OCCAM|EC CONSULTING ENGINEERS INC

ENTERED

MONTHLY PROGRESS REPORT
For month ending January 31st, 2017

CV-97-0206 (D.N.M)
Albuquerque v. Sparton Technology, Inc.

02/10/2017

***Tasks Completed*:**

A. Groundwater Monitoring Plan

- Prepared the 2016 Annual Monitoring Report for Discharge Permit DP-1184 as required by the permit and transmitted to the New Mexico Environmental Department (NMED) on January 24th, 2017.
-

B. Public Involvement Plan

-

C. Deep Flow Zone System

-

D. Assessment of Aquifer Restoration

-

E. Offsite-Containment System

- The system ran 100.00% of the time and pumped 12,796,900 gallons (an average of 307.4 gpm). There were no outages.
- Collected the monthly influent and effluent samples, and measured the water level in the infiltration gallery.
- Filed the monthly discharge report with the Office of the State Engineer as required under Permit-RG-69659.

F. Source Containment System

- The system ran 99.73% of the time and pumped 2,088,900 gallons (an average of 50.5 gpm). There were four outages:
    - On 1/4 due to a Tank Exchange for 11 minutes.
    - On 1/6 due to a meeting for the upgraded monitoring system for 55 minutes.
    - On 1/9 due to a meeting for the upgraded monitoring system for 35 minutes.
    - On 1/23 due to a Tank Exchange for 11 minutes.

- Filed the monthly discharge report with the Office of the State Engineer as required under Permit-RG-73531.
- Collected the monthly influent and effluent samples from the treatment system.
- Operated the chromium removal unit during the entire month. Continued to route 35 gpm of the pumped water through the unit and blend it with the remainder of the pumped water to meet the New Mexico Water Quality Control Commission (NMWQCC) chromium standard of 0.050 mg/L in the effluent discharged into the ponds.
- Replaced the first tank of the chromium removal unit on January 4th and January 23rd.
- Replaced the pretreatment filter for the Chromium Exchange Tanks on January 4th and January 23rd.
- Collected chromium samples of (a) the influent to the building; (b) the effluent from the first tank; (c) the effluent from the second tank; and (d) the effluent from the air-stripper on tank exchange day.

G. Other

- The components for the monitoring system were all ordered and delivered to DRB Electric for installation in February.

***Tasks Planned*:**

H. Groundwater Monitoring Plan

- The First Quarter 2017 Water Level and Water Quality Monitoring will begin on February 1st, 2017. As requested by the agencies, samples collected from all groundwater monitoring wells scheduled to be sampled in the First Quarter and both treatment systems influent and effluent will be analyzed for the presence of 1,4 – Dioxane using EPA method 8270 (SIM).

I. Public Involvement Plan

-

J. Deep Flow Zone System

-

K. Assessment of Aquifer Restoration

- Review and analyses of monitoring data in preparation of the CY2016 annual report.

L. Offsite-Containment System

- The monthly influent and effluent samples will be collected, and the water level will be measured in the infiltration gallery piezometer.
- The required discharge report will be filed with the Office of the State Engineer.
- The upgrade monitoring system will be installed and put into operation.

M. Source Containment System

- The monthly influent and effluent samples will be collected.
- The required discharge report will be filed with the Office of the State Engineer; and

- Tank Exchange chromium sampling of (a) the influent; (b) the effluent from the second tank; and (c) the effluent from the air-stripper will continue.
- The first tank of the Chromium Removal unit will be replaced on February 13th.
- The pretreatment filter will be replaced on February 13th as well.
- The upgrade monitoring system will be installed and put into operation.

N. Other

-

O. Problems Encountered or Anticipated:

-

By:

Dillon Cottingham, EI
Engineering Technician for Sparton

Charles Easterling, PE
Project Coordinator for Sparton.

Cc: Mr. Chuck Hendrickson (EPA: 214-665-7263)
Mr. Dave Cobrain (NMED: 505-476-6030)

Sparton Technology Inc, CW-1 Operation and Maintenance Log

Month: 04 Part 1
Year: 2017

		AIR STRIPPERS									AQUA-MAG				
Date	Time	System Status On/Off	Tailgate Alarms	Blower Pressure (psig)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Water Meter Accumulation	Pump Rate (sec/100gal)	Pump Flow Rate (gpm)	Discharge Rate (cfs/Ft2)	Chemical Tank Volume (gal)	Consumption (gal/day)	Stock (Quarts)	PE-6 Well Level (ft)	Tech Initials
3rd	9:25	ON	NO	26.0	34.0	20.0	30,272,100	19.59	306.3	1/3/Inch	150/450	20.0	6 1/4	22.99	TD
4th	9:30	ON	NO	26.0	34.0	20.0	30,736,900	19.50	307.7	1/3/Inch	430	20.0	5 3/4		TD
5th	8:30	ON	NO	25.5	33.5	19.5	31,146,300	19.41	309.1	1/3/Inch	410	20.0	5 3/4		TD
6th	8:36	ON	NO	26.0	34.0	20.0	31,605,200	19.59	306.3	1/3/Inch	390	20.0	5 3/4		TD
9th	9:55	ON	NO	26.0	34.0	19.5	32,957,600	19.47	308.2	1/3/Inch	325	21.7	5 3/4		TD
10th	7:52	ON	NO	26.0	34.0	19.5	33,362,300	19.66	305.2	1/3/Inch	305	20.0	5 3/4		TD
11th	8:50	ON	NO	25.5	34.0	19.5	33,822,600	19.56	306.7	1/3/Inch	285	20.0	5 3/4		TD
16th	9:22	ON	NO	26.0	34.0	19.5	36,046,300	19.34	310.2	1/3/Inch	185	20.0	5 3/4		TD
17th	8:50	ON	NO	26.0	34.0	19.5	36,479,000	19.50	307.7	1/3/Inch	165	20.0	5 3/4		TD
18th	8:02	ON	NO	26.0	34.0	19.5	36,911,100	19.59	306.3	1/3/Inch	145	20.0	5 3/4		TD
19th	7:22	ON	NO	26.0	34.0	19.5	37,337,300	19.40	309.1	1/3/Inch	125	20.0	5 3/4		TD
20th	7:25	ON	NO	26.0	34.0	19.5	37,778,500	19.44	308.6	1/3/Inch	105/450	20.0	5 3/4		TD
23rd	9:48	ON	NO	25.5	34.0	19.5	39,125,800	19.41	308.1	1/3/Inch	390	20.0	5 3/4		TD

Discharge=6000/(Sec/100gal)=gpm

(Gallons between readings ÷24 Hours)/(Hours between readings)=Chemical Consumption=28 gallons/day

(Gallons needed to fill tank ÷7.5 gallon Aqua Mag)/(100 gallon solution)=Gallons of Aqu Mag needed

Aqua Mag Top Off		
Date	Time	Gallons of A-M
20th	7:30	26.2/15.3

1 inch = 1.71875 gallons of Aqua Mag

Collected Samples		
Type	Date	Time
Monthly Metals		

ALARMS	
A-1	High Sump
A-2	Air stripper High Sump
A-3	Gallery High
A-4	Pump Off
A-5	Blower Pressure Low

Sparton Technology Inc, CW-1 Operation and Maintenance Log

DATE TIME	NOTES	INITIALS

Sparton Technology Inc, CW-1 Operation and Maintenance Log

MONTH: 1 Part 2

YEAR: 2017

		AIR STRIPPERS										AQUA-MAG				
Date	Time	System Status On/Off	Stripper Alarms	Blower Pressure (psig)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Water Meter Accumulation	Pump Rate (sec/200gal)	Pump Flow Rate (gpm)	Discharge Rate (inch/hr)	Chemical Tank Volume (gal)	Consumption (gal/day)	Wash (Yes/no)	PZ-6 H2O Level (ft)	Tech Initials
24th	7:54	ON	NO	25.5	34.0	19.5	39,560,500	19.50	307.7	1/3 inch	390	20.0	5 3/4		TW
25th	9:23	ON	NO	26.0	34.0	20.0	40,030,400	19.50	307.7	1/3 inch	350	20.0	5 3/4		TW
26th	9:46	ON	NO	26.0	34.0	20.0	40,479,900	19.69	304.7	1/3 inch	330	20.0	5 3/4		TW
27th	8:05	ON	NO	26.0	34.0	20.0	40,891,500	19.56	306.7	1/3 inch	310	20.0	5 3/4		TW
30th	3:00	ON	NO	26.0	33.5	19.5	42,348,000	19.50	307.7	1/3 inch	240	23.3	5 3/4		TW
31st	9:19	ON	NO	26.0	34.0	19.5	42,685,100	19.47	308.2	1/3 inch	230	20.0	5 3/4		TW
1st	7:15	ON	NO	26.0	34.0	19.5	43,089,000	19.63	305.7	1/3 inch	210	20.0	5 3/4		TW

Discharge=6000/(Sec/100gal)=gpm

(Gallons between readings ÷24 Hours)/(Hours between readings)=Chemical Consumption=20 gallons/day

(Gallons needed to fill tank ÷7.6 gallon Aqua Mag)/(100 gallon solution)=Gallons of Aqu Mag needed

Collected Samples		
Type	Date	Time
Monthly Metals		

ALARMS	
A-1	High Sump
A-2	Air stripper High Sump
A-3	Gallery High
A-4	Pump Off
A-5	Blower Pressure Low

Aqua Mag Top Off		
Date	Time	Gallons of A M

1 inch = 1 71875 gallons of Aqua Mag

Sparton Technology Inc, CW-1 Operation and Maintenance Log

MONTH:	YEAR:

DATE TIME	NOTES	INITIALS

Sparton Technology Inc, CW-2 Operation and Maintenance Log

Month: 1st Pg 1

Year: 2017

		AIR STRIPPERS									INFILTRATION			AQUA-MAG			
Date	Time	System Status On/Off	Stripper Alarms	Blower Pressure (psi)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Water Meter Accumulation	Pump Rate (sec/10gal)	Pump Flow Rate (gpm)	Discharge Rate (min/Pot)	Chromium Tank Flow Rate (gpm)	Pond #8 Accumulation	Pond #8 Accumulation	Chemical Tank Volume (gal)	Consumption (gal/day)	Stock barrels	Tech Initials
3rd	8:40	ON	NO	25.0	45.0	37.0	73,153,900	59.95	50.2	8/hr	35.55	32,659,000	31,500,800	180	11.0	3	
4th	8:22	ON	NO	25.0	45.0	32.0	73,222,900	60.90	49.3	8/hr	35.43	32,716,900		165	15.0	3	
4th	9:45	ON	NO	25.0	42.0	32.0	73,224,900	60.75	49.4	8/hr	35.06	32,728,300		165	—	3	
5th	8:59	ON	NO	25.0	41.0	32.0	73,276,100	59.22	50.7	8/hr	35.31	32,773,900		155	10.0	3	
6th	8:50	ON	NO	25.0	42.0	33.0	73,361,600	58.86	51.0	8/hr	35.90	32,862,900		145	10.0	3	
6th	9:54	ON	NO	25.0	42.0	33.0	73,368.100	59.88	50.1	8/hr	35.90	32,868,500		245	—	3	
9th	7:52	ON	NO	25.0	41.0	33.0	73,576,300	51.78	50.2	8/hr	36.76	33,074,900		210	11.7	3	
9th	9:18	ON	NO	25.0	42.0	33.5	73,579,400	59.43	50.5	8/hr	36.26	33,075,600		210	—	3	
10th	8:00	ON	NO	25.0	41.0	33.0	73,646,200	60.12	99.9	8/hr	36.38	33,140,900		200	10.0	3	
11th	8:05	ON	NO	25.0	40.0	31.0	73,718,700	59.71	50.2	8/hr	35.43	33,211,100		190	10.0	3	
12th	8:20	ON	NO	25.0	40.0	31.5	73,791,100	61.81	48.5	8/hr	35.68	33,281,800		180	10.0	3	
16th	8:10	ON	NO	25.0	38.0	29.5	74,084,700	58.50	51.3	8/hr	35.55	33,568,700		135	11.25	3	
17th	8:00	ON	NO	25.0	37.0	28.0	74,158,900	58.10	61.6	8/hr	35.67	33,640,700		125	10.0	3	
18th	8:22	ON	NO	25.0	37.0	28.0	74,231,600	57.63		8/hr	35.67	33,713,200	31,500,800	115	10.0	3	

Discharge=3000/(Sec/50gal)=gpm

(Gallons between readings ÷24 Hours)/(Hours between readings)=Chemical Consumption=10 gallons/day

(Gallons needed to fill tank ÷4.1 gallon Aqua Mag)/(100 gallon solution)=Gallons of Aqua Mag needed

Chromium Tank Exchange		
Date	Time	Left/Right
4th	9:00	Left

Collected Samples		
Type	Date	Time
Monthly Metals	1/4	8:40
Chromium Exchange	4/4	8:40

Aqua Mag Top Off		
Date	Time	Gallons of AM

1 inch = 1.71875 gallons of Aqua Mag

ALARMS	
A-1	Bldg/Well Pit/Aqua-Mag Sump
A-2	Air stripper Sump
A-3	Pond #6
A-4	Pump Off
A-5	Blower Pressure Low

Influent Filter	
Date	Time
4th	9:00

Sparton Technology Inc, CW-2 Operation and Maintenance Log

[redacted] 1st [redacted] 2017 Part 1

DATE	TIME	NOTES	INITIALS
4th	8:50	Down for Talk Exchange. Up @ 9:01. Down for 11 minutes	
6th	8:58	Down for monitoring alterations. Up @ 9:53. Down for 55 minutes.	
9th	8:50	Down for SCADA meeting. Up @ 9:15. Down for 85 minutes	

Sparton Technology Inc, CW-2 Operation and Maintenance Log

MONTH: 1st Pool 2

YEAR: 2017

		AIR STRIPPERS									INFILTRATION			AQUA-MAG			
Date	Time	System Status: On/Off	Stripper Alarms	Blower Pressure (inch)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Totalizer Meter Accumulation	Pump Rate (sec/5Gal)	Pump Flow Rate (gpm)	Discharge Rate (min/sec)	Chromium Tank Flow Rate (gpm)	Pond #2 Accumulation	Pond #5 Accumulation	Chemical Tank Volume (gal)	Consumption (gal/day)	Stock Seconds	Tech Initials
1st	7:30	ON	NO	25.0	37.0	28.0	74,307,000	58.37	51.4	1½/min	35.78	33,781,000	31,900,980	105	10.0	3	
2nd	7:45	ON	NO	25.0	37.0	28.0	74,385,900	60.49	49.7	1½/min	35.96	33,853,000		95/850	10.0	3	
3rd	8:03	ON	NO	25.0	38.0	28.5	74,494,300	58.00	50.8	1½/min	35.67	34,065,200		420	10.0	3	
4th	9:15	ON	NO	25.0	38.0	28.0	74,597,300	60.00	50.0	1½/min	35.58	34,068,300		420	—	3	
5th	8:20	ON	NO	26.0	38.0	28.0	74,667,100	60.34	49.7	1½/min	36.26	34,137,000		410	10.0	3	
6th	9:03	ON	NO	25.0	38.0	28.0	74,749,600	60.50	49.6	1½/min	35.90	34,208,900		400	10.0	3	
7th	9:36	ON	NO	25.0	38.0	28.0	74,816,000	60.25	49.8	1½/min	35.67	34,282,500		390	10.0	3	
8th	8:27	ON	NO	26.0	38.0	28.0	74,885,300	59.68	50.3	1½/min	35.78	34,350,000		380	10.0	3	
9th	2:53	ON	NO	26.0	38.0	27.0	75,112,500	60.65	49.5	1½/min	35.67	34,581,500		340	13.3	3	
10th	8:37	ON	NO	25.0	38.0	27.0	75,196,600	60.63	49.5	1½/min	35.67	34,633,700		330	10.0	3	
11th	6:48	ON	NO	25.0	38.0	28.0	75,247,800	4.72	49.00	1½/min	35.93	34,698,700	31,900,980	320	10.0	3	

Discharge=3000/(Sec./5Gal)=gpm

(Gallons between readings ÷24 Hours)/(Hours between readings)=Chemical Consumption=10 gallons/day

(Gallons needed to fill tank ÷4.1 gallon Aqua Mag)/(100 gallon solution)=Gallons of Aqua Mag needed

Chromium Tank Exchange		
Date	Time	Left/Right
23	8:52	Left

Collected Samples		
Type	Date	Time
Monthly Metals		
Chromium Exchange	1/23/17	8:10

Aqua Mag Top Off		
Date	Time	Gallons of AM
6th	7:45	14.5 / 8.5"

1 inch = 1.71875 gallons of Aqua Mag

ALARMS	
A-1	Bldg/Well Pit/Aqua-Mag Sump
A-2	Air stripper Sump
A-3	Pond #6
A-4	Pump Off
A-5	Blower Pressure Low

Influent Filter	
Date	Time
23	8:52

Sparton Technology Inc, CW-2 Operation and Maintenance Log

[illegible]	1st	[illegible]	2017

DATE	TIME	NOTES	INITIALS
23	88	Down for Tank Exchange and Filter exchange. Up @ 9:03 . Down for 11 minutes.	JD

OCCAM EC
CONSULTING ENGINEERS INC

Dillon Cottingham
6100 Seagull Street NE
Albuquerque, NM 87109

February 10th, 2017

Mr. Charles Palmer
Office of State Engineer
5550 San Antonio Dr. NE
Albuquerque, New Mexico
Dist1.meterreadings@state.nm.us

PE: Permit RG-69659, RG-73531T

Below is the meter report for the month of January 2017. A total of 12,796,900 gallons were treated by the air stripper at CW-1 and discharged via underground pipeline to the infiltration Gallery located in the Calabacillas Arroyo. A total of 2,088,900 gallons were treated by the air stripper at CW-2 and discharged into rapid infiltration pond 2 located northwest of the CW-2 Stripper building.

Date	Meter Reading	Discharge	Meter Reading	Discharge
01/03/2017	530,292,100		73,153,900	
02/01/2017	543,089,000	12,796,900	75,242,800	2,088,900
Total		12,796,900		2,088,900

Thank You,
Sincerely,

Dillon Cottingham, EI

cc: Charles M. Easterling, PE