Table of Contents

I. INTRODUCTION

Simplot Phosphates LLC operates a phosphate fertilizer manufacturing facility located at 515 South Hwy 430, Rock Springs, Wyoming ("Facility"). The Facility operates and maintains process sumps ("Process Sumps") with associated pads and separate leak detection systems throughout the complex. The purpose of these Process Sumps and pads is to efficiently utilize process materials and to minimize potential environmental liabilities. See Attachment I for a list of all sumps and pads in the Facility. See Attachment IV for a map showing each of their locations within the Facility.

This program (or "Program") provides instructions for: managing the accumulation of process liquids ("Process Liquids") in Process Sumps and pads; inspecting Process Sumps and pads; and pumping process sumps and pads. This Program also provides instructions for inspection of storage tanks, as defined below. Most Process Sumps will be pumped utilizing a vacuum truck. All other sumps will be pumped utilizing other means, i.e., portable sump pumps. All Process Sumps are to be pumped down to the extent possible and visually inspected every quarter by the sump and pad team, which consists of an area production manager, an operator, applicable area shift supervisor ("Shift Supervisor") and environmental department representative. Inspections department personnel participate on an as needed basis. The sumps are prepared for inspection by the area production manager or Shift Supervisor and inspected by the sump and pad team. Any issue with the sump will be documented during the inspection, and the sump will be inspected weekly until such time the issue is resolved. If cleaning and inspecting a Process Sump is not possible for some reason, the production manager must document the reason on the sump report form.

II. OPERATING PROCEDURE

Process Sumps and pads will be managed in a manner to ensure that Process Liquids stay within the sump, pad, and associated containment areas at all times. The Facility process sumps are designed and used to handle Process Liquids and to minimize the potential for these materials to be released in to the environment. Efforts should be made to keep the Process Sumps and pads as dry as possible and minimize the liquid level in the Process Sumps.

A. General Instructions for a Sump and Secondary Containment Visual Inspection

There will be two separate inspections conducted and recorded for all Process Sumps and pads. The first inspection will be scheduled quarterly and prepared for inspection by the area production manager and then inspected by the sump and pad team. The sump checklist form will be utilized for the inspection (Attachment V). The second inspection will be completed by the inspections department after a vacuum truck operator has removed all liquids from and otherwise cleaned the Process Sump. This second inspection will be conducted whenever major plant outages, turnarounds, or other events in the Phosphoric Acid and Granulation Plant areas allow for the sumps to be drained or when the operations group or sump/pad team inspection notes a more thorough inspection is needed to identify issues with a sump. These sump inspections shall occur at least once every 5 years.

1.0 Area Operations Sump and Secondary Containment Inspections

Area production managers will schedule and prepare Process Sumps and pads for inspection. The sump and pad team will be notified of the inspection date and time. The inspections are designed to identify cracks, defects, debris, chips, leaks, holes, severe corrosion/erosion, and pluggage in the following areas:

- Pad(s)
- Process Trenches Leading to Sump
- Process Lines Leading to and from Sump
- Sump Pump and Motor
- Float Switch/Level Indicator
- Tanks and Pumps on Pad Area Leading to Sump
- Leak Detection on Double-Walled Sumps

2.0 Secondary Containment and Leak Detection Systems

If a sump or pad is designed with secondary containment, the leak detection port(s) will be opened during the quarterly inspection and checked. See Attachment II for a list of all sumps and pads with secondary containment and leak detection ports.

If liquid is noted in the leak detection port, the following procedure will be followed:

1. Measure the liquid level.
2. If possible, obtain a sample and submit to the analytical lab for analysis. All sample results will be collected by the Shift Supervisor and documented on the corresponding sump inspection form.
3. Pump out the liquid.
4. If a defect is found in the pad or secondary containment system during the course of the inspection, issue a work order immediately for pad and/or sump repair. Record the work order number on the inspection report. Work will be scheduled by the shift supervisor to correct the problem, and the repairs will be completed as soon as possible.
5. Once the work has been completed the Shift Supervisor must contact the environmental department so that they may follow up on the report with the repairs that were done. The Shift Supervisor must also notify the appropriate production manager that the work has been completed.
6. If more than five gallons of low pH (<2) liquid is found in a secondary containment system on a repetitive basis, and the source cannot be identified (i.e., no obvious leaks or cracks are observed during the monthly inspection), the production manager is responsible to assemble the necessary resources to identify and correct the problem.
7. Until the issue is resolved, a more frequent (at least weekly) inspection of the secondary containment system will be conducted. The results of these additional inspections (activities, date, volume of liquid removed, etc.) will be documented and attached to the monthly sump inspection form.

B. Tank Inspections

This section outlines the general tank inspection procedures for tanks that meet the criteria outlined in the applicability criteria (“Applicability Criteria”) below. The tanks that fall under the criteria are listed in Table 1 Applicable Tanks List.

Applicability Criteria

1. Outside phosphoric acid tanks with 20% or greater concentration.
2. Outside tanks that are part of the Acid Value Recovery System.
3. Outside tanks that are part of the SPA Recovery system.

These tanks are typically inspected during scheduled cleaning events and periodically using the following criteria as a guide.

The general inspection schedule for tanks are as follows:

- Internal tank inspections are performed utilizing API 653 recommended procedures and inspection frequencies (5-10 years) as a guideline but are typically inspected more frequently during scheduled tank cleanings (1-3 years).
- External tank inspections are performed utilizing API 653 recommended procedures and inspection frequencies (5 years) as a guideline but are typically inspected more frequently during scheduled tank cleanings (1-3 years).
- Internal and external NDE / NDT inspections are conducted at recommended intervals (5-10 years) utilizing API 653 as a reference.
- External visual inspections are conducted annually utilizing API 653 as a reference.

Many of the storage tanks covered by this Program are rubber lined or coated preventing dye penetrant and ultrasonic thickness testing of the floor as described in API 653. Internal inspections of the tank do include a visual inspection, durometer testing of rubber, and/or spark testing of the rubber as the cleanliness of the rubber or coating allows. Removing minor amounts of hard scale from rubber lining or coating systems to allow for NDE/NDT internal inspections, has the potential to cause more damage to the lining or coating than the NDE/NDT may prevent, making a visual internal inspection the more prudent choice in these situations.

Table 1: Applicable Tanks List

Tank/Equipment Name	Tank No.	Type of Service Phos Acid (%)	Area
#1 Reactor	MR-1202	28	Phosphoric Acid
#2 Reactor	MR-1252	28	Phosphoric Acid
#1 28% Clarifier	MF-1501	28	Phosphoric Acid
#2 28% Clarifier	MF-1503	28	Phosphoric Acid
#1 28% Storage Tank	MF-1502	28	Phosphoric Acid
#2 28% Storage Tank	MF-1514	28	Phosphoric Acid
#3 28% Storage Tank	MF-1504	28	Phosphoric Acid
44% Clarifier Tank	MF-6551	44	Phosphoric Acid
44%/54% Sludge Tank	MF-6508	44/54 Sludge	Phosphoric Acid
54% Clarifier Tank	MF-6503	54	Phosphoric Acid
44% Storage Tank	MF-6552	44	Phosphoric Acid
54% Storage Tank	MF-6504	54	Phosphoric Acid
Sludge Pre-Mix Tank	MF-1509	44/54/SPA Sludge	Phosphoric Acid
#1 Aging Tank	MF-2788	69	SPA Plant
#2 Aging Tank	MF-2773	69	SPA Plant
#3 Aging Tank	MF-2751	69	SPA Plant
SPA Filtrate Receiver Tank	MS-2758	69	SPA Plant
SPA Sludge Tank	MF-2754	SPA Sludge	SPA Plant
SPA Shipping Tank A	MF-2759A	69	Shipping
SPA Shipping Tank B	MF-2759B	69	Shipping
54% Shipping Storage Tank	MF-2503	54	Shipping
54% Shipping Clarifier	MF-1507	54	Shipping
Granulation Mix Tank	MF-1621	44/54/SPA Sludge	Granulation
Granulation Feed Tank	MF-1610	44/54/SPA Sludge	Granulation

III. INSPECTION DOCUMENTATION

All tank inspection records are kept in the maintenance inspection department. In general, the inspection reports and supporting documentation are filed in the corresponding tank records and the two most recent inspection reports are retained for reference and verification purposes.

Results from the sump and pad inspections must be recorded on the appropriate inspection form. The area operations sump and secondary containment inspections are recorded by the sump and pad team that is performing the inspections on the *Operations Process Sump and Secondary Containment Inspection Form* (see Attachment V).

The sump and pad team representative must completely and accurately fill out the applicable inspection form(s). They must also submit any liquid samples to the analytical lab for analysis and the lab technician will put the results in the lab database. After the inspection is complete, the forms must be submitted to the production manager for approval. The production manager must follow up on any work order and record any lab analysis results on the applicable sump inspection form.

The production manager will keep one copy of the inspection report for his/her file and forward the remaining copies to the environmental department to have a copy for their record keeping purposes.

If a concern noted during the inspection relates to the integrity or functionality of a Process Sump system, immediate notification must be made to the production manager. The discrepancy must be documented on the inspection form and a list of corrective actions must be included in the “Comments” section of the form.

When a work order is written to correct the discrepancy, the work order number and the date the work order was issued must be documented in the “Comments” section of the inspection form.

IV. ENVIRONMENTAL MANAGEMENT

The plant manager and/or environmental manager must be available to assist operations and maintenance personnel in the management of this program. The environmental department will review the inspection forms and will generate an electronic summary of the inspections. The summary will be distributed quarterly to the operations, inspections and engineering departments. The Rock Springs plant sump and pad team will review this summary.

A. Quarterly Summary

The summary will be used to ensure that all pad and sump integrity concerns are addressed and funds allocated to maintain sumps and pads. The plant management team will coordinate with area production managers as well as maintenance and engineering to ensure that sump and pad projects are completed. The environmental department will provide characterization and disposal support to maintenance and engineering when planning sump or pad projects. A work order, management of change, and/or capital improvement project will be completed by appropriate personnel to address issues found during inspections.

The environmental department will retain all sump and pad reports for 2 years.

B. Program Review

The sump and pad team will ensure an annual review of this Program is conducted and verify that the written plan reflects the current management system.

The environmental department will keep a plant map identifying the location of all process sumps and pads (see Attachment IV). The environmental department will also maintain a file that identifies potential inputs into area process sumps and pads and the associated location where these input materials are reclaimed in the process (see Attachment III).

Area production managers and the engineering department will be responsible for ensuring that the environmental department is aware of any changes in area processes, sumps or pads that may change the input or location of recovery in the process.

V. TRAINING

Level I training will be implemented by the Rock Springs plant training coordinators for new operators in an applicable plant area. The environmental department will assist the Rock Springs plant training coordinators with this training and the training coordinators will maintain all associated training records.

Level II specialized training on the process sump and pad management program will be given to all personnel who will be involved in the inspection program. Level II training will be provided by the environmental department and will include specific inspection training for each sump and pad.

Specialized training will be given to storage tank inspectors within the inspections department. This training will involve training on visual and other relevant inspection techniques and known damage mechanisms for the tanks being inspected.

The environmental manager will be responsible for ensuring that the plant management team and environmental department personnel have reviewed and understand their responsibilities related to this Program.

VI. DEFINITIONS

Shift Supervisor: North or South plant supervisor on each crew.

Process Liquid: A liquid consisting of Process Wastewater, SACS, FSA, phosphoric acid, Acid Value Recovery System Effluent, non-hazardous aqueous solutions, and/or spills/leaks of phosphoric acid, sulfuric acid, and/or FSA.

Process Sump: Any pit, reservoir, trough, trench, containment structure, or drainage control system that serves to collect Process Liquids for utilization in the process.

Inspections and Integrity of Tanks, Sumps, and Secondary Containment
Attachment I

PROCESS SUMP AND PAD LIST

Area	Sump/Pad Name	Inspected
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	
	MT-1311 #1 Filter Acid Sump	
	MT-1315 #1 Tank Farm Sump	
	Storm Collection System Sump	
	J-1251 #2 Reactor Sump	
	J-6401 D/E Evaporators Area Acid Sump	
	J-6501 #2 Tank Farm Sump	
	J-6352 #3 Filter Acid Sump	
	J-6301 Mustang FSR Water Collection Sump	
	J-6302 #2 Filter Acid Sump	
	J-1319 FSR Collection Sump	
	MT-2772 C Evaporator Acid Sump	
	MT-2703 C Evaporator Barometric Sump	
SPA Plant	GS-2787 Repulp Sump	
	MF-2770 SPA Acid Sump	
Ore Receiving/ Water Reclaim	Recovery Sump	
	Rock Slurry Sump	
	1-Q-1 Rock Receiving Building Sump	
	Sewage System Sump	
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	
	PP-1201 A&S Sump and Containment Area	
	PP-1214 Sump and Containment Area	
	P-182 A&S Containment Area	
	MEC Acid Sump Trench	
	T-116 Water Pretreatment Building Sump and Trench	
	T-115 Sulfuric Containment Pad	
	Sulfur Truck Unloading Pit	
	T-220 Water Treatment Building Sump and Trench	
Granulation	Granulation Sump	
Shipping	MF-2504 Car Wash Sump	
	Sulfuric Truck Loading/Unloading	
	Sulfur Truck Unloading Pit	
	Sulfur Pit	
	MF-2777 SPA Shipping Tank Sump	
	Sulfuric Railcar Sump Track #7	
	Intermediate Sulfur Loading/Unloading Pit	

Inspections and Integrity of Tanks, Sumps, and Secondary Containment
Attachment II

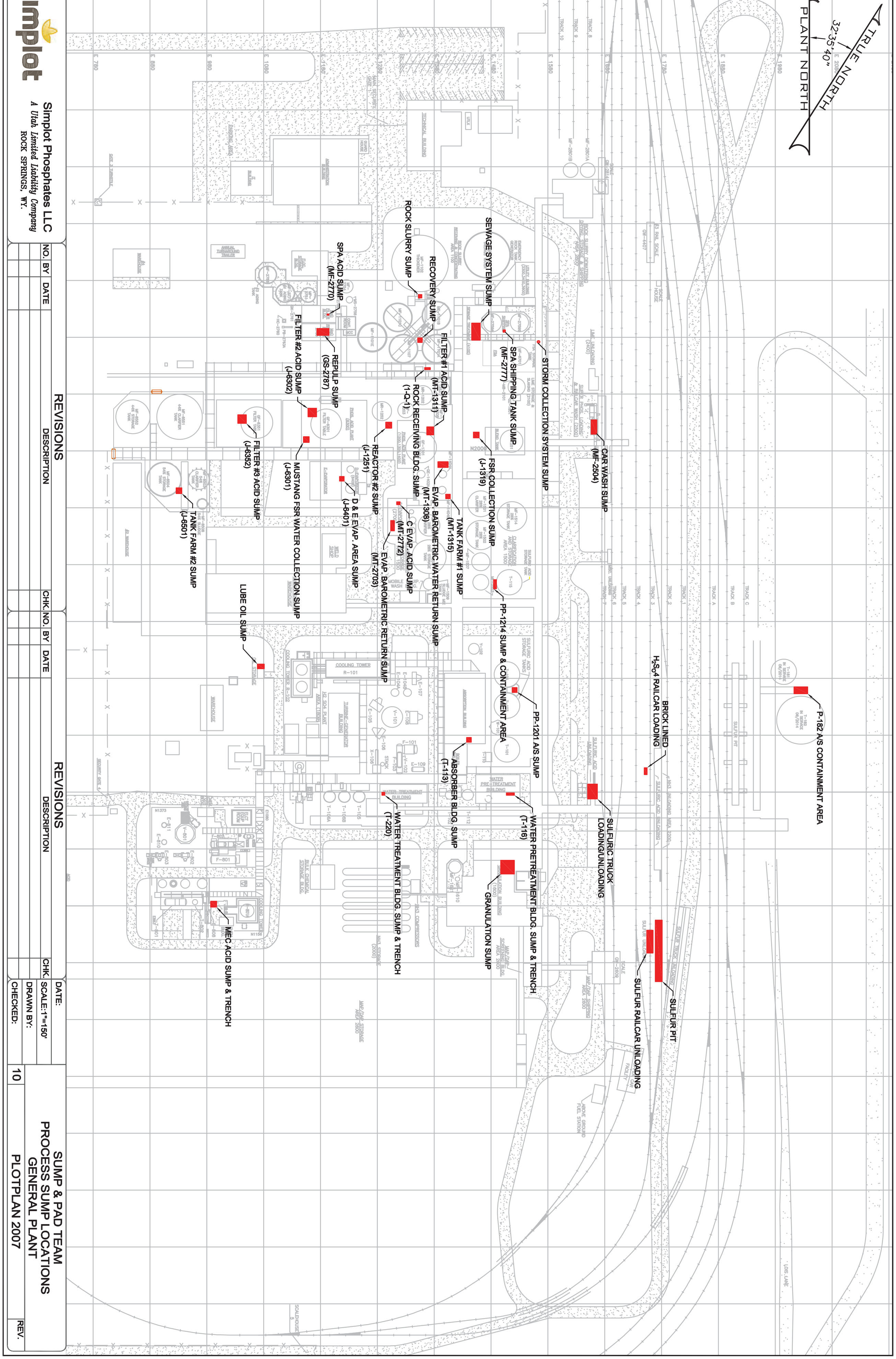
PROCESS SUMP AND PAD DETAILS

AREA	SUMP/PAD NAME	SECONDARY CONTAINMENT	# OF LEAK DETECTION PORTS	JDE NUMBER
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	yes	1	MT-1308
	MT-1311 #1 Filter Acid Sump	yes	1	MT-1311
	MT-1315 #1 Tank Farm Sump	yes	1	MT-1315
	Storm Collection System Sump	no		GZ-4106
	J-1251 #2 Reactor Sump	yes	1	J-1251
	J-6401 D/E Evaporators Area Acid Sump	yes	1	J-6401
	J-6501 #2 Tank Farm Sump	yes	1	J-6501
	J-6352 #3 Filter Acid Sump	yes	1	J-6352
	J-6301 Mustang FSR Water Collection Sump	no		J-6301
	J-6302 #2 Filter Acid Sump	yes	1	J-6302
	J-1319 FSR Collection Sump	yes	1	J-1319
	MT-2772 C Evaporator Acid Sump	no		MT-2772
	MT-2703 Evaporator Barometric Sump	yes	1	MT-2703
SPA Plant	GS-2787 Repulp Sump	no		GS-2787
	MF-2770 SPA Acid Sump	no		MF-2770
Ore Receiving/ Water Reclaim	Recovery Sump	no		J-1104
	Rock Slurry Sump	no		J-1107
	1-Q-1 Rock Receiving Building Sump	no		1-Q-1
	Sewage System Sump	no		GZ-4101
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	no	2	T-113
	PP-1201 A&S Sump and Containment Area	no		T-1200A
	PP-1214 Sump and Containment Area	no		T-1214
	P-182 A&S Containment Area	no		T-182S
	MEC Acid Sump Trench	no		MT-82514
	Temporary Sulfur Unloading Pit	No		T-108C
	T-115 Sulfuric Containment Pad	No		T-1214
	T-116 Water Pretreatment Building Sump and Trench	no		T-116
	T-220 Water Treatment Building Sump and Trench	no		T-220
Granulation	Granulation Sump	yes	1	MF-1623
Shipping	MF-2504 Car Wash Sump	yes	1	MF-2504
	Sulfuric Truck Loading/Unloading	no		T-1200B
	Sulfur Truck Unloading Pit	no		T-117
	Sulfur Pit	no		T-107
	MF-2777 SPA Shipping Tank Sump	no		MF-2777
	Sulfuric Railcar Sump Track #7	no		T-1200C
	Intermediate Sulfur Loading/Unloading Pit	no		T-108

Inspections and Integrity of Tanks, Sumps, and Secondary Containment
Attachment III

PROCESS SUMP/PAD INPUT MATERIALS AND RECLAIM LOCATION

AREA	SUMP/PAD NAME	TYPICAL INPUT MATERIALS	MATERIALS RECLAIM LOCATION/PROCESS	TYPICAL LAB ANALYSIS
Phosphoric Acid	MT-1308 Evaporator Barometric Water Return Sump	phosphoric acid, condensate	Blend Tank	pH, P2O5
	MT-1311 #1 Filter Acid Sump	phosphoric acid, process water	#1 Filter Gyp Slurry Tank, #1 Tank Farm Sump	pH, P2O5
	MT-1315 #1 Tank Farm Sump	phosphoric acid, process water	Gyp Stack	pH, P2O5
	Storm Collection System Sump	Storm water	Containment Trench, #1 Tank Farm Sump	pH
	J-1251 #2 Reactor Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank	pH, P2O5
	J-6401 D /E Evaporators Area Acid Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank	pH, P2O5
	J-6501 #2 Tank Farm Sump	phosphoric acid, process water	#2 Filter Gypsum Slurry Tank, #3 Filter Gypsum Slurry Tank	pH, P2O5
	J-6352 #3 Filter Acid Sump	phosphoric acid, process water	#3 Filter Acid Sump	pH, P2O5
	J-6301 Mustang FSR Water Collection Sump	Process water, phosphoric acid	#2 & #3 Filter Vacuum Pump Scrubbers, #2 Reactor Vacuum Pump, 3# Filter Vacuum Pump Seal Water, Fume Scrubbers, #2 Filter Gyp Slurry Tank	pH, P2O5
	J-6302 #2 Filter Acid Sump	Process water, phosphoric acid	#2 Filter Gyp Slurry Tank	pH, P2O5
	J-1319 FSR Collection Sump	phosphoric acid, process water	A/B Evap Secondary Scrubber, C-Evap Acid Cooler Tank, C-Evap FSA Recirc Tank, #1 Filter Vacuum Scrubber	pH, P2O5
	MT-2772 C Evaporator Acid Sump	Process water, phosphoric acid	#1 28% Clarifier	pH, P2O5
	MT-2703 Evaporator Barometric Return Sump	Process water, phosphoric acid	C FSA Tank	pH, P2O5
SPA Plant	GS-2787 Repulp Sump	phosphoric acid, process water	Sludge Tank, Phos Pre-Mix Tank, Filter Feed Tanks	pH, P2O5
	MF-2770 SPA Acid Sump	Process water, phosphoric acid	Repulp Sump, Scrubber Water Tank, Hot Water Pond Line	pH, P2O5
Ore Receiving/ Water Reclaim	Recovery Sump	Ore	Rock Slurry Thickener Tank	pH, P2O5
	Rock Slurry Sump	Ore	Rock Slurry Thickener Tank	pH, P2O5
	1-Q-1 Rock Receiving Building Sump	Ore	Recovery Tank	pH, P2O5
	Sewage System Sump	Raw Sewage, Sodium Hypochlorite	#1 Filter Gyp Slurry Tank	
Sulfuric Acid	T-113 Absorber Builidng Sump & Trench	Sulfuric Acid		pH, Sulfuric Acid
	PP-1201 A&S Sump and Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	PP-1214 Sump and Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	P-182 A&S Containment Area	Sulfuric Acid		pH, Sulfuric Acid
	MEC Acid Sump Trench	Sulfuric Acid		pH, Sulfuric Acid
	Sulfur Truck Unloading Pit			
	T-116 Water Pretreatment Building Sump and Trench	Sulfuric Acid		pH, Sulfuric Acid
	T-220 Water Treatment Building Sump and Trench	Sulfuric Acid		pH, Sulfuric Acid
	T-115 Sulfuric Containment Pad			pH, Sulfuric Acid


Simplot
Simplot Phosphates LLC
A Utah Limited Liability Company
ROCK SPRINGS, WY.
REVISIONS
NO. BY DATE DESCRIPTION CHK.
DATE:
SCALE:1"=150'
DRAWN BY:
CHECKED:
SUMP & PAD TEAM
PROCESS SUMP LOCATIONS
GENERAL PLANT
PLOTPLAN 2007
10
REV.
TRUE NORTH
PLANT NORTH
32°35'40"
SEWAGE SYSTEM SUMP
ROCK SLURRY SUMP
RECOVERY SUMP
SPA ACID SUMP (MF-2770)
FILTER #2 ACID SUMP (J-6302)
REPULP SUMP (GS-2787)
FILTER #1 ACID SUMP (MT-1311)
ROCK RECEIVING BLDG. SUMP (1-Q-1)
SPA SHIPPING TANK SUMP (MF-2777)
STORM COLLECTION SYSTEM SUMP
CAR WASH SUMP (MF-2504)
FSR COLLECTION SUMP (J-1319)
REACTOR #2 SUMP (J-1251)
EVAP. BAROMETRIC WATER RETURN SUMP (MT-1308)
TANK FARM #1 SUMP (MT-1315)
FILTER #3 ACID SUMP (J-6352)
MUSTANG FSR WATER COLLECTION SUMP (J-6301)
D & E EVAP. AREA SUMP (J-6401)
C EVAP. ACID SUMP (MT-2772)
EVAP. BAROMETRIC RETURN SUMP (MT-2703)
TANK FARM #2 SUMP (J-6501)
PP-1214 SUMP & CONTAINMENT AREA
LUBE OIL SUMP
PP-1201 A/S SUMP
ABSORBER BLDG. SUMP (T-113)
H_2SO_4 RAILCAR LOADING
BRICK LINED
P-182 A/S CONTAINMENT AREA
WATER PRETREATMENT BLDG. SUMP & TRENCH (T-116)
SULFURIC TRUCK LOADING/UNLOADING
WATER TREATMENT BLDG. SUMP & TRENCH (T-220)
GRANULATION SUMP
MEC ACID SUMP & TRENCH
SULFUR RAILCAR UNLOADING
SULFUR PIT
COOLING TOWER
WATER TREATMENT BUILDING
WATER PRE-TREATMENT BUILDING

Operations Quarterly Process Sump and Secondary Containment Inspection Form

Sump/Pad Name:		Inspection Date:	
Area:		Employee name:	

I. Process Sump Inspection Items

Check each item after inspectin. If an item does not apply, write "N/A" in the check box. Make note of any leaks, defects, debris, holes, cracks, chips, pluggage, severe corrosion/erosion, or other problems in each observation section.

	Inspection Item	Check	Observations
1	Pad(s)		
2	Process trenches leading to sump		
3	Process lines leading to and from sump		
4	Sump pump and motor		
5	Float switch/Level indicator		
6	Tanks and pumps leading to sump		
7	Leak detection on double walled sumps		

Additional Observations:

II. Secondary Containment and Leak Detection

Enter the requested information below. For those items that do not apply, write "N/A" in the space provided.

1	Secondary Containment? (Y/N)		6	Liquid Pumped Out? (Y/N)	
2	Leak Detection Port? (Y/N)		7	Estimated Volume of Liquid: (Gallons)	
3	Liquid Found? (Y/N) - If		8	Sample submitted to lab? (Y/N)	
4	Measured Liquid Level: Inches		9	Sample results attached? (Y/N)	
5	Liquid Sample Taken? (Y/N)				

Additional Observations:

Note: If liquid is found in secondary containment, the liquid must be pumped and sampled

III. Comments

Include all corrective actions, work order numbers, and other pertinent information that applies. Appropriate personnel to sign form once all applicable corrective actions have been completed.

Comments:	Area Shift Supervisor
	Area Superintendent
	Environmental Department

Storage Tank External Inspection Checklist

Tank Name: _____ Equipment #: _____ Date: _____

Diameter: _____ Height: _____ Specific Gravity: _____

Floor Nominal: _____ Bottom Course Nominal: _____

T-min Floor: _____ T-min Bottom Course _____

Material of Const. Floor and Shell: _____ Type of Rubber Liner: _____

Inspector: _____

Name License # Signature Date

Approved: _____

Name Title Signature Date

Background:

External Checklist:

Inspection Item	Status	Comments
Is tank exterior free of leaks, corrosion or cracks?		
Is tank shell free of noticeable denting, distortions, buckling or bulging?		
Is exterior coating or paint in good working condition		
Is aboveground piping (valves, fittings, connections, pumps, etc.) free of visible leaks?		
Are ladders/platforms/walkways secure with no sign of damage?		
Concrete pad or ring wall free of cracking or spalling?		
Tank supports in satisfactory condition		
Are leak detection ports open and clean?		
Water able to drain away from tank?		
Grounding strap between tank and Foundation in good condition?		
Is containment structure in satisfactory condition?		
Insulation		
Inspection Item	**Status**	**Comments**
Free of missing insulation?		
Insulation free of noticeable areas of moisture?		

Insulation free of visible signs of damage?		
Insulation adequately protected from water intrusion?		

Conclusion/Recommendations:

Repair Items		
Item	**Description**	**Repair Number**
1		

Figure 1-*Repairs* **Figure 2- Completed *Repairs***

Storage Tank Internal Inspection Checklist

Tank Name: _____ Equipment #: _____ Date: _____

Diameter: _____ Height: _____ Specific Gravity: _____

Floor Nominal: _____ Bottom Course Nominal: _____

T-min Floor: _____ T-min Bottom Course _____

Material of Const. Floor and Shell: _____ Type of Rubber Liner: _____

Inspector: _____

Name License # Signature Date

Approved: _____

Name Title Signature Date

Background:

External Checklist:

Inspection Item	Status	Comments
Is tank exterior free of leaks, corrosion or cracks?		
Is tank shell free of noticeable denting, distortions, buckling or bulging?		
Is exterior coating or paint in good working condition		
Is aboveground piping (valves, fittings, connections, pumps, etc.) free of visible leaks?		
Are ladders/platforms/walkways secure with no sign of damage?		
Concrete pad or ring wall free of cracking or spalling?		
Tank supports in satisfactory condition		
Are leak detection ports open and clean?		
Water able to drain away from tank?		
Grounding strap between tank and Foundation in good condition?		
Is containment structure in satisfactory condition?		
Insulation		
Inspection Item	**Status**	**Comments**
Free of missing insulation?		
Insulation free of noticeable areas of moisture?		

Insulation free of visible signs of damage?		
Insulation adequately protected from water intrusion?		

Internal Checklist:

Inspection Item	Status	Comments
Inspect the shell to floor weld		
Inspect the floor Lapp Welds		
Locate Voids under the floor		
Inspect all reinforcing pads under pipe supports		
Check floor for pitting and corrosion		
Inspect shell seam welds		
Inspect nozzle and manway to shell welds		
Inspect shell for pitting and corrosion		
Inspect Baffle to shell welds		
Inspect baffle supports		
Inspect baffles for thinning and corrosion		
Inspect mixer blades and shaft		
Inspect mixer bolts		
Inspect mixer hub and key way		
Rubber Liner		
Inspection Item	**Status**	**Comments**
Visually inspect coating adhesion		
Visually inspect for tears or delamination		
Durometer on Rubber Lining		

Conclusion/Recommendations:

Repair Items		
Item	**Description**	**Repair Number**
1		

Figure 1-*Repairs*

Figure 2- Completed *Repairs*