double Wall 0/90
_	6-1			$\bot$		17		+			-	
_	1-2			H		=	-				4	
_	0-1			$\perp$	_			$\mathcal{A}$				Elliptical
-	<del>)</del>				_			-		х	5.	Plate •
_	2-0				_	-/		+			-	
-								+			-	Other
-	0-/			$\blacksquare$	_	-	+	1			6.	Other
-	1-2			+							-	
	2-0	d						Ш				(1)
(b) (	6)						Z	-:		8-11-2023	D)	(4)
$(\mathcal{O})$	$\mathbf{O}_{I}$					0000				0.11.10.12		
· / ·						New York	T-TC-1A	Level	X	Date of Inspection		Customer

	- 1		1 \
		( 4	
1			• /

#### RADIOGRAPHIC INSPECTION REPORT



WELD#	VIEW#	GEOMETRIC UNSHARPN	ESS &			10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			REMARKS
) (3) (A)	0-1	5.00	1						
	1-2	1							
	2-0		1						
	0-1		/						
	1-2		/						
	2-0								
	0-1		1						(1 1 P - 51
	1-2				$\vdash$				Cluster Porosity (b) (3) (A)
	2-0				$\vdash$			Н	((b) (3) (A)
	0-1				$\vdash$	_		$\vdash$	
	1-2				$\vdash$	+		H	
	2-0	L		++	++	+	-	H	
			$\vdash$		+	+		Н	
					$\vdash$	-			
								H	
					++				
					h		16		

NT-TC-1A Level

**Date of Inspection** 

(b) (4)

#### RADIOGRAPHIC INSPECTION REPORT

(b) (4)

Date: _	8.	11.	200	23

Page \_\_\_\_\_\_ of \_\_\_\_\_

welds are not part of the final repair.

(b) (3) (A)

си <b>зтоме</b> т (b) (4)	CUST JOB#	SPECIFICATION		ANCE ASME 831.3	1. Single Wall
PROJECT RHC	DWG. NO.	PROCEDURE A	OT 006 REV E ACC. PRO	OC. 831.3 REV	
RT SOURCE IR 192 FILM	Agra D5/03°B SCREENS	PENS: ASTINB	SHIMS MAT'L/THKNS	MATERIAL CS	
/b\ /2\	/ <b>/ / /</b>	TYPE WIVE	TECHNIQUE USED 3	(b) (3) (A)	Panoramic
(b)(3)	(A)	MATERIAL SS	EXPOSURE TIME VANOIS	(3) (3) (3)	2. Single Wall
()	\' -/	LOCATION E	PROCESSING MANUAL AUTOMATIC		
# # # **	GEOMETRIC UNSHARPNESS				Offset
WELD #	*UG*			REMARKS	3. Double Wall
(b) (3) (A) $o-1$	=.020/				)•
1-2					
2-0					4. Double Wall 0/90
0					
نستسا	2				1 0 1
2-0	7 1				Elilptical
0 -	1				5. Plate *
1-0	2				4
2-0	) V				
0-					6. Other
1-2	2				1
2-0					

(b) (6)

Jana Film unterpre

SNT-TC-1A Level

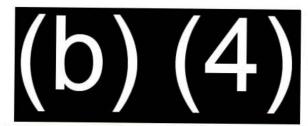
8-11-2023

Date of Inspection

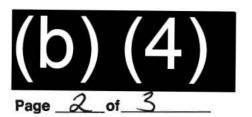
These

(b) (4)

tion Custom



#### **RADIOGRAPHIC INSPECTION REPORT**



WELD#	VIEW #	GEOMETR UNSHARP	IC NESS		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The state of the s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2	in the second second		RE	MARKS		
b) (3) (A)	0-1.	€.020			1											
	1-2		/													
	2-0	E	/													
	0-1		/													
	1-2															
	2-0	V														
	0-1		$\angle$													
	1-2															
	2-0	U	4			$\perp$									8	
	0-1	1	$\angle$			$\blacksquare$										
	1-2		4			+	_		_							_
	2-0	V	4			+	+	$\vdash$	+							_
	0-1	1	/	-		+	_		_							_
	1-2		/	-/,		++	-	$\vdash$	-			_				_
	2-0	V		-/		++	_	$\vdash$	+							_
	0-1						_		-				-			
	1-2		/			+		$\vdash$								_
	2-0	V	4			+	+	$\vdash$	+							_
							,									
						h	)		1							_

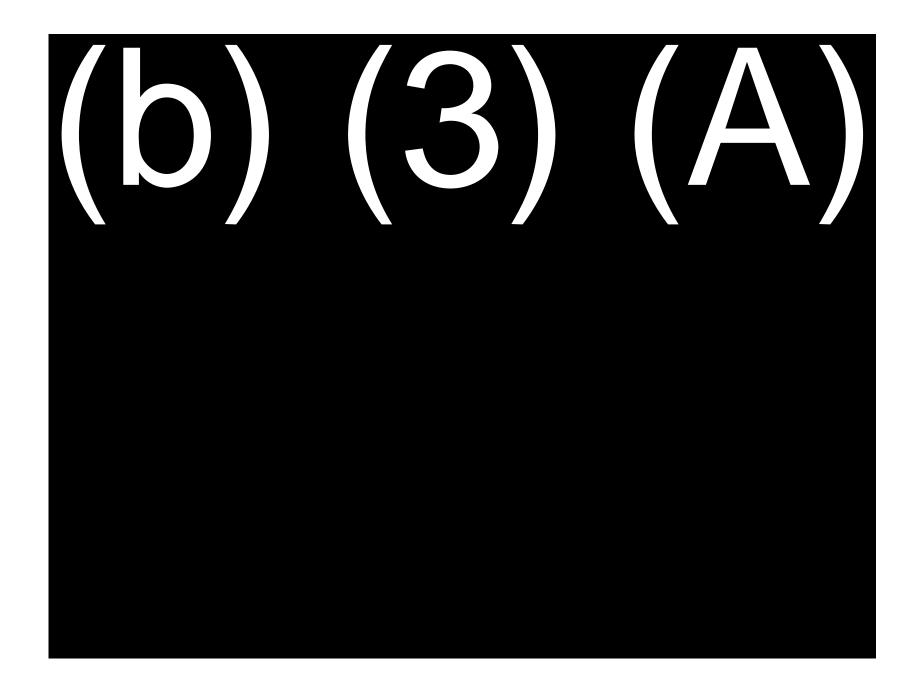
Respireter SNT-TC-1A Level

Date of Inspection

8/11/2023

/1 \ /		8	T TOTTO	DENIE		A TON DECO	DD
			LIQUID	PENEI	RANI EX	AMINATION RECO	KD
(b) (4	+ /	(h)	(4)		Location: Job No.:	(b) (4) 23-193	Page 1 of 1
<b>,</b> , ,		(D)	/ ( <del>T</del> /			SME B31.3	
ITEM/ JOB DESCRIPTION: PT Fin	al Inspections fo	or(b)(3)(A)					
MATERIAL			ENETRANT M	ATERIA	<b>AL</b>	TECH	NIQUE
TYPE: CS		BRAND	DESIGNATION	PO#	BATCH#	Preclean Drying Time: 5	
Surface Condition: As Welded	Cleaner	Magnaflux	SKC-S		19G07K	Method of Application: S	Spray and brush
Ground Other	Penetrant	Magnaflux	SKL-SP1		06G16K	Dwell Time: 10 minutes	
New weld	Emulsifier	N/A	N/A		N/A	Emulsification Time: N/	A
	Developer	Magnaflux	SKD-S2		19K25K	Developing Time: 10 min	nutes
Temperature: 90 degrees 60° F – 12 Other	25° F	Illumination		FC	·	(b) (4) # UV Meter N/A	
Item(s)	Accept	Reject SI	ketch/Notes			3 7 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
(b) (3) (A						ned on socket welds	3.
(D)(G)(G)		1 1	o relevant indicat				
		P.	Γ Final Inspection	i is acce	plable.		
Performed By: (b) (6)	Level: II	Date:	8-11-2023 Rev	iewed By	1		Date:

(b) (4)	MAGNETIC PARTICLE EXAMINATION RECORD									
	(b) (4)		Location: (b) (4)	Date: Aug/15/2023						
1	P.O. No.:		Job No. 23-193							
\ / \ /	E & I Procedure: NDT 0	03.2 Rev D	Code: ASME B31.3							
MATERIAL	The state of the s	NG TECHNIQU	AND THE PROPERTY OF THE PROPER	ETIZING EQUIPMENT						
Type: C/S	Yoke: AC	DC Spacing DE								
Thickness: Variable	Amps	Coil Dia.		ate Aug/15/2023						
Geometry  ☑ Pipe ☐ Plate ☐ Rod	Longitudinal Turns Direct	Amp Turns	_ Field Verifica	tion By: Pie Gauge						
	Circular		UV Meter : n/	10						
Item: See below	Central Conductor		MODEL: n/a	Serial #: n/a						
nem. see below	Amps	_	MODEL. IVa	Schai #. II/a						
Stage of Mfg.: See below	Inspection Medium	□ Dry Powder	Color: <u>#8a (Red)</u>							
		Wet Visible	Type Batch No.: 14	B108						
Surface Condition: Wire wheel prepped	Illumination White	te Ultraviolet		44						
Item(s)		Accept Rejec	it (	Sketch/Notes						
(b) (3) (A)			(b)	(6)						
Performed By : (b) (6) Level: II	Date Aug/15/2023	Reviewed By:		Date:						



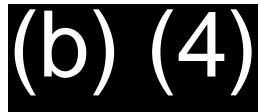
(b) (4)

(b) (3) (A)

(b) (3) (A)
(b) (3) (A)
(b) (4)
(b) (6)

(b) (4)

PAUT/TOFD Level II (SNT-TC-1A)



Page 2 of 7

#### **SCOPE**

(b) (4) , conducted a Semi Automated Phased Array Ultrasonic Testing (PAUT) examination for (b) (4) at their shop in (b) (4) on August/15/2023. The purpose of this examination was to test for weld quality in accordance with ASME B31.3.

#### **TECHNIOUE**

<u>TECHNIQUE</u>	
(b) (3) (A), (b) (6)	

#### Limitations

Weld volume and HAZ coverage was 100% for all welds. All pipe to pipe joints are scanned from both sides of weld centerline. All pipe to fitting joints are scanned from pipe side of weld centerline. Scans were recorded using an Olympus Cobra Scanner.

#### **CALIBRATION**

#### Wedge delay, Sensitivity, and TCG calibration

Steel NAVSHIPS calibration standard (S/N: 03-8269) with side drilled holes. Steel (b) (3) (A) calibration standard (S/N: 3E-037) with I.D./O.D. notches

#### **INSPECTION RESULTS**

**Specification:** ASME Section V **Procedure:** NDT-005.6, Rev. A **Acceptance:** ASME B31.3

Description	Results
(b) (3) (A)	Accepted

(b) (4)

Weld No: (b) (3) (A), 90° skew

No rejectable flaw indications were observed in this scan.



(b) (3) (A) Piping Red Hill

PAGE 1 OF 2

#### PNEUMATIC TEST PROCEDURE

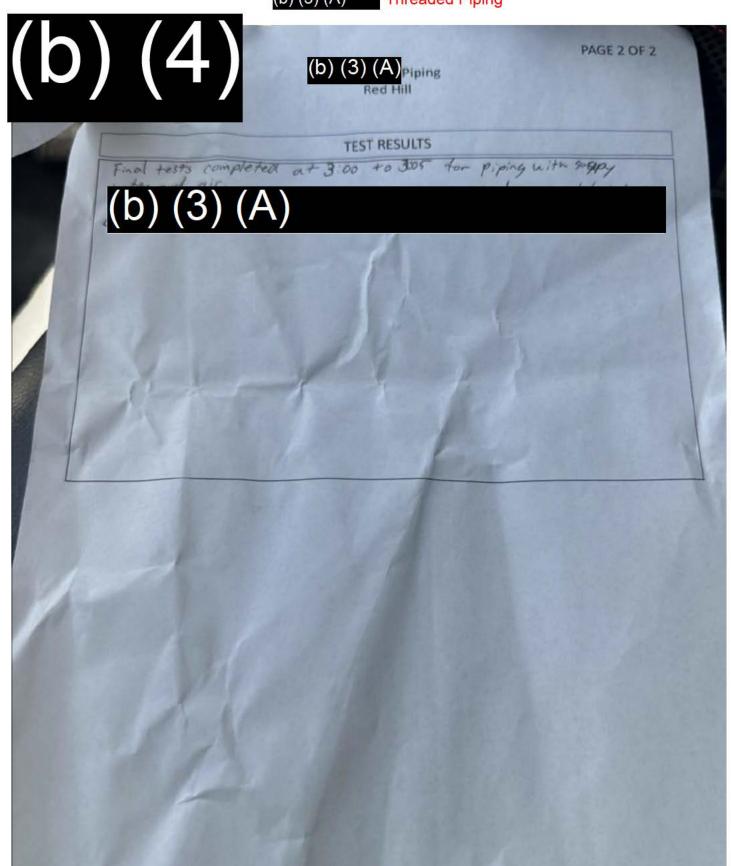
- 1. Install hreaded piping
- Using 185 cfm air compressor threaded air hose to (b) (3) (A)
   Introduce compressed air to (b) (3) (A) Check all valves, fittings, id
- Check all valves, fittings, joints, flanges, etc. for air leaks using soap suds.
- 4. Continue to soap all valves, fittings, joints, flanges, etc. for air leaks.
- 5. Once confirmed pneumatic pressure has held for required duration, release pressure

#### **TEST FORM**

1	TEST DATA	
Specification		
Equipment	185 CFM Air Compres	
	Test Header w/ Manif	old
Subcontractor	's None	
Test Fluid	Compressed Air (b) (3	) (A)
Preliminary Tes	st Pressure	PS 1
Test Pressure	MANY PROPERTY AS	PSL
Test Duration	Release	Pressure After Comp
	Testing	
	Test Start Test	End
Date	8-4-23 8	-14-23
Time	3:00	7:4-23
Temperature		
Weather	JUNE 100 12 (13)	
Pressure	(b) (3) (A)	
The state of		

(b) (b),	(b) (4			
TITLE				
NAME	H			
COMPANY				
TITLE			Beigh	
NAME				
COMPANY				
TITLE		THE LEE		

(b) (3) (A) Threaded Piping



			QUALI	TY VALIDATION (	QV) REPO	ORT				
		Į.	Red Hill B	ulk Fuel Storage Fac	ility Defue	1				
Validation Firm	HDR Environmental, Operations and Construction, Inc.						Repair No.	INC-044		
Address	9781 S. Meridian Blvd., Suite 400, Englewood, CO 80112						Repair ID	(b) (3)	(A)	
Contract No	FA890315D0007, D.O. FA8903-19-F-0027						Report	21 AUG 2023		
QV Engine	(b) (	<b>(6)</b>								
				VALIDATION						
Source	Source PDF Page No			Facility Geographic Area		Location Reference				
JTF	N/A			LAT		(b) (3) (A)			e.	
Repair Description	Install crossover vent (b) (3) (A)					Sour	Source Contract Reference Reference Reference Reference Reference Reference		21F0025	
Description of Contractor QC Method(s) Used	hydrostatically tested at Occord piping assembles					Contractor QC Records Reviewed				
Description of QA Validation and Observations	JTF-RH s JTF-RH 0	econdary		o. d Party QV complete repair & reviewed co		C docume	ntation.			
Final acceptance by government. Date: 17 AUG 2023										
Reworl	Rework Needed		Photo Record Attached				dated as Complete			
Yes	•	No		See Pages 2-3.		•	Yes	O	No	
b) (				CERTIFICATION	(b)	(6)				
hereby certify that repair work validated in this report was personally substantiated and this report is true.		QV ENG	DATE 21 AUG 2							

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

(b) (3) (A)

(b) (3) (A)

Red Hill Bulk Fuel Storage Facility Defuel

(b) (3) (A)

(b) (3) (A)

(b) (3) (A)

# (b) (3) (A)

1	<u>7 )</u>	<u> </u>
1,		' /

### RADIOGRAPHIC INSPECTION REPORT

(h)	(4)	
( > )	(')	
Date:	8/3/23	

1 01111/1137 00011						
customer (b) (4)		CUST JOB# 6 7257-11	SPECIFICATION	ASME V ACCEPTA	/   51 - 121 3	1. Single Wall
PROJECT Red Hil	Sump	DWG, NO.	PROCEDURE	STOCK REV C ACC. PRO	DC. 1331.3 REV ZUX	
RT SOURCE TRIGE	FILMAGE	DS PB SCREENS	PENS: ASTM	SHIMS MAT'L/THKNS	MATERIAL CC	
/ <b>L</b> \ /	<b>2</b> \	/	TYPE 13	TECHNIQUE USED 3	<sub>тніск</sub> (b) (3) (A)	Panoramic
$( \ \ \ \ )$	51	(A)	MATERIAL 55	EXPOSURE TIME 16 Sec	JOINT	2. Single Wall
$(\sim)$	<b>'</b>	(' ')	LOCATION F	PROCESSING MANUAL AUTOMATIC	PIPE C	
			///8//	8/2///////		
		GEOMETRIC UNSHARPNESS				Offset
WELD #	VIEW	'UG'			REMARKS	3. Double Wall
		/1/7	7777	77777		
الن	0-4	10201				)•
	4-8	/ 2				
	8-0	/ \				4. Double Wall 0/90
wz i	0-4	Loze K				
-	48	/ X				
	8-0					Elliptical
Lu3 .	V-0	, ezu X				5. Plate •
~,,	4-8	1				
	8-0	/ /				
رب ۷	0-4	(occ )				6. Other
	48	7				
	8-0					

(b) (6)

SNT-TC-1A Level

Date of Inspection

Customer

### (b) (4)

### RADIOGRAPHIC INSPECTION REPORT



**Date of Inspection** 

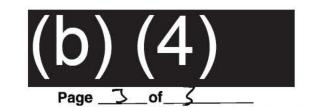
WELD#	VIEW #	GEOMETRI UNSHARPN *UG*	C IESS	\$ \\ \tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{\tilde{\pi}_{	15/20/S	Se S	2 3 3	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	**************************************	THE STATE OF THE S		REMA	якѕ			
کان	0-4	ozy	V													
	4-8		V													
	8-0		V		$\perp$		$\sqcup$								_	_
w6	0-4	.024	X		$\Box$			_								_
	4-8	/	4			-		+	8							
	8-0	/	1			_			-	1						
47	0-4	.074	H	1	4	_	$\vdash$	+	-	-				-		
	4.8	1/		X	$\Box$	-	+	+								
	8-0	/_		XX	1	+		+	+		_					
36	0-4	.074	Ž		+			-	-							
	8-1	/	1		+	#		+								
0	8-0	1.2	100	v .	X	_			1							
w9	4-8	1020	5	1		_	$\vdash$									
	8-0	/	V		$\top$											
WIO	0-4	.020	1													
	4-8	1	8	X	X											_
	6-0		V													
						_/		1	6	11						
							U		C					8131	- 7	

Film interpreter

SIVI-TC-1A Level

(b) (4)

### RADIOGRAPHIC INSPECTION REPORT



8/3/23

**Date of Inspection** 

SNT-TC-1A Level

WELD	VIEW #	GEOMETRI UNSHARPN *UG*	C IESS			\$   \$   \$   \$   \$   \$   \$   \$   \$   \$				,	REMARKS		
ااد)	0-4	.620	V										
	44		V										
	80		₩ X	X		44-		$\vdash$					
W12	0-4	.020	X				-	$\vdash$					
	4-8	/	X					H					
	60		8 4	X	-	++		+					
W13	0-9	.020,	X	+				+					
	4-8	/	X	+			+	$\Box$					
	8-0	-020	X				TT	$\top$			N.		
MIN	4-8	-620	1										
	8-0	1/	X										
WIS	0-4	.010	R										
	4-6	1	X										
	8-0		X							×			
					$\vdash$								
					$\vdash$	-	-						
					-								
						(h	\ \	<b>/</b>	1				

	h)	1
1		

### RADIOGRAPHIC INSPECTION REPORT

.3

Customer

PROJECT (Ld L. SUMP RT SOURCE 20,97 FILM AGA	DWG. NO.  PB SCREENS		712/10	OC. R31.3 REV 7615	1. Single Wall
(b) (3)	(A)	TYPE (B)  MATERIAL SS  LOCATION F	TECHNIQUE USED Z  EXPOSURE TIME / SCC  PROCESSING MANUAL AUTOMATIC	(b) (3) (A)	Panoramic  2. Single Wall
WELD#	GEOMETRIC UNSHARPNESS *UG*			REMARKS	Offset  3. Double Wall
(b) (3) (A) 0-4 4-8 8-0	-02U Y				4. Double Wall 0/90
Wa 6-4	.070 X /				Elliptical
W1 8-0	.070 X		(b) (	6)	. Plate
دم <b>٤-</b> 0	- OZO X				6. Other

Date of Inspection

## (b) (4)

### RADIOGRAPHIC INSPECTION REPORT



Page <u>3</u> of 3

WELD#	VIEW #	GEOMETRIC UNSHARPNES:				REMARKS	
o) (3) (A)	0-1	=.020/					
	1-2	1/					
	2-0	6/					
	0-1	1/					*
	1-2						
	2-0	V					
	0-1						
	1-2	/ /	+V-		_		
	2-0	V			-		
	0-1	1			+		
	1-2	V	+++				
	0		+   +				
	1-2	1	1	HH			
	2-0						
	0-1						
	1-2		11				
	2-0	1					

(b) (6)

A

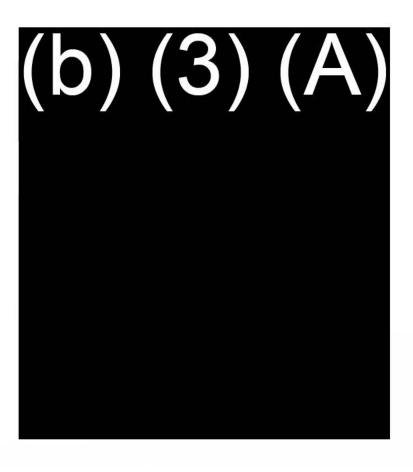
8-11.2023

NT-TC-1A Level

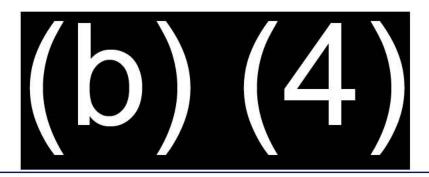
**Date of Inspection** 

		(b)	(4)		Job No.: Code: AS		Page 1 of 1
MATER	P1 Final hispections	P	ENETRANT MA	TERL	25520001	100	CHNIQUE
YPE: CS urface Condition:	Cleaner	BRAND	DESIGNATION	PO#	BATCH # 19G07K	Preclean Drying Tin Method of Applicati	
As Welded Ground Other	Penetrant	Magnaflux Magnaflux	SKC-S SKL-SP1	3	06G16K	Dwell Time: 10 mir	nutes
New weld	Emulsifier	N/A	N/A		N/A	Emulsification Time	: N/A
	Developer	Magnaflux	SKD-S2		19K25K	Developing Time: 10	0 minutes
emperature: 90 degrees 60 other	°F-125°F	Illumination:	White	FC FC		(b) (4) Control # UV Meter N/A	
b) (3)	Accept  Accept		ketch/Notes Γ Prep and Final F o relevant indicati Γ Final Inspection	ons we	re found.	ned on ( socket w	relds.

# (b) (3) (A)



(b) (4)



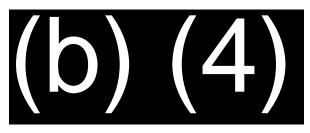
VISUAL INSPECTION RECORD

☐ Structural		Cli	ent: _(b) (4)	-					
☑ Pipe  ☐ Casting		Re	port No.: <u>080</u>	12023KS					
Tank No.:		Job	Job No.: 23-180						
Material Type: Carbon Stee	<u>L</u>	PO	No.:						
Weld Type:									
Drawing No.: N/A Sheet No.	o.: <u>N/A</u>	Rev.:	N/A						
Location: Red Hill - (b) (3)	(A)			Shop 🗌 Field 🖂					
Surface Condition: As Welded Stage of Mfg.: All Welding									
Specifications: ASME B31.3	_Accepta	nce Std:	ASME B31.3	3					
Gauges: N/A									
Item (s)	Accept	Reject		Sketch / Notes					
b) (3) (A)			Fit up. Roo	t, During Welding, and Final					
			THE COURT OF STORY OF STORY	., –					
			Welding. Completed	.,					
			Welding.	.,					
			Welding.	,,					
			Welding.	,g ,g,					
			Welding.	,g ,g,					
			Welding.	,					
			Welding.	,					
			Welding.						
Remarks/Comments:			Welding.						
Remarks/Comments:			Welding. Completed						
Remarks/Comments:	per job s	specificat	Welding. Completed	Root Weld, During Welding,					

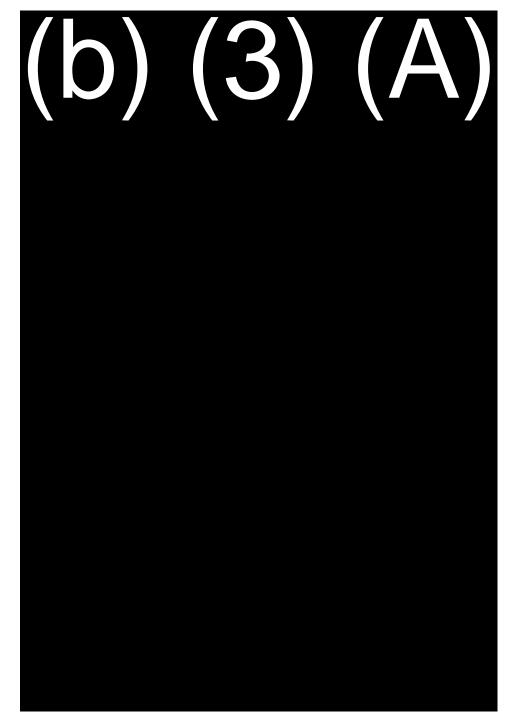
Date: August 01, 2023

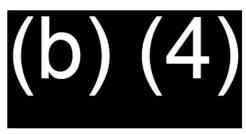
(b) (4)

Performed By: (b) (6)



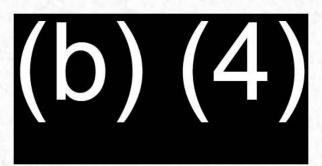
08/01/23 Page 2 of 3





08/01/23 Page 3 of 3





### **RADIOGRAPHIC INSPECTION REPORT**

<b>/</b> h\	(1)
(D)	(4)
Date: _&	10103
Page	of

CUSTOMER (b)	(4)	CUST JOB#		SPECIFICATION	ON ASMEV	ACCEPTANCE ASME B31.	3 1. Single Wall
	8 VSLT	DWG. NO.			NOTOCH REV E	ACC. PROC. \$31-3 REV 701	2
RT SOURCE DE 19		FADS P	B SCREENS	PENS: ASTM	SHIMS MAT'L/THKN	MATERIAL CS	
<b>L</b>		/ /		TYPE LB	TECHNIQUE USED	$\frac{3}{4}$ (b) (3) (A)	Panoramic
b) (	(3)	(A		MATERIAL SS	EXPOSURE TIME		2. Single Wall
		1.	`/	LOCATION F	PROCESSING	MANUAL AUTOMATIC	
		GEOMETRI	r /	///3/	[\$/\$///	//8/	
WELD	VIEW #	UNSHARP				IN REMARKS	Offset
\$	- 5	*UG*	NESS (S)		<i>\$\\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	REMARKS	3. Double Wall
(A) (B)	0-1	.070	11	H		(h) (2) (4)	( ).
	1-2	1.000				(b) $(3) (A)$	
300	7-3	1/					4. Double Wall 0/90
Technology	3-0	/	V I		1 4 7 2	ACC.	
			٠,		7 7 7		
							Elliptical
						A Linguistry disc	5. Plate •
				1 2 = 50			
							6. Other
		*					
	<b>/ 0 \</b>				0 0 - 3		
<b>b</b> ) (							
				4 - 1 (	II	8/2/23	

(b)		1	1		MAGN	NETIC PAI	RTICLE E	XAMINATION R	ECORD	
		_ 7					Location	ı: Red Hill; JBPHH	Date: 08-0	1-2023
				7 1 1	4	7	Job No.	23-180		
				<i>)</i>			Code: A	.WS D1.1		
•	•									
MATEI	RIAL					E TECHNI		MAGNETIZ	ZING EQU	
Type: C/S			Prod:	⊠ AC				Mfg.: Parker		Serial #: 23962
Thickness: STD					s <u>fixed</u>	Coil Dia.		Calibration Date 08/		
Geometry:			Longi	tudinal Turn		Amp Turns	<del></del>	Field Verification B	y: Pie Gauge	
☐ Pipe ☐ Plate ☐ Rod ☐ Other:				Direc Circula	r <u>n.a</u> r <u>n/a</u>			UV Meter: n/a		
Item: 3" Vesselet			Centr	ral Conducto				MODEL: n/a	Serial :	4· n/a
item. 5 Vesselet					s n/a	<u></u>		MODEL. IVa	Sellal	7. IV a
Stage of Mfg.: New			Inspect	tion Medium		Dry Powd Wet Visib		lor: <u>RED</u> pe Batch No.: <u>22A006</u>		
Surface Condition: Buffed Cl	ean		Illumin	nation 🛛	White	Ultravi	olet			
Item(s)	Accept	Reject	Item(s)		Accept	Reject		Sketch/N	Votes	
(b) (3) (A)										
							MT Insp	root weld of a ne		
										100
							No rel	levant indications w inspect		during this
	+				-			NOT	Ξ:	
	34:				3	+		(b) (3) (A), (b) (4)		e e
	1				3	Δ.				
Performed By: (b) (6	6)		Da	te 08/01/202	3	Reviewe	ed By:		Date:	Page 1 of 1

(k	<b>)</b>	1)

### RADIOGRAPHIC INSPECTION REPORT

(h)	$(\Delta)$
(0)	( 7 /
Date:	124123

CUSTOMER (b)	(4)	CUST JOB#		s	PECIFICATIO	N ASME	/	ACCEPTA	NCE ASME 1831.3	1. S	ingle Wall
PROJECT (b)	(3) (A)	DWG. NO.	B CODEENS	P	ROCEDURE	SHIMS MAT	VE		C.831.3 REV 70/5	- (	•
(b)	(3)	/ /		MATE	IB RIAL 55	TECHNIQUE	USED	3	(b) (3) (A)		anoramic Ingle Wall
WELD #	VIEW .	GEOMETRI UNSHARPN		//	1/3/	PROCESSING STATES	//	MANUAL AUTOMATIC	REMARKS	3. D	Offset ouble Wall
o) (3) (A	0-4 4-8	.670	X						) (6)	4. Dout	ole Wali 0/90
A. 1	0-4	.070	X								Elliptical
	8-0		X							5.	Plate •
										6.	Other
b) (	<b>(6)</b>					<b>#</b>			フトッ/マ3		



### **Rework - Quality Validation Report**

### **ENSURING A FREE AND OPEN INDO-PACIFIC**

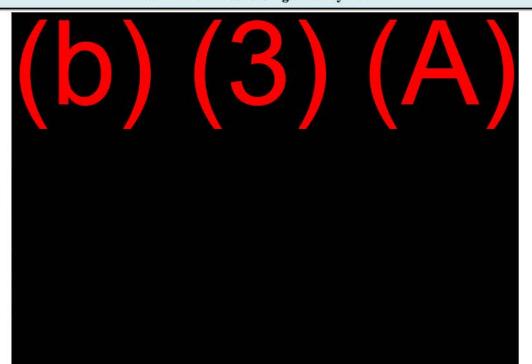
NO.	Validation Complete	Date	Location
INC- 026	Contractor removed existing pipe spools at (b) (3) (A)  Contractor welded insert type vessolet fittings at the pipe penetration.  Butt welds were 100% inspected via Radiographic Testing. Contractor prefabricated socket-welded high point vent assemblies for bolted installation in the tunnel. Socket welds were 100% inspected via visual testing and dye penetrant testing. Pipe spools hydrostatically tested for 4 hours at a minimum pressure of psi. NDE result table, NDE inspection report, weld map/design detail included for reference.	21 Aug 23	(b) (3) (A)

7

				QUALI	TY VALIDATION (	QV) REPO	RT			
			]	Red Hill B	ulk Fuel Storage Fac	ility Defue	i		SVI	
Vali	dation Firm	HDR Env	ironmental	, Operatio	ns and Construction,	Inc.		Repair No.	INC-026	
	Address	9781 S. N	leridian Bl	vd., Suite	400, Englewood, CO	80112		Repair ID	(b) (4	)
C	ontract No.	FA89031	5D0007, D	.O. FA890	3-19-F-0027			Report Date	11 AUG 2	2023
Q	V Engineer	(b) (6	5)							
	3									
Sou	urce	I	DF Page N	o.	Facility Geograph	ic Area		Location	Reference	
EXWC		N/A			RH Tank Gallery		(b) (3	) (A)		
Repair l	Description	Install HP	Vs on <mark>(b)</mark>	(3) (A)			Source Contract Reference			8D000Y 21F0025
Cor	scription of ntractor QC nod(s) Used	inspection	n via Radio	graphic To	CQCP. Pipe butt welds esting. Socket welds ordrostatically tested.			ntractor QC s Reviewed		d Daily
Val	otion of QA lidation and bservations	Form 429 design ar JTF-RH s JTF-RH ( submittals	6/2. Visua nd material secondary QV visually s, daily rep	lly inspected submittals QA and 3rd inspected ports).	e is documented by t ed completed installa s. Reviewed NDE rep d Party QV completed repairs and reviewed Date: 13 JUL 2023	tion; match orts. d.	ed comple	ted constr	uction agai	inst
	Rework	Needed			Photo Record Attached	ı	Repair	Work Vali	dated as Co	mplete
0	Yes	$\odot$	No		See Page 2.		$\odot$	Yes	0	No
penetration vent asse testing. P										
hereby cert	tify that repair	work validate	ed in this	QV ENG	INEER SIGNATURE	(b) (	(7)(7)	4)		
	ersonally sub	estantiated an			DATE		2023 / Rev			



Red Hill Bulk Fuel Storage Facility Defuel

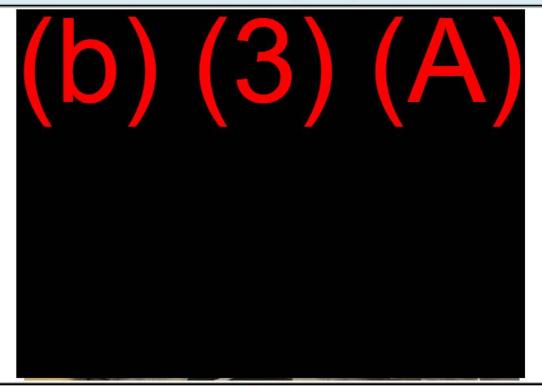


(b) (3) (A)

(b)(3)(A)

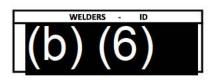


Red Hill Bulk Fuel Storage Facility Defuel



(b) (3) (A)

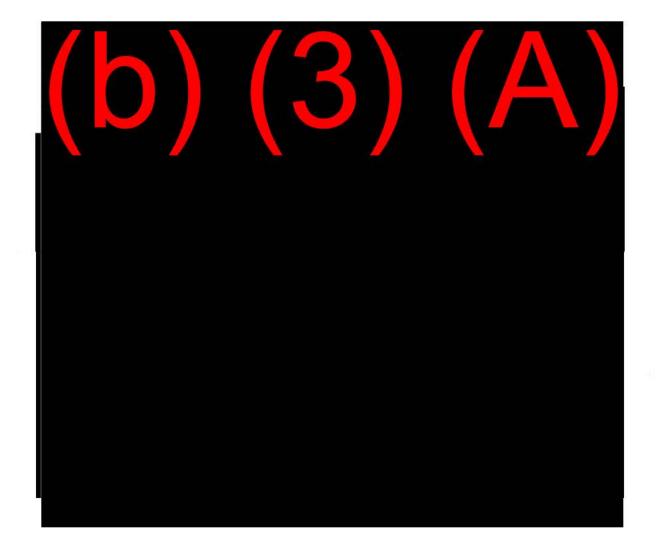
(b)(3)(A)

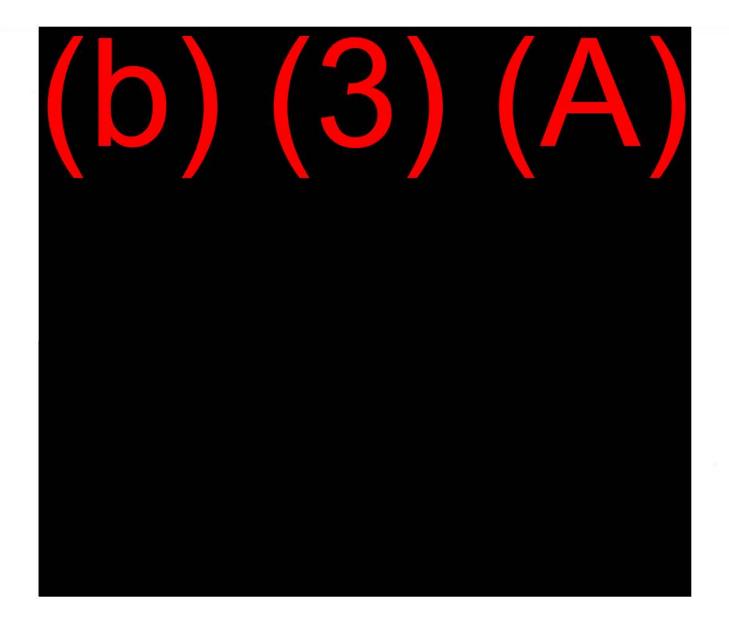


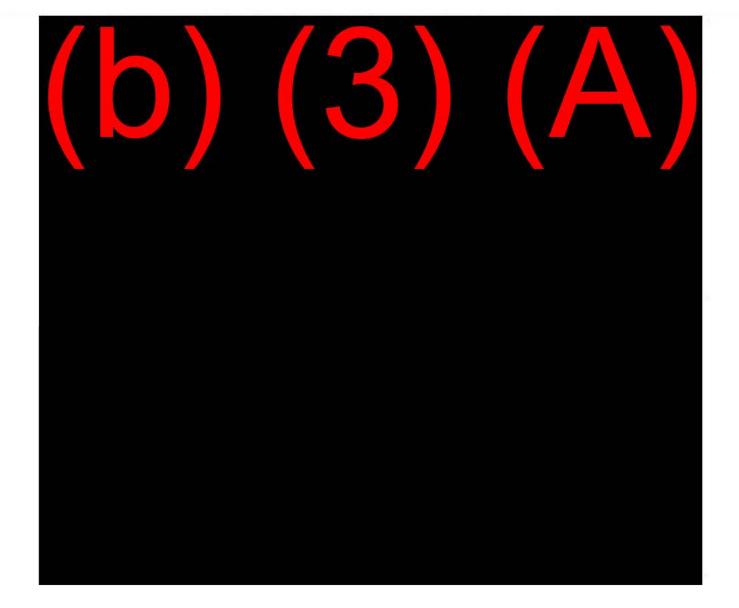
		V	WELD INFORMA	TION	781				INSPECTIO	N INFORMATIO	ON
	Number	SIZE TYPE (b) (3) (A)	JOINT		JOINT WELL	DER ID	DATE	NDE TYPE	INITIALS	DATE	RESULTS
(b) (3) (A)			/L)	101	(A) (b)	(6)					
	1	BW		(3)	$(\mathbf{A})$		6/14/2023	CWI VT	(b) (6)	6/14/2023	PASSED
				$(\mathbf{O})$	( / \ / [			RT		6/30/2023	PASSED
1	2	BW					6/9/2023	CWI VT			PASSED
+	_	6144	+				s lan lanna	RT	-	6/12/2023	PASSED
1	3	SW	-				6/22/2023	CWIVT		s lan lanna	PASSED
+	190	5147	-8			-	c /22 /2022	PT	-	6/29/2023	PASSED
-	4	SW			_		6/22/2023	CWIVT		c /20 /2022	PASSED
+	5	SW	4				6/22/2022	PT	-	6/29/2023	PASSED PASSED
+	5	SVV	+			8-1-	6/22/2023	CWI VT PT		6/29/2023	PASSED
<del> </del>	6	SW	i i		-		6/22/2023	CWIVT	-	0/29/2023	PASSED
		344			-		0/22/2023	PT		6/29/2023	PASSED
<del> </del>	7	SW	*				6/22/2023	CWIVT		0/23/2023	PASSED
<del> </del>		311	1			8-1-	0/22/2023	PT		6/29/2023	PASSED
1										0/23/2023	1713525
	1	BW	1			400	6/16/2023	CWIVT		6/16/2023	PASSED
								RT		6/30/2023	PASSED
	2	BW					6/9/2023	CWIVT			PASSED
								RT		6/12/2023	PASSED
	3	SW					6/28/2023	PT		6/30/2023	PASSED
		1					111 ISF			- N N	PASSED
	4	SW					6/28/2023	PT		6/30/2023	PASSED
											PASSED
	5	SW					6/28/2023	PT		6/30/2023	PASSED
							111 121				PASSED
	6	SW					6/28/2023	PT		6/30/2023	PASSED
			-						_		PASSED
	7	SW					6/28/2023	PT	_	6/30/2023	PASSED
	~~	~~	•		_		VVV	V V	_	VVV	~~~
(	1 1	1 1			<u> </u>	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	s too toops	7 1 1		1 1 1	7 1 1
<b>&gt;</b>	1	BW					6/30/2023	CWIVT	-	7/5/2022	PASSED
+	2	BW	- 1				6/20/2022	RT	-	7/5/2023	PASSED
(	2	BVV	-		_		6/30/2023	CWI VT RT		7/5/2023	PASSED PASSED
<b>&gt;</b>	3	SW	+		-		6/21/2023	CWIVT		7/3/2023	PASSED
<u> </u>	3	344	7		-		0/21/2023	PT		6/29/2023	PASSED
(	4	SW	-				6/21/2023	CWIVT	-	0/25/2025	PASSED
<b>&gt;</b>		511				-	0/21/2023	PT		6/29/2023	PASSED
+	5	SW					6/21/2023	CWIVT		0/23/2023	PASSED
			1		_			PT		6/29/2023	PASSED
<b>&gt;</b>	6	SW			_		6/21/2023	CWIVT		-,,	PASSED
								PT		6/29/2023	PASSED
	7	SW					6/21/2023	CWI VT			PASSED
>	i i							PT		6/29/2023	PASSED
	4	ha				4		4		L	ture
	77	4-4				- K	777	4-4-4		1-1-1-	4-4-4-
	1	BW					6/14/2023	CWI VT			PASSED
-								RT		7/5/2023	PASSED
	2	BW	- 1				6/15/2023	CWIVT			PASSED
		25.25					e la charac	RT		7/5/2023	PASSED
	3	SW					6/21/2023	CWIVT		e lan lanna	PASSED
		- C141	+1		-		6/21/2022	PT		6/29/2023	PASSED
<b>-</b>	4	SW	- 1				6/21/2023	CWIVT		6/20/2022	PASSED
	5	SW	1				6/21/2023	PT CWI VT		6/29/2023	PASSED PASSED
	3	244	7				0/21/2023	PT		6/29/2023	PASSED
<b>-</b>	6	sw	+9		-	8	6/21/2023	CWIVT	-	0/29/2023	PASSED
	-	344	+				0/21/2023	PT		6/29/2023	PASSED
+	7	SW					6/21/2023	CWIVT		0/23/2023	PASSED
	300	2.7	3				2/22/2023	PT		6/29/2023	PASSED
	1									-11-0-0	)
											1
	1	BW					6/14/2023	CWI VT			PASSED
		1,75,110						RT		7/5/2023	PASSED
	2	BW					6/15/2023	CWIVT		- W W	PASSED
								RT		7/5/2023	PASSED
	3	SW					6/21/2023	CWI VT			PASSED
Y		LET ST.					. 10	PT		6/29/2023	PASSED
i	J							W		W	
									and the same of the same		TO SECURE OF THE PARTY OF THE P

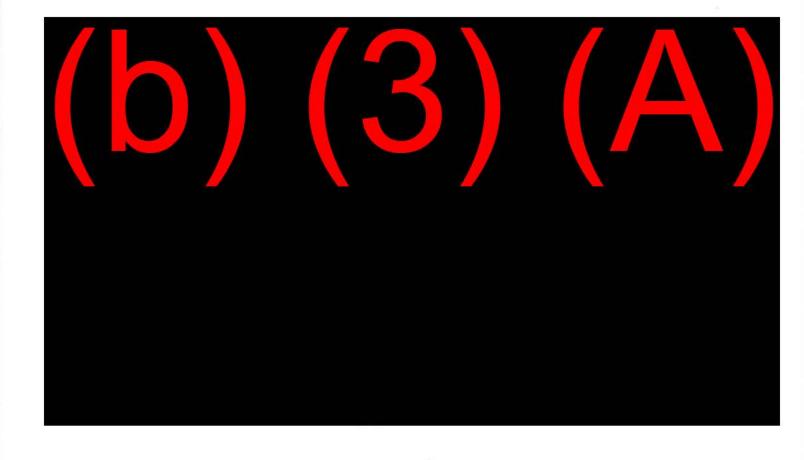
M	YYY	~~	W	ELD INFORMATIO	NY	YYY	YYY	Y	Y	M	INSPECTION	NAFORMATIC	
Weld ID	Number	SIZE	TYPE	JOINT		JOINT	WELDER ID		ATE	NDE TYPE	INITIALS	DATE	RESULTS
(b) (3) (A)	4	(b) (3) (A)	SW	/1- \	101	/ A '	(b)(6)	6/22	/2023	CWI VT	(b) (6		PASSED
				(b)	(3)	(A)				PT	(5) (5	6/29/2023	PASSED -
	5		SW		$( \cup )$	()		6/23	/2023	CWIVT			PASSED
					* *					PT		6/29/2023	PASSED 1
	6		SW					6/23	/2023	CWI VT	2.0		PASSED
										PT		6/29/2023	PASSED
	7		SW					6/23	/2023	CWI VT			PASSED <
4										PT		6/29/2023	PASSED
				:						W.			
	YYY		YY					YY	YY	YYY		YY	YYY
-[	1		BW					6/30	/2023	CWI VT	L		PASSED 🔥
										RT		7/5/2023	PASSED
	2		BW				<u> </u>	6/30	/2023	CWI VT			PASSED
<b>-</b>										RT		7/5/2023	PASSED
	3		SW					6/22	/2023	CWI VT			PASSED
										PT		6/29/2023	PASSED 1
<u>_</u>	4		SW					6/22	/2023	CWI VT	<u></u>		PASSED
										PT		6/29/2023	PASSED
<b>-</b>  .	5		SW					6/22	/2023	CWI VT			PASSED <
										PT	_	6/29/2023	PASSED
	6		SW					6/22	/2023	CWIVT			PASSED
-										PT		6/29/2023	PASSED 🚄
	7		SW					6/22	/2023	CWI VT			PASSED
										PT	_	6/29/2023	PASSED
	$\perp$												
	1		BW					6/15	/2023	CWIVT	_	6/15/2023	PASSED
			1 12100				<b>:</b>		V-25-0	RT	-	6/30/2023	PASSED
	2		BW					6/9	/2023	CWIVT	_	s lan inns	PASSED
			6144					e /s-	/none	RT		6/12/2023	PASSED
	3		SW	-			-	6/22	/2023	CWIVT	-	c /20 /2022	PASSED
	<del></del>		6144	-				c to:	/2022	PT		6/29/2023	PASSED
	4		SW	-				6/22	/2023	CWIVT		c /20 /2022	PASSED
	-		CIAL					c to	/2022	PT		6/29/2023	PASSED
	5		SW	-			-	6/22	/2023	CWIVT	-	6/20/2022	PASSED
	-		CIAL	-				6 100	/2022	PT		6/29/2023	PASSED
	6		SW	-				6/22	/2023	CWIVT		6/20/2022	PASSED
	<del>  ,  </del>		CIAI	-				6/20	/2022	PT		6/29/2023	PASSED
-	7		SW	-			<del></del>	6/24	/2023	CWIVT	-	6/20/2022	PASSED
	$\perp$									PT		6/29/2023	PASSED

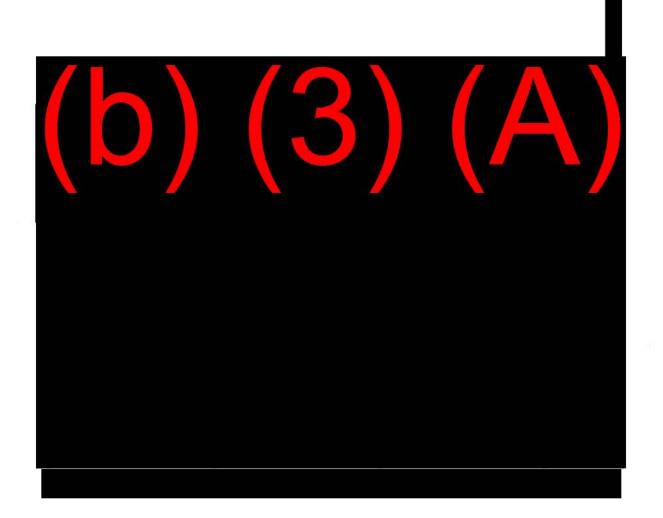
# (b) (3) (A)











(	b)	(4	.)
1		\	•

### RADIOGRAPHIC INSPECTION REPORT

(h)	\ (1)
(U)	) ( <del>4</del> )
Date: _	715123
THE CONTRACT OF	1

customer (b) (4)		CUST JOB#			SPECIFICAT	ION AS N	EV	ACCEPTA	NCE ASME	331-3	. Single Wall
PROJECT RELIGII EM	ecent pipus	DWG. NO.			PROCEDUR			ACC. PRO		V Zois	
ATSOURCE DEST	FILM AGE	ADS PE	SCREENS	PE	NS: ASTM		MAT'L/THK	NS /		S	( - )
/b\ /	1			TY			NIQUE USED	3	<b>i</b> (h)	$(\Lambda)$	Panoramic
	4)			MA	TERIAL CS	EXPO	SURE TIME	40 Sec		( - )	2. Single Wall
( ) (	• /				CATION F			MANUAL			
WELD#	VIEW #	GEOMETRIC UNSHARPN		5 8			///	1/1	PEMARKS		Offset 3. Double Wall
o) (3) (A)	111	111	777	7		777	777		(0)		
	1-2	070.	V	+	$\perp$	H	-	$\mathbf{I}(\mathbf{O})$	(3)	(A)	
	7-3	/	X	$\perp$		$\vdash$			( )	(, ,)	
	3-4		V	$\perp$		$\Box$					l. Double Wall 0/90
,	4-1		X	$\perp$				_		$\Box$	
1	0	050.	X	$\perp$						$\sim$	
	60		X	$\perp$						$\sim$	Elliptical
	120									$\sim$	5. Plate •
	1-7	.520	1							3	
	7-3		1							$\prec$	
	3-4		X							$\prec$	6. Other
uu l	444		VV	4	7	4	1				
							1 (				
(b) (	6)					A			7/5/23		
						SNT-TC-1	A Level	- 1	ate of Inspectio	n	Customer



WELD #	VIEW#	GEOMETRI UNSHARPI *UG*	CHESS			\$   \$   \$   \$   \$   \$   \$   \$   \$   \$	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			§/		REMAR	iks		_
(3) (A)	YYY	YYY	yy	XX	XX	17	X /	<del>* /* /</del>		ŤŇ	(3	T)	ŽΛ		7
, , , ,		.670	X	++	++	++	+	+	-(1)			5)			$\prec$
	60		X)	++	++	++	++	+	-1				1	<b>'</b> /—	$\prec$
-	120		X	++	+	+	++	++						**	-
	1-2	-670	1	++	+	++	++	++	-					8)	$\prec$
	7-3	/	1	++	++	++	++	+	-					2:	$\prec$
	3-4	/	1	++	++	+	++	++	-					9	-
	4-1		X	++	++	++	++	+	-					27	-
		1020	X	+	+	+	++	+						<u> </u>	-
	60		X	+	++	+	+	+						-	$\rightarrow$
	120		V	++	++	++	++	-	-					<del></del>	
	1-2	.670	K	++	++	++	+	+							
	7-3	/	1	+	++	++	+	+	_						
	3-4	/	14	-	++	++	1	++	_						
	4-1		17	++	++	+	+	+	-					-	
	0	.620	X	++	++	+	+	-						<u> </u>	
	leo	/	X	++	+	+	+		_					-	
	120		X	-	++	++	++				w 10 - 10 - 10	1352 839		23	$\rightarrow$
u	<u> </u>	w	1	1	1	44	4	4	4		u	L		<u>u</u>	J
		-	-							1					
							))		6						
							"		U		I			5/23	

		Client: (b)	(4)			: Red Hill	Page 1 of 3
(b) (3) (A)		P.O. No.: (b) (4)	el	42-	Job No.: Code: A	23-034 SME B31.3	
Socket welds  MATERIAL		P	ENETRANT M	ATERI	AT.	TECH	INIOUE
TYPE: CS FW		BRAND	DESIGNATION	PO#	BATCH#	Preclean Drying Time:	
Surface Condition: As Welded	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application:	
Ground Other Weld Prep	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min	
New weld	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time: N	
	Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 15 M	in
Temperature: X 60° F – 125° F Other		Illumination:	White	FC 150		0) (4) <sub>1</sub> #	1
) (3) (A) socket weld	Accept	Reject Sk	etch/Notes				
		)					
socket weld				~	~~	m	~
socket weld			5	No in	diantiana mat	ad at time a financatio	_ ')
socket weld				NO INC		ed at time of inspectio	n. <b>≺</b>
socket weld				U	W	m	
socket weld							
socket weld							
socket weld		<del>     </del>					
Control of the Contro	1 1997	<del>                                     </del>					
socket weld							

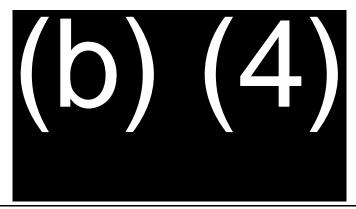
PCP-02.1 REV. B (06/04/03)

b)	(4					: Red Hill	Page 2 of 3
	' '				ob No.: Code: As	23-034 SME B31.3	Was a second
MATERIAL	Č	P	ENETRANT M.	ATERL	AL	TE	CHNIQUE
TYPE: CS FW		BRAND	DESIGNATION	PO#	BATCH#	Preclean Drying Tim	
Surface Condition: As Welded	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Application	
Ground Other Weld Prep	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Min	72
New weld	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time	
	Developer	V	SKD-S2	NT/A	20L02U	Developing Time: 1:	5 Min
Temperature: <u>X</u> 60° F – 125° F Other		Magnaflux Illumination		N/A FC 150		b) (4) ntrol # UV Meter N/A	. 🔲
b) (3) (A)	Accept	Reject S	ketch/Notes				
socket weld							
socket weld				~~	~~~	~~~~	~
socket weld			(	1 1	1 1 1	1 1 1 1 1	, 7
socket weld	$\boxtimes$		(	No inc	ncations not	ed at time of inspec	tion.
socket weld	MAY	M		L	ريدي	للللا	
cket weld		<del>一一</del> 人					
cket weld							
cket weld		十一 )					
cket weld		十三一)					
cket weld		<del>                                     </del>					
		· ·					

PCP-02.1 REV. B (06/04/03)

	(b)		\		Œ		AMINATION RE	CORD Page 1 of 1
ı						Job No.:		rage 1 of 1
							SME B31.3	
	\ /				1.5	0000.11	J. 1.1.2	
		N V					41	
	MATERIAI	Ĭ.	P	ENETRANT M	ATERL	AL	TR	CHNIQUE
	TYPE: CS FW		BRAND	DESIGNATION	Total Control of the	BATCH#	Preclean Drying Tin	
Ì	Surface Condition:  As Welded	Cleaner	Magnaflux	SKC-S	N/A	21002K 002711	Method of Applicati	
	Ground Other Weld Prep	Penetrant	Magnaflux	SKL-SP1	N/A	19G04K 01755	Dwell Time: 10 Mi	n
	⊠ New weld	Emulsifier	N/A	N/A	N/A	N/A	Emulsification Time	e: N/A
		Developer	Magnaflux	SKD-S2	N/A	20L02U	Developing Time: 1	5 Min
	Temperature: X 60° F – 125° F Other		Illumination:	⊠White	FC 150		(D) (4) UV Meter \( \) N/A	
	Liewis)	Accept	Reject Sk	etch/Notes				
	o) (3) (A)							
>	socket weld	- A 100 A 100 A	<del>                                     </del>	(	Y	~~	m	$\sim$
>	socket weld		1	(	No inc	lications not	ed at time of inspec	ction.
	socket weld			(	دد	لللا	اللللا	
7	socket weld							
1								
ŀ								
ŀ								
ļ				-				
	Performed By (b) (6)	Level III Date:	6/29/2023	Rev	riewed By	r:		Date:

PCP-02.1 REV. B (06/04/03)



### **HYDROSTATIC TEST FORM**

				SYSTEM: F-24				
Proje	ct Name:	Red Hill Emergent	Pipeline					
Syster	n Description:	<b>/</b>   <b>L</b>	<u>/2\ / \</u>	1				
	Starting point		(3) (A)	-				
Cor	nnection Point		( ) ( ' '					
	Ending point							
PS	l Req.:	(b) (3) (A) MI	N Time	e Req.:	4 hours			
Start of	Test Period:	Time:	14:48 hrs	Date:	8/2/2023			
End of 1	Test Period:	Time:	18:48 hrs	Date:	8/2/2023			
No.	Time	PSI READING		Remarks				
1	14:48	(b) (3) (A)	Pio	taken; no visual leaks dete	ected during test			
2	15:03			no visual leaks detected	during test			
3	15:18			no visual leaks detected	during test			
4	15:33		Pio	c taken; no visual leaks dete	ected during test			
5	15:48			no visual leaks detected	_			
6	16:03			no visual leaks detected	during test			
7	16:18			no visual leaks detected	during test			
8	16:33	_	Pio	taken; no visual leaks dete	<del>_</del>			
9	16:48	_		no visual leaks detected				
10	17:03			no visual leaks detected				
11	17:18	_		no visual leaks detected				
12	17:33	_	Pic	taken; no visual leaks dete				
13	17:48	<del> </del>		no visual leaks detected	<del>-</del>			
14	18:03	-		no visual leaks detected	<u> </u>			
15	18:18		no visual leaks detected during test					
16 17	18:33 18:48			no visual leaks detected	<del>-</del>			
1/	18:48			End test, picture taken, no	o visuai leaks			
	PSI Gauge Manufacture	r:		Ashcroft 0-600				
	Test Wit	ness Client						

Manufacturer:	ASTICION U-600	
Test Witness Client:	(b) (c)	
Test Witness (b) (4) <sub>ep.</sub>	(D) (O)	

### (b) (4)

### Certificate of Calibration

(b) (4)

Ashcroft

Manufacturer

32488

**Serial Number** 

02/28/2023

**Calibration Date** 

02/28/2024

**Recalibration Due** 

(b) (4)

Instrument Accuracy / Procedure

0-600 PSI

Model

Pressure Gauge

Description

182,039

**Test Number** 

**Asset Number** 

23 °C

43 % RH

Temperature

Humidity



Calibration Standards Used:

Equip # (b) (4)

Equip # Manufacturer

Description
Standards on File

Model

Serial

Date Calibrated

Date Due 01/01/2024

01/01/2023

200200-200

In Tolerance

**Condition Received** 

In Tolerance

**Condition Returned** 

Certified B: (b) (6)

(b)(4)



### **Relief - Quality Validation Report**

**ENSURING A FREE AND OPEN INDO-PACIFIC** 

NO.	Validation Complete	Date	Location



### **Testing & Inspection Dates**

### **ENSURING A FREE AND OPEN INDO-PACIFIC**

NO.	Testing & Inspection Dates	Date	Location
1			
2			
3			
4			



### **Around the Horn**

ENSURING A FREE AND OPEN INDO-PACIFIC

### **AGENCIES:**

- NAVAL FACILITIES ENGINEERING SYS COMMAND-HAWAII (NAVFAC-HI)
- JOINT TASK FORCE-RED HILL (JTF-RH)
- ENVIRONMENTAL PROTECTION AGENCY (EPA)
- DEPARTMENT OF HEALTH (DOH)
- FLEET LOGISTIC CENTER-PEARL HARBOR (FLC-PH)
- DEFENSE LOGISTIC AGENCY (DLA)
- COMMANDER, NAVY REGION-HAWAII (CNR-HI)
- ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
- NAVY-OTHER