TETRA TECH

TECHNICAL MEMORANDUM

To:	Nevada Environmental Response Trust
Cc:	Nevada Division of Environmental Protection United States Environmental Protection Agency
From:	David Bohmann and Bounkheana Chhun
Date:	May 22, 2018
Subject:	AP-5 Operation and Maintenance Summary – April 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 April 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 April 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 April 2018.

SOLIDS WASHING AND DECANT WATER TRANSFER

Throughout April 2018, routine procedures for washing the solids and transferring decant water were followed. A total of approximately 71,467 gallons of AP-5 wash water was decanted from the Process Tanks and transferred to the Day Tank in April 2018. A summary of daily AP-5 wash water volumes that were decanted from the Process Tanks and transferred to the Day Tank in April is provided in the attached Table 1. 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.

Tetra Tech, Inc.
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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 month of April 2018, the average batch concentration was below 3% and ETI completed transfer of AP-5 wash water without further dilution.

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. 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. These methods are summarized below.

AP-5 wash water was sampled from each Process Tank on April 20, 2018 and submitted for perchlorate analysis (Method 314.0). An estimate of the mass of perchlorate removed from each Process Tank based on the monthly sample results and the estimated remaining perchlorate mass is presented in Table 3 and shown on Figure 1. These estimates are based on a single monthly sample from each Process Tank.

Due to the limitations of conducting the mass estimates using a single point sample, the total mass removal and total remaining mass in the Process Tanks was also estimated using 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. This method for estimating mass removal relies on continuous readings as opposed to a single point sample, but is based on meter readings as opposed to laboratory data. An estimate of the total mass of perchlorate removed from the Process Tanks based on the mass flow meter readings and the estimated total remaining perchlorate mass is presented in Table 4.

The total perchlorate mass removed 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, comprehensive perchlorate mass estimate developed for the Process Tanks revealed significant variability in individual perchlorate sample results within each tank. Therefore, the mass estimates calculated from 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 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 Tables 3 and 4 and 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. Since the mass flow meter is correlated to perchlorate concentrations, estimates of the mass of ammonia removed from each Process Tank is based only on the method using sample results.

Monthly samples were collected from the Process Tanks for analysis of ammonia at the same time as the monthly perchlorate samples in April 2018. An estimate of the mass of ammonia removed from each Process Tank and the estimate remaining ammonia mass is presented on Table 5 and shown on Figure 3.

ROUTINE INSPECTIONS

Routine inspections were conducted throughout April 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 month of April 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.

Tanks and Equipment

Process Tanks T-201, T-202 and T-203, and Day Tank T-204 were inspected on a routine basis in April 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 oil was changed on T-201, T-202, and T-203 mixer gear boxes on April 13, 2018.
- A vibration in the electrical motor was initially observed on the T-201 mixer in March. A vibration analysis was completed in March and determined to be within typical limits. The noise from vibrations appeared to increase in April and an additional inspection was completed in April. The gearbox high speed shaft was observed to have excessive play, indicating bearing wear. Beginning on April 23, 2018, the mixer for T-201 was turned off during the day to minimize usage while a bearing replacement plan is developed. Bearing replacement is expected to be completed in June.

MONTHLY INSPECTION

The monthly inspection was conducted on April 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.
- The permanent air compressor and controls were tested and operational.
- 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

The Trust met with NDEP and EPA on April 26, 2018 to present a long-term treatment approach for both perchlorate and ammonia. The approved path forward includes using the current modified seasonal operations and ammonia pretreatment was not selected based on the cost-benefit analysis.

The transfer of residual solids from the pond to the Process Tanks began on April 26, 2018. As part of the solids removal process, water is transferred between the Process Tanks to achieve an overall water balance for the operation. As a result of this mixing, the perchlorate and ammonia mass estimates can no longer be tracked for individual Process Tanks (Tables 3 and 4 and Figures 1 and 3). Overall combined mass in the three tanks will continue to be tracked. Following completion of transfer of the residual solids to the Process Tanks, the tanks will be resampled to establish new mass estimates and will be presented in subsequent progress reports.

TRUST CERTIFICATION

AP-5 Operation and Maintenance Summary – April 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

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

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

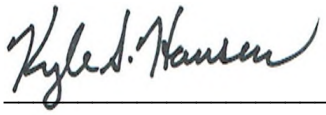
Company: Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

Date: 5/22/18

CERTIFIED ENVIRONMENTAL MANAGER 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 April 2018.



May 22, 2018

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

Date

Nevada CEM Certificate Number: 2167
Nevada CEM Expiration Date: September 18, 2018

Tables

Table 1. Monthly AP-5 Wash Water Decant Records

Date	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Daily Total (Gallons)
1-Apr	-	-	-	-
2-Apr	-	-	-	-
3-Apr	-	-	27,290	27,290
4-Apr	-	-	-	-
5-Apr	-	-	-	-
6-Apr	-	-	-	-
7-Apr	-	-	-	-
8-Apr	-	-	-	-
9-Apr	-	-	-	-
10-Apr	-	-	-	-
11-Apr	-	-	-	-
12-Apr	-	-	-	-
13-Apr	-	-	-	-
14-Apr	-	-	-	-
15-Apr	-	-	-	-
16-Apr	-	-	-	-
17-Apr	20,097	-	-	20,097
18-Apr	-	-	-	-
19-Apr	-	-	-	-
20-Apr	-	-	-	-
21-Apr	-	-	-	-
22-Apr	-	-	-	-
23-Apr	-	-	-	-
24-Apr	-	-	-	-
25-Apr	24,080	-	-	24,080
26-Apr	-	-	-	-
27-Apr	-	-	-	-
28-Apr	-	-	-	-
29-Apr	-	-	-	-
30-Apr	-	-	-	-
Total	**44,177**	**-**	**27,290**	**71,467**

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. Cumulative AP-5 Wash Water Decant and Transfer Records

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
Cumulative Total	**485,937**	**461,945**	**409,010**	**1,356,892**

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

Month	T-201 (Gallons)	T-202 (Gallons)	T-203 (Gallons)	Monthly Total (Gallons)[1]
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
Cumulative Total	**305,980**	**388,707**	**304,790**	**999,477**

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.

Table 3. Estimate of Perchlorate Mass in Process Tanks Based on Tank Samples

		Mass in T-201 (lbs)	Mass in T-202 (lbs)	Mass in T-203 (lbs)	Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)
Initial Perchlorate Mass[1]		**168,055**	**247,579**	**185,745**		**601,380**
Approx.Mass Removed	*July 2017* [2]	*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**
	October 2017	*-*	*59,663*	*-*	*59,663*	**493,878**
	November 2017	*10,605*	*32,571*	*40,418*	*83,594*	**410,284**
	December 2017	*41,090*	*16,693*	*28,582*	*86,365*	**323,919**
	January 2018	*36,195*	*25,360*	*19,639*	*81,195*	**242,724**
	February 2018	*26,727*	*13,925*	*29,020*	*69,672*	**173,051**
	March 2018	*12,248*	*12,168*	*-*	*24,415*	**148,636**
	April 2018	*6,083*	*-*	*4,441*	*10,524*	**138,112**
Ending Perchlorate Mass		**13,158**	**74,651**	**50,302**		**138,112**

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.

Table 4. Estimate of Perchlorate Mass in Process Tanks Based on Batch Transfers

		Total Monthly Mass Removed (lbs)	Total Perchlorate Mass In Process Tanks (lbs)
Initial Perchlorate Mass[1]			**601,380**
Approx.Mass Removed	*July 2017*[2]	*13,520*	**587,860**
	August 2017[2]	*6,000*	**581,860**
	September 2017	*10,706*	**571,154**
	October 2017	*49,990*	**521,163**
	November 2017	*74,231*	**446,933**
	December 2017	*73,066*	**373,867**
	January 2018	*69,363*	**304,504**
	February 2018	*73,247*	**231,257**
	March 2018	*25,321*	**205,935**
	April 2018	*7,030*	**198,905**
Ending Perchlorate Mass			**198,905**

Notes:

1 - 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.

2 - 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.

Table 5. Estimate of Ammonia Mass in Process Tanks

		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 (lbs)
Initial Ammonia Mass[1]		**18,217**	**22,343**	**20,277**		**60,837**
Approx. Mass Removed	*November 2017*	*1,323*	*3,979*	*4,490*	*9,792*	**51,045**
	December 2017	*3,974*	*1,778*	*2,659*	*8,411*	**42,634**
	January 2018	*3,353*	*3,009*	*2,163*	*8,526*	**34,108**
	February 2018	*2,945*	*1,509*	*3,564*	*8,017*	**26,091**
	March 2018	*1,445*	*1,441*	-	*2,886*	**23,206**
	April 2018	*682*	-	*490*	*1,172*	**22,034**
Ending Ammonia Mass		**4,495**	**10,627**	**6,912**		**22,034**

Notes:

1 - 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.

Figures

Figure 1. Estimate of Perchlorate Mass Remaining in Process Tanks

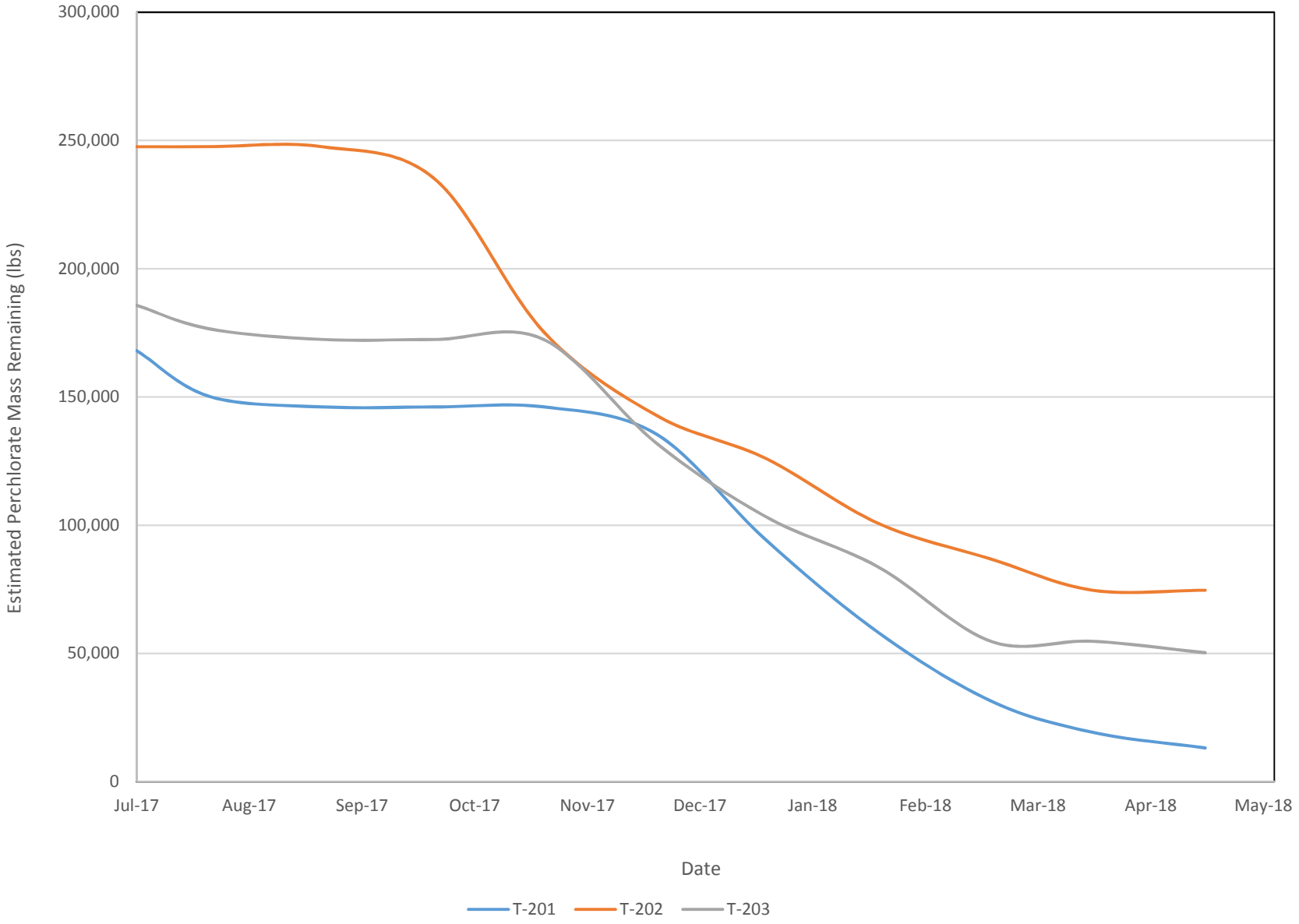


Figure 2. Estimate of Total Perchlorate Mass Remaining in Process Tanks

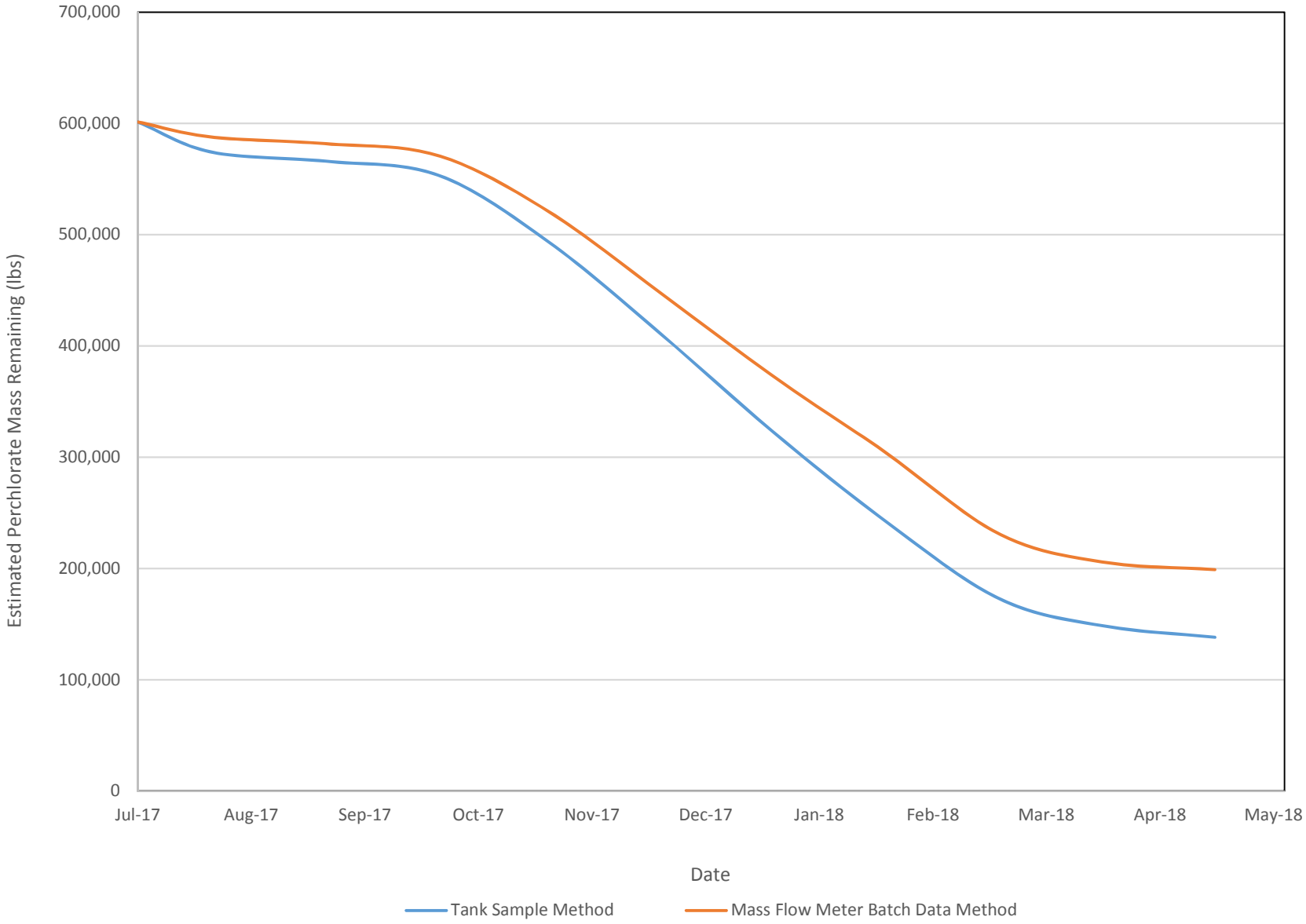
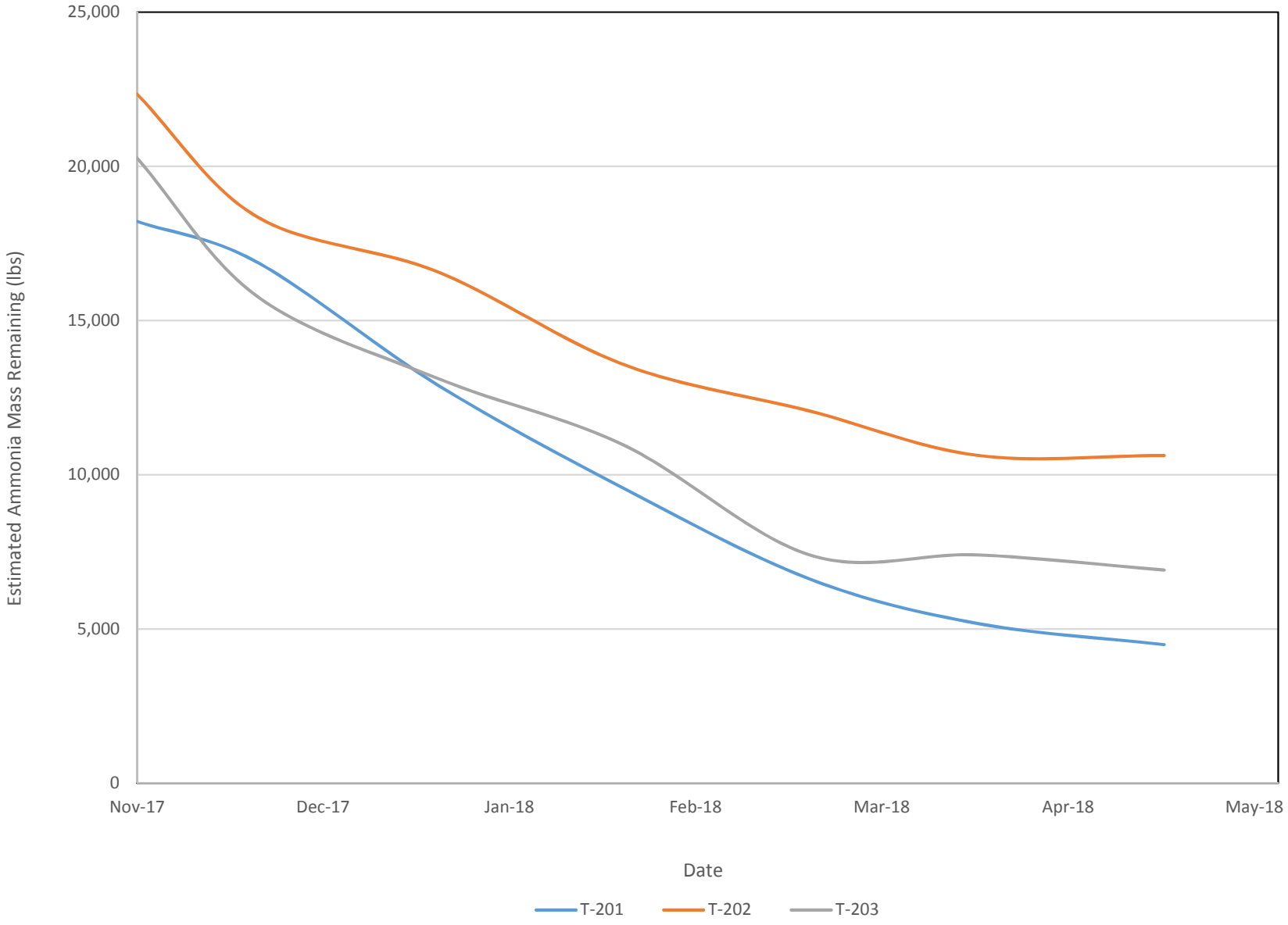


Figure 3. Estimate of Ammonia Mass Remaining in Process Tanks



Attachment A
Phase III O&M Routine Inspection Forms

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/1/18 Time: 0710 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,944,130 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 105° Oil temperature	106 °F		111 °F		103 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/1/18 **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.)

_____

_____

_____

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_____

_____

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/2/18 Time: 1245 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,944,130 (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-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

8. Visual inspection from top of each Process Tank: 0725

	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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 85° Oil temperature	117 °F		124 °F		124 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/2/18 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.)

_____

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_____

_____

Operator Signature: Kyle S. Hansen

EMERGENCY CONTACTS:

Title	Name	Phone #	Comments
Site Implementation Manager	Brad Maynard	(907) 723-2646	
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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: 4/3/18 Time: 1602 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,963,510 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 76° Oil temperature	114 °F		118 °F		84 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/3/18 **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.)

oil drips (from) on T-201 Mixing shaft about 5' long from bottom of gear box. Has not gotten into the water in the tank.

Operator Signature: Kyle L. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/4/18 Time: 1325 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,963,510 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 77° Oil temperature	116 °F		121 °F		117 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/4/16 **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.)

- Oil drip from T-201 on mixing shaft w/ total length < 5'. Looks like it is from the bearing.

Operator Signature: Kyle Hansen

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 ROUTINE INSPECTION FORM

Date: 4/5/18 **Time:** 0915 **Inspector Initials:** KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,963,510 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 74° Oil temperature	117 °F		116 °F		117 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/5/14 **Time:** 0915 **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.)

- Added grease to T-202 bottom bearing on motor.
- T-201 - oil drip has not advanced noticably.

Operator Signature: Kyle J. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/6/18 Time: 1000 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,010 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 91 Oil temperature	116 °F		110 °F		115 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/6/18 **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.)

T-201 oil stain on mixing shaft.

Operator Signature: Kyle Hansen

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 ROUTINE INSPECTION FORM

Date: 4/7/16 Time: 1015 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,010 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 80 Oil temperature	116 °F		120 °F		122 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/7/18 **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.)

T-201 has vibration issues.

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/3/18 Time: 1445 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,010 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 85 Oil temperature	107 °F		108 °F		107 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/8/18 **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.)

T-201 was inspected for vibration issues.

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/9/18 Time: 1000 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,430 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 73 Oil temperature	92 °F		107 °F		91 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/9/18 **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.)

T-201 mixer has slight drip.

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/10/18 **Time:** 0845 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,430 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 60° Oil temperature	113 °F		111 °F		111 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/10/18 **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.)

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Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/11/18 **Time:** 1200 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,964,130 (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-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

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?	(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? NA	Yes	No*	Yes	No*	Yes	No*
Ambient air temperature 91 Oil temperature	106 °F		107 °F		113 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/11/18 **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.)

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Operator Signature: Kyle S Hansen

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 ROUTINE INSPECTION FORM

Date: 4/12/18 Time: 1155 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,969,430 (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-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

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?	(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 72 Oil temperature	86 °F		84 °F		85 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/12/18 **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.)

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Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/13/18 **Time:** 1340 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,965,140 (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-201 (9,437)		T-202 (9482)		T-203 (9952)		T-204 (9952)	
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

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?	(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 109 Oil temperature	99 °F		97 °F		98 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/13/18 **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.)

- changed oil on all 3 mixers

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/19/18 **Time:** 1450 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,966,110 (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-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

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?	(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 79 Oil temperature	117 °F		118 °F		114 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/14/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/15/18 **Time:** 1525 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,966,530 (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-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

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?	(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 87 Oil temperature	115 °F		118 °F		120 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/15/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/16/18 **Time:** 0945 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1966530 (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-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

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?	(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 71 Oil temperature	94 °F		87 °F		93 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 9/16/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/17/18 Time: 1315 Inspector Initials: K.SH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,360 (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-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

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?	(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 69 Oil temperature	72 °F		101 °F		99 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/17/18 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.)

- Decant 20,000 gallons from T-201

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/18/18 Time: 1155 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,355 (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-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

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?	(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 71 Oil temperature	108 °F		110 °F		110 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/18/18 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.)

_____

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_____

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_____

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/19/18 Time: 0850 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,355 (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-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

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?	(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 62 Oil temperature	88 °F		81 °F		89 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/19/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/20/18 Time: 0900 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,355 (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-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

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?	(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 64 Oil temperature	90 °F		93 °F		92 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/20/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/21/18 Time: 0800 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,770 (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-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

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?	(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 72 Oil temperature	116 °F		114 °F		111 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/21/18 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.)

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/22/18 Time: 0745 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,770 (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-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

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?	(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 65 Oil temperature	114 °F		112 °F		108 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/22/18 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.)

_____

_____

_____

_____

_____

_____

Operator Signature: Kyle D. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/23/18 Time: 1335 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,770 (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-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

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?	(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 94 Oil temperature	129 °F		128 °F		132 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/23/18 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.)

- T-201 vibration increasing, CCC come on site to inspect.

Operator Signature: Kyle D. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/24/18 Time: 0845 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,967,770 (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-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

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?	(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 78 Oil temperature	129 °F		121 °F		115 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/24/18 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.)

Operator Signature: Kyle A. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/25/18 Time: 1810 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,968,830 (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-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

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?	(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 95 Oil temperature	97 °F		132 °F		123 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/25/18 **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.)

T-201 is off for repairs.
- Decanting 20,000 gallons

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/26/18 Time: 0820 Inspector Initials: KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,968,330 (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-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

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?	(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 78 Oil temperature	84 °F		112 °F		114 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/26/18 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.)

- T-201 is not being run due to gear box issue. Used as a "dry tank" during AP-5 pond decommissioning

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/27/18 **Time:** 0715 **Inspector Initials:** KSH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,985,660 (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-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

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?	(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 74 Oil temperature	78 °F		108 °F		120 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/27/18 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.)

-T-201 mixer is down w/ gear issues

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/28/18 Time: 1338 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,986,730 (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-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

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?	(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 89 Oil temperature	68 °F		182 °F		111 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/28/18 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.)

T-201 is off pending repairs.

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/29/18 Time: 1320 Inspector Initials: KGH

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,987,130 (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-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

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?	(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 84 Oil temperature	86 °F		104 °F		113 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/29/18 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.)

-T-201 off pending gear repairs.

Operator Signature: Kyle S. Hansen

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 ROUTINE INSPECTION FORM

Date: 4/30/18 Time: 1300 Inspector Initials: JR

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* (No)
3. Record reading on Stabilized Lake Mead Water (SLMW) flowmeter east of Process Tanks.
   Flowmeter: 1,987,360 (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-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

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?	(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 77 Oil temperature	88 °F		120 °F		89 °F	

K05 PHASE III O&M ROUTINE INSPECTION FORM

Date: 4/30/18 **Time:** 1300 **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.)

T-201 off pending gear repairs
T-203 mixer off as part of sediment washing process.

Operator Signature: 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

Attachment B
Phase III O&M Monthly Inspection Forms

K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 4/30/18 Time: 1:30 PM Inspector Initials: JRichesen

INSPECT MATERIALS AND PARTS

1. Are all spare parts present?: (Yes) No
   If no, list which parts need to be ordered and inform Site Implementation Manager: _____
2. Are all safety materials, resources, and supplies to perform work present? (Yes) No
   If no, list what needs to be ordered and inform Site Implementation Manager: _____

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	✓
P-202	✓
P-203	✓
P-204	✓
P-205	✓
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:

	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: _____

K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 4/30/18 Time: 1:30 pm 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**	9248.1 hrs		9285.7 hrs		9340.0 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:

Activity	Date of Next Replacement or Maintenance	Comments
Replace 3" decant transfer hoses	Aug 1, 2018	
Replace 3" solid transfer hoses	Aug 1, 2018	
Replace 1.5" SLMW flush hose	Dec 15, 2018	
Replace 3" stainless steel doublesphere expansion joints	Aug 1, 2018	
Replace air compressor filter element	Oct 16, 2018	
Service air compressor	Jan 26, 2019	
Change process tank mixer gear box oil**	Oct 18, 2018	
Grease gear seals on process tank mixer	June 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.)

Operator Signature: [signature]

K05 PHASE III O&M MONTHLY INSPECTION FORM

Date: 4/30/18 Time: 1:30pm Inspector Initials: JK

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