

MONTHLY PROGRESS REPORT  
For month ending November 30<sup>th</sup>, 2016

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

12/09/16

***Tasks Completed:***

- A. Groundwater Monitoring Plan
- In preparation of the 2016 Annual Report, continued the evaluation of data collected during 2016.
  - Completed the 4Q2016 sampling event.
- B. Public Involvement Plan
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- C. Deep Flow Zone System
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- D. Assessment of Aquifer Restoration
- The 2015 Annual Report was approved by the EPA and NMED on November 29, 2016.
- E. Offsite-Containment System
- The system ran 64.69% of the time and pumped 8,636,000 gallons (an average of 200.7 gpm). There were multiple outages:
    - o On 11/2 extending for 4 days and 12 hours.
      - Due to electrical control failures
    - o On 11/8 extending for 6 days, 1 hour, and 8 minutes.
      - Due to the main switch in the Air Stripper cabinet burning/melting.
  - 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 99.52% of the time and pumped 2,300,500 gallons (an average of 53.5 gpm). There were three outages:
    - o On 11/7 for 5 minutes, electrician troubleshooting.
    - o On 11/21 for 35 minutes



- Due to a tank exchange and tightening all screws in electrical cabinet to prevent future shorting failures, as what happened at CW-1.
  - On 11/30 for 2 hours and 48 minutes.
    - Due to electrical failures and troubleshooting.
- 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.
- Replaced the first tank from the chromium removal unit on November 21<sup>st</sup>.
- Replaced the pretreatment filter for the Chromium Exchange tanks on November 7<sup>th</sup> and November 21<sup>st</sup>.
- Exceedance of the New Mexico Water Quality Control Commission chromium standard of 0.050 mg/L in the effluent discharged into the ponds was reported for the sample collected on October 31 (0.054 mg/L). NMED was notified of this exceedance on Wednesday, November 30, within 24 hours of receipt of the laboratory report. After the 10/31/2016 sampling event, scheduled sampling for the 4th Quarter monitoring event was conducted on 11/14/2016 at the pond monitoring well, MW-17, with both dissolved and total chromium concentrations of 0.023 and 0.028 mg/L, respectively. Chromium sampling of the system influent, the second tank effluent, and the system effluent was conducted on 11/21, immediately prior to a scheduled tank exchange, with the effluent chromium concentration reported at 0.051 mg/L. Immediately after the first exceedance was noticed and operational data were reviewed, it was concluded that exceedances in the effluent occurred due to an inadvertent increase of the of the flow rate in the chromium treatment system of about 4-5 gpm, resulting in reduced residence time in the tanks and, consequently, increased effluent concentrations from the chromium treatment system. For that reason, the diverted flow rate was dialed back to its previous levels of about 35 gpm.

G. Other

***Tasks Planned:***

H. Groundwater Monitoring Plan

I. Public Involvement Plan

- The 2015 Fact Sheet will be prepared and submitted to the agencies for review and approval. Upon approval, it will be distributed to residents above the plume and along the pipeline to the gallery.

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 monitoring system will continue to be upgraded.
- The required discharge report will be filed with the Office of the State Engineer.

M. Source Containment System

- The monthly influent and effluent samples will be collected as well as a sample for Total Chromium on the Mid-Tank Effluent and the Final-Tank Effluent for the Chromium Exchange tanks.
- The required discharge report will be filed with the Office of the State Engineer; and
- Per the discussion with NMED on 11/30/2016, chromium sampling of the influent, at mid-tank and second tank effluent, as well as of the system effluent is scheduled for 12/1/2016, coinciding with the regular monthly sampling event and the results of this sampling event will be reported to NMED<sup>1</sup>.
- Tank Exchange chromium sampling of (a) the influent; (b) mid-tank; (c) the effluent from the second tank; and (d) the effluent from the air-stripper will continue.
- Both tanks of the chromium removal unit will be replaced on December 12<sup>th</sup>.
- The pretreatment filter will be replaced on December 12<sup>th</sup>.

N. Other

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O. Problems Encountered or Anticipated:

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By:

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- <sup>1</sup> Sampling results from the 12/1/2016 sampling event showed chromium concentrations of 100 mg/L in the influent; 0.096 mg/L mid-tank; ND in the second tank effluent; and 0.022 mg/L in the system effluent. An email summarizing the chromium exceedances and actions taken to date was sent to Mr. Huddleson of NMED on 12/7/2016 where, given that chromium concentration in the effluent is currently well below the NMWQCC standard, and also that chromium concentrations at MW-17 have been consistently below the standard as well, the following course of action was proposed:

- o Both tanks to be replaced during the scheduled tank exchange on 12/12/2016;
- o Scheduled sampling prior to the tank exchange to be conducted including the mid-tank monitoring point, for a complete system performance evaluation.

A letter summarizing the actions taken after 12/7/2016 and the evaluation of all available data will be summarized in a letter report to NMED. Per the requirements of the discharge permit DP-1184, if the results of this evaluation suggest that further corrective action is required, a corrective action report will be developed and submitted to NMED by 12/15/2016.



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: 1/15		AIR STRIPPERS										AQUA-MAG			PZ-G HzD Level (ft)	Tech Initials
YEAR: 2016		System Status: On/Off	Stripper Alarms	Blower Pressure (HzO)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Water Meter Accumulation	Pump Rate (sec/100gal)	Pump Flow Rate (gpm)	Discharge Rate (min/in)	Chemical Tank Volume (gal)	Consumption (gal/day)	Stock (barrels)			
1 <sup>st</sup>	12:15	ON	NO	26.0	30.0	16.0	7,084,800	19.00	314.9	1/3 inch	430	20.0	7 1/3	22.97	JD	
8 <sup>th</sup>	10:40	ON	NO	26.0	32.0	17.0	8,184,400	18.72	302.5	1/3 inch	375	—	7 1/4		JD	
9 <sup>th</sup>	9:00	ON	NO	26.0	31.5	20.0	8,594,500	19.60	306.1	1/3 inch	360	15.0	7 1/4		JD	
16 <sup>th</sup>	10:45	ON	NO	25.5	31.5	19.5	9,045,500	19.67	305	1/3 inch	335	—	7 1/4		JD	
21 <sup>st</sup>	10:40	ON	NO	26.0	34.0	19.5	11,263,800	19.40	309.3	1/3 inch	235/450	20.0	7 1/4		JD	
23 <sup>rd</sup>	8:10	ON	NO	26.0	34.5	20.0	12,104,600	19.56	306.7	1/3 inch	420	15.0	7		JD	
28 <sup>th</sup>	9:15	ON	NO	26.0	35.0	20.0	14,842,000	19.59	306.1	1/3 inch	320	20.0	7		JD	
1 <sup>st</sup>	9:15	ON	NO	26.0	34.0	20.5	15,670,800	19.75	303.8	1/3 inch	250	23.3	7	22.98	JD	

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

(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 Aqua Mag needed

Collected Samples		
Type	Date	Time
Monthly Metals	1/1	12:00

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
1/1/16	11:00	16.3/9.5"

1 inch = 1.71875 gallons of Aqua Mag



### Sparton Technology Inc, CW-2 Operation and Maintenance Log

MONTH: 11th		AIR STRIPPERS											INFILTRATION			AQUA-MAG			Tech Initials
YEAR: 2016		System Status: On/Off	Stripper Alarms	Blower Pressure (Hz)	PRV Inlet Pressure (psi)	PRV Outlet Pressure (psi)	Water Meter Accumulation	Pump Rate (sec/50gal)	Pump Flow Rate (gpm)	Discharge Rate (min/in)	Chromium Tank Flow Rate (gpm)	Pond #2 Accumulation	Pond #3 Accumulation	Chemical Tank Volume (gal)	Consumption (gal/day)	Stock barrels	Tech Initials		
1st	12:00	ON	NO	75.0	38.0	28.5	68,989,100	56.44	53.2	1/2 inch	39.96	29,005,700	31,800,800	360	10.0	3 1/2	JD		
7th	9:40	ON	NO	25.0	38.0	29.0	68,954,900	54.28	55.3	1/2 inch	39.96	28,542,900		280	13.3	3 1/2	JD		
14th	8:45	ON	NO	26.0	38.0	28.5	69,495,200	54.91	54.6	1/2 inch	39.96	29,070,900		200	11.4	3 1/2	JD		
21st	8:20	ON	NO	25.0	38.0	28.5	70,033,900	54.69	54.9	1/2 inch	39.96	29,601,900		125	10.7	3 1/2	JD		
27th	9:40	ON	NO	25.0	38.0	28.0	70,036,200	56.78	52.8	1/2 inch	38.05	29,603,500		470	—	3 1/4	JD		
28th	8:10	ON	NO	25.0	39.0	28.5	70,568,800	56.78	52.8	1/2 inch	38.40	30,126,900					JD		
30th	7:30	ON	NO	25.5	39.0	29.0	70,777,700	55.88	53.7	1/2 inch	38.17	30,072,900		350	13.3	3 1/4	JD		
30th	10:30	ON	NO	25.0	39.0	29.5	70,799,700	56.94	53.2	1/2 inch	39.23	30,274,900		350	—	3 1/4	JD		
1st	8:50	ON	NO	25.0	41.0	33.0	70,789,600	58.84	51.0	1/2 inch	35.43	30,343,600	31,800,800	340	10.0	3 1/4	JD		

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
11/2/16	9:00	Right

Aqua Mag Top Off		
Date	Time	Gallons of AM
11/21	8:30	13.3 gal / 7.75'

ALARMS	
A-1	Bldg/Well Pin/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
11/7	9:50

Collected Samples		
Type	Date	Time
Monthly Metals	10/31	9:20
Chromium Exchange	11/21	8:30

1 inch = 1.71875 gallons of Aqua Mag







Dillon Cottingham  
 6100 Seagull Street NE  
 Albuquerque, NM 87109

December 9<sup>th</sup>, 2016

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 November 2016. A total of 8,636,000 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 2,300,500 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	CW-1		CW-2	
	Meter Reading	Discharge	Meter Reading	Discharge
12/30/2015	375,487,900		46,645,600	
02/01/2016	389,780,400	14,292,500	48,748,400	2,102,800
03/01/2016	402,374,700	12,594,300	50,882,800	2,134,400
04/01/2016	415,508,400	13,133,700	53,194,700	2,311,900
05/02/2016	428,995,900	13,487,500	55,432,800	2,238,100
06/01/2016	441,568,400	12,572,500	57,622,900	2,190,100
07/01/2016	452,743,900	11,175,500	59,777,400	2,154,500
08/01/2016	466,500,300	13,756,400	61,998,700	2,221,300
09/01/2016	480,097,600	13,597,300	64,118,700	2,120,000
10/03/2016	493,919,600	13,822,000	66,286,200	2,167,500
11/01/2016	507,034,800	13,115,200	68,489,100	2,202,900
12/01/2016	515,670,800	8,636,000	70,789,600	2,300,500
<b>Total</b>		140,182,900		24,144,000

Thank You,  
 Sincerely,

Dillon Cottingham, EI

cc: Charles M. Easterling, PE