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**WILDLIFE MONITORING REPORT  
FOR 2012-2013 ANNUAL REPORT PERIOD**

Prepared for

**Uranerz Energy Corporation**

By

**TRC Environmental Corporation  
Laramie, Wyoming  
TRC Project 51825/112362**

**November 2013**

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## TABLE OF CONTENTS

	<u>Page</u>
A.1.0 INTRODUCTION .....	A-1
A.2.0 2013 SURVEY METHODS .....	A-1
A.2.1 Raptor Nest Survey .....	A-1
A.2.2 Greater Sage-grouse Lek Surveys.....	A-1
A.3.0 2013 RESULTS .....	A-2
A.3.1 Raptor Nest Survey .....	A-2
A.3.2 Greater Sage-grouse Lek Surveys.....	A-2

## LIST OF TABLES

	<u>Page</u>
Table A.1      Locations and Activity Status of Raptor Nests, Nichols Ranch ISR Project, 2013 .....	A-3
Table A.2      Location of Greater Sage-grouse Leks and Number of Birds Observed, Nichols Ranch ISR Project, 2013 .....	A-5

## LIST OF EXHIBITS

	<u>Page</u>
Exhibit A.1    Locations and Status of Raptor Nests and Greater Sage-grouse Leks, Nichols Ranch ISR Project, 2013 .....	Map Pocket

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## **A.1.0 INTRODUCTION**

During the annual report period, Uranerz Energy Corporation (Uranerz) retained TRC Environmental Corporation to continue the wildlife monitoring program specified in the Wyoming DEQ Permit 778 Mine Plan. This annual report includes the results of the 2013 raptor nest survey and greater sage-grouse lek surveys.

## **A.2.0 2013 SURVEY METHODS**

### **A.2.1 Raptor Nest Survey**

A total of 71 nests within the permit area and a 0.5-mi buffer were located and surveyed by biologists from Wildlife Resources, LLC., of Big Horn from April 28 through June 21, 2013. Suitable habitats (e.g., cliffs, riparian areas) were searched a minimum of three times using binoculars and/or spotting scopes to locate nest structures, whitewash, or any other indicator of past or present raptor nesting (e.g., defensive or incubating raptors, the presence of juvenile raptors, repeated observations of raptors in the same general area). These surveys followed the protocol outlined in Appendix B of the Wyoming DEQ Coal Regulations. When a nest could not be looked into, the nest was classified as active if at least one adult was observed defending the nest. If no sign of occupancy was evident, the area below and around the nest was checked for signs of recent activity (mute, pellets, feathers, prey remains, or young) in an attempt to verify occupancy. In addition, black-tailed prairie dog towns within the permit area and a 0.5-mi buffer were searched using binoculars and/or spotting scopes to locate burrowing owl nest locations. Most areas of the prairie dog towns were searched by traversing the towns and examining burrows for whitewash or other sign of activity.

### **A.2.2 Greater Sage-grouse Lek Surveys**

Eleven known greater sage-grouse leks or satellite leks within 2.0 mi of the Nichols Ranch ISR project area were searched for activity between April 4 and May 1, 2013, in accordance with the approved wildlife monitoring plan. None of these leks are located within either the Nichols

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Ranch or Hank Unit boundaries. Biologists drove to the area and used binoculars and/or spotting scopes to locate the lek area and to count the peak number of male and female greater sage-grouse present during each survey. Three lek searches were conducted at each lek, and surveys were conducted from as close to sunrise as possible to 0.5 hour after sunrise.

### **A.3.0 2013 RESULTS**

#### **A.3.1 Raptor Nest Survey**

A total of 71 nests within the search area were surveyed by biologists from Wildlife Resources, LLC., of Big Horn, Wyoming, during the spring of 2013, and two nests were determined to be active. Active nests included one prairie falcon aerie (nest number 13019) in Hank Unit survey area and a golden eagle nest (nest number 5495) in the Nichols Ranch survey area. The remaining nests were inactive. Production in the prairie falcon aerie could not be determined because biologists could not see into the nesting area. Two golden eagle eaglets were observed at the golden eagle nest on June 21, 2013, and were assumed to have fledged. The locations and status of these nests are described in Table A.1 and illustrated on Exhibit A.1. Fifteen more nest structures were located in 2013 compared to 2012. The increase in the number of nests was likely to increased familiarity of the field biologists with the project area.

#### **A.3.2 Greater Sage-grouse Lek Surveys**

Eleven leks were surveyed three times between April 4 and May 1, 2013, by biologists from Wildlife Resources, LLC., of Big Horn, Wyoming. However, three of the leks (Hines NW, Windmill NW, and Windmill Satellite) were active in 2013 and had any male attendance. These three leks are located closest to the Hank Unit. The remaining eight leks were inactive. The Hines NW lek had a peak male attendance of two birds. The Windmill NW lek had a peak male attendance of one bird and the Windmill Satellite lek had a peak male attendance of five birds. The locations of the leks and additional lek data are illustrated on Exhibit A.1 and presented in Table A.2, respectively.

Table A.1 Locations and Activity Status of Raptor Nests, Nichols Ranch ISR Project, 2013.

UNIT	Species	WLR/BLM ID	Twn	Rng	Sec, qq/q	Eastings	Northing	Datum	County	Date	Status 2013	Production	Condition	Sub/Ht'	Nest/Ht'
Hank Unit	PRFA	13019	43	75	5, NW/NW	427354	4843011	83	Campbell	5/8/2013	ACTI	Cannot see into nest.		CLF	
Nichols Ranch Unit	GOEA	5495	43	76	21, NE/NW	419454	4837968	83	Campbell	5/2/2013	ACTI	2 Class II young	GOOD	CTL/50'	Sticks/35'
Nichols Ranch Unit	BBMA	11946	43	76	20, NE/SE	418676	4837265	83	Campbell	5/2/2013	DNLO		POOR	CTD	BBMA nest
Hank Unit	BBMA	4531	43	75	7, SE/NW	425852	4840885	83	Campbell	5/21/2013	INAC		BBMA	CTL/35'	Sticks/25'
Hank Unit	BBMA	6525	43	75	8, SW/SW	427216	4840197	83	Campbell	5/21/2013	INAC		BBMA	WIL/25'	Sticks/12'
Hank Unit	BBMA	12340	44	76	25, NE/NE	425109	4846310	83	Campbell	5/28/2013	INAC		FAIR	JUN	
Hank Unit	GOEA	4528	43	75	7, NW/NW	425405	4841428	83	Campbell	5/21/2013	INAC		GONE	Tree fell	Sticks/35'
Hank Unit	GRHO	3654	43	75	7, NE/NW	425810	4841363	83	Campbell	5/21/2013	INAC			CLF	Sticks/18'
Hank Unit	GRHO	3658	43	75	7, NW/NW	425538	4841443	83	Campbell	5/21/2013	INAC		GONE	CTL/40'	Sticks/35'
Hank Unit	GRHO	6517	43	75	8, NW/NW	426895	4841340	83	Campbell	5/21/2013	INAC		GONE	CLF	Dirt/20'
Hank Unit	GRHO	4536	43	76	13, NE/NE	424825	4839733	83	Campbell	5/23/2013	INAC		POOR	CTL/45'	Sticks/30'
Hank Unit	LOOW	4101	43	76	1, NE/NE	425028	4842796	83	Campbell	5/21/2013	INAC		POOR	JUL/18'	Sticks/12'
Hank Unit	LOOW	4527	43	76	1, NE/SE	425162	4841951	83	Campbell	5/21/2013	INAC		GONE	JUL/16'	Sticks/12'
Hank Unit	LOOW	6518	43	75	7, SE/NE	426766	4840910	83	Campbell	5/21/2013	INAC		FAIR	JUL/15'	Sticks/10'
Hank Unit	LOOW	4106	44	75	30, NE/SW	425968	4845500	83	Campbell	5/28/2013	INAC		FAIR	JUL/15'	Sticks/8'
Hank Unit	PRFA	4102	44	75	32, SW/SW	427040	4843215	83	Campbell	5/8/2013	INAC			ROC	
Hank Unit	PRFA	4103	44	75	32, SW/SW	427130	4843380	83	Campbell	5/8/2013	INAC			ROC	
Hank Unit	RETA	3655	43	75	7, NW/NE	426126	4841173	83	Campbell	5/21/2013	INAC		GONE	Tree fell	Sticks/30'
Hank Unit	RETA	6534	43	75	8, SW/NW	426984	4840745	83	Campbell	5/21/2013	INAC		FAIR	CTL/50'	Sticks/40'
Hank Unit	RETA	6535	43	75	8, SW/NW	426940	4840760	83	Campbell	5/21/2013	INAC		GONE	CTD/20'	Sticks/10'
Hank Unit	RETA	4098	44	76	36, NE/NE	425170	4844450	83	Campbell	5/28/2013	INAC		FAIR	CTL/50'	Sticks/40'
Hank Unit	TUVU	12893	44	75	32, SW/SW	427060	4843210	83	Campbell	5/8/2013	INAC		GOOD	Hole	Dirt
Hank Unit	UNRA	12844	43	75	5, NE/SW	427461	4842035	83	Campbell	5/8/2013	INAC		POOR	JUL/12'	Sticks/8'
Hank Unit	UNRA	13009	43	75	5, NE/SW	427465	4842089	83	Campbell	5/8/2013	INAC		GONE	JUL/15'	Sticks/12'
Hank Unit	UNRA	13010	43	75	5, NE/SW	427595	4842271	83	Campbell	5/8/2013	INAC		GONE	JUL/15'	Sticks/10'
Hank Unit	UNRA	13-13	43	75	6, SE/NE	426826	4842568	83	Campbell	5/8/2013	INAC		FAIR	JUN/12'	Sticks/8'
Hank Unit	UNRA	4115	43	76	1, NW/SE	424626	4842237	83	Campbell	5/21/2013	INAC		POOR	JUL/12'	Sticks/7'
Hank Unit	UNRA	6521	43	75	8, NW/SW	427150	4840503	83	Campbell	5/21/2013	INAC		POOR	JUL/14'	Sticks/10'
Hank Unit	UNRA	6522	43	75	8, NW/SW	427191	4840479	83	Campbell	5/21/2013	INAC		POOR	CTL/35'	Sticks/25'
Hank Unit	UNRA	6523	43	75	8, NW/SW	427193	4840478	83	Campbell	5/21/2013	INAC		FAIR	JUL/18'	Sticks/10'
Hank Unit	UNRA	6524	43	75	8, NW/SW	427203	4840367	83	Campbell	5/21/2013	INAC		FAIR	JUL/15'	Sticks/10'
Hank Unit	UNRA	12800	43	75	7, SE/NE	426712	4840910	83	Campbell	5/21/2013	INAC		FAIR	CTL/40'	Sticks/30'
Hank Unit	UNRA	12902	43	75	6, NW/NW	425247	4842889	83	Campbell	5/21/2013	INAC		FAIR	JUL/25'	Sticks/20'
Hank Unit	UNRA	112-13	43	75	8, SW/SW	427209	4839955	83	Campbell	5/21/2013	INAC		GOOD	CTL/35'	Sticks/20'
Hank Unit	UNRA	113-13	43	75	8, NW/SW	427185	4840383	83	Campbell	5/21/2013	INAC		POOR	JUN/25'	Sticks/15'
Hank Unit	UNRA	114-13	43	75	8, NW/SW	427012	4840662	83	Campbell	5/21/2013	INAC		FAIR	JUN/15'	Sticks/10'
Hank Unit	UNRA	115-13	43	75	8, NW/SW	427004	4840672	83	Campbell	5/21/2013	INAC		FAIR	JUN/20'	Sticks/15'
Hank Unit	UNRA	116-13	43	75	8, NW/SW	427008	4840671	83	Campbell	5/21/2013	INAC		FAIR	JUN/20'	Sticks/15'
Hank Unit	UNRA	117-13	43	75	7, NE/NW	426029	4841226	83	Campbell	5/21/2013	INAC		FAIR	JUN/18'	Sticks/10'
Hank Unit	UNRA	118-13	43	75	7, NW/NW	425435	4841389	83	Campbell	5/21/2013	INAC		FAIR	CTL/45'	Sticks/35'
Hank Unit	UNRA	4533	43	75	7, SW/SW	425535	4839860	83	Campbell	5/23/2013	INAC		FAIR	CTL/35'	Sticks/15'
Hank Unit	UNRA	6185	43	76	13, NE/NE	424860	4839710	83	Campbell	5/23/2013	INAC		GONE	dup of 4536	Sticks
Hank Unit	UNRA	12865	44	76	25, NE/NE	425277	4846360	83	Campbell	5/28/2013	INAC		GONE	CTL/30'	Sticks/25'
Hank Unit	UNRA	13386	44	75	30, SE/SE	426871	4845207	83	Campbell	5/28/2013	INAC		POOR	JUN/20'	Sticks/12'
Hank Unit	UNRA	12843	43	75	8, NW/SW	427204	4840440	83	Campbell	6/7/2013	INAC		FAIR	JUL/20'	Sticks/15'
Nichols Ranch Unit	GOEA	4500	43	76	20, NE/NE	418591	4837803	83	Campbell	5/2/2013	INAC		GONE	CTL/50'	Sticks/40'
Nichols Ranch Unit	GOEA	5494	43	76	20, NE/NE	418662	4837768	83	Campbell	5/2/2013	INAC		GONE	CLF	Sticks
Nichols Ranch Unit	GOEA	5537	43	76	17, SW/SE	418170	4838235	83	Campbell	5/2/2013	INAC		FAIR		
Nichols Ranch Unit	GOEA	12757	43	76	19, SE/NE	417064	4837702	83	Johnson	5/2/2013	INAC		POOR	CTL/50'	Sticks/40'

51825/112362

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Table A.1 (Continued)

UNIT	Species	WLR/BLM ID	Twn	Rng	Sec, qq/q	Easting	Northing	Datum	County	Date	Status 2013	Production	Condition	Sub/Ht'	Nest/Ht'
Nichols Ranch Unit	GRHO	5511	43	76	20, NE/SE	418271	4837232	83	Campbell	5/2/2013	INAC		GONE	CTL/45'	Sticks/35'
Nichols Ranch Unit	LOOW	5491	43	76	16, SW/NW	418730	4839255	83	Campbell	5/2/2013	INAC		POOR	CTL/40'	Sticks/30'
Nichols Ranch Unit	RETA	5486	43	76	16, SE/NW	419491	4839078	83	Campbell	5/1/2013	INAC		GOOD	CTL/55'	Sticks/40'
Nichols Ranch Unit	RETA	5487	43	76	19, NW/NE	416557	4837912	83	Campbell	5/2/2013	INAC		FAIR	CTL/60'	Sticks/50'
Nichols Ranch Unit	RETA	5532	43	76	17, NW/NW	417390	4839590	83	Johnson	5/2/2013	INAC		POOR	CTL/35'	Sticks/20'
Nichols Ranch Unit	RETA	5533	43	76	17, NW/NW	417380	4839615	83	Johnson	5/2/2013	INAC		POOR	CTL/45'	Sticks/30'
Nichols Ranch Unit	UNRA	12967	43	76	16, NW/SW	419028	4838833	83	Campbell	5/1/2013	INAC		POOR	CTL/50'	Sticks/35'
Nichols Ranch Unit	UNRA	124-13	43	76	16, SE/NW	419493	4839080	83	Campbell	5/1/2013	INAC		FAIR	CTL/50'	Sticks/20'
Nichols Ranch Unit	UNRA	4497	43	76	17, SE/SE	418438	4838503	83	Campbell	5/2/2013	INAC		GONE	CTL/55'	Sticks/25'
Nichols Ranch Unit	UNRA	4498	43	76	16, SE/SW	419268	4838365	83	Campbell	5/2/2013	INAC		GONE	CTL/50'	Sticks/30'
Nichols Ranch Unit	UNRA	4499	43	76	19, NE/NE	416802	4838238	83	Johnson	5/2/2013	INAC		POOR	CTL/45'	Sticks/30'
Nichols Ranch Unit	UNRA	11945	43	76	20, NW/SE	418259	4837251	83	Campbell	5/2/2013	INAC		FAIR	CTL	
Nichols Ranch Unit	UNRA	11947	43	76	21, NW/NW	418751	4838059	83	Campbell	5/2/2013	INAC		POOR	CTL	
Nichols Ranch Unit	UNRA	11948	43	76	20, SE/NE	418580	4837806	83	Campbell	5/2/2013	INAC		FAIR	CTL	
Nichols Ranch Unit	UNRA	11949	43	76	20, NE/SE	418100	4838187	83	Campbell	5/2/2013	INAC		FAIR	CTL	
Nichols Ranch Unit	UNRA	12963	43	76	20, NE/SE	418630	4837317	83	Campbell	5/2/2013	INAC		POOR	CTL/50'	Sticks/20'
Nichols Ranch Unit	UNRA	12965	43	76	19, SE/NE	417032	4837780	83	Johnson	5/2/2013	INAC		POOR	CTL/40'	Sticks/30'
Nichols Ranch Unit	UNRA	134-13	43	76	20, NE/NE	418653	4837762	83	Campbell	5/2/2013	INAC		FAIR	JUN/25'	Sticks/15'
Nichols Ranch Unit	UNRA	5531	43	76	17, NE/NW	417680	4839800	83	Johnson	5/2/2013	INAC		GONE	CTL/40'	Sticks/30'
Nichols Ranch Unit	UNRA	5534	43	76	16, SW/NW	418790	4839206	83	Campbell	5/2/2013	INAC		GONE	CTL/25'	Sticks/20'
Nichols Ranch Unit	UNRA	5535	43	76	16, SW/NW	418720	4839265	83	Campbell	5/2/2013	INAC		POOR	CTL/25'	Sticks/20'
Hank Unit	UNRA	4529	43	75	7, NE/NW	425809	4841286	83	Campbell	5/21/2013	OCCU		GOOD	CTL/45'	Sticks/30'

51825/112362

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Table A.2 Location Greater-sage Grouse Leks and Number of Birds Observed, Nichols Ranch ISR Project, 2013.

<u>Lek I.D.</u>	<u>Sec. qq/g</u>	<u>Twn</u>	<u>Rng</u>	<u>Easting</u>	<u>Northing</u>	<u>County</u>	<u>Date</u>	<u>Time</u>	<u>Conditions</u>	<u>Males</u>	<u>Females</u>	<u>Unknown</u>	<u>Air/ground</u>
Windmill	2, SE/SE	43	76	423323	4841666	Campbell	4/5/2013	6:30 AM	partly cloudy, 5-10 SW, 40	0	0		Ground
							4/24/2013	6:05 AM	cloudy, 5-10 N, 30	0	0		Ground
							5/1/2013	6:00 AM	cloudy, 5-10 N, 30	0	0		Ground
Windmill Sat.	11, NE/NE	43	76	423429	4841417	Campbell	4/5/2013	6:40 AM	partly cloudy, 5-10 SW, 40	3	2		Ground
							4/24/2013	6:15 AM	cloudy, 5-10 N, 30	4	0		Ground
							5/1/2013	6:11 AM	cloudy, 5-10 N, 30	5	0		Ground
Windmill North	35, SE/SE	44	76	423500	4843360	Campbell	4/5/2013	6:30 AM	partly cloudy, 0-5 SW, 40	0	0		Ground
							4/16/2013	6:25 AM	cloudy, calm, 20	0	0		Ground
							5/1/2013	5:55 AM	cloudy, 5-10 N, 30	0	0		Ground
Windmill NW	2, NE/SW	43	76	422599	4842051	Campbell	4/5/2013	7:00 AM	partly cloudy, 5-10 SW, 40	1	0		Ground
							4/24/2013	6:25 AM	cloudy, 5-10 N, 35	0	0		Ground
							5/1/2013	6:25 AM	cloudy, 5-10 N, 35	0	0		Ground
North Butte Sat.	20, NE/SW	44	75	427450	4846946	Campbell	4/5/2013	6:52 AM	partly cloudy, 5-10 W, 32	0	0		Ground
							4/24/2013	6:28 AM	cloudy, calm, 25	0	0		Ground
							5/1/2013	6:23 AM	cloudy, calm, 25	0	0		Ground
Gilbertz III	21, SE/SW	44	75	429307	4846518	Campbell	4/5/2013	7:02 AM	partly cloudy, 5-10 W, 35	0	0		Ground
							4/24/2013	6:33 AM	cloudy, calm, 25	0	0		Ground
							5/1/2013	6:29 AM	cloudy, 5-10 NW, 25	0	0		Ground
Gilbertz III Sat.	21, SW/SW	44	75	428960	4846700	Campbell	4/5/2013	7:07 AM	partly cloudy, 5-10 W, 38	0	0		Ground
							4/24/2013	6:35 AM	cloudy, calm, 25	0	0		Ground
							5/1/2013	6:30 AM	cloudy, 5-10 NW, 25	0	0		Ground
Mud Spring Creek	33, NE/NE	44	75	430151	4844662	Campbell	4/5/2013	7:15 AM	partly cloudy, 5-10 W, 32	0	0		Ground
							4/24/2013	6:45 AM	cloudy, calm, 25	0	0		Ground
							5/1/2013	6:40 AM	cloudy, 5-10 NW, 25	0	0		Ground
Hines	16, NW/SE	43	75	429600	4838600	Campbell	4/4/2013	6:30 AM	clear, 5-10 SE, 30	0	0		Ground
							4/16/2013	6:10 AM	cloudy, calm, 20	0	0		Ground
							5/2/2013	5:36 AM	cloudy, calm, 23	0	0		Ground
Hines NW	17, NE/NE	43	75	428443	4839637	Campbell	4/4/2013	7:10 AM	clear, 0-5 SE, 31	1	3		Ground
							4/16/2013	6:48 AM	cloudy, 5-10 NW, 20	2	1		Ground
							5/2/2013	6:24 AM	cloudy, calm, 23	0	0		Ground
Cottonwood Creek 2	15, SE/SE	43	76	421621	4838450	Campbell	4/5/2013	7:20 AM	partly cloudy, 5-10 SW, 40	0	0		Ground
							4/24/2013	6:50 AM	cloudy, 5-10 N, 30	0	0		Ground
							5/1/2013	7:15 AM	cloudy, 5-10 N, 30	0	0		Ground

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