

# TECHNICAL MEMORANDUM

То:	Nevada Environmental Response Trust
Cc:	Nevada Division of Environmental Protection
From:	David Bohmann and Bounkheana Chhun
Date:	January 4, 2019
Subject:	AP-5 Operation and Maintenance Summary – October and November 2018 Nevada Environmental Response Trust Site; Henderson, Nevada

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this summary of the operation and maintenance (O&M) activities performed during October and November 2018 for the AP-5 Pond Phase III sediment mixing, Phase IVa solids washing, and decant water transfer. The system was operated and maintained in accordance with the AP-5 Pond Sediment Washing Treatment Process Operations & Maintenance Manual.

## SUMMARY OF O&M ACTIVITIES

Tetra Tech continued operation and maintenance activities associated with the AP-5 sediment mixing and washing system in October and November 2018 to provide mixing of the AP-5 slurry to keep the sediment in suspension and facilitate extraction of ammonium perchlorate. Operation and maintenance activities associated with solids washing and decant transfer operations were also ongoing during October and November 2018.

## SOLIDS WASHING AND DECANT WATER TRANSFER

Throughout October and November 2018, routine procedures for washing the solids and transferring decant water were followed. Mixers were run periodically to wash solids while reducing mechanical wear on system components. Approximately 96,653 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in October 2018 and approximately 120,591 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in October 2018 and transferred to the Day Tank in October and November 2018. A summary of daily AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank in October and November 2018 are provided in the attached Tables 1a and 1b. The cumulative total of AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank is presented in Table 2a. The cumulative total of Stabilized Lake Mead Water (SLMW) added to the Process Tanks for sediment washing is presented in Table 2b. Note that the SLMW flowmeter readings presented in the routine inspection forms (Attachment A) include both the volume of SLMW added to the Process Tanks for sediment washing and for dilution of AP-5 wash water during transfer (discussed below) and flushing of the lines following each batch transfer.

Once the AP-5 wash water has been decanted from the Process Tanks and transferred to the Day Tank, Envirogen Technologies, Inc. (ETI) transfers the water to the Receiving Tank and subsequently blends the AP-5 water with extracted groundwater for treatment by the Fluidized Bed Reactors. ETI controls and operates the transfer of the AP-5 wash water from the Day Tank to the Receiving Tank, which includes an option to dilute the AP-5 wash water with SLMW to achieve a consistent concentration at the Receiving Tank. The dilution setting is adjustable and has a default setting of 3% perchlorate. During the months of October and November 2018, ETI adjusted the dilution parameters to achieve a lower concentration in the Receiving Tank as a conservative measure to control influent concentrations to the fluidized bed reactors (FBRs). The AP-5 wash water was diluted to an average batch concentration of 1.9% in October and November 2018.

## **Perchlorate Mass Removal Estimates**

Prior to the start of solids washing, the Process Tanks were sampled to provide an estimate of the starting mass of perchlorate in the Process Tanks. The average starting perchlorate mass estimate is provided on Tables 3 and 4. Following residual solids transfer, the Process Tanks were resampled on July 26 and July 27, 2018 to determine the mass transferred and the resulting mass in the Process Tanks. The updated perchlorate mass estimate is also provided on Tables 3 and 4.

Two methods are used to estimate subsequent perchlorate mass removal resulting from the solids washing process. Due to differing constraints associated with each method, the two methods are intended to provide a range of reasonable estimates for perchlorate mass removal. The first mass removal estimate method uses single-point monthly Process Tank samples to estimate the mass of perchlorate removed from each Process Tank and the remaining perchlorate mass in each tank (Table 3 and Figure 1). The second mass removal estimate method uses the average concentration of each batch of decant water transferred by ETI from the Day Tank to the Receiving Tank. The average batch concentration is estimated by an in-line mass flow meter that continuously measures fluid density and flow rate. The density is converted to perchlorate concentration based on a density-to-perchlorate concentration curve developed from laboratory analysis. An estimate of the total mass of perchlorate removed from the Process Tanks based on the mass flow meter readings is presented in Table 4. Table 4 also includes an estimate of the perchlorate mass added to the Process Tanks as part of final pond closure activities based on single point samples from each Process Tank.

The total perchlorate mass remaining using both methods described above is presented on Figure 2. The deviations in the total mass removal using the two methods is believed to be primarily the result of the use of single monthly samples from each Process Tank. The initial and subsequent comprehensive perchlorate mass estimates developed for the Process Tanks revealed significant variability in individual perchlorate sample results within each tank. Therefore, the mass estimates calculated from the single-point monthly samples are subject to this variability. The mass removal approach using the mass flow meter also has limitations that likely contribute in part to the observed deviation in mass estimates. The mass flow meter approach relies on a density-to-perchlorate concentration curve previously developed from laboratory analysis but does not utilize laboratory data each month. This method also does not include the mass in AP-5 wash water in the Day Tank that has been decanted from the Process Tanks but not yet processed through the mass flow meter. Therefore, the perchlorate mass removal using these two approaches, as summarized in Figure 2, is intended to provide a range of reasonable estimates for perchlorate mass removal.

## **Ammonia Mass Removal Estimates**

The Process Tanks were sampled on November 1, 2017 to provide an estimate of the mass of ammonia in the tanks at that time. Similar to the sampling for the starting perchlorate mass estimate, the starting ammonia mass estimate incorporates data obtained from sampling of the Process Tanks. The average ammonia mass estimate as of November 1, 2017 is provided as the starting mass on Table 5. The tanks were resampled on July 26 and July 27, 2018 to determine the ammonia mass transferred during pond solids removal and the resulting mass in the Process Tanks. The updated ammonia mass estimate for each tank is shown on Table 5 and Figure 3. Single-

point monthly tank samples resumed in October and November 2018 for estimating the mass of ammonia removed from each Process Tank and the remaining ammonia mass in each tank.

## **Treatment Timeline**

As part of evaluating the long-term treatment approach for perchlorate and ammonia, a projected treatment timeline was developed using the estimated mass loading to the Process Tanks and expected treatment rates. This treatment timeline projection is routinely updated with operational data (flow rates and concentrations). The treatment timeline projections beyond this reporting period are also routinely updated with actual recent treatment rates as the basis for estimating future treatment rates. The estimated FBR feed rates used for projections are 2 gpm at 2% perchlorate in the summer season and 10 gpm at 2% perchlorate in the winter season. The original and updated projected treatment timelines are provided in the attached Figure 4. The updated projection remains generally consistent with the previous O&M summary report. Based on current information, solids treatment is expected to be completed in the first quarter of 2020. The projected ending date will periodically change since this is a dynamic treatment process with many variables affecting actual treatment rates and mass estimates used to project the treatment timeline.

## **ROUTINE INSPECTIONS**

Routine inspections were conducted throughout October and November 2018. Routine inspections are intended to proactively identify potential issues or concerns with key infrastructure, identify and perform routine maintenance tasks, and confirm process equipment is ready for service. During the inspections, Tetra Tech staff visually inspected the Process Tanks, Day Tank, piping, secondary containment, and the liner system for damage and leaks; confirmed mixer operation; and recorded findings on the inspection forms. Inspections, testing, and maintenance of the dilution lines, transfer lines, and Receiving Tank are under the responsibility of ETI as of July 17, 2017. Copies of routine inspection forms are provided in Attachment A. Summaries of the primary inspection activities are included below.

## **Process Piping**

The piping within the AP-5 Process Area secondary containment area was inspected on a routine basis. AP-5 sediment wash water was decanted from the Process Tanks and transferred to the Day Tank routinely throughout the months of October and November 2018. The findings of the inspections are provided below:

• No visible damage to, or leaks from, the AP-5 process piping were observed.

## **Secondary Containment**

The AP-5 Process Area secondary containment liner was inspected by 360-degree perimeter inspections on a routine basis. The findings of the inspections are provided below:

- No damage to the secondary containment liner was observed.
- Stormwater accumulated on the secondary containment liner and in equipment pad sumps and was pumped to the Process Tanks on October 21, 2018, November 29, 2018, and November 30, 2018.

## **Tanks and Equipment**

Process Tanks T-201, T-202 and T-203, and Day Tank T-204 were inspected on a routine basis in October and November 2018. The findings of the inspections are provided below:

- No visible damage to, or leaks from, Process Tanks or the Day Tank were observed.
- Precipitate on the interior sides of the Process Tanks and impeller shafts was routinely washed down in all three tanks.

- The pH sensor on the Day Tank was repaired on November 7, 2018.
- A minor oil leak was discovered from a seal on the T-201 gear box on September 27, 2018. The seal was repaired on October 30, 2018.

## **MONTHLY INSPECTION**

The October and November monthly inspections were conducted on October 31, 2018 and November 30, 2018. Monthly inspections are conducted to provide a more thorough investigation of major equipment and parts and to confirm functionality of key control and interlock components. The monthly inspection form is provided in Attachment B. A summary of the findings is provided below:

- Spare parts for operation of the AP-5 slurry treatment system were present and stored on site.
- Air operated double diaphragm pumps were tested, and all were found to be in good working order.
- High-high level alarms for the Process Tanks and Day Tank were tested. All of the level sensors were observed to be functional at the time of the testing.

### **NON-ROUTINE TASKS**

As part of final AP-5 Pond closure, the transfer of residual solids from the pond to the Process Tanks began in April 2018 and was complete in July 2018. The cutting and removal of the pond liner and drainage layer was completed in August 2018. Upon completion of the liner system removal, the pond berm was excavated, profiled and properly disposed in September 2018. The depression was backfilled using imported material to achieve final grade established in the closure plan. On October 12, 2018, Tetra Tech completed final closure of the AP-5 Pond.

## CERTIFICATION

#### AP-5 Operation and Maintenance Summary – October and November 2018

#### Nevada Environmental Response Trust Site (Former Tronox LLC Site) Henderson, Nevada

#### Nevada Environmental Response Trust (NERT) Representative Certification

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

not indivendly, but soldy on Gun A \_, not individually, but solely in his representative Signature dent of the Nevada Environmental Response Trust Trustee capacity as Pres

**Name:** Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

Title: Solely as President and not individually

**Company:** Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

1/4/19

Date:

## CERTIFICATION

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

*Description of Services Provided:* Prepared AP-5 Operation and Maintenance Summary for October and November 2018.

led. Hansen

January 4, 2019

Date

**Kyle Hansen, CEM** Field Operations Manager/Geologist Tetra Tech, Inc.

Nevada CEM Certificate Number: 2167 Nevada CEM Expiration Date: September 18, 2020

## **Figures**

Figure 1. Estimate of Perchlorate Mass Remaining in Process Tanks





Figure 2. Estimate of Total Perchlorate Mass Remaining in Process Tanks

## Figure 3. Estimate of Ammonia Mass Remaining in Process Tanks



#### NO AMMONIA NO AMMONIA NO AMMONIA NPDES LIMIT NPDES LIMIT NPDES LIMIT 16,000 16% **Residual solids** removal Ammonia (dashed) 14,000 14% 12,000 12% Perchlorate Concentration (%) Ammonia Concentration (mg/L) 10,000 10% Perchlorate (solid) 8,000 8% 6% 6,000 4,000 4% 1% perchlorate 2,000 2% treatment target 0 0% Sep-17 Nov-17 Jan-18 Mar-18 May-18 Jul-18 Sep-18 Nov-18 Jan-19 Mar-19 May-19 Jul-19 Sep-19 Nov-19 Jan-20 Mar-20 Jul-17 Date

## Figure 4. Projected AP-5 Solids Treatment Timeframe

Notes: Orange lines depict November 2017 treatment estimates; Green lines depict current treatment estimates.

This model uses simplified assumptions regarding AP-5 decant water treatment feed rate and addition of SLMW for wash water.

## **Tables**

#### Table 1a. October Monthly AP-5 Wash Water Decant Records

Data	T-201	T-202	T-203	Daily Total
Date	(Gallons)	(Gallons)	(Gallons)	(Gallons)
10/1/2018	-	-	-	-
10/2/2018	-	-	-	-
10/3/2018	20,079	-	-	20,079
10/4/2018	-	-	-	-
10/5/2018	-	-	-	-
10/6/2018	-	-	-	-
10/7/2018	-	-	-	-
10/8/2018	-	-	-	-
10/9/2018	-	-	-	-
10/10/2018	-	-	-	-
10/11/2018	-	-	-	-
10/12/2018	21,461	-	-	21,461
10/13/2018	-	-	-	-
10/14/2018	-	-	-	-
10/15/2018	-	-	-	-
10/16/2018	-	-	-	-
10/17/2018	-	-	-	-
10/18/2018	-	-	-	-
10/19/2018	-	-	-	-
10/20/2018	8,202	-	-	8,202
10/21/2018	-	-	-	-
10/22/2018	-	-	-	-
10/23/2018	22,454	-	-	22,454
10/24/2018	-	-	-	-
10/25/2018	-	-	-	-
10/26/2018	-	-	-	-
10/27/2018	-	-	-	-
10/28/2018	-	-	-	-
10/29/2018	24,457	-	-	24,457
10/30/2018	-	-	-	-
10/31/2018	-	-	-	-
Total	96,653	-	-	96,653

Notes:

1 - Decant volumes presented are based on the starting and ending volumes in the Day Tank during decant operations, plus the volume that was transferred by ETI to the Receiving Tank during the time decant operations were occurring.

#### Table 1b. November Monthly AP-5 Wash Water Decant Records

Date	T-201	T-202	T-203	Daily Total
Date	(Gallons)	(Gallons)	(Gallons)	(Gallons)
11/1/2018	-	-	-	-
11/2/2018	-	-	-	-
11/3/2018	-	-	-	-
11/4/2018	-	-	-	-
11/5/2018	26,399	-	-	26,399
11/6/2018	-	-	-	-
11/7/2018	-	-	-	-
11/8/2018	-	-	-	-
11/9/2018	14,393	-	-	14,393
11/10/2018	-	-	-	-
11/11/2018	-	-	-	-
11/12/2018	-	-	-	-
11/13/2018	-	-	-	-
11/14/2018	21,846	-	-	21,846
11/15/2018	-	-	-	-
11/16/2018	-	-	-	-
11/17/2018	-	-	-	-
11/18/2018	-	-	-	-
11/19/2018	20,640	-	-	20,640
11/20/2018	-	-	-	-
11/21/2018	-	-	-	-
11/22/2018	-	-	-	-
11/23/2018	-	-	-	-
11/24/2018	17,037	-	-	17,037
11/25/2018	-	-	-	-
11/26/2018	-	-	-	-
11/27/2018	-	20,276	-	20,276
11/28/2018	-	-	-	-
11/29/2018	-	-	-	-
11/30/2018	-			
Total	100,315	20,276	-	120,591

Notes:

1 - Decant volumes presented are based on the starting and ending volumes

in the Day Tank during decant operations, plus the volume that was transferred

by ETI to the Receiving Tank during the time decant operations were occurring.

	Table 2a.	<b>Cumulative AP</b>	-5 Wash Wate	r Decant and	Transfer	Records
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Month	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Monthly Total (Gallons)
July 2017	38,377		20,906	59,283
August 2017	8,868		9,454	18,322
September 2017		22,819		22,819
October 2017		117,200		117,200
November 2017	26,567	65,048	98,171	189,786
December 2017	88,449	43,485	71,600	203,534
January 2018	95,673	81,036	59,577	236,286
February 2018	108,564	55,620	122,012	286,196
March 2018	75,262	76,737	-	151,999
April 2018	44,177	-	27,290	71,467
May 2018	71,329	-	22,579	93,908
June 2018	49,982	-	-	49,982
July 2018	50,583	-	-	50,583
August 2018	49,377	-	-	49,377
September 2018	23,094	-	-	23,094
October 2018	96,653	-	-	96,653
November 2018	100,315	20,276	-	120,591
Cumulative Total	927,270	482,221	431,589	1,841,080

Notes:

1 - Stabilized Lake Mead Water (SLMW) volume added to tanks does not include the volume used to routinely wash down precipitate on the interior sides and mixer impellar shafts. The volume of wash down water is approximately 2,000 gallons per tank per month.

2 - The volume of SLMW added to the tanks does not include stormwater that accumulates in the lined secondary containment and equipment pads that is pumped to the Process Tanks.

Month	T-201	T-202	T-203	Monthly Total
wonth	(Gallons)	(Gallons)	(Gallons)	(Gallons) <sup>1</sup>
July 2017	22,775		6,150	28,925
August 2017	13,970		7,860	21,830
September 2017		20,010		20,010
October 2017		131,247		131,247
November 2017	27,360	65,435	75,440	168,235
December 2017	43,570	39,585	5,485	88,640
January 2018	24,135	30,685	64,205	119,025
February 2018	92,020	22,475	126,845	241,340
March 2018	81,685	79,270	-	160,955
April 2018	465	-	18,805	19,270
May 2018	825	-	390	1,215
June 2018	860	-	-	860
July 2018	480	-	-	480
August 2018	280	-	-	280
September 2018	220	-	-	220
October 2018	1,490	-	-	1,490
November 2018	220,212	310	-	220,522
Cumulative Total	530,347	389,017	305,180	1,224,544

Table 2b. Cumulative Stabilized Lake Mead Water Volume Added for Sediment Washing

Notes:

1 - Stabilized Lake Mead Water (SLMW) volume added to tanks does not include the volume used to routinely wash down precipitate on the interior sides and mixer impellar shafts. The volume of wash down water is approximately 2,000 gallons per tank per month.

2 - The volume of SLMW added to the tanks does not include stormwater that accumulates in the lined secondary containment and equipment pads that is pumped to the Process Tanks.

		Mass in T-201 (Ibs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (Ibs)
Initial Perchlorate Mass <sup>1</sup>		168,055	247,579	185,745		601,380
	July 2017 <sup>2</sup>	17,828	-	9,189	27,017	574,363
	August 2017	4,120	-	4,155	8,275	566,088
	September 2017	-	12,547	-	12,547	553,540
ved	October 2017	-	59,663	-	<i>59,663</i>	493,878
oma	November 2017	10,605	32,571	40,418	83,594	410,284
is Re	December 2017	41,090	16,693	28,582	86,365	323,919
Mas	January 2018	36,195	25,360	19,639	81,195	242,724
.vo	February 2018	26,727	13,925	29,020	69,672	173,051
ddb	March 2018	12,248	12,168	-	24,415	148,636
4	April 2018	6,083	-	4,441	10,524	138,112
	May 2018 <sup>3</sup>	INDIVIDUAL PI	ROCESS TANK M	ASS CALCULATIO	NS WERE SUSPEN	DED UNTIL POND
	June 2018		SOLID	S TRANSFER CON	MPLETED.	
Ending	Perchlorate Mass					138,112

Table 3a. Estimate of Perchlorate Mass in Process Tanks Based on Tank Samples after Initial Slurry Transfer

#### Table 3b. Estimate of Perchlorate Mass in Process Tanks Based on Tank Samples after Residual Solids Transfer

					Total Monthly	<b>Total Perchlorate</b>
		Mass in T-201	Mass in T-202	Mass in T-203	Mass Removed	Mass In Process
		(lbs)	(lbs)	(lbs)	(lbs)	Tanks (lbs)
Initial Po	erchlorate Mass <sup>4</sup>	370,459	272,873	296,418		939,750
	July 2018	370,459	272,873	296,418		939,750
	August 2018⁵	23,717	-	-	23,717	916,033
	September 2018	10,889	-	-	10,889	905,144
	October 2018	46,380	-	-	46,380	858,764
	November 2018	38,510	10,660	-	49,170	809,594
Ending Perchlorate Mass		250,963	262,213	296,418		809,594

Notes:

1 - The initial perchlorate mass estimate presented is based on an average of laboratory results. The 95% confidence interval for starting perchlorate mass in all three Process Tanks is 422,491 to 776,030 pounds.

2 - The approximate mass removed for July 2017 is based on the starting concentrations in the Process Tanks. Subsequent mass removal calculations are based on both the starting (prior month) and ending (current month) perchlorate concentrations resulting from single point samples from each tank.

3 - Individual tank mass calculations were suspended until pond closure activities were completed. Following pond closure, a more comprehensive sampling of the Process Tanks was completed to establish new mass estimates.

4 - The perchlorate mass estimate after pond solids transfer is based on an average of laboratory results. The 95%

confidence interval for the perchlorate mass in all three Process Tanks is 814,953 to 1,064,163 pounds.

5 - Mass removal estimates on individual tanks resumed in August 2018.

Table 4.	Estimate o	of Perchlorate	Mass in	Process <sup>1</sup>	Tanks	Based	on Batch	Transfers

		Estimated Monthly Mass Added (lbs) <sup>3</sup>	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (Ibs)
Initial P	erchlorate Mass <sup>1</sup>			601,380
	July 2017 <sup>2</sup>		13,520	587,860
	August 2017 <sup>2</sup>		6,000	581,860
	September 2017		10,706	571,154
ved	October 2017		49,990	521,163
oma	November 2017		74,231	446,933
is Re	December 2017		73,066	373,867
Mas	January 2018		69,363	304,504
rox.	February 2018		73,247	231,257
App	March 2018		25,321	205,935
	April 2018		7,030	198,905
	May 2018 <sup>4 5</sup>	151,078	11,126	338,857
	June 2018⁵	227,250	9,337	556,770
	July 2018⁵	341,180	9,343	888,608
Perchlo	rate Mass After Por	nd Solids Removal <sup>5</sup>		939,750
	August 2018		11,710	928,040
	September 2018		9,777	918,264
	October 2018		35,943	882,320
	November 2018		61,959	820,361
Ending	Perchlorate Mass			820,361

Notes:

 The initial perchlorate mass estimate presented is based on an average of laboratory results as summarized in the August 11, 2017 technical memo *AP-5 Tank Sampling Activities and Mass Estimate Summary*. The 95% confidence interval for starting perchlorate mass in all three Process Tanks is 422,491 to 776,030 pounds.
 Individual batch data not available from ETI for July and August 2017. Values presented for these months are based on ETI's estimates. Subsequent monthly estimates are based on ETI records for batch volumes and average batch concentrations transferred from the Day Tank T-204 to the Receiving Tank T-205.

3 - From May to July 2018, estimates of the perchlorate mass added as part of final AP-5 pond closure activities were developed based on single point samples from each Process Tank. Monthly mass added were estimated using a single point sample from each Process Tank and may underestimate the mass contribution from settled residual solids.

4 - The May 2018 estimate of mass added from AP-5 Pond closure activities represents the period from April 26, 2018 through May 31, 2018

5 - The perchlorate mass estimate after pond solids transfer is based on an average of laboratory results. The 95% confidence interval for the perchlorate mass in all three Process Tanks is 814,953 to 1,064,163 pounds.

		Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Ammonia Mass In Process Tanks (Ibs)
Initial A	Ammonia Mass <sup>1</sup>	18,217	22,343	20,277		60,837
	November 2017	1,323	3,979	4,490	9,792	51,045
ved	December 2017	3,974	1,778	2,659	8,411	42,634
	January 2018	3,353	3,009	2,163	8,526	34,108
rox. emo	February 2018	2,945	1,509	3,564	8,017	26,091
App. S Re	March 2018	1,445	1,441	-	2,886	23,206
, Mas	April 2018	682	-	490	1,172	22,034
	May 2018 <sup>2</sup>	INDIVIDUAL PR	OCESS TANK MA	SS CALCULATION	S WERE SUSPEN	DED UNTIL POND
	June 2018		SOLIDS	TRANSFER COM	PLETED.	
Ending Ammonia Mass						22,034

#### Table 5a. Estimate of Ammonia Mass in Process Tanks after Initial Pond Transfer

#### Table 5b. Estimate of Ammonia Mass in Process Tanks after Residual Pond Solids Transfer

					Total Monthly	Total Ammonia
		Mass in T-201	Mass in T-202	Mass in T-203	Mass Removed	Mass In Process
		(lbs)	(lbs)	(lbs)	(lbs)	Tanks (lbs)
Initial A	mmonia Mass <sup>3</sup>	56,496	42,023	42,335		140,854
	July 2018	56,496	42,023	42,335		140,854
	August 2018⁴	3,294	-	-	3,294	137,560
	September 2018	1,561	-	-	1,561	135,999
	October 2018	7,340	-	-	7,340	128,659
	November 2018	5,483	1,455	-	6,939	121,720
Ending Ammonia Mass		38,817	40,568	42,335		121,720

Notes:

The initial ammonia mass estimate presented is based on an average of laboratory results for slurry and accumulated solids samples collected on November 1, 2017. Ammonia mass estimates are not available prior to this date.
 Individual tank mass calculations were suspended until pond closure activities were completed. Following pond closure, a more comprehensive sampling of the Process Tanks was completed to establish new mass estimates.
 The ammonia mass estimate after pond solids transfer is based on an average of laboratory results. The 95% confidence interval for the ammonia mass in all three Process Tanks is 118,994 to 162,598 pounds.
 Mass removal estimates on individual tanks resumed in August 2018.

## Attachment A Phase III O&M Routine Inspection Forms

#### **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 0815 Inspector Initials: KGH Date: <u>|0/1</u> **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment Any leaks, punctures, damage, bulges visible? Yes\* No 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,256,005 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes

If Yes, pump storm water into one of the process tanks.

#### -PROCESS TANKS AND DAY-TANK-INSPECTION --

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Ter	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	es	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-202		T-203	
Visible oil leaks from gear box?	(Yes)	(A)	Yes*	Ng	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Ves	No	Ver	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Res	No	Ver	No	es	No
Mixer running and turbulence/vortex observed?**		No	Yes	No	Yes	NO
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>78</u> Oil temperature	72	∫ °F	71	۴	76	°F

Date: In/(

Time: \_\_\_

Inspector Initials: KGF

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixery run intermitently to reduce wear. 01 **Operator Signature: EMERGENCY CONTACTS:** Title Name Phone # Comments Site Implementation Manager **Brad Maynard** (907) 723-2646 Field Operations Manager Kyle Hansen (801) 949-6663 Project Manager David Bohmann (303) 704-9527 **Program Manager** Dan Pastor (303) 588-0901 Site Health & Safety Karen Luna (702) 217-8173 **Corporate Health & Safety** Michelle Gillie (610) 348-7197 **Process Engineer** Courtney Flores (770) 845-6281 Emergency Generator Reference Quote # 142770051 Heath Barnard (702) 538 2292 (United Rentals) Reference Customer # 1439334

+05 Phase IP Inspection Form\_17011\_05 Page 2 of 2

Date:	10/2/18	

## Time: 0907 Inspector Initials: K4H

Yes\*

No

#### **PROCESS PIPING INSPECTION**

- 1. Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\*
- 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?
- 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.

(Bailons	Flowmeter:	2,2	63.2	150	_ (gallons
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#### SECONDARY CONTAINMENT INSPECTION

4.	Perform 360 perimeter walk to observe liner system for potential wear a	and tear.	$\alpha$
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	(No)
	If Yes, pump storm water into one of the Process Tanks.		
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(No)

If Yes, pump storm water into one of the process tanks.

#### PROCESS TANKS AND DAY-TANK-INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	> <sub>Yes*</sub>	Gto
All decant valves and transfer valves locked out?**	ves	No*	res	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*II	Yes	No*	NA	NA

		201	T-202		T-203	
Visible oil leaks from gear box?	(Yes*)	No	Yes*	(No)	Yes*	AU
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	es	No	(es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	e	No
Mixer running and turbulence/vortex observed?**		No*	Yes	Not	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature 77 Oil temperature		°₽	7	7 °F	78	\$°F

2/18 Date: \_\_\_\_

Time: \_\_\_\_\_ Inspector Initials: KSH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

refermitually to reake way - Mixog Cun for not week jugection scheduled T-201 que box Leak

**Operator Signature:** 

lifed Hansn

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Yes\*

Date: _	10/3/18	Time: /400	Inspector Initials:	KGH
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**PROCESS PIPING INSPECTION** 

- Any leaks, punctures, damage, bulges visible?
   Yes\*
- 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?
- 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.

Flowmeter:	2,2	271	,210	gallons

#### SECONDARY CONTAINMENT INSPECTION

- 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes
  5. Is there storm water accumulation greater than 1 foot? Yes
  If Yes, pump storm water into one of the Process Tanks.
  6. Is there storm water accumulation in equipment pad sumps?: Yes
  - If Yes, pump storm water into one of the process tanks.

#### -PROCESS TANKS AND DAY TANK INSPECTION -

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		т-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	ANO.
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	es	No*	NA	NA

	T-2	201	T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Q	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Ves	No
Mixer running and turbulence/vortex observed?**		No*	Yes	NO	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>88</u> Oil temperature	88	°F	8	7 °F	88	°F

Date: 10/3/18\_\_\_

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_KGA

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers run intermittenthy to reduce what

**Operator Signature:** 

J. J. Hanse

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>10/4 /18</u> Time: <u>1043</u> Ins	spector Initials:	f
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment a	and FBR secondary contai	nment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowme Flowmeter: <u>2,271,210</u> (gallons)	ter east of Process Tanks.	_
SE	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potenti	ial wear and tear.	
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No

#### - PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	) Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	) No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	) No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yès	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Ves	No	ves	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	7	S °₽	71	°F	7.	°F

Date:

Time:

Inspector Initials: Kerker

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixing run intermittently to reduce mean, T-201 leak inspection scheduled

**Operator Signature:** 

Lyb S. Hanna

#### **EMERGENCY CONTACTS:**

r			T
Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/5/18 Time: 0935 1	nspector Initials:	KSH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containmen	t and FBR secondary con	tainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area.		
	Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flown	neter east of Process Tan	ks.
	Flowmeter: 2278,800 (gallons)		
SE	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for poter	ntial wear and tear.	A
	Any leaks, punctures, or other damage visible?	Yes	(Ng
5.	Is there storm water accumulation greater than 1 foot?	Yes	No
	If Yes, pump storm water into one of the Process Tanks.		
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	No
	If Yes, pump storm water into one of the process tanks.		$\sim$

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	NO	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	fes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-:	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	70	7 °,F	7	(0 °F	7	∫ °F

18 Date: \_10/51

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_KSH

**NOTES:** 

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers run intermittently to reduce wear hay guall leak @ gearbox 7-201

aled Hann **Operator Signature:** 

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date: 10/6/18 Time: 1807 Inspector Initi	ials:	KSIF
PROCESS PIPING INSPECTION		
1. Observe piping between Process Tank secondary containment and FBR sec	ondary contai	nment.
Any leaks, punctures, damage, bulges visible?	Yes*	No
2. Observe piping in Process Tank secondary containment area.		0
Any leaks, punctures, damage, bulges visible?	Yes*	No
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of F	Process Tanks	
Flowmeter: 2,286,210 (gallons)		
SECONDARY CONTAINMENT INSPECTION		
4. Perform 360 perimeter walk to observe liner system for potential wear and	l tear.	0
Any leaks, punctures, or other damage visible?	Yes	No
5. Is there storm water accumulation greater than 1 foot?	Yes	No
If Yes, pump storm water into one of the Process Tanks.		6
6. Is there storm water accumulation in equipment pad sumps?:	Yes	Nd
If Yes, pump storm water into one of the process tanks.		

#### PROCESS TANKS AND DAY TANK INSPECTION-

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		<b>T-20</b> 4	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		Т-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	es	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature 75 Oil temperature	73	°F	7	√ °F	. 74	∕ °F

Date: 10/6/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_ I444

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers run by CCC. to be T-201 yl J. Hanse

### **Operator Signature:**

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/7/18 Time: 0900	Inspector Initials:	KGH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containme	nt and FBR secondary c	ontainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area	•	
	Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flow Flowmeter: <u>2,286,210</u> (gallons)	meter east of Process T	anks.
SEG	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for pote	ential wear and tear.	
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	No
	If Yes, pump storm water into one of the Process Tanks.		<u> </u>
6.	Is there storm water accumulation in equipment pad sumps	?: Yes	No

#### - PROCESS TANKS AND DAY TANK INSPECTION-

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	Nø
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	es	No*	Yes	No*	NA	NA

	T-2	201	Т-2	202	T-2	203
Visible oil leaks from gear box?	Nes*	No	Yes*	No	Yes*	Na
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Ves	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	51	≶ °F	60	°F	54	°F

Date: 10/7/18

Time: \_\_\_\_\_

Inspector Initials: KS M

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittatly to reduce wear. to be LIC 7-201

**Operator Signature:** 

Heles Hann

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/4/18 Time: 0750 Inspector Ini	tials:	Kyfl							
PR	PROCESS PIPING INSPECTION									
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.									
	Any leaks, punctures, damage, bulges visible?	Yes*	Ng							
2.	Observe piping in Process Tank secondary containment area.									
	Any leaks, punctures, damage, bulges visible?	Yes*	No							
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Flowmeter: <u>2,293,650</u> (gallons)	Process Tai	nks.							
SEU	UNDARY CONTAINMENT INSPECTION									
4.	Perform 360 perimeter walk to observe liner system for potential wear an	id tear.	0							
	Any leaks, punctures, or other damage visible?	Yes	No							
5.	Is there storm water accumulation greater than 1 foot?	Yes	No							
	If Yes, pump storm water into one of the Process Tanks.		-							
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No							

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	τ-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	es	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**		No*	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	5	Υ°F	6	(°F	60	°F

Date:	10-8	.18
		THE OWNER WATER OF TAXABLE PARTY.

Time:

Inspector Initials: \_\_\_\_K414

#### NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Miters run intermittently to reduce wear be inspected Miker box 7-201

**Operator Signature:** 

gle S. Hann

#### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	i.
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334
Da	te: 10/9/18 Time: 0900 Insi	pector Initials: <u>Kit H</u>	(
-----	---	-------------------------------	-------
PR	DCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment a	nd FBR secondary containr	nent.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmet Flowmeter: <u>2,294, 480</u> (gallons)	er east of Process Tanks.	
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potentia	l wear and tear.	0
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No

6. Is there storm water accumulation in equipment pad sumps?: Yes If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201 T-202		T-203		T-204			
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	Ng	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

### 8. Visual inspection from top of each Process Tank:

	T-201		T-2	T-202		203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	NO
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste NA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 5 9 Oil temperature	5	°  °F	5	8 °F	- 5'	7 °F

No

Date:

Time: \_\_\_\_\_

Inspector Initials: KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

to reduce wear. 201

**Operator Signature:** 

yled. House

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>10/10/18</u> Time: <u>0950</u> In	spector Initials:	KGH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment	and FBR secondary c	ontainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area.		C.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowm	eter east of Process T	anks.
	Flowmeter: 2, 302, 940 (gallons)		
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potent	tial wear and tear.	~
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	No
	If Yes, pump storm water into one of the Process Tanks.		
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	Nø
	If Yes, pump storm water into one of the process tanks.		U

## PROCESS TANKS AND DAY TANK INSPECTION

Property and

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201 T-202		T-203		T-204			
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	Gxb
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		і Т-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	Nø
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	es	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>72</u> Oil temperature	1	<i>(</i> ) °F	7	∂°F	7	(°F

Date: 10/10/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittuitly to reduce wear - T-201 bearbox leak to be myrested next week.

**Operator Signature:** 

Kyled Hansu

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# Time: 130 Inspector Initials: KSH Date: 10/11/18 **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,309, 450 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes If Yes, pump storm water into one of the process tanks.

**K05 PHASE III O&M ROUTINE INSPECTION FORM** 

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	02	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	res	No*	NA	NA
Are transfer pumps ready for service?	Yes	No* (	Yes	No*	res	No*	NA	NA

	T-201		T-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	res	No	Yes	No	fes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperatureO Oil temperature	74	∫ °F	70	e °F	70	∫°F

10/11/18 Date: \_\_\_

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

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**Operator Signature:** 

Jed. Hans

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/12/18 Time: 0925 Inspect	or Initials:	129H
PR	DCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and F	BR secondary co	ntainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	NO
2.	Observe piping in Process Tank secondary containment area.		
	Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter e Flowmeter: <u>2,309,450</u> (gallons)	ast of Process Ta	nks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential we	ear and tear.	-
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	<b>R</b>
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	Na

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	Ng	Yes*	No	Yes*	AND
All decant valves and transfer valves locked out?**	Yes	No*	fes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Tes	No*	Yes	No*	NA	NÅ

	T-2	201	T-202		T-3	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**		No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	g°F	le"	1 °₽	6	& °F

Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Decan yra from T-201 Leak to be inspected west Tuesday by cci -201 reduce CC M Mitters

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie 🗕	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 0635 Inspector Initials: KSH Date: **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 7-317.655 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes

If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-203	
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(es	No
Mixer running and turbulence/vortex observed?**		No*	Yes	No*)	Yes	(Nd*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	(°F	6	3 °F	6	2 °F

10/13/18 Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_KSH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

eak inspection on 10/10 Mixers 701

**Operator Signature:** 

gle S. Hansu

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

RUS PRASE III ORIVI ROUTINE INSPECTION FORM	K05	PHASE	<b>III 0&amp;M</b>	ROUTINE	INSPECTION	FORM
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0"	71	5	Insp

nspector Initials:

Yes\*

No

### **PROCESS PIPING INSPECTION**

- Any leaks, punctures, damage, bulges visible?
   Yes\*
- Observe piping in Process Tank secondary containment area.
   Any leaks, punctures, damage, bulges visible?
- 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter:  $\frac{2/325/30}{2}$  (gallons)

### SECONDARY CONTAINMENT INSPECTION

- 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes
  5. Is there storm water accumulation greater than 1 foot? Yes
  If Yes, pump storm water into one of the Process Tanks.
  6. Is there storm water accumulation in equipment pad sumps?: Yes
  - If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

		T-201		T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	NO
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**		No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature $\underline{b} \underline{b} \underline{b} \underline{b} \underline{b} \underline{b}$ Oil temperature	61	°F	61	°F	62	ک °۶

Date: 10/14/18 Time:

Inspector Initials: -JR

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

P715

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

interm theatly to reduce wear SUA.

m RRm **Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

	K05 PHASE III O&M ROUTINE INSPEC	TION FORM	
Da	te: 10/15/18 Time: 0730 Inspecto	or Initials:	JR
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and Fa Any leaks, punctures, damage, bulges visible?	BR secondary con Yes*	itainment.
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	(No)
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter ea Flowmeter: <u>ネレステレステレス</u> (gallons)	ist of Process Tar	iks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential we Any leaks, punctures, or other damage visible?	ar and tear. Yes	NO
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**		(No*)	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>55</u> ° Oil temperature	50	۴	Ч	9 °F	51	O °F

Date: 10/15/18

Time: 0730 Inspector Initials: JR

### NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittently to reduce wear. - T-201 Leak Inspection on 10/16.

Operator Signature: MRR

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date: 10//6//8

Time:	110	Q	

Yes\*

No

No

## PROCESS PIPING INSPECTION

 Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible?
 Observe piping in Process Tank secondary containment area.

Any leaks, punctures, damage, bulges visible?

## SECONDARY CONTAINMENT INSPECTION

- 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes
  5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks.
- 6. Is there storm water accumulation in equipment pad sumps?:
   Yes

   If Yes, pump storm water into one of the process tanks.

# <sup>9</sup> PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	res	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

		201	T-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**		(No*)	Yes	(No*)	Yes	(No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature		/ °F	70	ς °F	7	0 °F

Date:	10/16/18	Time:	1100	Inspector Initials:	JR	
NOTES:						

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.) Hently

- MIXE interm. run 40 Cedu 11 WADI ac 00 10 Further 501 CF. 00 d 10

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date:	10/17/18	∂ Tin

ne:	0630

Inspector Initials: JR

Yes\*

No

## PROCESS PIPING INSPECTION

- 1. Observe piping between Process Tank secondary containment and FBR secondary containment.

   Any leaks, punctures, damage, bulges visible?
   Yes\*
- 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?
- 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: <u>2,337, 870</u> (gallons)

## SECONDARY CONTAINMENT INSPECTION

- 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes No
  5. Is there storm water accumulation greater than 1 foot? Yes No
  If Yes, pump storm water into one of the Process Tanks.
  6. Is there storm water accumulation in equipment pad sumps?: Yes No
  - If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	Т-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	5	/ °F	50	) °F	52	۴

K05 PHASE	. <b>III 0&amp;</b> N	<b>1 ROUTINE</b>	INSPECTION	FORM
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10/17/18 Time: 0630 Date:

Inspector Initials: J

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run interm. Hently to reduce - Mixers Inspection on Further action Leok 10k iddnose

**Operator Signature:** 

 $\leq$  /

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/18/18 Time: 0800 Inspector Initia	lls:JR	
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR seco	ndary contain	ment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area.		
	Any leaks, punctures, damage, bulges visible?	Yes*	No
З.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of P	rocess Tanks.	
	Flowmeter: <u>2,343, 290</u> (gallons)		
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear and	tear.	
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	NO

6. Is there storm water accumulation in equipment pad sumps?: Yes If Yes, pump storm water into one of the process tanks.

If Yes, pump storm water into one of the Process Tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Ves	No*	Yes	No*	Yea	No*	NA	NA

### 8. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>59</u> Oil temperature	5	8°F	57	۴	5	₿°F

No

Date:

Time: 0800

Inspector Initials: JR

NOTES:

10/18/18

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- mixers run intermittently to reduce wear T-201 Leve inspection on 10/16/18. Further action rak didgnose 1-29 U.I to

Operator Signature:

L

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/19/18 Time: 0605 Inspector Init	ials: <u> </u>	2
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR sec	ondary conta	inment.
	Any leaks, punctures, damage, bulges visible?	Yes*	NO
2.	Observe piping in Process Tank secondary containment area.		
	Any leaks, punctures, damage, bulges visible?	Yes*	(No)
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of	Process Tanks	
	Flowmeter: 2,349,340 (gallons)		
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear and	l tear.	
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	No
	If Yes, pump storm water into one of the Process Tanks.		
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	No

## PROCESS TANKS AND DAY TANK INSPECTION

If Yes, pump storm water into one of the process tanks.

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	Ng	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	(No)	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	51	٩°	58	₹°F	55	₹°F

Time: 0605 Date:

Inspector Initials: \_

JR

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

termittently to reduce Wea 01 leak 18. Further 105020 in 00 10 100 gnose ac tion

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Dat	re: 10/20/18 Time: 0649 Insp	ector Initials:	1411						
PR	DCESS PIPING INSPECTION								
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment								
	Any leaks, punctures, damage, bulges visible?	Yes*	No						
2.	Observe piping in Process Tank secondary containment area.								
	Any leaks, punctures, damage, bulges visible?	Yes*	No						
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter Flowmeter: $2,350,450$ (gallons)	er east of Process Tai	nks.						
SEC	ONDARY CONTAINMENT INSPECTION								
4.	Perform 360 perimeter walk to observe liner system for potential	wear and tear.	A						
	Any leaks, punctures, or other damage visible?	Yes	No						
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	M						
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	(Ng)						

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

CONSTRUCTION OF A DESCRIPTION OF A DESCR	T-2	201	т-а	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	(Yes)	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	(Yes)	No*	NA	NA

	T-201		T-2	T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	NO
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	œ	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperatureO Oil temperature	67	2°F	6	−ς °F	4	[ °F

Date: \_\_\_\_

10/20/18 Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_\_

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixer run intermittantly to reduce wear.

**Operator Signature:** 

Lyle & Hansen

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	1.1°
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>10/21/10</u> Time: <u>1440</u> In	spector Initials:	K(							
PR	PROCESS PIPING INSPECTION									
1.	Observe piping between Process Tank secondary containment	and FBR secondary containment								
	Any leaks, punctures, damage, bulges visible?	Yes* No								
2.	Observe piping in Process Tank secondary containment area.									
	Any leaks, punctures, damage, bulges visible?	Yes*								
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowing Flowmeter: <u>2357 (20</u> (gallons)	eter east of Process Tanks.								
SE	CONDARY CONTAINMENT INSPECTION									
4.	Perform 360 perimeter walk to observe liner system for potent	ial wear and tear.								
	Any leaks, punctures, or other damage visible?	Yes No								
5.	Is there storm water accumulation greater than 1 foot?	Yes No								
	If Yes, pump storm water into one of the Process Tanks.									
6.	Is there storm water accumulation in equipment pad sumps?:	(Yes) No	)							
	If Yes, pump storm water into one of the process tanks.	$\smile$								

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	Nà	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yee	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	T-201		T-202		203
Visible oil leaks from gear box?	(Yes*)	No	Yes*	(No)	Yes*	NB
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	es	No	fes	No	les	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 78 Oil temperature	7	] °₽	70	°F	7.	8 °F

Date: 10/21

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_/2/3/1

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Miters run internitantly to reduce what - Sumps pumpel to remove rainwatter accumulation

**Operator Signature:** 

il S. Hanse

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

### **K05 PHASE III O&M ROUTINE INSPECTION FORM** Inspector Initials: \_\_\_\_\_ KGH Time: \_\_\_\_\_\_\_\_\_ Date: **PROCESS PIPING INSPECTION** Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* No 2. Observe piping in Process Tank secondary containment area. Yes\* Any leaks, punctures, damage, bulges visible? No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,364,960 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: No

If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	es	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Ves	No	(g)s	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	70	₽°F	70	°F	7'	₹°F

Date: 10/22/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ KG11

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

intermittently wear. To be the here the for repair leak Minor T-201 has bot unt

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/23/18 Time: 1350 Inspec	ctor Initials:	KSH									
PR	PROCESS PIPING INSPECTION											
1.	Observe piping between Process Tank secondary containment and	FBR secondary c	ontainment.									
	Any leaks, punctures, damage, bulges visible?	Yes*	No									
2.	Observe piping in Process Tank secondary containment area.		3									
	Any leaks, punctures, damage, bulges visible?	Yes*	CNO									
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter	east of Process T	anks.									
	Flowmeter: 2,371,320 (gallons)											
SEC	CONDARY CONTAINMENT INSPECTION											
4.	Perform 360 perimeter walk to observe liner system for potential w	vear and tear.	m									
	Any leaks, punctures, or other damage visible?	Yes	No									
5.	Is there storm water accumulation greater than 1 foot?	Yes	No									
	If Yes, pump storm water into one of the Process Tanks.		~									
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(No)									
	If Yes, pump storm water into one of the process tanks.											

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Tes	No*	Yes	No*	NA	NA

	<b>J-201</b>		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	les	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Nor
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste M Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	7	5°F	76	\$°F	7	(∂ °F

Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_ K S / f

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixing Ton intermittudhy to reduce wear repair to be scheduled. box

**Operator Signature:** 

lest Hanse

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

			•
Da	nte: 10/24/14 Time: 0920 Inspector	nitials:	KSH
PF	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR	secondary c	ontainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east Flowmeter: <u>2,378, 265</u> (gallons)	of Process 1	anks.
SE	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear	and tear.	$\sim$
	Any leaks, punctures, or other damage visible?	Yes	(No
5.	Is there storm water accumulation greater than 1 foot?	Yes	NO
	If Yes, pump storm water into one of the Process Tanks.		
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	No
	If Yes, pump storm water into one of the process tanks.		$\cup$

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201 T-202		T-203		T-204			
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	G
All decant valves and transfer valves locked out?**	Yes	No*	les	No*	Nes	No*	NA	NA
Are transfer pumps ready for service?	es	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203~~
Visible oil leaks from gear box?	Yes	No	Yes*	No	Yes*	(Ja)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	es	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(res	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	Not	Yes	<b>*</b>
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste ///A Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature	10:	5 °F	6	6 °F	6	∕o °F

Date:	ĮØ	124	/18
	· · · · · · · · · · · · · · · · · · ·		

Time: \_\_\_\_\_\_ Inspector Initials: \_\_\_\_\_K411

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers run intermittenthite reduce wear

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/25/18 Time: 1300 Inspec	tor Initials:	KSH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and I Any leaks, punctures, damage, bulges visible?	FBR secondary coi Yes*	ntainment.
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter e Flowmeter: $2385220$ (gallons)	ast of Process Tar	nks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential w	ear and tear.	
	Any leaks, punctures, or other damage visible?	Yes	(No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	CNO

If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	es	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	es	No*	Ves	No*	res	) <sub>No*</sub>	NA	NA

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Res*	No	Yes*	(No)	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	fes	No	Yes	No	Ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	(Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>65</u> Oil temperature	84	°F	9	56 °F	89	∽ °F

Date:	$(\mathcal{O})$	/2	5/	18
			1	-

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_K

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittent a to refuce what NTUG

**Operator Signature:** 

Neld, Hann

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 10.53 Inspector Initials: KG H Date: PROCESS PIPING INSPECTION 1. Observe piping between Process Tank secondary containment and FBR secondary containment Any leaks, punctures, damage, bulges visible? Yes\* Ńο 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,392,470 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks.

Is there storm water accumulation in equipment pad sumps?:
 If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

Yes

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	(No)
All decant valves and transfer valves locked out?**	Yes	No*	res	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	) No*	Yes	No*	(Yes)	No*	NA	NA

	I-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(Yes)	No
Mixer running and turbulence/vortex observed?**		No*	Yes	(No*)	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	7	3°F	7	5°F	74	۴

Date: 10/26/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_/< 5 /-/

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixeys Roma he repained 10/30. - Gearbox on

ale S. Henrien **Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	==
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334
Da	te: <u>10/27/18</u> Time: <u>17335</u> Inspector Initials	<u> </u>	; <i>H</i>
-----	--	---------------------	------------
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR second Any leaks, punctures, damage, bulges visible? Y	lary contain es*	No
2.	Observe piping in Process Tank secondary containment area.Any leaks, punctures, damage, bulges visible?Y	es*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Prop Flowmeter: $2,399,200$ (gallons)	cess Tanks.	
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear and tea Any leaks, punctures, or other damage visible? Ye	ar. es	G
5.	Is there storm water accumulation greater than 1 foot? Ye If Yes, pump storm water into one of the Process Tanks.	25	(N)
6.	Is there storm water accumulation in equipment pad sumps?: Ye If Yes, pump storm water into one of the process tanks.	25	No

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	GND
All decant valves and transfer valves locked out?**	les	No*	les	No*	(Yes)	No*	NA	NA
Are transfer pumps ready for service?	les	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	(AK)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Ges	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No.
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>81</u> Oil temperature	8(	°F	4	() °F	79	°F

Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_\_

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

m-term: Hentle to reduce way ÷ Mixery FUN

Kyle J. H Operator Signature: \_

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>10/28/18</u> Time: <u>1730</u> Inspect	or Initials:	<u>K</u> SH						
PR	DCESS PIPING INSPECTION								
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment								
	Any leaks, punctures, damage, bulges visible?	Yes*	(No)						
2.	Observe piping in Process Tank secondary containment area.		1						
	Any leaks, punctures, damage, bulges visible?	Yes*	Na						
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter e	ast of Process Tai	nks.						
	Flowmeter: <u>Z, 406, 940</u> (gallons)								
SEC	ONDARY CONTAINMENT INSPECTION								
4.	Perform 360 perimeter walk to observe liner system for potential we	ear and tear.							
	Any leaks, punctures, or other damage visible?	Yes	Ng						
5.	Is there storm water accumulation greater than 1 foot?	Yes	No						
	If Yes, pump storm water into one of the Process Tanks.		7						
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	No						
	If Yes, pump storm water into one of the process tanks.								

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Ves	No*	Yes	No*	Yes	No*	NA	NA

	7-201		T-:	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	(No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	les	No
Mixer running and turbulence/vortex observed?**		No*	Yes	Not	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	8	(°F	8	2°F	8	Ø °F

28/18 Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_/24/4

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittentle Mixory Geor box to on 10/30 -T-201 be repaired

**Operator Signature:** 

ansur

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 10/29/18 Time: 1350 Inspector Ini	tials:	KG H					
PR	OCESS PIPING INSPECTION							
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.							
	Any leaks, punctures, damage, bulges visible?	Yes*	No					
2.	Observe piping in Process Tank secondary containment area.		7					
	Any leaks, punctures, damage, bulges visible?	Yes*	Na					
3.	3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: $2,4(3,90)$ (gallons)							
SE	CONDARY CONTAINMENT INSPECTION							
4.	Perform 360 perimeter walk to observe liner system for potential wear an	d tear.	<b>A</b>					
	Any leaks, punctures, or other damage visible?	Yes	(No)					
5.	Is there storm water accumulation greater than 1 foot?	Yes	(N)					
	If Yes, pump storm water into one of the Process Tanks.		A					
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(Ng					
	If Yes, pump storm water into one of the process tanks.							

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	Т-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	, Yes*	No	Yes*	No	Yes*	No	Yes*	GR6
All decant valves and transfer valves locked out?**	Ves	No*	res	No*	red	No*	NA	NA
Are transfer pumps ready for service?	Ves	No*	Yes	No*	Yes	No*	NA	NA

	1-2	T-201		202	T-2	203
Visible oil leaks from gear box?	Yest	No	Yes*	(No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	es	No	(V)s	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	Not	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>40</u> Oil temperature	Ц	5 °F	8(	₀ °F	85	∑ °F

Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ ICG IA

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixerg run intermittently to reduce wear

**Operator Signature:** 

Kyled Hann

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Dat	te: <u>10/30/(8</u> Time: <u>14'30</u> Inspector I	nitials:	KqH							
PR	DCESS PIPING INSPECTION									
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.									
	Any leaks, punctures, damage, bulges visible?	Yes*	No							
2.	Observe piping in Process Tank secondary containment area.		0							
	Any leaks, punctures, damage, bulges visible?	Yes*	No							
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east Flowmeter: 2,416,640 (gallons)	of Process Ta	inks.							
SEC	ONDARY CONTAINMENT INSPECTION									
4.	Perform 360 perimeter walk to observe liner system for potential wear	and tear.	3							
	Any leaks, punctures, or other damage visible?	Yes	No							
5.	Is there storm water accumulation greater than 1 foot?	Yes	No							
	If Yes, pump storm water into one of the Process Tanks.		0							
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No							

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-3	201	Т-2	202	Т-2	203	Т-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	Na	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*,	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Tes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>75</u> Oil temperature	74	(°F	7.	S °₽	74	°F

Date:

Time:

Inspector Initials: KGH

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

T-20 way repaired Gearbox cartus wear, Mixers

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	2
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	ite: 10/31/18 Time: 0955 Inspec	ctor Initials:	RSH
PR	OCESS PIPING INSPECTION		
1,	Observe piping between Process Tank secondary containment and	FBR secondary con	tainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	Ng
2.	Observe piping in Process Tank secondary containment area.	33	2
	Any leaks, punctures, damage, bulges visible?	Yes*	Na
3. se	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter Flowmeter: <u>2,423,700</u> (gallons)	east of Process Tan	<5.
л Л	Desform 260 perimeter walk to observe lines system for potential w	upper and tope	
4.	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	02	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Fes	No*	(e)	No*	Cer	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	(Yes)	No*	Fes	No*	NA	NA

	T-2	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperatureOOOil temperature	50	°F	le	/ °F	6	6 °F

Date:	10	31/	18
	100 100	1.3	1.11.11.1

Time: \_\_\_\_\_\_ Inspector Initials: \_\_\_\_\_ ICG H

NOTES:

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Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers for intermittenthy to reduce wead

**Operator Signature:** 

hl.J.A

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 0810 Inspector Initials: <u>KGH</u> Date: 11/1 /18 **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment. No Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2, 431, 840 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks.

6. Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

Yes

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	R
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-2	203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	(No*)	Yes	(N)*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	Z°F	6	/ °F	(0.C	) °F

1/1/18 Date: \_

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_K4, f

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

# **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

to reduce wear. rolermittenthe - Milves Un -

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## Time: 0935 Inspector Initials: 149.4 11/2 Date: \_\_\_\_ **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* Ňο 2. Observe piping in Process Tank secondary containment area. Yes\* Any leaks, punctures, damage, bulges visible? No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,436, 540 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. No No Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes

If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	(A)
All decant valves and transfer valves locked out?**	res	No*	res	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	es	No*	Yes	No*	NA	NA

# 8. Visual inspection from top of each Process Tank:

	T-2	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Ye	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	(No*)	Yes	6
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA, Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>68</u> Oil temperature	6	5 °F	6	Le °F	60	€ °F

**K05 PHASE III O&M ROUTINE INSPECTION FORM** 

Date: 11/2/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_ KSH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittendly to reduce wear - Mixlers

**Operator Signature:** 

Ryle J. Hanen

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/-3/18</u> Time: <u>1615</u> Inspect	or Initials:	K411						
PR	OCESS PIPING INSPECTION								
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.								
	Any leaks, punctures, damage, bulges visible?	Yes*	No						
2.	Observe piping in Process Tank secondary containment area.		2						
	Any leaks, punctures, damage, bulges visible?	Yes*	(No						
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter e	ast of Process Tan	ks.						
	Flowmeter: 2, 245, 120 (gallons)								
SEC	CONDARY CONTAINMENT INSPECTION								
4.	Perform 360 perimeter walk to observe liner system for potential we	ear and tear.	0						
	Any leaks, punctures, or other damage visible?	Yes	(No)						
5.	Is there storm water accumulation greater than 1 foot?	Yes	NO						
	If Yes, pump storm water into one of the Process Tanks.								
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	ab						
	If Yes, pump storm water into one of the process tanks.								

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	Т-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	
All decant valves and transfer valves locked out?**	Yes	No*	(Pe):	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	(No)	Yes*	(No)	Yes*	(10)	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	es	No	es	No	
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	es	No	
Mixer running and turbulence/vortex observed?**	Yes	(Nó*)	Yes	No*	Yes	No*	
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*	
Ambient air temperature <u><u>80</u> Oil temperature</u>	8	() °F	8		8-	ζ°F	

Date:	 11	3	18	_
	 1	- /		-

Time:\_\_\_\_\_

Inspector Initials: <u>K4N</u>

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittently to reduce whar.

and **Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	10
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/4/18</u> Time: <u>1530</u> Inspecto	r Initials:	KSH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FB Any leaks, punctures, damage, bulges visible?	R secondary o Yes*	containment.
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter ea. Flowmeter: $2,456, 840$ (gallons)	st of Process 7	Tanks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wea Any leaks, punctures, or other damage visible?	ir and tear. Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	<b>W</b>
All decant valves and transfer valves locked out?**	Yes	No*	les	No*	fes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-:	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Ves	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	Not	Yes	Ng*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 7/2 Oil temperature	7	G °₽	7	S_ °₽	7	7 °F

118 Date: 11/4

Time: \_\_\_\_\_\_ Inspector Initials: \_\_\_\_\_ ICGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers cun intermitently to reduce wear

**Operator Signature:** 

Kyle S. Hanen

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/5/18</u> Time: <u>1300</u> Inspector Initia	als:	KGH			
PR	DCESS PIPING INSPECTION					
1.	Observe piping between Process Tank secondary containment and FBR secondary leaks, punctures, damage, bulges visible?	ondary c Yes*	ontainment.			
2.	2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes*					
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of P Flowmeter: $2,461,705$ (gallons)	rocess T	anks.			
SEC	CONDARY CONTAINMENT INSPECTION					
4.	Perform 360 perimeter walk to observe liner system for potential wear and Any leaks, punctures, or other damage visible?	tear. Yes	No			
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No			
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(No)			

If Yes, pump storm water into one of the process tanks.

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	203	Т-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	Yes	No*	Ves	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-2	203
Visible oil leaks from gear box?	Yes*	(No	Yes*	(No)	Yes*	NÓ
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Ves	No	Yes	No
Mixer running and turbulence/vortex observed?**		(No*)	Yes	No*	Yes	(No*)
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste //A Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	7	∠( °F	7	5 °F	7	4 °F

18 Date:

Time:

Inspector Initials: KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

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**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/6/18</u> Time: <u>1215</u> Inspector Initia	als: <u>KG</u>	<u>+/</u>
PR	DCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR second Any leaks, punctures, damage, bulges visible?	ondary containr Yes*	No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of P Flowmeter: <u>2,468,650</u> (gallons)	rocess Tanks.	_
SEC	ONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear and Any leaks, punctures, or other damage visible?	tear. Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	Np

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	res	No*	Yes	No*	NA	NA

	T-201		T-2	202	T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	es	No	res	No
Mixer running and turbulence/vortex observed?**	Yes	No*)	Yes	(No*)	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature 7 ( Oil temperature	7	Lf °F	7	(0 °F	7	3°F

6/08 Date:

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ KgH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

refermingly to reduce was run - Minter

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>1/7/18</u> Time: <u>0956</u> Inspec	tor Initials:	16911				
PR	OCESS PIPING INSPECTION						
1.	Observe piping between Process Tank secondary containment and	FBR secondary co	ntainment.				
	Any leaks, punctures, damage, bulges visible?	Yes*	No				
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*					
3.	3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: $2,475,870$ (gallons)						
SEC	CONDARY CONTAINMENT INSPECTION						
4.	Perform 360 perimeter walk to observe liner system for potential w	/ear and tear.	G				
	Any leaks, punctures, or other damage visible?	Yes	Nd				
5.	Is there storm water accumulation greater than 1 foot?	Yes	No				
	If Yes, pump storm water into one of the Process Tanks.		6				
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	(уь				

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	75
All decant valves and transfer valves locked out?**	Ves	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	т-а	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(Vers	No
Mixer running and turbulence/vortex observed?**	Yes	No*)	Yes	No	Yes	100*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>le le</u> Oil temperature	6	<del>Ц</del> °F	6	5°F	6	∫ °F

Date:

Time:

\_\_\_\_\_ Inspector Initials: \_\_\_\_\_ Ker W

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

emiller /u reduce wlar. La.

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/3/(%</u> Time: <u>1/55</u> Inspector Initi	als:	KSH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR sec	ondary cont	ainment.
	Any leaks, punctures, damage, bulges visible?	Yes*	No
2.	Observe piping in Process Tank secondary containment area.		
	Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of F	Process Tank	<s.< td=""></s.<>
	Flowmeter: 2,483,045 (gallons)		
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear and	tear.	~
	Any leaks, punctures, or other damage visible?	Yes	No
5.	Is there storm water accumulation greater than 1 foot?	Yes	No
	If Yes, pump storm water into one of the Process Tanks.		x
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(No
	If Yes, pump storm water into one of the process tanks.		

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		<b>T-204</b>	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NØ
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	res	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	T-201		202	T-2	203
Visible oil leaks from gear box?	Yes*	NO	Yes*	No	Yes*	(No)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	les	No	es	No	(Ye)s	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	es	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	(1)6*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	2°F	6	°F	(0	3 °F

Date: 11/8/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittently to reduce wear - Mixery

gled. Hancen

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/9/(%</u> Time: <u>1108</u> Inspecto	r Initials:	¥4(1
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and F& Any leaks, punctures, damage, bulges visible?	R secondary co Yes*	ontainment. No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	N
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter ea Flowmeter: <u>2, 49事, 895</u> (gallons)	st of Process Ta	anks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential we	ar and tear.	
	Any leaks, punctures, or other damage visible?	Yes	(Ne)
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No
	it ice, puttip scenti tracet into one of the process tarmet		

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	es	No*	NA	NA

	T-201		T-202		т-а	203
Visible oil leaks from gear box?	Yes*	No)	Yes*	No	Yes*	(Ja)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	G	No ×
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperatureO Oil temperature	- 5	5 °F	5	7 °F	5	6 °F

18 Date:

Time: \_\_\_\_\_

Inspector Initials: \_\_\_\_\_\_

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixlorg of run intermittent ly to reduce wear.

**Operator Signature:** 

yled. June

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# Time: 0530 Inspector Initials: K4H Date: **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Yes\* Any leaks, punctures, damage, bulges visible? 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: <u>7, 498, 775</u> (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks.

 Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

Yes

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	<ul> <li>Image: A start of the start of</li></ul>
All decant valves and transfer valves locked out?**	Yes	No*	es	No*	ves	No*	NA	NA
Are transfer pumps ready for service?	es	No*	Yes	No*	Ves	No*	NA	NA

# 8. Visual inspection from top of each Process Tank:

	T-2	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Ves	No	Ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Ye	No	Yes	No >
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>5</u> Oil temperature	5	52°F 53°F		5	°F	



K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 11/10/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_K S\_ H\_\_\_\_

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermittently to reduce wear

**Operator Signature:** 

eled. Hanen

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/11/18</u> Time: <u>1805</u> Inspector In	itials:	KGA								
PR	PROCESS PIPING INSPECTION										
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.										
	Any leaks, punctures, damage, bulges visible?	Yes*	No								
2.	Observe piping in Process Tank secondary containment area.		J.								
	Any leaks, punctures, damage, bulges visible?	Yes*	CNO								
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east o	f Process Ta	anks.								
	Flowmeter: <u>Z, 505, 675</u> (gallons)										
SE	CONDARY CONTAINMENT INSPECTION										
4.	Perform 360 perimeter walk to observe liner system for potential wear a	nd tear.	$\wedge$								
	Any leaks, punctures, or other damage visible?	Yes	No								
5.	Is there storm water accumulation greater than 1 foot?	Yes	Na								
	If Yes, pump storm water into one of the Process Tanks.										
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(NO								
	If Yes, pump storm water into one of the process tanks.										

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	res	No*	Ves	No*	es	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

V	Т-2	201	T-2	202	_ <b>T</b> -2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	res	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	(ve)	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No	Yes	No*	Yes	(Ng)
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste ///A Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	le	? () °F	6	D°F	6	/ °F

10/11/18 Date: \_\_\_\_

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ KG14

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

intermittanthy to reduce wear MILLIS run

rl. S. Handen

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date: $11/12/13$ Time: $715$ PROCESS PIPING INSPECTION	Inspector Initials:	125H
<ol> <li>Observe piping between Process Tank secondary contain Any leaks, punctures, damage, bulges visible?</li> </ol>	ment and FBR secondary conta Yes*	inment. No
2. Observe piping in Process Tank secondary containment a Any leaks, punctures, damage, bulges visible?	rea. Yes*	ND
3. Record reading on Stabilized Lake Mead Water (SLMW) f Flowmeter: 25/2, 570 (gallons)	lowmeter east of Process Tanks	š.
SECONDARY CONTAINMENT INSPECTION		
4. Perform 360 perimeter walk to observe liner system for p Any leaks, punctures, or other damage visible?	ootential wear and tear. Yes	N9
5. Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tan	Yes ks.	Ng
6. Is there storm water accumulation in equipment pad sun	ıps?: Yes	NØ

If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	02	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	NO	Yes*	No	Yes*	(NO
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	res	No*	NA	NA
Are transfer pumps ready for service?	les	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	NO	Yes*	NO	Yes*	Nø
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(Yas	No
Mixer running and turbulence/vortex observed?**	Yes	No <sup>2</sup>	Yes	Not	Yes	(113*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>42</u> Oil temperature	Ц	7 °F	41	°F	2	<b>プ °</b> ₣

Date: 11/12/18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_\_\_KG(f

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

## COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mikery run intermittuate to reduce wear

glyled. Haven **Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Dat	te: <u>11/13/18</u> Time: <u>1015</u> Inspector In	itials:	KGH
PR	DCESS PIPING INSPECTION		
1,	Observe piping between Process Tank secondary containment and FBR s Any leaks, punctures, damage, bulges visible?	econdary c Yes*	ontainment
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Flowmeter: <u>2,527,145</u> (gallons)	of Process T	anks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear a	nd tear.	6
	Any leaks, punctures, or other damage visible?	Yes	(No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	Ng
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	(Na)

## PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	Т-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	NO	Yes*	No
All decant valves and transfer valves locked out?**	Ver	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Ves	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	$(N_0)$
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*)	Yes	610*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature <u>56</u> Oil temperature	4	9°F	4	9 °F	5	( °F

Date: 11/13/18

Time: \_\_\_

Inspector Initials: KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

mixer intermittently to reduce wear Run

**Operator Signature:** 

36 S. Hanson

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334
K05 PHASE III O&M ROUTINE INSPECTION FOR			
--			
--			

Inspector Initials: KS\_FI\_\_\_

Yes\*

Yes

Date: _	11/14/18	Time:	1610

PROCESS PIPING INSPECTION

- Any leaks, punctures, damage, bulges visible?
   Yes\*
- 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?
- 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,535, 930 (gallons)

#### SECONDARY CONTAINMENT INSPECTION

- Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes
   Is there storm water accumulation greater than 1 foot? Yes
- 6. Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.

If Yes, pump storm water into one of the Process Tanks.

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	.03	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	60
All decant valves and transfer valves locked out?**	Yes	No*	(Yes)	No*	(es)	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	T-201		T-202		203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	es	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	es	No
Mixer running and turbulence/vortex observed?**		No*	Yes	No*	Yes	Nor
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature 0 Oil temperature	le	7 °F	6	₿°F	6	7 °F

Date: 11/14/18

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

an intermittenthe to preclose weller. - Mixenes

**Operator Signature:** 

# Ryle & Hansen

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	-
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

#### **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 0730 Inspector Initials: 754 PROCESS PIPING INSPECTION 1. Observe piping between Process Tank secondary containment and FBR secondary containment, Any leaks, punctures, damage, bulges visible? No Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2, 542, 290 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes NO 5. Is there storm water accumulation greater than 1 foot? Yes

If Yes, pump storm water into one of the Process Tanks.
6. Is there storm water accumulation in equipment pad sumps?: Yes If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	NO	Yes*	No	Yes*	No	Yes*	(No
All decant valves and transfer valves locked out?**	Ves	No*	Yes	No*	(Yes)	No*	NA	NA
Are transfer pumps ready for service?	Ves	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	(Ng)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	(es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	4	7 °F	4	۶	4	7 °F

Date: 11/15/18

Time: \_\_\_\_\_

Inspector Initials: \_\_\_\_ K4H

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

ruterm. Henth - Mixeus ran -Kyled-Hansu

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Dat	te: $11/14/18$ Time: 0830 Inspector In	nitials:	KGH
PR(	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and FBR a Any leaks, punctures, damage, bulges visible?	secondary Yes*	containment.
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east Flowmeter: $2,549,800$ (gallons)	of Process	s Tanks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential wear Any leaks, punctures, or other damage visible?	and tear. Yes	No
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	(Nb

If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	Т-2	201	T-2	202	T-2	03	T-2	.04
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	Go
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	res	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	Т-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	(Yes)	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	les	No	res	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	(Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature $52$ Oil temperature	4	Ø °F	4	7 °F	4	<u>7 °F</u>

Date: 11/16/19

Ryled. Hansn

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_K4H

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

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**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# Time: 1510 Inspector Initials: K-GH Date: 11/17/18 **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,564, 715 (gallons)

### SECONDARY CONTAINMENT INSPECTION

- 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes
  - If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes* .	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	201	T-2	202	Т-2	203
Visible oil leaks from gear box?	Yes*	No	) Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	NO
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>U</u> <sup>8</sup> Oil temperature	6	∑ °F	6	U °F	65	°F





Date: 11/17 18

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_K4H

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixby ren intermittenthe to reduce when

led. Hansn

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# **K05 PHASE III O&M ROUTINE INSPECTION FORM** Date: 11/18/18 Time: 1625 Inspector Initials: K4H **PROCESS PIPING INSPECTION** Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Yes\* Any leaks, punctures, damage, bulges visible? 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,572,270 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	(N)
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	T-2	202	Т-2	203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>02</u> Oil temperature	6	/ °F	6	Z°F	61	°F

11/18/18 Date:

🛛 Time: \_\_\_

Inspector Initials: KGA

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

noter mi Henth to reduce when - Mixeys NUN

**Operator Signature:** 

I.J. H

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

	<b>K05 PHASE III O&amp;M ROUTINE INSPECTION FORM</b>								
Dat	e: <u>11/19/18</u> Time: <u>1630</u> Inspector Initials	s:K\$H	/						
PRC	DCESS PIPING INSPECTION								
1.	Observe piping between Process Tank secondary containment and FBR secon Any leaks, punctures, damage, bulges visible?	idary containr Yes*	No						
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No						
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Pro Flowmeter: $2,580,240$ (gallons)	ocess Tanks.							
SEC	ONDARY CONTAINMENT INSPECTION								
4.	Perform 360 perimeter walk to observe liner system for potential wear and te Any leaks, punctures, or other damage visible?	ear. Yes	No						
5.	is there storm water accumulation greater than 1 foot? N If Yes, pump storm water into one of the Process Tanks.	íes -	No						

Is there storm water accumulation in equipment pad sumps?:
 If Yes, pump storm water into one of the process tanks.

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	.03	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	Yes	No*	res	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	ves	No*	Yes	No*	Yes	No*	NA	NA

#### 8. Visual inspection from top of each Process Tank:

2 w	T-2	201	T-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	NO	Yes*	No	Yes*	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No		No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature() (Oil temperature	Q (	Ĵ °F	6	( °F	60	ン °F

(Ng)

Yes

Date: 11/19/11/8

Time: \_\_\_\_\_\_ Inspector Initials: KSH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixery run intermittently to reduce wear.

Operator Signature:

Kyle S. Hansn

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date:/1/2	0/18	Time:	1205	Inspector Initia	als: /	KGA				
PROCESS PIPIN	PROCESS PIPING INSPECTION									
1. Observe pi	1. Observe piping between Process Tank secondary containment and FBR secondary containment.									
Any lea	iks, punctures, i	damage, bu	ulges visible?		Yes*	(No)				
2. Observe pi	ping in Process	Tank secon	ndary containment	area.		$\sim$				
Any lea	ks, punctures, i	damage, bu	ulges visible?		Yes*	(Ng)				
3. Record rea	ding on Stabiliz	ed Lake Me	ead Water (SLMW)	flowmeter east of P	rocess Ta	anks.				
Flowm	eter: <u>7,58</u>	<u>7, 78</u>	<u>Õ                                    </u>							
	ONTAINMENT I	NSPECTION	N							
4. Perform 36	0 perimeter wa	lk to obser	ve liner system for	potential wear and	tear.	$\frown$				
Any lea	ks, punctures, o	or other da	mage visible?		Yes	(No				
5. Is there sto	rm water accun	nulation gro	eater than 1 foot?		Yes	(No				
lf Yes, j	ump storm wa	ter into one	e of the Process Ta	nks.		~				
6. Is there sto	rm water accun	nulation in	equipment pad su	mps?:	Yes	(No)				
If Yes, J	ump storm wa	ter into one	e of the process ta	nks.		$\sim$				

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	T-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*		Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Ves	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	res	No*	res	No*	NA	NA

	T-2	201	T-2	202	T-2	203 🧹
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	es	No	es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	res	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	(N6*)	Yes	No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	−3°F	60	°₽	61	°F

11/20/18 Date:

Time: \_\_\_\_\_\_ Inspector Initials: \_\_\_\_\_\_K-4-f-

NOTES:

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\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittenthy to reduce wear. Millig

Kyle & Herron

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	0.
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

## **K05 PHASE III O&M ROUTINE INSPECTION FORM** Time: 1200 Inspector Initials: KSH Date: **PROCESS PIPING INSPECTION** Observe piping between Process Tank secondary containment and FBR secondary containment Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,598,030 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes

If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	res	No*	Yes	No*	NA	NA

	T-2	201	Т-2	202	T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Ves	No	res	No	les	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	(No*)	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	6	Z°F	6	l °F	60	ን °F

18 Date: \_\_\_\_

Time: \_\_\_\_\_\_ Inspector Initials: \_\_\_\_KG/-

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

Mixers run intermittenth to reduce wear

**Operator Signature:** 

glild- Hann

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>1/22/18</u> Time: 0822 Inspecto	or Initials:	KSH
PR	OCESS PIPING INSPECTION		
1.	Observe piping between Process Tank secondary containment and Fl Any leaks, punctures, damage, bulges visible?	BR secondary co Yes*	ntainment. No
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible?	Yes*	No
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter ea Flowmeter: <u>2006</u> , 900 (gallons)	ast of Process Ta	inks.
SEC	CONDARY CONTAINMENT INSPECTION		
4.	Perform 360 perimeter walk to observe liner system for potential we Any leaks, punctures, or other damage visible?	ar and tear. Yes	Ŕ
5.	Is there storm water accumulation greater than 1 foot? If Yes, pump storm water into one of the Process Tanks.	Yes	No
5.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	(Ng)

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	201	T-2	202	Т-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	(No*)
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste ///A Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>(20</u> Oil temperature	55	> °₽	59	°F	58	} °F

Date:

Time:

Inspector Initials: \_\_\_\_\_ KGH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

run intermittently te reduce wear. Mikers

**Operator Signature:** 

le & Hanson

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	3
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date: 1/23/18 Time: 1107_ Inspector	r Initials:	KSH
PROCESS PIPING INSPECTION		
1. Observe piping between Process Tank secondary containment and FB	R secondary co	ontainment,
Any leaks, punctures, damage, bulges visible?	Yes*	(No)
2. Observe piping in Process Tank secondary containment area.		Ň
Any leaks, punctures, damage, bulges visible?	Yes*	(Ng)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter eas	st of Process Ta	anks.
Flowmeter: <u>7,619,790</u> (gallons)		
SECONDARY CONTAINMENT INSPECTION		
4. Perform 360 perimeter walk to observe liner system for potential wea	ir and tear.	
Any leaks, punctures, or other damage visible?	Yes	(No)
5. Is there storm water accumulation greater than 1 foot?	Yes	No
If Yes, pump storm water into one of the Process Tanks.		2
6. Is there storm water accumulation in equipment pad sumps?:	Yes	(No)
If Yes, pump storm water into one of the process tanks.		0

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	
All decant valves and transfer valves locked out?**	Yes	No*	Ves	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	Т-2	201	т-а	202	Т-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Ves	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature Oil temperature	5	9 °F	5 1	°F	58	₿°F

23/18 Date:

Time: \_\_\_\_\_

Inspector Initials: K-GA

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixerg NUN intermittently to reduce wear.

**Operator Signature:** 

les."

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: 11/24/18 Time: 1045 Inspector Initials: 10	4 H									
PROCESS PIPING INSPECTION											
1.	<ol> <li>Observe piping between Process Tank secondary containment and FBR secondary containm Any leaks, punctures, damage, bulges visible?</li> <li>Yes*</li> </ol>										
2.	Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes*	(No)									
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks Flowmeter: $2,719,190$ (gallons)										
SECONDARY CONTAINMENT INSPECTION											
4.	Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes	G									

- Is there storm water accumulation greater than 1 foot?
   If Yes, pump storm water into one of the Process Tanks.
- Is there storm water accumulation in equipment pad sumps?:
   If Yes, pump storm water into one of the process tanks.

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	es	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	(Yes)	No*	NA	NA

# 8. Visual inspection from top of each Process Tank:

	T-2	201	T-202		Т-2	203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Ves	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	<i>C</i>	No
Mixer running and turbulence/vortex observed?**	res	No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>6</u> Oil temperature	6	ך °F	le	5 °F	6	5 °F

No No

Yes

Yes

Date:

Time: \_\_\_\_\_ Insp

Inspector Initials: \_ KSH

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

reduce Run ruler mittent Mixers wear

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# K05 PHASE III O&M ROUTINE INSPECTION FORM Date: 11/25/18 Time: 1155 Inspector Initials: K-4 H PROCESS PIPING INSPECTION 1. Observe piping between Process Tank secondary containment and FBR secondary containment<br/>Any leaks, punctures, damage, bulges visible? Yes\* No 2. Observe piping in Process Tank secondary containment area.<br/>Any leaks, punctures, damage, bulges visible? Yes\* No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.<br/>Flowmeter: 2, 726, 660 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear.<br/>Any leaks, punctures, or other damage visible? Yes No

Yes

Yes

- Is there storm water accumulation greater than 1 foot?
   If Yes, pump storm water into one of the Process Tanks.
- Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.

# PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	NO
All decant valves and transfer valves locked out?**	ves	No*	res	No*	es	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Tes	No*	res	No*	NA	NA

	Т-а	201	T-2	202	T-2	03
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	6
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	res	No	res	No	es	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	No*
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>59</u> Oil temperature	.89	°F	59	°F	57	°F

Date: 25/18

Time: \_\_\_\_\_

Inspector Initials: 45A

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

to reduce wear rean intermitterofly MALING Kyled. Hansen **Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

#### **K05 PHASE III O&M ROUTINE INSPECTION FORM** Inspector Initials: \_\_\_\_ KSH Time: 0740 Date: **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment. Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* Na 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2,734, 150 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?: Yes

If Yes, pump storm water into one of the process tanks.

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-2	201	Т-2	202	-T-2	203
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	(Ng)
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Yes	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No	Yes	(No)
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>48</u> Oil temperature	5	ך °F	4	Z °F	4	₿°F

Date: 11/26/18

Time: \_\_\_

Inspector Initials: <u>KSH</u>

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

to reduce wear. Mixery run intermitteroth

**Operator Signature:** 

al, S. Hansu

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: <u>11/27/18</u> Time: <u>1326</u> Inspecto	r Initials:	K411	_
PR	OCESS PIPING INSPECTION			
1.	Observe piping between Process Tank secondary containment and FE	R secondary co	ntainment.	
	Any leaks, punctures, damage, bulges visible?	Yes*	Not	
2.	Observe piping in Process Tank secondary containment area.		6	
	Any leaks, punctures, damage, bulges visible?	Yes*	No	
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter ea	st of Process Ta	nks.	
	Flowmeter: <u>2,878, D/O</u> (gallons)			
SE	CONDARY CONTAINMENT INSPECTION			
4.	Perform 360 perimeter walk to observe liner system for potential wea	ar and tear.	2	
	Any leaks, punctures, or other damage visible?	Yes	No	
5.	Is there storm water accumulation greater than 1 foot?	Yes	No	
	If Yes, pump storm water into one of the Process Tanks.		0	
6.	Is there storm water accumulation in equipment pad sumps?:	Yes	No	
	If Yes, pump storm water into one of the process tanks.			

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-2	201	Т-2	202	T-2	203	T-2	204
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	<b>₽</b>
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	res	No*	Yes	No*	Ves	No*	NA	NA

	T-201		T-202		T-2	203
Visible oil leaks from gear box?	Yes*	(No)	Yes*	No	Yes*	KO
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Tes	No	les	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Nes	No	õ	No
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Not
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature 63 Oil temperature	78	\$°F	5	7 °F	5	₿°F

Date:

Time: \_\_\_\_\_

Inspector Initials: <u>KSH</u>

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixerg run intermittently to reduce wear

**Operator Signature:** 

tansu

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Da	te: $1/28/15$ Time: $1350$ Inspector Initi	als:	12414						
PR	OCESS PIPING INSPECTION								
1.	1. Observe piping between Process Tank secondary containment and FBR secondary containment.								
	Any leaks, punctures, damage, bulges visible?	Yes*	No						
2.	Observe piping in Process Tank secondary containment area.								
	Any leaks, punctures, damage, bulges visible?	Yes*	No						
3.	Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of F Flowmeter: $2,885,540$ (gallons)	vrocess Tank	5.						
SEC	CONDARY CONTAINMENT INSPECTION								
4.	Perform 360 perimeter walk to observe liner system for potential wear and	tear.	A						
	Any leaks, punctures, or other damage visible?	Yes	(No)						
5.	Is there storm water accumulation greater than 1 foot?	Yes	(No)						
	If Yes, pump storm water into one of the Process Tanks.								
6.	Is there storm water accumulation in equipment pad sumps?: If Yes, pump storm water into one of the process tanks.	Yes	No						

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	No
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Yes	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	Yes	No*	Yes	No*	NA	NA

	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	(No)	Yes*	No
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Yes	No	Ves	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No
Mixer running and turbulence/vortex observed?**	Yes	(No*)	Yes	No*)	Yes	(No*)
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?		No*	Yes	No*	Yes	No*
Ambient air temperature		8 °F	5	°₽ °F	5	∫ °F

11/28/18 Date:

Time:

Inspector Initials: KGA

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Mixers run intermitently to reduce war

Myle S. Hansn

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# Time: 0900 Inspector Initials: KSH Date: **PROCESS PIPING INSPECTION** 1. Observe piping between Process Tank secondary containment and FBR secondary containment, Any leaks, punctures, damage, bulges visible? Yes\* 2. Observe piping in Process Tank secondary containment area. Any leaks, punctures, damage, bulges visible? Yes\* No 3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks. Flowmeter: 2, 893, 950 (gallons) SECONDARY CONTAINMENT INSPECTION 4. Perform 360 perimeter walk to observe liner system for potential wear and tear. Any leaks, punctures, or other damage visible? Yes 5. Is there storm water accumulation greater than 1 foot? Yes If Yes, pump storm water into one of the Process Tanks. 6. Is there storm water accumulation in equipment pad sumps?:

If Yes, pump storm water into one of the process tanks.

### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T- <b>203</b>		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	Ng	Yes*	No	Yes*	(NO
All decant valves and transfer valves locked out?**	Yes	No*	Yes	No*	Nes	No*	NA	NA
Are transfer pumps ready for service?	es	No*	Yes	No*	Ves	No*	NA	NA

#### 8. Visual inspection from top of each Process Tank:

	T-2	T-201		T-202		T-203	
Visible oil leaks from gear box?	Yes*	No	Yes*	No	Yes*	NO	
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?		No	Ves	No	Yes	No	
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.		No	Yes	No	Yes	No	
Mixer running and turbulence/vortex observed?**	Yes	No*	Yes	No*	Yes	Nø*	
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste MA Management Plan?	Yes	No*	Yes	No*	Yes	No*	
Ambient air temperatureO Oil temperature	5	Ч°ғ	5	ି <mark>୪</mark> ଂନ	5	7 °F	

# **K05 PHASE III O&M ROUTINE INSPECTION FORM**



Date:	11/29	118	
		/	

Time: \_\_\_\_\_

yb J. Hans

Inspector Initials: ICSIA

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

moterm. Heatly to reduce wear - MIRES NUM secondary containent to remove reinquater 10.514

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	1.1 1.1
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

Date:	Time:	0930	Inspector Initials:	KSH					
PROCESS PIPING INSP	PECTION								
1. Observe piping between Process Tank secondary containment and FBR secondary containment.									
Any leaks, pui	nctures, damage, bu	lges visible?	Yes*	No					
2. Observe piping in	Process Tank second	dary containment a	rea.	3					
Any leaks, pur	nctures, damage, bu	lges visible?	Yes*	No					
3. Record reading or	Stabilized Lake Mea	ad Water (SLMW) fi	lowmeter east of Process	a Tanks.					
Flowmeter:	2,907,850	(gallons)							
SECONDARY CONTAIN	MENT INSPECTION								
4. Perform 360 perin	neter walk to observ	e liner system for p	otential wear and tear.						
Any leaks, pur	nctures, or other dar	nage visible?	Yes	(No)					
5. Is there storm wat	er accumulation gre	ater than 1 foot?	Yes	No					
If Yes, pump s	torm water into one	of the Process Tan	ks.	-					
6. Is there storm wat	er accumulation in e	equipment pad sum	nps?: Yes	No					
If Yes, pump s	torm water into one	of the process tank	ks.	Dumping					

#### PROCESS TANKS AND DAY TANK INSPECTION

7. Perform 360 degree walk around of each tank to inspect for damage or leaks and lock out of valves:

	T-201		T-202		T-203		T-204	
Visible damage or leaks/stains? (inspect all welds and nozzles/valves)	Yes*	No	Yes*	No	Yes*	No	Yes*	A C
All decant valves and transfer valves locked out?**	Yes	No*	Ves	No*	(re)	No*	NA	NA
Are transfer pumps ready for service?	Yes	No*	res	No*	Yes	No*	NA	NA

	Т-2	201	T-202		T-203	
Visible oil leaks from gear box?	Yes*	(Ng)	Yes*	(Ng)	Yes*	Né
Has routine wash down of precipitate/crystals on tank sides and mixer impeller been completed?	Ves	No	Yes	No	Yes	No
Mixer off as part of sediment washing process? If Yes, draw an "X" through answers to next question.	Yes	No	Yes	No	es	No
Mixer running and turbulence/vortex observed?**	Yes	(No)	Yes	No*	Yes	No
Are used oil containers labelled and stored appropriately, in accordance with the Site Waste Management Plan?	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature <u>60</u> Oil temperature	5	5 °F	56	7°F	55	°F

Date: 11/30/18

C.J. Hans

Time: \_\_\_\_\_ Inspector Initials: \_\_\_\_ K4 F/

NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Active sediment washing requires occasional shutdown of mixers and opening of decant valves. Notify Site Implementation Manager immediately if this condition is observed and active washing is not occurring.

Initiate procedures to mobilize and connect portable generators to power the mixers in the event of a power loss greater than six hours to prevent solids from consolidating in the bottom of the Process Tanks.

#### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

- Miters run intermittently to reduce mean Secondary containent, pumping

**Operator Signature:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	8
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

# Attachment B Phase III O&M Monthly Inspection Forms

		K05 PH	ASE III O&M MONT	HLY INSPECTION FO	RM	
Date:		10/31/18 T	ime: 1300	Inspector Initials:	JR	
INSPE	ECT N	WATERIALS AND PARTS				
1. A	re al If	l spare parts present?: no, list which parts need	d to be ordered and infor	m Site Implementation Ma	Yes anager:	No
2. A	re al	ll safety materials, resou	rces, and supplies to per	form work present?	Ves	No

#### PUMP OPERATION INSPECTION

3. Check if all AODD transfer pumps are in good condition and working order. Provide notes and contact the Site Implementation Manager if any repairs are required:

P-201	$\overline{}$	
P-202	$\overline{\mathbf{V}}$	
P-203	$\checkmark$	
P-204	$\overline{}$	
P-205	$\overline{\mathbf{V}}$	
P-206		

#### **HIGH-HIGH LEVEL ALARMS INSPECTIONS**

4. Check if the high-high level warning alarm system is in good condition for each tank. Provide notes and contact the Site Implementation Manager if any repairs are required:

A1 1	T-201		T-2	202	T-203		T-204	
Check what level the High-High alarm signals – is it consistent with the set points?	Yes	No*	Yes	No*	Yes	No*	Yes	No*
Test reset procedure - were there any issues?	Yes*	NO	Yes*	No	Yes*	NO	Yes*	(No)
Are all alarm status lights in good working order?	Yes	No*	Yes	No*	Yes	No*	Yes	No*
Are the shut-off devices in good working order?	Yes	No*	Yes	No*	(Yes)	No*	Yes	No*
Visible damages to the alarm cords and cables?	Yes*	No	Yes*	No	Yes*	NO	Yes*	NO

Notes:
10/31 Date:

Time: 1300

Inspector Initials:

### INSPECT PROCESS TANK MIXERS

#### 5. Visual inspection from top of each Process Tank:

	T-2	201	T-2	202	Т-2	203
Is there adequate oil in Process Tank mixer motors?	Yes	No*	Yes	No*	es	No*
Control panel mixer run time**	9278	, / hrs	958	0, 6 hrs	9615.	g hrs

#### **INSPECT MAINTENANCE ITEMS**

6. Check if equipment requiring maintenance is in good condition and working order. Provide the date of next required maintenance and contact the Site Implementation if anything is in need of maintenance:

	Date of Next	
	Replacement or	
Activity	Maintenance	Comments
Replace 3" decant transfer hoses	2/1/2019	
Replace 3" solid transfer hoses	2/1/2019	
Replace 1.5" SLMW flush hose	12/15/2018	
Replace 3" stainless steel doublesphere expansion joints	2/1/2019	
Replace air compressor filter element	10/16/2022	
Service air compressor	1/26/2019	
Change process tank mixer gear box oil**	114/2020	
Grease gear seals on process tank mixer	12/21/2018	

#### NOTES:

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Date of next oil change is approximate. The timing for process tank mixer gear box oil change is based on actual run time (10,000 hours). Each mixer ran for the following hours after the last oil change and prior to control panel set up, and these hours need to be added to the control panel readings to arrive at the total run time for the mixers:

M-201 = 1,276.2 hours, M-202 = 1,253.2 hours, M-203 = 1,277.5 hours

#### **COMMENTS:**

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

MRR **Operator Signature:** 

Date: 10/31/18

Time: 1300 Inspector Initials: JR

**EMERGENCY CONTACTS:** 

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	-
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
Corporate Health & Safety	Michelle Gillie	(610) 348-7197	
Process Engineer	Courtney Flores	(770) 845-6281	
Emergency Generator (United Rentals)	Heath Barnard	(702) 538 2292	Reference Quote # 142770051 Reference Customer # 1439334

	K05 PHASE III O&M MONTHLY INSPECTION FORM								
Da	te:_	11/30/18	Time:	60	_ Inspector Initial	s:			
INS	PEC	T MATERIALS AND I	PARTS						
1.	Are	all spare parts pres If no, list which par	ent?: ts need to be order	ed and in	form Site Implementatio	Yes n Manager:	No		
2.	Are	all safety materials,	resources, and su	oplies to J	perform work present?	Yes	No		
			s to be ordered an		Site implementation Mar	nager:			

## PUMP OPERATION INSPECTION

3. Check if all AODD transfer pumps are in good condition and working order. Provide notes and contact the Site Implementation Manager if any repairs are required:

P-201	$\overline{\checkmark}$				
P-202		42. 			
P-203					
P-204					
P-205	$\overline{\mathcal{N}}$			 	
P-206	$\overline{\mathbf{Z}}$			 	

## **HIGH-HIGH LEVEL ALARMS INSPECTIONS**

4. Check if the high-high level warning alarm system is in good condition for each tank. Provide notes and contact the Site Implementation Manager if any repairs are required:

	T-201		T-202		T-203		T-204	
Check what level the High-High alarm signals – is it consistent with the set points?	Yes	No*	Yes	No*	Yes	No*	Yes	No*
Test reset procedure – were there any issues?	Yes*	No	Yes*	No	Yes*	(No)	Yes*	(No)
Are all alarm status lights in good working order?	Yes	No*	Yes	No*	Yes	No*	Yes	No*
Are the shut-off devices in good working order?	Yes	No*	(Yes)	No*	Yes	No*	Yes	No*
Visible damages to the alarm cords and cables?	Yes*	No	Yes*	No	Yes*	NO	Yes*	No

\_\_\_\_\_

Notes:\_\_\_\_\_

Date: 11/30/15 Time: 1050

Inspector Initials: JR

## **INSPECT PROCESS TANK MIXERS**

5. Visual inspection from top of each Process Tank:

	T-201		T-202		T-203	
Is there adequate oil in Process Tank mixer motors?	Yes	No*	Yes	No*	(Yes)	No*
Control panel mixer run time**	932	ک, / hrs	958	0,6 hrs	9615	8 hrs

#### **INSPECT MAINTENANCE ITEMS**

6. Check if equipment requiring maintenance is in good condition and working order. Provide the date of next required maintenance and contact the Site Implementation if anything is in need of maintenance:

	Date of Next	
	Replacement or	
Activity	Mainteņance	Comments
Replace 3" decant transfer hoses	2/1/2019	
Replace 3" solid transfer hoses	2/1/2019	
Replace 1.5" SLMW flush hose	12/15/2018	
Replace 3" stainless steel doublesphere expansion joints	2/1/2019	
Replace air compressor filter element	10/16/2022	
Service air compressor	1/26/2019	
Change process tank mixer gear box oil**	114/2020	
Grease gear seals on process tank mixer	12/21/2018	

### **NOTES:**

\* - Notify Site Implementation Manager immediately if any of these conditions are observed and thoroughly document on this form and through photographs.

\*\* - Date of next oil change is approximate. The timing for process tank mixer gear box oil change is based on actual run time (10,000 hours). Each mixer ran for the following hours after the last oil change and prior to control panel set up, and these hours need to be added to the control panel readings to arrive at the total run time for the mixers:

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### COMMENTS:

(Describe all "yes" answers, any observed damage, any areas that could not be inspected and the reason, etc.)

**Operator Signature:** 

Date: 11/30/18

Time: 1050 Inspector Initials: <u>JR</u>

### **EMERGENCY CONTACTS:**

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
Field Operations Manager	Kyle Hansen	(801) 949-6663	
Project Manager	David Bohmann	(303) 704-9527	
Program Manager	Dan Pastor	(303) 588-0901	
Site Health & Safety	Karen Luna	(702) 217-8173	
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