Cameco

August 28, 2015

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ATTN: Document Control Desk, Director
Office of Nuclear material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-001

NRC License SUA-1548, Docket No. 40.8964
Semi-Annual Effluent and Environmental Monitoring Report,
January 1 through June 30, 2015

Dear Document Control Desk, Director:

This report is being resubmitted to correct an error in the cover letter date. The previous report covering the first half of 2015 was erroneously dated August 26, 2014.

In accordance with 10 CFR 40.65 and per License Condition No. 12.2 of Source Materials License SUA-1548, please find enclosed the Semi-Annual Effluent and Environmental Monitoring Report for the period January 1 through June 30, 2015. Copies of this report are also being forwarded to Mr. Douglas Mandeville Deputy Director, USNRC Headquarters and Mr. Tony Vegel, Division Director, Division of Nuclear Material Safety, Region IV.

If you have questions regarding the report, please contact me at (307) 333-7665 or by email at Larry McGonagle@cameco.com.

Sincerely,

Larry McGonagle
Manager, SHEQ
Cameco Resources

Attachments: Semi-Annual Effluent and Environmental Monitoring Report

LM/th
cc: Mr. Douglas Mandeville Deputy Director, NRC w/att CERTIFIED MAIL #7015 0640 0001 4722 7066
Mr. Tony Vegel, DDNMS w/att CERTIFIED MAIL #7015 0640 0001 4722 7073
ec: CR-Casper

NMSS20

POWER RESOURCES, INC.
D/B/A CAMECO RESOURCES

USNRC SOURCE MATERIAL LICENSE
NO. SUA-1548

DOCKET NO. 40-8964

SEMI-ANNUAL EFFLUENT AND ENVIRONMENTAL MONITORING REPORT

FOR THE PERIOD

JANUARY 1 THROUGH
JUNE 30, 2015

Table of Contents

1 INJECTION RATES, RECOVERY RATES, AND INJECTION TRUNK-LINE PRESSURES FOR EACH SATELLITE FACILITY

Tables 1A through 1C of Attachment A contain rate and pressure data at the satellite facilities for the period of the report.

1.1 Satellite No. 1

Satellite No. 1 did not operate during the report period, as restoration activities in the A and B Wellfield are complete. An alternate concentration limit (ACL) license amendment for the completion of restoration of Mine Unit B was submitted May 22, 2013. On December 3, 2013, a public meeting was held to discuss NRC staff's acceptance review of Cameco Resources' (Cameco's) ACL request for Mine Unit B. Cameco is reviewing the discussion topics from the Mine Unit B ACL public meeting, evaluating NRC staff's comments and is in the process of drafting a proposed path forward. There are no injection or recovery rates for the report period..

1.2 Satellites and Central Processing Plant

The operating information for Satellite No. 2, Satellite No. 3, Satellite SR-1, Satellite SR-2, and the Central Processing Plant (CPP) are contained in Tables 1A, 1B, and 1C. The injection rates listed are the total recovery rates minus the purge flow bleed. The bleed from Satellites No. 2 and No. 3 is treated for uranium, radium and selenium removal and pumped to Purge Storage Reservoir #2 (PSR-2) prior to land application at the Satellite No. 2 Land Application Facility (Irrigator #2). Waste water brine from the reverse osmosis (RO) system at Satellite No. 2 is disposed by either deep well injection through a permitted waste disposal well, or treated and pumped to PSR-2 for further land application at Irrigator #2. Bleed from Satellites SR-1 and SR-2, and the CPP is disposed of by deep well injection through permitted waste disposal wells.

1.3 North Butte Satellite Facility

The operational data for North Butte Satellite is contained in Tables 1A, 1B, and 1C. The injection rates represent the total recovery rates minus the purge flow bleed. The bleed from the satellite is pumped to the deep disposal well for disposal or stored in the storage pond prior to deep well injection.

2 RESULTS OF EFFLUENT AND ENVIRONMENTAL MONITORING INCLUDING WATER QUALITY ANALYSES AND MONITORING REQUIRED BY THE WDEQ PERMIT FOR THE OPERATING IRRIGATION SYSTEMS

2.1 Stack Emission Surveys

All yellowcake processing activities (elution, drying and packaging) were conducted at the Smith Ranch CPP. The dryers at the CPP are zero emission vacuum dryers and do not require stack testing.

The Central Processing Facility (CPF) at the Highland Uranium Project has been refurbished with a zero emission vacuum dryer, which will not require stack testing, and is on stand-by status.

2.2 Air Particulate, Radon, and Gamma Radiation Monitoring

2.2.1 *Smith Ranch-Highland*

Smith Ranch-Highland (SRH) maintains an air monitoring program at six locations on and around the licensed area. The air monitoring stations are used to monitor air particulates, passive radon gas, and passive gamma radiation. Due to the completion of construction activities of the Highland CPF, monitoring at air stations AS-4 and AS-5 was discontinued at the end of 2014 and will resume monitoring when the Highland CPF becomes operational.. One additional station (AS-6) will be used to monitor conditions downwind of the Reynolds Ranch Satellite Facility once the facility is constructed and becomes operational.

The air stations are located as follows:

- Air Station No. 1 (AS-1; Dave's Water Well): This station monitors background conditions, upwind of both the Smith Ranch and HUP wellfields and yellowcake processing facilities.

- Air Station No. 2 (AS-2; Smith Ranch Restricted Area): This station monitors conditions downwind of the Smith Ranch CPP Restricted Area Boundary.

- Air Station No. 3 (AS-3; Vollman Ranch): This station monitors the nearest downwind resident to the Smith Ranch CPP Restricted Area.

- Air Station No. 4 (AS-4; HUP Restricted Area): This station monitors conditions downwind of the HUP CPF Restricted Area Boundary.

- Air Station No. 5 (AS-5; Fowler Ranch): This station monitors the nearest downwind resident to the HUP CPF Restricted Area

- Air Station No. 6 (AS-6; Reynolds Ranch Satellite Area): This station will monitor conditions downwind of the Reynolds Ranch Satellite Facility once the facility is constructed and becomes operational.

Monitoring at station AS-6 was not conducted during the report period since the Reynolds Ranch Satellite Facility has not been constructed. Monitoring of conditions at AS-6 will commence during construction of the facility and before it becomes operational.

Table 2 shows the air particulate and radon data collected at stations AS-1 through AS-5 during the report period. Review of data collected during the report period shows that the concentrations of all parameters are significantly less than the 10 CFR 20, Appendix B, Effluent Concentration Limits. Non-detect at the reporting limit (ND) sample results are labeled as such in Table 2.

Table 3 shows the gamma radiation data collected at stations AS-1 through AS-5 during the report period. As stated previously, monitoring at air stations AS-4 and AS-5 was discontinued at the end of 2014 and will resume monitoring when the Highland CPF becomes operational. Review of data collected during the report period shows that gamma radiation levels were within the range of previously reported values and comparable to upwind background values at station AS-1.

2.2.2 *NB Satellite Facility*

North Butte maintains an Air Monitoring Station program at six various locations on and around the licensed area. The air monitoring stations are used to monitor air particulates, passive radon gas, and passive gamma radiation. Two additional passive gamma and passive radon gas environmental stations are included in the license area.

The air stations, passive gamma, and passive radon gas monitoring stations are located as follows:

- Air Station NB8 (Phister Ranch): This station monitors the nearest public residence to North Butte Satellite Area.
- Air Station NB9 (West Air Station): This station monitors background conditions, upwind from the North Butte Satellite Area.
- Air Station NB11 (North Butte): This station monitors the north side of the North Butte Licensed Area.
- Air Station NB12 (North East Air Station): This station monitors downwind conditions from North Butte Satellite and Well Fields.
- Air Station NB13 (Anedarko Rd): This Station monitors the south side of the North Butte Licensed Area.
- Air Station SatPad (Satellite pad next to man camp): This station monitors

the exposure to the off-shift operations staff that remain on-site during off shift hours.

- Environmental Station (Fence line near Frac Tanks): This station monitors radon gas and gamma radiation only.

- Environmental station (Fence line on Christensen Rd): This station monitors radon gas and gamma radiation only.

Table 2 shows the air particulate and radon data collected at air stations NB8, NB9, NB11, NB12, NB13, and Satellite Pad. In addition to the six air stations there are two additional environmental stations with gamma and radon data only. Review of data collected during the report period shows that the concentrations of all parameters are significantly less than the 10 CFR 20, Appendix B, Effluent Concentration Limits. Non-detect at the reporting limit (ND) sample results are labeled as such in Table 2.

Table 3 shows the gamma radiation data collected at the six air stations and the two environmental stations for the report period. Review of data collection during the report period shows that gamma radiation levels were comparable to upwind background values at station NB9 and the control badge. Note that Environmental Station Frac Tanks 2nd quarter gamma is noted as averaged. During quarterly change out of environmental TLDs it was discovered that the Frac Tanks TLD was missing. Thorough search of the area resulted in not finding the TLD and is recorded as lost. For the purpose of this report the data for this location was reviewed and the readings for seven measured quarters were averaged.

2.3 Water Sampling Data

2.3.1 *SRH Groundwater and Surface Water Monitoring Stations*

During the report period, monitoring was completed at 22 water wells and 10 stock ponds throughout the permit area. Water samples are collected from the water wells and stock ponds on a quarterly basis for analysis of uranium and radium-226. Sampling constituents for environmental ground water and surface water monitoring programs is detailed in NRC License Application Section 5.3.5 and 5.3.6, respectively. Table 4 provides the analytical data for samples collected during the report period. A review of data collected during the report period shows 10 water wells (GW-5, GW-6, GW-8, GW-9, GW-11, GW-12, GW-13, GW-17, GW-21 and GW-31) did not run during the report period. A review of data collected from the available water wells and stock ponds show that the concentrations of uranium and radium-226 are well below the 10 CFR 20, Appendix B, Effluent Concentration Limits of 3.0E-07 and 6.0E-08 µCi/mL, respectively. As shown in Table 4 the acronyms of "ND" denotes levels as "Not Detected at the Reporting Limit" and "NA" denotes levels as "Not Applicable".

2.3.2 *NB Groundwater and Surface Water Monitoring Stations*

During the report period, monitoring was completed at two (2) impoundments and eight (8) surface water sites. Water samples are collected from water wells (within 1 km from active mine unit), impoundments, and surface water sites on a quarterly basis for analysis of uranium and radium-226. Table 4 provides the analytical data for samples collected during the report period. A review of Table 4 shows that during the first quarter of the report period ten (10) Surface Water Sites and two (2) impoundments (NBSWS1, NBSWS2, NBI2, NBI6, NBSU1, NBSU2, NBSD1, NBSD2, NBSD3, and NBSU4) () were dry and there was no water available for sampling. During the second quarter of the report period seven (7) Surface Water Sites (NBSWS2, , NBSU1, NBSU2, NBSD1, NBSD2, NBSD3, and NBSU4) were dry and there was no water available for sampling. A review of data collected from the available Surface Water Sites during the report period show that the concentrations of uranium and radium-226 are less than the effluent concentration limits, as shown in 10 CFR 20, Appendix B. As shown in Table 4 the acronyms of "ND" denotes levels as "Not Detected at the Reporting Limit" and "NA" denotes levels as "Not Applicable".

2.4 SRH Wastewater Land Application Facilities Monitoring

2.4.1 *Soil and Vegetation Sampling*

In accordance with License Condition 12.2 for the Satellite No. 1 and Satellite No. 2 Wastewater Land Application Facilities, soil and vegetation sampling of the irrigation areas is conducted in late summer of each year. The soil and vegetation data are collected to monitor and evaluate any adverse effects to the irrigation areas. The 2015 soil and vegetation sampling at the irrigation areas will be conducted in August 2015 and results will be included with the July 1 through December 31, 2015 semi-annual report.

2.4.2 *Irrigation Fluid*

Cameco monitors the treated irrigation fluid that is disposed of at both irrigation facilities per the approved license application. Grab samples are collected at the discharge of PSR-2 during each month of operation and analyzed for various parameters. Irrigator No. 1 and Irrigator No. 2 were not operational for the entire reporting period, as noted in Table 5 and Table 6, respectively.

2.4.3 *Radium Treatment Systems*

Cameco collects grab samples each month to ensure that the radium-226 treatment systems are adequately treating wastewater from Satellites No. 2 and No. 3 prior to discharge into PSR-2. No samples were collected from the Satellite No. 1 radium treatment system since Satellite No. 1 did not operate during the report period. The monthly radium-226 grab samples for Satellite No. 2 and No. 3 are collected at the discharge point of the selenium treatment plant. Review of the monitoring data provided

5 GAS HILLS AND RUTH ISL PROJECTS

The Gas Hills and Ruth ISL Projects are licensed for commercial ISL uranium recovery activities as satellite facilities to the Smith Ranch-Highland Uranium Project. The projects remained non-operational during the report period. Effluent and environmental monitoring conducted during the report period consisted of baseline gamma, radon and air monitoring at the Gas Hills Site.

Other activities conducted during the report period consisted of quarterly inspections of the Ruth evaporation ponds in accordance with License Condition 10.2.2 of SUA-1548. Inspection of the perimeter fence, pond embankments, and pond liners yielded no deficiencies during the report period.

ATTACHMENT A

DATA TABLES 1-9

TABLE 2

AIR SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE PERIOD	RADIONUCLIDE (µCi/ml)	CONCENTRATION (µCi/ml)	ERROR EST. +/- (µCi/ml)	L.L.D. (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT %
AS-1							
DAVE'S WATER WELL	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
Background		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
Site		Pb-210	1.20E-14	8.90E-16	2.00E-15	6.00E-13	2.0
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.20E-14	9.40E-16	2.00E-15	6.00E-13	2.0
	All Period	Rn-222	7.00E-10	5.00E-07	3.00E-10	1.00E-08	7.0
AS-2							
FENCE LINE	1st	U-Nat	4.40E-16	NA	1.00E-16	9.00E-14	0.5
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
Restricted Area		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
Boundary		Pb-210	1.00E-14	8.30E-16	2.00E-15	6.00E-13	1.7
(Background not deducted)							
	2nd	U-Nat	5.10E-16	NA	1.00E-16	9.00E-14	0.6
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	7.20E-16	6.20E-17	1.00E-16	9.00E-13	0.1
		Pb-210	1.10E-14	8.60E-16	2.00E-15	6.00E-13	1.8
	All Period	Rn-222	1.10E-09	7.00E-11	3.00E-10	1.00E-08	11.0
AS-3							
VOLLMAN RANCH	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
Downwind Nearest		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
Residence		Pb-210	1.20E-14	9.10E-16	2.00E-15	6.00E-13	2.0
(Background not deducted)							
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.20E-14	9E-16	2.00E-15	6.00E-13	2.0
	All Period	Rn-222	8.00E-10	6.00E-11	3.00E-10	1.00E-08	8.0
AS-4							
HUP RESTRICTED AREA							
Air Station	1st	U-Nat	MONITORING DISCONTINUED, WILL RESUME MONITORING WHEN THE HIGHLAND CPF BECOMES OPERATIONAL		1.00E-16	9.00E-14	0.0
HUP Overlook	Quarter	Th-230			1.00E-16	3.00E-14	0.0
(Background not deducted)		Ra-226			1.00E-16	9.00E-13	0.0
		Pb-210			2.00E-15	6.00E-13	0.0
	2nd	U-Nat			1.00E-16	9.00E-14	0.0
	Quarter	Th-230			1.00E-16	3.00E-14	0.0
		Ra-226			1.00E-16	9.00E-13	0.0
		Pb-210			2.00E-15	6.00E-13	0.0
	All Period	Rn-222			3.00E-10	1.00E-08	0.0
AS-5							
FOWLER RANCH							
Air Station	1st	U-Nat	MONITORING DISCONTINUED, WILL RESUME MONITORING WHEN THE HIGHLAND CPF BECOMES OPERATIONAL		1.00E-16	9.00E-14	0.0
Downwind (HUP)	Quarter	Th-230			1.00E-16	3.00E-14	0.0
Nearest Residence		Ra-226			1.00E-16	9.00E-13	0.0
(Background not deducted)		Pb-210			2.00E-15	6.00E-13	0.0
	2nd	U-Nat			1.00E-16	9.00E-14	0.0
	Quarter	Th-230			1.00E-16	3.00E-14	0.0
		Ra-226			1.00E-16	9.00E-13	0.0
		Pb-210			2.00E-15	6.00E-13	0.0
	All Period	Rn-222			3.00E-10	1.00E-08	0.0
AS-6		NOT					
REYNOLDS SATELLITE		CONSTRUCTED					

*ND = Non-detect at the reporting limit
*NA = Not Applicable

TABLE 2

AIR SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - NB
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE PERIOD	RADIONUCLIDE (µCi/ml)	CONCENTRATION (µCi/ml)	ERROR EST. +/- (µCi/ml)	L.L.D. (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT %
NB8							
Pfister Ranch	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
Nearest Residence		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	9.00E-15	1.50E-15	2.00E-15	6.00E-13	1.5
(Background not deducted)							
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.50E-14	1.80E-15	2.00E-15	6.00E-13	2.5
	All Period	Rn-222	8.00E-10	6.00E-11	3.00E-10	1.00E-08	8.0
NB9							
West Airstation	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
Upwind		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	9.90E-15	1.50E-15	2.00E-15	6.00E-13	1.7
(Background not deducted)							
		U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	2nd	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
	Quarter	Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.50E-14	2.80E-15	2.00E-15	6.00E-13	2.5
	All Period	Rn-222	5.00E-10	4.00E-11	3.00E-10	1.00E-08	5.0
NB11							
North Butte	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Air Station	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
North Side of Licenced Area		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.30E-14	1.70E-15	2.00E-15	6.00E-13	2.2
(Background not deducted)							
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.50E-14	1.90E-15	2.00E-15	6.00E-13	2.5
	All Period	Rn-222	5.00E-10	4.00E-11	3.00E-10	1.00E-08	5.0
NB12							
North East Airstation							
Air Station	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Downwind	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
(Background not deducted)		Pb-210	1.20E-14	1.70E-15	2.00E-15	6.00E-13	2.0
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.40E-14	1.80E-15	2.00E-15	6.00E-13	2.3
	All Period	Rn-222	5.00E-10	4.00E-11	3.00E-10	1.00E-08	5.0
NB13							
Anedarko Road							
Air Station	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Downwind	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
(Background not deducted)		Pb-210	1.40E-14	1.70E-15	2.00E-15	6.00E-13	2.3
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.30E-14	2.00E-15	2.00E-15	6.00E-13	2.2
	All Period	Rn-222	9.00E-10	6.00E-11	3.00E-10	1.00E-08	9.0
Satellite Pad							
Operations Mancamp							
Air Station	1st	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
Mancamp	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
(Background not deducted)		Pb-210	1.20E-14	1.30E-15	2.00E-15	6.00E-13	2.0
	2nd	U-Nat	ND	NA	1.00E-16	9.00E-14	0.0
	Quarter	Th-230	ND	NA	1.00E-16	3.00E-14	0.0
		Ra-226	ND	NA	1.00E-16	9.00E-13	0.0
		Pb-210	1.50E-14	1.40E-15	2.00E-15	6.00E-13	2.5
	All Period	Rn-222	7.00E-10	5.00E-11	3.00E-10	1.00E-08	7.0
Christensen Rd							
Environmental Station Fence Line	All Period	Rn-222	1.30E-09	8E-11	3.00E-10	1.00E-08	13.0
Frac Tanks							
Enironmental Station FenceLine	All Period	Rn-222	2.30E-09	1.1E-10	3.00E-10	1.00E-08	23.0

***ND = Non-detect at the reporting limit**
***NA = Not Applicable**

TABLE 3

DIRECT RADIATION (GAMMA) MEASUREMENT DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st & 2nd QUARTERS 2015

SAMPLE LOCATION	SAMPLE PERIOD	EXPOSURE RATE (mR/qtr)
AS-1		
DAVE'S WATER WELL		
Air Station	1st Quarter	37
Background		
Site	2nd Quarter	34
AS-2		
FENCE LINE		
Air Station	1st Quarter	40
Restricted Area		
Boundary	2nd Quarter	41
AS-3		
VOLLMAN'S RANCH		
Air Station	1st Quarter	37
Downwind		
Nearest Residence	2nd Quarter	36
AS-4		
HUP RESTRICTED AREA		
Air Station	1st Quarter	MONITORING DISCONTINUED, WILL RESUME MONITORING WHEN THE HIGHLAND CPF BECOMES OPERATIONAL
HUP Overlook		
	2nd Quarter	
AS-5		
FOWLER RANCH		
Air Station	1st Quarter	MONITORING DISCONTINUED, WILL RESUME MONITORING WHEN THE HIGHLAND CPF BECOMES OPERATIONAL
Downwind of HUP		
Nearest Residence	2nd Quarter	
AS-6	**NOT**	
REYNOLDS SATELLITE	**CONSTRUCTED**	
CONTROL	1st Quarter	37
	2nd Quarter	39

Background has not been deducted
From any readings

TABLE 3

DIRECT RADIATION (GAMMA) MEASUREMENT DATA
ENVIRONMENTAL MONITORING SITES - NB
1st & 2nd QUARTERS 2015

SAMPLE LOCATION	SAMPLE PERIOD	EXPOSURE RATE (mR/qtr)
NB8		
Phister Ranch		
Air Station	1st Quarter	31
Nearest Residence		
	2nd Quarter	33
NB9		
West Air Station		
Air Station	1st Quarter	33
Upwind		
Background	2nd Quarter	33
NB11		
North Butte		
Air Station	1st Quarter	36
Downwind		
North Side of Licenced Area	2nd Quarter	36
NB12		
North East Air Station		
Air Station	1st Quarter	37
Downwind		
	2nd Quarter	37
NB13		
Anedarko Road		
Air Station	1st Quarter	32
Downwind		
	2nd Quarter	35
Satellite Pad	1st Quarter	35
Air Station		
	2nd Quarter	34
Environmental Station		
Frac Tanks		
Fence Line	1st Quarter	32
Upwind		
Background	2nd Quarter	40.4 (Averaged)
Environmental Station		
Christensen Rd.		
Fence Line	1st Quarter	36
Downwind		
	2nd Quarter	38
CONTROL	1st Quarter	32
	2nd Quarter	32

Background has not been deducted
From any readings

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
SW-1	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
Stock Pond		Ra-226				0.0E+00	6.0E-08	0.0
Section 3								
T35N, R74W	2nd Quarter	U-Nat	0.0215			1.5E-08	3.0E-07	4.9
		Ra-226		0.23	1.20E-01	2.3E-10	6.0E-08	0.4
SW-2	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
Stock Pond		Ra-226				0.0E+00	6.0E-08	0.0
Section 2								
T35N, R74W	2nd Quarter	U-Nat	0.0004			2.7E-10	3.0E-07	0.1
		Ra-226		1.10	2.90E-01	1.1E-09	6.0E-08	1.8
SW-3	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
Stock Pond		Ra-226				0.0E+00	6.0E-08	0.0
Section 35								
T36N, R74W	2nd Quarter	U-Nat	0.0178			1.2E-08	3.0E-07	4.0
		Ra-226		0.38	1.80E-01	3.8E-10	6.0E-08	0.6
SW-4	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
Stock Pond		Ra-226				ND	6.0E-08	ND
Section 36								
T36N, R74W	2nd Quarter	U-Nat	0.0004			2.7E-10	3.0E-07	0.1
		Ra-226		0.16	1.10E-01	1.6E-10	6.0E-08	0.3
SW-5	1st Quarter	U-Nat	DRY			ND	3.0E-07	ND
Stock Pond		Ra-226				ND	6.0E-08	ND
Section 21								
T36N, R73W	2nd Quarter	U-Nat	0.0018			1.2E-09	3.0E-07	0.4
		Ra-226		2.90	6.10E-01	2.9E-09	6.0E-08	4.8

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
SW-6 Stock Pond Section 22 T36N, R73W	1st Quarter	U-Nat	DRY			ND	3.0E-07	ND
		Ra-226				0.0E+00	6.0E-08	0.0
	2nd Quarter	U-Nat	0.0005			3.4E-10	3.0E-07	0.1
		Ra-226		0.12	1.10E-01	ND	6.0E-08	ND
SW-7 Stock Pond Section 22 T36N, R73W	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
	2nd Quarter	U-Nat	ND			ND	3.0E-07	ND
		Ra-226		0.21	1.30E-01	2.1E-10	6.0E-08	0.4
SW-8 Stock Pond Section 18 T36N, R72W	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
	2nd Quarter	U-Nat	0.0018			1.2E-09	3.0E-07	0.4
		Ra-226		0.27	1.70E-01	2.7E-10	6.0E-08	0.5
SW-9 Stock Pond Section 18 T36N, R72W	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
	2nd Quarter	U-Nat	0.0007			4.7E-10	3.0E-07	0.2
		Ra-226		0.21	1.40E-01	2.1E-10	6.0E-08	0.4
SW-10 Stock Pond Section 19 T36N, R72W	1st Quarter	U-Nat	DRY			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
	2nd Quarter	U-Nat	0.0010			6.8E-10	3.0E-07	0.2
		Ra-226		0.99	2.20E-01	9.9E-10	6.0E-08	1.7

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
GW-1	1st Quarter	U-Nat	0.0702			4.8E-08	3.0E-07	15.8
Windmill		Ra-226		4.00	8.40E-01	4.0E-09	6.0E-08	6.7
Section 1								
T35N, R74W	2nd Quarter	U-Nat	0.0283			1.9E-08	3.0E-07	6.4
		Ra-226		0.62	1.50E-01	6.2E-10	6.0E-08	1.0
GW-2	1st Quarter	U-Nat	0.0405			2.7E-08	3.0E-07	9.1
Solar Well		Ra-226		1.70	4.40E-01	1.7E-09	6.0E-08	2.8
Section 35								
T36N, R74W	2nd Quarter	U-Nat	0.0463			3.1E-08	3.0E-07	10.4
		Ra-226		0.75	1.80E-01	7.5E-10	6.0E-08	1.3
GW-3	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Windmill		Ra-226				0.0E+00	6.0E-08	0.0
Section 27								
T36N, R74W	2nd Quarter	U-Nat	0.1580			1.1E-07	3.0E-07	35.7
		Ra-226		1.50	3.60E-01	1.5E-09	6.0E-08	2.5
GW-4	1st Quarter	U-Nat	0.0776			5.3E-08	3.0E-07	17.5
Windmill		Ra-226		1.30	3.40E-01	1.3E-09	6.0E-08	2.2
Section 23								
T36N, R74W	2nd Quarter	U-Nat	0.0723			4.9E-08	3.0E-07	16.3
		Ra-226		1.10	3.00E-01	1.1E-09	6.0E-08	1.8
GW-5	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Windmill		Ra-226				0.0E+00	6.0E-08	0.0
Section 30								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
GW-6	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Windmill		Ra-226				0.0E+00	6.0E-08	0.0
Section 28								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-8	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Windmill		Ra-226				0.0E+00	6.0E-08	0.0
Section 23								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-9	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Windmill		Ra-226				0.0E+00	6.0E-08	0.0
Section 14								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-10	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 14								
T36N, R73W	2nd Quarter	U-Nat	0.0203			1.4E-08	3.0E-07	4.6
		Ra-226		0.61	1.80E-01	6.1E-10	6.0E-08	1.0
GW-11	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 11								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
GW-12	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 7								
T36N, R72W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-13	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 9								
T36N, R72W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-14	1st Quarter	U-Nat	0.0058			3.9E-09	3.0E-07	1.3
Water Well		Ra-226		1.30	3.20E-01	1.3E-09	6.0E-08	2.2
Section 10								
T36N, R72W	2nd Quarter	U-Nat	0.0161			1.1E-08	3.0E-07	3.6
		Ra-226		0.89	1.80E-01	8.9E-10	6.0E-08	1.5
GW-15	1st Quarter	U-Nat	0.0236			1.6E-08	3.0E-07	5.3
Water Well		Ra-226		1.40	3.60E-01	1.4E-09	6.0E-08	2.3
Section 15								
T36N, R72W	2nd Quarter	U-Nat	0.0202			1.4E-08	3.0E-07	4.6
		Ra-226		0.91	1.90E-01	9.1E-10	6.0E-08	1.5
GW-16	1st Quarter	U-Nat	0.1140			7.7E-08	3.0E-07	25.7
Water Well		Ra-226		1.80	4.20E-01	1.8E-09	6.0E-08	3.0
Section 11								
T36N, R72W	2nd Quarter	U-Nat	0.1330			9.0E-08	3.0E-07	30.0
		Ra-226		1.60	3.70E-01	1.6E-09	6.0E-08	2.7

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
GW-17	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 8								
T36N, R72W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0
GW-18	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 2								
T36N, R72W	2nd Quarter	U-Nat	0.0193			1.3E-08	3.0E-07	4.4
		Ra-226		1.20	3.10E-01	1.2E-09	6.0E-08	2.0
GW-20	1st Quarter	U-Nat	0.0007			4.7E-10	3.0E-07	0.2
Water Well		Ra-226		1.30	3.30E-01	1.3E-09	6.0E-08	2.2
Section 27								
T36N, R73W	2nd Quarter	U-Nat	ND			ND	3.0E-07	ND
		Ra-226		0.22	1.10E-01	2.2E-10	6.0E-08	0.4
GW-21	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 17								
T36N, R73W	2nd Quarter	U-Nat	NOT RUNNING			ND	3.0E-07	ND
		Ra-226				0.0E+00	6.0E-08	0.0
GW-31	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 24								
T36N, R74W	2nd Quarter	U-Nat	NOT RUNNING			ND	3.0E-07	ND
		Ra-226				0.0E+00	6.0E-08	0.0

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - SRH
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
GW-32	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 19								
T36N, R73W	2nd Quarter	U-Nat	0.1060			ND	3.0E-07	ND
		Ra-226		3.80		3.8E-09	6.0E-08	6.3
					8.10E-01			
GW-33	1st Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
Water Well		Ra-226				0.0E+00	6.0E-08	0.0
Section 21								
T36N, R73W	2nd Quarter	U-Nat	0.0400			ND	3.0E-07	ND
		Ra-226		0.63	1.80E-01	6.3E-10	6.0E-08	1.1
Sage Creek	1st Quarter	U-Nat	0.1340			9.1E-08	3.0E-07	30.2
Creek		Ra-226		1.80	4.20E-01	1.8E-09	6.0E-08	3.0
Section 12								
T35N, R73W	2nd Quarter	U-Nat	NOT RUNNING			0.0E+00	3.0E-07	0.0
		Ra-226				0.0E+00	6.0E-08	0.0

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - NB
1st and 2nd Quarters 2015

SAMPLE LOCATION	SAMPLE DATE	RADIONUCLIDE	CONCENTRATION (mg/L)	CONCENTRATION (pCi/L)	ERROR EST. +/- (pCi/L)	CONCENTRATION (µCi/ml)	EFF. CONC. LIMIT (µCi/ml)	% EFF. CONC. LIMIT
NBSWS1	1st Quarter	U-Nat	DRY				3.0E-07	NA
Surface Water		Ra-226					6.0E-08	NA
Section 25	2nd Quarter	U-Nat	0.0005			3.4E-10	3.0E-07	0.1
T43N, R76W		Ra-226		0.40	1.00E-01	4.0E-10	6.0E-08	0.7
NBSWS2	1st Quarter	U-Nat	DRY				3.0E-07	NA
Surface Water		Ra-226					6.0E-08	NA
Section 26	2nd Quarter	U-Nat	DRY				3.0E-07	NA
T43N, R77W		Ra-226					6.0E-08	NA
NBI2	1st Quarter	U-Nat	DRY				3.0E-07	NA
Impoundment		Ra-226					6.0E-08	NA
Section 25	2nd Quarter	U-Nat	0.0004			2.7E-10	3.0E-07	0.1
T43N, R76W		Ra-226		0.40	1.00E-01	4.0E-10	6.0E-08	0.7
NBI6	1st Quarter	U-Nat	DRY				3.0E-07	NA
Impoundment		Ra-226					6.0E-08	NA
Section 24	2nd Quarter	U-Nat	0.0021			1.4E-09	3.0E-07	0.5
T44N,R76W		Ra-226		0.40	1.00E-01	4.0E-10	6.0E-08	0.7
NBSU1	1st Quarter	U-Nat	DRY				3.0E-07	NA
Upstream		Ra-226					6.0E-08	NA
Section 18	2nd Quarter	U-Nat	DRY				3.0E-07	NA
T45N,R75W		Ra-226					6.0E-08	NA

TABLE 4

WATER SAMPLING DATA
ENVIRONMENTAL MONITORING SITES - NB
1st and 2nd Quarters 2015

NBSU2	1st Quarter	U-Nat	DRY	3.0E-07	NA
Upstream		Ra-226		6.0E-08	NA
Section 13	2nd Quarter	U-Nat	DRY	3.0E-07	NA
T45N,R76W		Ra-226		6.0E-08	NA
NBSD1	1st Quarter	U-Nat	DRY	3.0E-07	NA
DownStream		Ra-226		6.0E-08	NA
Section 19	2nd Quarter	U-Nat	DRY	3.0E-07	NA
T44N, R75W		Ra-226		6.0E-08	NA
NBSD2	1st Quarter	U-Nat	DRY	3.0E-07	NA
Downstream		Ra-226		6.0E-08	NA
Section 24	2nd Quarter	U-Nat	DRY	3.0E-07	NA
T44N, R76W		Ra-226		6.0E-08	NA
NBSD3	1st Quarter	U-Nat	DRY	3.0E-07	NA
Downstream		Ra-226		6.0E-08	NA
Section 19	2nd Quarter	U-Nat	DRY	3.0E-07	NA
T44N, R75W		Ra-226		6.0E-08	NA
NBSU4	1st Quarter	U-Nat	DRY	3.0E-07	NA
Upstream		Ra-226		6.0E-08	NA
Section 24	2nd Quarter	U-Nat	DRY	3.0E-07	NA
T44N, R76W		Ra-226		6.0E-08	NA

TABLE 5

SATELLITE NO. 1
LAND APPLICATION FACILITY (IRRIGATOR NO. 1)
MONTHLY IRRIGATION FLUID DATA
1st and 2nd Quarters 2015

IRRIGATION CYCLE							
DATE SAMPLED		Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
VOLUME (AF)							
MAJOR IONS (mg/L)	Reporting Limit						
Calcium	1.0						
Magnesium	1.0						
Sodium	1.0						
Potassium	1.0						
Bicarbonate	1.0						
Sulfate	1.0						
Chloride	1.0						
		IRRIGATOR DID NOT OPERATE ALL REPORTING PERIOD					
NON-METALS							
TDS @ 180° C (mg/L)	10.0						
pH (standard units)	0.010						
SAR	0.01						
TRACE METALS (mg/L)							
Arsenic	0.001						
Barium	0.10						
Boron	0.10						
Selenium	0.001						
RADIOMETRIC							
U-nat (uCi/mL)	2.03E-10						
Ra-226 (uCi/mL)	2.00E-10						
Ra Err. Est. +/-							

TABLE 6

SATELLITE NO. 2
LAND APPLICATION FACILITY (IRRIGATOR NO. 2)
MONTHLY IRRIGATION FLUID DATA
1st and 2nd Quarters 2015

IRRIGATION CYCLE							
DATE SAMPLED		Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
VOLUME (AF)							
MAJOR IONS (mg/L)	Reporting Limit						
Calcium	1.0						
Magnesium	1.0						
Sodium	1.0						
Potassium	1.0						
Bicarbonate	5.0						
Sulfate	2.0						
Chloride	1.0						
		IRRIGATOR DID NOT OPERATE ALL REPORTING PERIOD					
NON-METALS							
TDS @ 180° C (mg/L)	17.0						
pH (standard units)	0.010						
SAR	0.1						
TRACE METALS (mg/L)							
Arsenic	0.001						
Barium	0.1						
Boron	0.1						
Selenium	0.001						
RADIOMETRIC							
U-nat (uCi/mL)	2.03E-10						
Ra-226 (uCi/mL)	2.00E-10						
Ra Err. Est. +/-							

TABLE 7

SELENIUM PLANT
RADIUM TREATMENT SYSTEM DISCHARGE - SRH
MONTHLY RADIUM GRAB SAMPLES
1st and 2nd Quarters 2015

SAMPLE DATE		Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15
RADIOMETRIC							
Ra-226 (µCi/mL)		1.90E-09	1.40E-09	7.10E-09	1.60E-09	1.20E-09	5.20E-09
Ra Err. Est.+/-		4.50E-10	3.50E-10	1.40E-09	3.80E-10	3.10E-10	1.10E-09
Eff. Con. Limit	**6.00E-08**						

TABLE 8A

SATELLITE NO. 1
LAND APPLICATION FACILITY (IRRIGATOR NO. 1)
ANNUAL SOIL WATER DATA
1st and 2nd Quarters 2015

SAMPLE SITE		2' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite	4' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite	6' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite
SAMPLE DATE				
MAJOR IONS (mg/L)	LABORATORY REP. LIMIT			
Bicarbonate	1.0			
Sulfate	1.0			
Chloride	1.0			
NON-METALS		Irrigator did not run No sample water available to report		
Cond (umho/cm)	1.0			
pH (standard units)	0.010			
TRACE METALS (mg/L)				
Boron	0.10			
Selenium	0.001			
RADIOMETRIC				
U-nat: (mg/L)	0.0003			
Ra-226: (pCi/L)	0.2			
Ra Err. Est. +/-				
U-nat: (uCi/mL)	2.03E-10			
Ra-226: (uCi/mL)	2.00E-10			
Ra Err. Est. +/-				

TABLE 8B

SATELLITE NO. 2
LAND APPLICATION FACILITY (IRRIGATOR NO. 2)
ANNUAL SOIL WATER DATA
1st and 2nd Quarters 2015

SAMPLE SITE		2' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite	4' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite	6' NW¼ NE¼ SW¼ SE¼ Lysimeter Composite
SAMPLE DATE				
MAJOR IONS (mg/L)	LABORATORY REP. LIMIT			
Bicarbonate	1.0			
Sulfate	1.0			
Chloride	1.0			
NON-METALS				
Cond (umho/cm)	1.0			
pH (standard units)	0.010			
TRACE METALS (mg/L)				
Boron	0.10			
Selenium	0.001			
RADIOMETRIC				
U-nat: (mg/L)	0.0003			
Ra-226: (pCi/L)	0.2			
Ra Err. Est. +/-				
U-nat: (uCi/mL)	2.03E-10			
Ra-226: (uCi/mL)	2.00E-10			
Ra Err. Est. +/-				

Lysimeter replaced May 2014
No sample water available to report

TABLE 9

SATELLITE NO. 2
PURGE STORAGE RESERVOIR (PSR-2)
SHALLOW MONITORING WELLS
WATER LEVEL AND WATER QUALITY DATA
1st and 2nd Quarters 2015

SAMPLE SITE		Shallow Well (No. 1 South)		Shallow Well (No. 2 East)	
SAMPLE DATE		3/31/15	6/26/15	3/31/15	6/26/15
WATER LEVEL (DTW)	Laboratory Reporting Limit	13.3	13.4	11.4	10.4
MAJOR IONS (mg/L)					
Bicarbonate	5.0		408		400
Sulfate	8.0		1980		2330
Chloride	2.0		527		532
NON-METALS					
Cond (µmho/cm)	5.0		4900		5650
pH (standard units)	0.01		7.55		7.20
TRACE METALS (mg/L)					
Boron	0.050		ND		ND
Selenium	0.001		1.24		0.058
RADIOMETRIC					
U-nat (uCi/mL)	6.77E-10		3.51E-07		5.60E-08
Ra-226 (uCi/mL)	2.00E-10		4.00E-09		3.90E-09
Ra-226 Err. Est. +/- (uCi/mL)			8.40E-10		8.20E-10