

#### **CAMECO RESOURCES**

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October 7, 2011

Mr. Doug Mandeville U.S. Nuclear Regulatory Commission 11545 Rockville Pike Two White Flint North, Mailstop T8F5 Rockville, MD 20852-2738

Re: Source Material License SUA-1548, Docket No. 40-8964 Updates to 2011-12 Surety Estimate for North Butte Satellite Facility

Dear Mr. Mandeville:

On August 30, 2011, Power Resources, Inc. d.b.a Cameco Resources (Cameco) responded to comments from the Wyoming Department of Environmental Quality/Land Quality Division (LQD) on its Annual Report (Permit No. 632) and surety estimates. The responses to comments resulting in Cameco increasing the proposed surety estimate from \$5,579,000 to \$8,518,000.

Additionally, on September 21, 2011, Cameco submitted a request to LQD for partial bond release on 386 delineation holes.

The purpose of this letter is to provide the NRC with two (2) paper copies of these transmittals to the LQD. The August letter to the LQD includes the rationale for the increase in the surety estimate.

If you have any questions or comments regarding the changes submitted to the LQD, please contact Mr. Scott Bakken at 307.316.7586.

Sincerely, CAMECO Resources

Josh Leftwich Director of Licensing and Permitting

JL/mw

Enclosures: Letter to LQD dated August 30, 2011: Response to North Butte ISR Operation Mine Permit No. 632 Response to March 3, 2011<sup>1</sup> Annual Report Comments

> Letter to LQD dated September 19, 2011: Request for Partial Bond Release North Butte Uranium ISR Project Campbell County

cc:

File NB Cameco-Casper Cameco-Cheyenne

<sup>&</sup>lt;sup>1</sup> Letter contained a typo – should have referenced March 31, 2011 letter with Annual Report comments.



COPY

**CAMECO RESOURCES** 

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August 30, 2011

Mr. Glenn Mooney Senior Geologist WDEQ Land Quality Division - District III 2100 West 5<sup>th</sup> Street Sheridan, WY 82801

# RE: Response to North Butte ISR Operation Mine Permit No. 632 Response to March 3, 2011 Annual Report Comments

Dear Mr. Mooney:

Cameco Resources is submitting a response to the March 3, 2011 letter on the Annual Inspection and Annual Report with the attached comments specific to the Annual Report. A majority of these comments were in regard to surety estimates and the applied unit cost that were used. Cameco has enclosed the revised the surety estimate. Please note that Cameco is requesting for this surety to be increased based on upcoming work and will continue to update WDEQ/LQD and work with your office on the future development of this project.

If you have comments or questions concerning these comments, please contact me at telephone 307-316-7588.

Sincerely, Cameco Resources

Josh Leftwich Director, Radiation Safety & Licensing

Enclosures: Appendix B (tables): 2011 Update to Surety Bond Estimate for Mine Permit No. 632

ec: CR-Casper

NUCLEAR. The Clean Air Energy.

Page 2 of 2 August 30, 2011 G. Mooney / WDEQ-LQD Sheridan 2010 Annual Report Response to Comments

### North Butte, Permit No. 632 Surety Estimate responses:

- 1. Some of the costs described as Guideline 12 costs are not from Guideline 12.
  - a. **Response**: Cameco has reviewed the previous surety estimate revision and checked the source of costs. In general, Cameco has used Guideline 12 costs and Guideline 12 approved cost mechanisms. Specifically;
    - i. where Cameco has actual expenses or labor costs to back-up the surety item Cameco assumes the actual cost is a closer approximation of costs than the estimates in the Guideline 12 tables,
    - ii. If the Guideline 12 tables do not contain the required equipment, Cameco has used Equipment Watch as a source, as referenced in Section I of Guideline 12.
    - iii. Any references to costs as Guideline 12, which are not from Guideline 12, have been removed.
- 2. Some of the equipment is described as from Guideline 12 when it is not. For instance, Cat 430D and 416 backhoes are used in the bond estimate when only Cat 430E backhoes are listed in Guideline 12. Please use Cat 430E backhoes consistently throughout the bond estimate.
  - a. Response: See response to comment 1.
- 3. The labor costs are not from Guideline 12.
  - a. **Response**: Cameco revised its source of skilled and unskilled labor costs to the 2011 State Building Construction Prevailing Wages as found on the State of Wyoming web site. This change reduced labor costs in most cases. Where labor costs are embedded in a built-up rate for specific work in Guideline 12, Cameco uses the embedded rate (usually \$40.85/hr). Cameco uses the Mountain States Employer's Council as a source for rates for professionals such as Radiation Technicians and Environmental Engineers.
- 4. For well abandonment costs on page 14 of 29, there are discrepancies in the usage of equipment versus available manpower. There are four pieces of equipment being utilized 100% of the time, 3 pieces 50% of the time and one 25% of the time. However, only three operators are listed as running the equipment. Five would seem a more appropriate number of operators.
  - a. **Response:** Cameco has decided to use the Guideline 12 sealing and abandonment of drill holes and monitor wells in Appendix L until further guidance from LQD is distributed on this subject. This negates the surety comment.

- 5. On the well abandonment worksheet UC-WA, 12 sacks of cement versus the listed 7.5 sacks per 100 feet of casing would be more appropriate, according to Mark Taylor of this office.
  - a. **Response:** Cameco has decided to use the Guideline 12 sealing and abandonment of delineation drill holes and monitor wells in Appendix L until further guidance from LQD is distributed on this subject. This negates the surety comment.
- **6.** In part IV: Well & Borehole abandonment, on page 10 of 29, the costs do not agree with those costs given on the detailed well abandonment costs given on Worksheet UC-WA and are very different from Guideline 12 costs for well abandonment. Please use the Guideline 12 costs.
  - a. **Response:** Cameco has decided to use the Guideline 12 sealing and abandonment of drill holes and monitor wells in Appendix L.
- 7. In Appendix B, part II, Building Demolition and Disposal, please add the costs of a loader to load the concrete rubble onto the trucks. The Cat 980H loader from guideline 12 would be appropriate.
  - a. **Response**: Cameco added the cost of a Cat 980G loader from Guideline 12, App J to load concrete rubble onto the trucks.
- 8. Also in Appendix B, part II, Building Demolition and Disposal, on pages 4 of 29 and 5 of 29, the costs of the equipment (Dump Truck) are inaccurately referenced in the description, but the correct costs are used in the calculations. Please remove the misleading cost from the bond estimate.
  - a. Response: Cameco has corrected the description to remove any confusion.
- **9.** Many of the costs are listed in the Master Cost Worksheet, but many of the links between the Master Cost worksheet and other worksheets are broken. This will prevent the overall estimate from being properly updated when costs on the Master Cost worksheet are updated.
  - a. **Response**: Cameco reviewed the worksheets and has fixed linkage issues, most notably on the UC-WA worksheet.

2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE WDEQ Permit No. 632 Annual Report / NRC SUA-1548 North Butte ISR Project - WDEQ Permit No. 632 Update

# TOTAL RECLAMATION COST ESTIMATE

TOTAL CALCULATED SURETY (IN 2010 DOLLARS), rounded down	\$8,518,000
ADDITIONAL MISCELLANEOUS AND UNKNOWN COSTS (15%) **	\$1,111,104
SUBTOTAL	\$7,407,361
CONTRACTOR PROFIT, OVERHEAD, MOBILIZATION, DEMOBILIZATION COSTS (10%) *	\$673,396
SUBTOTAL RECLAMATION COST ESTIMATE	\$6,733,964
PART V. MISCELLANEOUS SURFACE RECLAMATION COST	\$826,795
PART IV. WELL & BOREHOLE ABANDONMENT COST	\$4,630,592
PART III. WELLFIELD BUILDINGS & EQUIPMENT REMOVAL & DISPOSAL COST	\$446,090
PART II. BUILDING DEMOLITION AND DISPOSAL COST	\$702,686
PART I. PROCESS EQUIPMENT REMOVAL & DISPOSAL COST	\$127,802

\* Based on WDEQ-LQD Guideline No. 12, Section II(B)(12)(b) \*\* Based on WDEQ-LQD Guideline No. 12, Sections II(B)(12)(except b) and (13)

PART I: PROCESS EQUIPMENT REMOVAL & DISPOSAL	Satellite Plant
A. Removal and Loading Costs	······································
1. Tankage	
Number of Tanks	2
Volume of Tank Construction Material (fl3)	1190
a. Labor	
Number of Persons	
Ft3/Day	2
Number of Days	4
\$/Day/Person	\$224
Subtotal Labor Costs	\$32,198
b. Equipment	
Number of Days	4
\$/Day	\$1,515
Subtotal Equipment Costs	\$72,732
Subtotal Tankage Removal and Loading Costs	\$104,930
2. PVC Pipe	
PVC Pipe Footage	600
Average PVC Pipe Diameter (inches)	
Shredded PVC Pipe Volume Reduction (ft3/ft)	0.01
Volume of Shredded PVC Pipe (fl3)	9
a. Labor	
Number of Persons	
Ft/Day	30
Number of Days	2
\$/Day/Person	\$224
Subtotal Labor Costs	\$8,944
b. Shredding Costs	
Pipe Shredding Unit Cost (\$/diameter-in-ft)	\$0.028
Subtotal Shredding Costs	\$672
Subtotal PVC Pipe Removal and Loading Costs	\$9,616
3. Pumps	
Number of Pumps	1
Average Volume (ft3/pump)	4.9
Volume of Pumps (ft3)	78.8
a. Labor	, 0.00
Number of Persons	
Pumps/Day	
Number of Days	
\$/Day/Person	\$224
Subtotal Labor Costs	\$1,789
Subtotal Pump Removal and Loading Costs	\$1,789
4. RO Units	
Volume (ft3)	250
a. Labor	
Number of Persons	
F13/Day	17
Number of Days	
\$/Day/Person	\$224
Total Labor Cost	\$447
Total RO Dismantling and Loading Cost	\$447
Subtotal Equipment Removal and Loading Costs per Facility	\$116,782
Total Equipment Removal and Loading Costs	\$116,782

# 2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE WDEQ Permit No. 632 Annual Report / NRC SUA-1548

North Butte ISR Project - WDEQ Permit No. 632 Update

PART I: PROCESS EQUIPMENT REMOVAL & DISPOSAL	Satellite Plant
B. Transportation and Disposal Costs (NRC-Licensed Facility)	
1. Tankage	
Volume of Tank Construction Material (ft3)	1190
Volume for Disposal Assuming 10% Void Space (ft3)	1309
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34
Subtotal Tankage Transportation and Disposal Costs	\$9,604
2. PVC Pipe	
Volume of Shredded PVC Pipe (ft3)	96
Volume for Disposal Assuming 10% Vold Space (fi3)	106
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34
Subtotal PVC Pipe Transportation and Disposal Costs	\$778
3. Pumps	
Volume of Pumps (ft3)	78.88
Volume for Disposal Assuming 10% Void Space (ft3)	87
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34
Subtotal PVC Pipe Transportation and Disposal Costs	\$638
Subtotal Equipment Transportation and Disposal Costs per Facility	\$11,0 <u>2</u> 0
Total Equipment Transportation and Disposal Costs	\$11,020
C. Health and Safety Costs	
Accounted For under Part I: Ground Water Restoration	
SUBTOTAL EQUIPMENT REMOVAL + DISPOSAL COSTS PER FACILITY	\$127,802
TOTAL EQUIPMENT REMOVAL + DISPOSAL COSTS	\$127,802

	Satellite	DDW 1	
PART II: BUILDING DEMOLITION & DISPOSAL	Bldg	Bldg	DDW 2 Bidg
A. Decontamination Costs		<del>،</del>	
1. Wall Decontamination			
Area to be Decontaminated (ft2)	0	704	704
HCI Acid Wash (\$/per sq fl.)	\$0.971	\$0.971	\$0.971
Subtotal Wall Decontamination Costs	\$0	\$683	\$683
2. Concrete Floor Decontamination			
Area to be Decontaminated (ft2)	19200	480	480
HCI Acid Wash (\$/Gallon)	\$0.440	\$0.440	\$0.440
Subtotal Concrete Floor Decontamination Costs	\$8,443	\$211	\$211
Subtotal Decontamination Costs per Building	\$8,443	\$894	\$894
Total Decontamination Costs			\$10,231
B. Demolition Costs			·
1. Building			
Assume:			
Volume of Building (ft3)	524,800	4,800	4,800
Demolition Unit Cost per WDEQ Guideline No.12, App.K (\$/ft3)	\$0.249	\$0.249	\$0.249
Subtotal Building Demolition Costs	\$130,581	\$1,194	\$1,194
2. Concrete Floor			
Area of Concrete Floor (ft2)	25,600	480	480
Demolition Unit Cost per WDEQ Guideline No.12, App.K (\$/ft2)	\$5.05	\$5.05	\$5.05
Subtotal Concrete Floor Demolition Costs	\$129,356	\$2,425	\$2,425
3. Concrete Footing			
Length of Concrete Footing (ft)	960	88	88
Demolition Unit Cost per WDEQ Guideline No.12, App.K (\$/lin. ft)	\$18.14	\$18.14	\$18.14
Subtotal Concrete Footing Demolition Costs	\$17,410	\$1,596	\$1,596
Subtotal Demolition Costs per Building	\$277,347	\$5,215	\$5,215
Total Demolition Costs	· · · · · · · · · · · · · · · · · · ·		\$287,777
C. Disposal Costs			
1. Building			
Volume of Building (cy) Building Construction and Demolition	1,222	178	178
a. Landfill	1,222	1/0	1/0
Assume:		·	
Cost to haul to landfill			
Total Trips @12(cy) each	102	15	15
Dump Truck (Guideline 12 App. J \$54.19 /hr)	\$64.33	\$64.33	\$64.33
Transportation(assume 2 trips per 12hr. Day)	\$39,313	\$5,718	\$5,718
Disposal Unit Cost (\$/ton)(Guideline No. 12 App. K)	\$95.70	\$95.70	\$95.70
Percentage (%)	100	100	100
Converted C&D waste volume to tons (.24 tons/cy) <sup>1</sup>	293	43	43
Subtotal Disposal Costs	\$67,385	\$9,801	\$9,801
b. NRC-Licensed Facility			
Percentage (%)	0	0	0
Volume for Disposal (ft3)	0	0	0
Volume for Disposal Assuming 10% Void Space (ft3)	0	0	0
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34	\$7.34	\$7.34
Subtotal NRC-Licensed Facility Disposal Costs	\$0	\$0	\$0
Subtotal Building Disposal Costs	\$67,385	\$9,801	\$9,801

PART II: BUILDING DEMOLITION & DISPOSAL 2. Concrete Floor Area of Concrete Floor (ft2)	Bldg	Bldg	DDW 2 Bldg
Area of Concrete Floor (ft2)			1 2 2
	25600	480	480
Average Thickness of Concrete Floor (ft)	0.833	0.833	0.833
Volume of Concrete Floor (ft3)( with .54 void factor)	39490.37	740	740
Volume of Concrete Floor (cy)	1463	27	27
a. Municipal Landfill		[	
Percentage (%)	75	75	75
Volume for Disposal (cy)	1097	21	21
Tons of Concrete	1,193	22	22
Cost to load Dump Trucks			
Loader (Guideline 12 App. J), 5cy bucket	\$106.06	\$106.06	\$106.06
Cost per cy, assume 1.5min dump time+58.5min standby for 12cy load	\$ 8.84	\$ 8.84	\$ 8.84
Load Cost	\$9,695	\$182	\$182
Cost to haul to landfill			
Total Trips @12(cy) each	91	2	2
Dump Truck (Guideline 12 App. J)	\$64.33	\$64.33	\$64.33
Transportation(assume 2 trips per 12hr. Day)	\$35,284	\$662	\$662
Disposal Unit Cost per WDEQ Guideline No.12, App.K (\$/ton)	\$95.70	\$95.70	\$95.70
Subtotal Landfill Disposal Costs	\$159,195	\$2,985	\$2,985
b. NRC-Licensed Facility			
Assume:			
Additional \$2.00/ft3 for segregation of concrete			
Percentage (%)	25		25
Volume for Disposal (ft3)	9873	185	185
Segregation and Loading Unit Cost (\$/ft3)	\$5.00	\$5.00	\$5.00
Transportation and Disposal Unit Cost (\$/ft3)	\$7.51	\$7.51	\$7.51
Subtotal NRC-Licensed Facility Disposal Costs	\$123,554	\$2,317	\$2,317
Subtotal Concrete Floor Disposal Costs	\$282,749	\$5,302	\$5,302
3. Concrete Footing			
Length of Concrete Footing (ft)	960	88	88
Average Depth of Concrete Footing (ft)	4	4	4
Average Width of Concrete Footing (ft)	0.75	0.75	0.75
Volume of Concrete Footing (ft3) (with 0.54 void factor)	5333	489	489
Volume of Concrete Footing (cy)	198	18	18
Tons of Concrete	215	20	20
Cost to load Dump Trucks			
Loader (Guideline 12 App. J), 5cy bucket	\$106.06	\$106.06	\$106.06
Cost per cy, assume 1.5min dump time+58.5min standby for 12cy load	\$ 8.84	\$ 8.84	\$ 8.84
Load Cost	\$1,746	\$160	\$160
Cost to haul to landfill			
Total Trips @12(cy) each	16	2	2
Dump Truck (Guideline 12 App. J)	\$64.33	\$64.33	\$64.33
Transportation(assume 2 trips per 12hr. Day)	\$6,354	\$582	\$582
Disposal Unit Cost per WDEQ Guideline No.12, App.K (\$/ton)	\$95.70	\$95.70	\$95.70
Subtotal Concrete Footing Disposal Costs	\$20,567	\$1,885	\$1,885
Subtotal Disposal Costs per Building	\$370,701	\$16,988	\$16,988
Total Disposal Costs			\$404,678
D. Health and Safety Costs			
Accounted For under Part I: Ground Water Restoration			
SUBTOTAL BUILDING DEMOLITION AND DISPOSAL COSTS	\$656,491	\$23,097	\$23,097
TOTAL BUILDING DEMOLITION AND DISPOSAL COSTS			\$702,686

PART III: WELLFIELD BLDGS., EQUIPMENT REMOVAL & DISPOSAL	Mine Unit No.1
A. Mine Unit Piping	
Assume:	
Number of Header Houses	
Approximate Length of Piping per Header House (ft)	13,800
(avg. 46 wells per with 300 ft pipeline/well)	
Approximate Total Length of Piping (ft.)	96,600
1. Removal and Loading	
Trench Length -	24,150
(usually run multiple pipes in trench assume 1/4 pipe length)	
Wellfield Piping Removal Unit Cost (\$/ft of pipe)	\$2.30
Subtotal Wellfield Piping Removal and Loading Costs	\$222,180
2. Shredding Costs	
Assume:	
Length of Piping per Header House (ft)	13,800
Total Length of Piping (ft)	9660
Average Diameter of Piping (inches)	
HDPE Pipe Shredding Unit Cost (\$/diameter-in-ft)	\$0.05
Subtotal Shredding Costs	\$11,012
3. Transport and Disposal Costs (NRC-Licensed Facility)	
Chipped Volume Reduction (ft3/ft)	0.00
Chipped Volume per Wellfield (ft3)	48
Volume for Disposal Assuming 10% Void Space (ft3)	53
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34
Subtotal Wellfield Piping Transport and Disposal Costs	\$3,896
Total Wellfield Piping Removal and Disposal Costs	\$237,088
B. Well Pumps and Tubing	
Assume:	
Pump and tubing removal costs included under ground water restoration labor costs	
Average tubing length/wellfield based on average well depth minus 25 ft	
1. Shredding Costs	
Number of Production Wells with Tubing	14
Number of Injection Wells with Tubing	260
Average Tubing Length per Well (ft)	650
Diameter of Production Well Fiberglass Tubing (Inches)	
Diameter of Injection Well HDPE Tubing (inches)	1.2
HDPE Pipe Shredding Unit Cost (\$/d ameter-In-ft)	\$0.05
Subtotal Shradding Costs	\$22,415
2. Pump and Tubing Transportation and Disposal	
a. Pump Volume	
Number of Production Wells with Pumps	14(
Average Pump Volume (ft3)	
Pump Volume per Wellfield (ft3)	14(
b. Tubing Volume	
Tubing Length per Wellfield (ft)	260,000
Chipped Volume Reduction (ft3/ft)	0.007
Chipped Volume per Wellfield (ft3)	1,820
Volume of Pump and Tubing (ft3)	1,960
Volume for Disposal Assuming 10% Void Space (ft3)	2,156
	\$7.34
Transportation and Disposal Unit Cost (\$/ft3)	
	\$7.34 \$15,819 <b>\$38,234</b>

PART III: WELLFIELD BLDGS., EQUIPMENT REMOVAL & DISPOSAL	Mine Unit No.1
C. Buried Trunkline	<u></u>
Assume:	······································
Length of Trunkline Trench (ft)	7500
1. Removal and Loading	
Main Pipeline Removal Unit Cost (\$/ft of trench)	\$2.30
Subtotal Trunkline Removal and Loading Costs	\$17,250
2. Shredding Costs	·
Diameter of HDPE Piping (in)	
Total Length of 2" HDPE Piping (ft)	7,500
Diameter of HDPE Piping (in)	3
Total Length of 3" HDPE Piping (ft)	7,500
Diameter of HDPE Piping (in)	4
Total Length of 4" HDPE Piping (ft)	G
Diameter of HDPE Piping (in)	6
Total Length of 6" HDPE Piping (ft)	4,000
Diameter of HDPE Piping (in)	
Total Length of 8" HDPE Piping (ft)	18,400
Diameter of HDPE Piping (in)	10
Total Length of 10" HDPE Piping (ft)	0
Diameter of HDPE Piping (in)	12
Total Length of 12" HDPE Piping (ft)	0
Diameter of HDPE Piping (in)	14
Total Length of 14" HDPE Piping (ft)	0
Diameter of HDPE Piping (in)	16
Total Length of 16" HDPE Piping (ft)	0
Diameter of HDPE Piping (in)	18
Total Length of 18" HDPE Piping (ft)	0
Diameter of HDPE Piping (in)	20
Total Length of 20" HDPE Piping (ft)	15,000
Diameter of HDPE Piping (in)	24
Total Length of 24" HDPE Piping (ft) HDPE Pipe Shredding Unit Cost (\$/diameter-in-ft)	U
	\$0.057
Subtotal Shredding Costs	\$28,996
3. Transport and Disposal Costs (NRC-Licensed Facility)	
a. 2" HDPE Trunkline	
Piping Length (ft)	7,500
Chipped Volume Reduction (ft3/ft)	0.01
Chipped Volume (ft3)	80.41
b 3" HDPE Trunkline	
Piping Length (ft)	7500
Chipped Volume Reduction (ft3/ft)	0.02
Chipped Volume (ft3)	174.64
c 4" HDPE Trunkline	
Piping Length (ft)	0
Chipped Volume Reduction (ft3/ft)	0.04
Chipped Volume (ft3)	0.00
d 6" HDPE Trunkline	
Piping Length (ft)	4000
Chipped Volume Reduction (ft3/ft)	0.08
Chipped Volume (ft3)	333.57
e 8" HDPE Trunkline	
Piping Length (ft)	18400
Chipped Volume Reduction (ft3/ft)	0.14

2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE WDEQ Permit No. 632 Annual Report / NRC SUA-1548 North Butte ISR Project - WDEQ Permit No. 632 Update

PART III: WELLFIELD BLDGS., EQUIPMENT REMOVAL & DISPOSAL	Mine Unit No.1
Chipped Volume (ft3)	2599.96
f 10" HDPE Trunkline	
Piping Length (ft)	0
Chipped Volume Reduction (ft3/ft)	0.22
Chipped Volume (ft3)	0.00
g 12" HDPE Trunkline	. <u></u>
Piping Length (ft)	
Chipped Volume Reduction (ft3/ft)	0.31
Chipped Volume (ft3)	0.00
h 14" HDPE Trunkline	
Piping Length (ft)	(
Chipped Volume Reduction (ft3/ft)	0.37
Chipped Volume (ft3)	0.00
16" HDPE Trunkline	
Piping Length (ft)	
Chipped Volume Reduction (ft3/ft)	0.49
Chipped Volume (ft3)	0.00
j 18" HDPE Trunkline	······
Piping Length (ft)	C
Chipped Volume Reduction (ft3/ft)	0.62
Chipped Volume (ft3)	0.00
k 20" HDPE Trunkline	
Piping Length (ft)	15,000
Chipped Volume Reduction (fl3/ft)	0.72
Chipped Volume (ft3)	10817.18
1 24* HDPE Trunkline	
Piping Length (ft) Chipped Volume Reduction (ft3/ft)	C
Chipped Volume (ft3)	<u> </u>
Total Trunkline Chipped Volume (ft3)	0.00
Volume for Disposal Assuming 10% Void Space (ft3)	14005.76
Transportation and Disposal Unit Cost (\$/ft3)	14005.70
	\$7.34
Subtotal Trunkline Transport and Disposal Costs	\$113,034
Total Trunkline Removal and Disposal Costs	\$159,280
	\$159 <u>,</u> 260
D. Well Covers	
Total Quantity	400
Average Well Cover Volume (ft3)	1.86
1. Removal	
Total Volume (ft3)	744
Demolition Unit Cost per WDEQ Guideline No.12, App.K (\$/ft3)	\$0.249
Subtotal Well Cover Demolition Costs	\$185
2. Survey and Decontamination	
Assume:	···· <u>·</u> ·······························
Cost per Well Cover	\$7
Subtotal Survey and Decontamination Costs	and the second
	\$2,624
3. Disposal	
Total Volume (cy)	28
Cost to haul to landfill	·
Total Trips @12(cy) each	2
Dump Truck (Guideline 12 App. J) Transportation(assume 2 trips per 12hr. Day)	\$64.33
	\$886

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2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE WDEQ Permit No. 632 Annual Report / NRC SUA-1548

North Butte ISR Project - WDEQ Permit No. 632 Update

PART III: WELLFIELD BLDGS., EQUIPMENT REMOVAL & DISPOSAL	Mine Unit No.1
Disposal Unit Cost (\$/ton)(GuidelIne No. 12 App. K)	\$95.70
Percentage (%)	100
Converted C&D waste volume to tons (.24 tons/cy)1	2
Subtotal Disposal Costs	\$1,460
Total Well Cover Removal and Disposal Costs	\$4,269
E. Header Houses	
Total Quantity	7
Average Header House Volume (ft3)	800
1. Removal	
Total Volume (ft3)	5600
Demolition Unit Cost per WDEQ Guideline No.12, App.K (\$/ft3)	\$0.249
Subtotal Building Demolition Costs	\$1,393
2. Survey and Decontamination	
Assume:	
Cost per Header House	\$568
Subtotal Survey and Decontamination Costs	\$3,976
3. Disposal	·······
Total Volume (cy)	207
Volume for Disposal Assuming 10% Void Space (cy)	228
Disposal Unit Cost per WDEQ Guideline No.12. App.K (\$/cy)	\$8.12
Subtotal Off-Site Disposal Costs	\$1,850
Total Header House Removal + Disposal Costs	\$7,219
TOTAL WELLFIELD BUILDINGS AND EQUIPMENT REMOVAL + DISPOSAL COSTS	\$446,090

2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE

WDEQ Permit No. 632 Annual Report / NRC SUA-1548 North Butte ISR Project - WDEQ Permit No. 632 Update

PART IV: WELL & BOREHOLE ABANDONMENT	Mine Unit No.1	
A. Well Abandonment (Wellfields)		
# of Production Wells	140	
Cost to plug and abandon Production wells (\$/LF)	\$ 6.26	
# of Injection Wells	260	
Cost to plug and abandon Injection wells (\$/LF)	\$ 4.00	
# of Monitoring Wells	80	
Cost to plug and abandon Monitoring wells (\$/LF)	\$ 4.00	
#of Restoration Wells	0	
Cost to plug and abandon Restoration wells (\$/LF)	\$ 6.26	
# water supply wells	1	
Cost to plug and abandon Water Supply wells (\$/LF)	\$ 6.26	
Total Number of Wells	481	
Average Diameter of Casing (inches)	5	
Average Depth (ft)	650	
Subtotal Abandonment Cost per Wellfield	\$1,457,729	
B. Removal of Contaminated Soil Around Wells		
# of Production and Injection Wells	400	
Cost per well (\$/well)	\$162.15	
Subtotal Removal of Soil Around Wells	\$64,860	
O Della estan II-la Alexada estad		
C. Delineation Hole Abandonment		
# of Projected Holes	700	
Average Depth (ft)	650	
Hole Abandonment Unit Cost (\$/ft of hole)	\$6.26	
Site Reclamation (\$/site)	\$66.37	
Subtotal Hole Abandonment per Wellfield	\$2,894,756	
D. Waste Disposal Injection Well Abandonment	Fed BY1	Fed BY2
1. Well Sealing		
Assume: TD = 8570' FedBY1, TD = 8559' FedBY2		1
Sealing cost per foot (in UIC permit)	\$11.91	\$11.91
Subtotal Plugging Costs per Well (in UIC permit)	\$102,069	\$101,938
2. Pump Dismantling and Decontamination		
Number of Persons	2	2
Number of Pumps	2	2
Pumps/Day	0.5	0.5
Number of Days	4	4
\$/Day/Person	\$224	\$224
Subtotal Dismantling and Decon Costs per Well	\$1,788.80	\$1,788.80
3. Tubing String Disposal (NRC-Licensed Facility)		
Length of Tubing String (ft)	8,570	8,559
Diameter of Tubing String (inches)	2.875	2.875
Volume of Tubing String (ft <sup>3</sup> )	386	386
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34	\$7.34
Subtotal Tubing String Disposal Costs per Well	\$2,833	\$2,830
Subtotal Waste Disposal Well Abandonment Costs per Well	\$106,691	\$106,556
Total Waste Disposal Well Abandonment Costs	\$213,247	
TOTAL WELL ABANDONMENT COSTS	\$4,630,592	

PART V: MISCELLANEOUS SURFACE RECLAMATION	
A. Wellfield Pattern Area Reclamation	
Assume:	
Disking/Seeding Unit Cost Based on Actual Contractor Costs	
Pattern Area (acres)	23.5
Wellfield Pattern Area Disking/Seeding Unit Cost (\$/acre)	\$60
Subtotal Pattern Area Reclamation Costs per Wellfield	
Total Wellfield Pattern Area Reclamation Costs	
B. Wellfield Road Reclamation	
Length of Wellfield Roads (1000 ft)	20
Wellfield Road Reclamation Unit Cost (\$/1000 ft)	\$731
Subtotal Road Reclamation Costs per Wellfield	
Total Wellfield Road Reclamation Costs	
C. Header House Surface Reclamation	
Assume:	
Number of Header Houses	
Area of Disturbance per Header House (ft2)	100
Total Area of Disturbance (acres)	0.1
Average Depth of Stripped Topsoil (ft)	
Surface Grade: Level Ground	
Average Length of Topsoil Haul (ft)	100
1. Ripping Overburden with Dozer	
Ripping Unit Cost per WDEQ Guideline No.12, App.I1 (\$/acre)	\$1,104.19
Subtotal Ripping Costs	
2. Topsoil Application with Scraper	
Volume of Topsoil Removed (cy)	25
Application Unit Cost per WDEQ Guideline No.12, App.C (\$/cy)	\$1.09
Subtotal Topsoil Application Costs	\$28
3. Disking and Seeding	
Disking/Seeding Unit Cost (\$/acre)	\$600
Subtotal Disking/Seeding Costs	
Subtotal Header House Reclamation Costs per Wellfield	
Header House Reclamation Costs per Weilfield	
TOTAL WELLFIELD SURFACE RECLAMATION COSTS	
D. Satellite Plant Area Reclamation	Satellite Area Reclamation
1. Topsoil Application	Reciamation
Assume:	
Average haul distance (ft)	2000
Surface grade: Level ground	1
Topsoil Surface Area (acres)	21
Average Depth of Topsoil (ft)	0.8
Volume of Topsoil (cy)	16940
Topsoil Unit Cost per WDEQ Guideline No.12, App.C (\$/cy)	\$1.09
Total Topsoil Application Cost	
2 Disking/Sooding	
Surface Area (acres)	5 6000
2. Disking/Seeding Surface Area (acres) Disking/Seeding Unit Cost (\$/acre)	\$606
Surface Area (acres)	\$3,030

2011-12 YEAR 1 MINING OPERATIONS RECLAMATION SURETY BOND ESTIMATE

WDEQ Permit No. 632 Annual Report / NRC SUA-1548 North Butte ISR Project - WDEQ Permit No. 632 Update

PART V: MISCELLANEOUS SURFACE RECLAMATION	
	Main Access
E. Access Road Reclamation	Road
Assume	
Surface grade: Level ground	
Length of road (miles)	6
Average road width (ft)	25
1. Gravel Road Base Removal	
Assume	
Average haul distance (ft)	1000
Gravel Road Base Width (ft)	25
Average Road Base Depth (ft)	0.5
Volume of Road Base (cy)	14667
Removal Unit Cost per WDEQ Guideline No.12, App.C (\$/cy)	\$1.09
Subtotal Gravel Road Base Removal Costs	
2. Ripping Overburden with Dozer	
Overburden Surface Area (acres)	18
Ripping Unit Cost per WDEQ Guideline No.12, App.I1 (\$/acre)	\$1,104.19
Subtotal Ripping Overburden Costs	
	\$18,075
3. Topsoil Application	
Assume	(000
Average haul distance (ft)	1000
Topsoil Surface Area (ft2)	792000
Depth of Topsoil (ft)	0.5
Volume of Topsoil (cy)	14667
Topsoil Unit Cost per WDEQ Guideline No.12, App.C (\$/cy)	\$1.09 \$15,987
Subtotal Topsoil Application Costs 4. Disking/Seeding	\$10,907
Surface Area (acres)	18
Disking/Seeding Unit Cost (\$/acre)	\$606
Subtotal Disking/Seeding Costs	\$10,908
Total Access Road Reclamation Costs	\$62,757
F. Francesticn David Declamation	Ponds 1
F. Evaporation Pond Reclamation	and 2
Assume:	
Total Pond Surface Acres	2.5
Average Thickness of Liner and Sludge (in)	3
Average Thickness of Contaminated Soil (in)	6
Volume of Byproduct Material (ft3)	81675
Backhoe Operation Unit Cost	
1. Liner & Sludge Removal and Loading	
a. Equipment	
	1
Number of Backhoes	
Number of Backhoes ft3/hr	
	272
ft3/hr	272 \$149.14
ft3/hr Number of Hours	272
ft3/hr Number of Hours \$/hr/Backhoe	272 \$149.14
ft3/hr Number of Hours \$/hr/Backhoe Equipment Costs	272 \$149.14
ft3/hr Number of Hours \$/hr/Backhoe Equipment Costs b. Labor	272 \$149.14 \$40,566
ft3/hr Number of Hours \$/hr/Backhoe Equipment Costs b. Labor Number of Persons	272 \$149.14 \$40,566 2

PART V: MISCELLANEOUS SURFACE RECLAMATION	
Labor Costs	\$12,289
Subtotal Liner & Sludge Removal and Loading Costs	\$52,855
2. Transportation and Disposal (NRC-Licensed Facility)	
Transportation and Disposal Unit Cost (\$/ft3)	\$7.51
Subtotal Transportation and Disposal Costs	\$613,773
3. Leak Detection Piping Removal and Loading	
Assume:	······································
Piping Removal Unit Cost same as for Well fields (\$/ft)	\$2.30
Length of Piping (ft)	400
a. Piping Removal and Loading Costs	
Total Length of Piping (ft)	400
Subtotal Piping Removal and Loading Costs	\$920
b. Shredding Costs	
Average Diameter of Piping (inches)	2
PVC Pipe Shredding Unit Cost (\$/diameter-in-ft)	\$0.028
Subtotal Pipe Shredding Costs	\$56
c. Transport and Disposal Costs (NRC-Licensed Facility)	
Chipped Volume Reduction (ft3/ft)	0.01
Chipped Volume (ft3)	4
Volume for Disposal Assuming 10% Void Space (ft3)	4
Transportation and Disposal Unit Cost (\$/ft3)	\$7.34
Subtotal Piping Transport and Disposal Costs	\$29
Subtotal Leak Detection Piping Removal and Disposal Costs	\$1,005
4. Replacement of Excavated Soil	
Assume:	
Includes replacement of topsoil and subsoil	
Surface Grade: Level ground	
Average Haul Distance (ft)	1000
Surface Area (acres)	2.5
Average Depth of Excavated Soil (ft)	10.0
Volume of Topsoil (cy)	40333
Soil Replacement Unit Cost per WDEQ Guideline No.12, App.C (\$/cy)	\$1.09
Subtotal Soil Replacement Costs	\$43,963
5. Disking/Seeding	
Surface Area (acres)	2.5
Disking/Seeding Unit Cost (\$/acre)	\$606
Subtotal Disking/Seeding Costs	\$1,515
Total Evaporation Pond Reclamation Costs	\$713,111
TOTAL MISCELLANEOUS SURFACE RECLAMATION COSTS	\$826,795

# TABLE RP-4A Reclamation Cost Estimate Detailed Assumptions and Calculations

		WE	LL A	BAN	DON	MENTI	Jnit Cost	S				<u> </u>
				Pei	Guide	line 12						
Sealing using High Solids Bei	ntonite (	Grout	#500	dee	p						T	\$4.0
Sealing using High Solids Ber			-	_							1	\$6.2
		1	1		1		<u> </u>	T				
DEM		1 0 F CC		MI		100	AROUN					
	I		T			JOIL					T	
<u> </u>		+			<u> </u>		<u>↓</u>					
Assumptions: 1 Use backhoe for 0.25 hr/we		+	+	-			<u>∤</u>				───	
2 Radiation Technician meas		nt of co	i	ation	for 0.2	5 hr/well	+		┉┼┈╶┼			
		1	T	1	1						+	
Assessment/Removal Costs											Cost	er well
	L			1								
Cat 416 Backhoe		<u> </u>		<u> </u>	0.000		<u> </u>			·		
Radiation Technician	025	hours	<u> </u>	<u> </u>	27.29		per hour		++		+	\$6.8
	0.25	hours	<u> </u>		26.87		per hour			·	+	\$6.7
Operator			<u>+</u>		120.07						<u> </u>	40.7
	0.25	1	7		27.95		per hour				1	\$6,9
Remove Casing		well	>		15.00		per well		=			\$15.0
Hole Plug/Cap		each	>		7.50		each		=	· <u></u>	ļ	\$7.5
Site Grading & Seeding	213	each	<u>  ``</u>		31.00		er sm sit	8				\$66.0
Disposal and Transportation Costs			1									
Centerringtod Spill por Mall						0.220						
Contaminated Soil per Well Disposal and Transportation				S		143.50	cy per we per cy	311			+	\$53.1
							F					
Total Estimated Cost per We	11:											\$162.1
		{	1	T						·		
l	[		linia	tion	Surfa	ce Unit				<del>_</del>		
1					Julia					<u></u>	1	and the second second
Assumptions:				+	<u> </u>		<u>├</u>				 	
			-									
				<u> </u>								
	L		<u> </u>						-+-+-		\$/ft (b	ased on
Delineation Surface Reclamation	n Costs									650		holes)
			ļ									
Site Locating		per site	x	<del>  </del> \$	<u> </u>	10.00	per site			10.00	e	0.015
Site Grading & Seeding	ļ	perate	<u>  ^</u>			10.00	Per sile		╼┟═╶┼╸	10.00	<b>₩</b>	0.015
			[								1	
Cal 416 Backhoe			X	\$			per hour		=	27.29		0.042
Operator Seeding	0.0184		X X	S \$			per hour per acre		-  =  -	27.95		0.043
Total Estimated Cost per V		aue	<u>^</u>	₽		000.00	per acre		1=1	<u>11.13</u> 66.37	\$	0.017
otal Estimated Cost per F		L	1		L		L			00.37	<u> </u>	\$0.12

#### FIVE YEAR MECHANICAL INTEGRITY TESTS (MIT)

#### Assumptions:

- 1. Equipment Costs are referenced to UC-Equip Cost
- 2. Labor Costs are referenced to Master Cost
- 3. Use pulling unit for 2 hr/well at cost of \$110/hr. with Labor
- 4. Use MIT unit for 1.5 hrs/well at cost of \$69.54/hr. With Labor

MIT Costs per Well

### Equipment with Labor:

	N	IT COST	PER WELL	\$416
3 hours	х	\$ 65.3	per hour	\$195.91
•	х	\$ 110	per hour	\$220.00
Pulling Unit				

1000 ft per day

1000 feet per day

# WELLFIELD PIPING REMOVAL Unit Costs

		- 41 -	
Ass	um	puo	ns:

- 1. Trenching with Trackhoe at
- 2. Pipeline extraction and backfilling with Trackhoe & loader at 2000 ft/day
- 4. Trackhoe operation requires 1 worker
- 5. Pipeline extraction requires 2 workers
- 6. Operating schedule: 8 hrs/day, 5 days/week

# Equipment

	Trackhoe							
		\$ \$ 149.14 hour	X	8 hours day		1 day 1000 ft	=	\$1.19 per foot
	Loader			-				
	9	46.60576 hour	х.	8 hours day	x	1 day 1000 ft	=	\$0.37 per foot
	Pickup			•				
	5	\$ 19.45 hour	x	8 <u>ho</u> urs day	x	1 day 1000 ft	=	\$0.16 per foot
Labor								
	Trackhoe Opera	tion						
		_\$ 27.95 man hr	x	8 man hrs 1 day	х	<u>1 days</u> 1000 ft	=	\$0.22 per foot
	Loader Operatio	n						
		\$ 27.95 man hr	X	8 man hrs 1 day	x	1 day 1000 ft	=	\$0.22 per foot
	Pipeline Extracti	ion Laborer						
		\$ 17.23 man hr	x	8 man hrs 1 day	x	1 day 1000 ft	=	\$0.14 per foot
								\$2.30 per foot

# MAIN PIPELINE REMOVAL COST

Chipped Pipe Volume Calculations

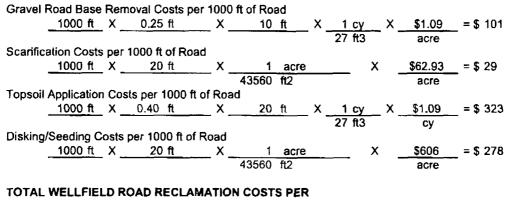
						Volume of
Pipe					Area of Plastic	Plastic per
Diam				Wall	in Crossection	Linear Foot
inches	SDR	OD	ID	Thickness	(ft <sup>2</sup> )	(ft <sup>3</sup> )
1.5	11	1.900	1.534	0.183	0.0069	0.0069
2	11	2.375	1.917	0.229	0.0107	0.0107
3	11	3.500	2.825	0.3375	0.0233	0.0233
4	11	4.500	3.633	0.4335	0.0385	0.0385
6	11	6.625	5.348	0.6385	0.0834	0.0834
8	11	8.625	6.963	0.831	0.1413	0.1413
10	11	10.750	8.678	1.036	0.2196	0.2196
12	11	12.750	10.293	1.2285	0.3088	0.3088
14	11	14.000	11.302	1.349	0.3723	0.3723
16	11	16.000	12.916	1,542	0.4864	0.4864
18	11	18.000	14.531	1.7345	0.6155	0.6155
20	11	20.000	16.364	1.818	0.7211	0.7211
24	11	24.000	19.636	2.182	1.0386	1.0386

\$2.30 per foot

### WELLFIELD ROAD RECLAMATION

#### Assumptions:

- 1. Gravel road base removed at cost of \$1.19/cy/1000 ft (WDEQ Guideline No.12, Appendix C)
- 2. Gravel road base: average depth = 0.25 ft, average width = 10 ft
- 3. Roads scarified prior to topsoil application at cost of \$59.41/acre (WDEQ Guideline No. 12, Appendix P)
- 4. Topsoil applied at cost of \$1.19/cy/1000 ft (WDEQ Guideline No. 12, Appendix C, Surface grade: level ground)
- 5. Stripped topsoil: average depth = 0.4 ft, average width = 20 ft
- 6. Disking/seeding cost of \$685/acre is based on actual contractor costs



· ·

1000 FT OF ROAD

= \$ 731

#### PIPE SHREDDING COST:

#### **Assumptions:**

- 1. Shredder Cost (UC-Equipment Costs)= \$ 22.41 hr
- 2. Operator Cost( Master Costs) = \$17.23 hr
- 3 Shredding Rate :

a. HDPE SDR 11 pipe = 8,000 (diameter - inches - feet / day)

- eg: 1,000 ft of 8" diameter, or , 2,000 ft of 4" diameter per day
- b. PVC pipe = 16,000 (diameter inches feet / day)

## Shredding Cost: (Includes Labor)

a. HDPE SDR 11: <u>454.9997 \$/day</u> = <u>\$0.057</u> <u>8,000 Dia-in-ft/day</u> Dia - in - ft

b. PVC:

454.9997	\$/day	=	\$0.028
16,000	Dia-in-ft/day	_	Dia - in - ft

Equipment Costs - based on Cost								10				cosi/galion≓	: \$	3.00			GEC	: = gro	und eng	jagin	д сотроп	ents			18%		
				ership & Ov	renau	_	_					st/ gallon =	\$	3.23												_	
		Owners	ship			Over	haul		_		Field Re	pair & Opera	ating	Expense	es (no	opera	ator	abor)			Total		1	6	wner's		
												Fuel consum.	ļ								Operating	Tot	al Hourly	1 -	Profit &	J	
Equipment Description	Depr. \$	CFC	\$	O'Head \$	Lab	or \$	Pa	irts \$	La	bor \$	Parts \$	Gel/hr	1	Fuel \$	Lub	e\$	Ti	res \$	GEC	s	cost/hr		Cost		)H/hr	C	Cost/hr
													1											1			
Cat 14H Grader - 14' Blade	\$ 16.53	\$ 7.	.29	\$ 9.16	\$	3.95	\$	8.32	\$	3.29	\$ 8.0	7.04	5	22.74	\$	4.22	\$	5.14	<u>\$</u> C	.64	\$ 44.10	\$	89.35	\$	16.08	\$	105.43
Bobcal S250 Skid Steer Loader	\$ 1.95	\$ 0.	.64	\$ 0.78	\$	1.75	S	1.31	\$	1.42	\$ 0.9	2.78	\$	8.97	\$	0.84	\$	0.85	\$ C	.08	\$ 13.09	\$	19.52	\$	3.51	\$	23.03
Backhoe 416E Extendable Boom	\$ 3.85	<b>S</b> 1	.51	\$ 1.30	\$	1.21	\$	0.92	\$	1.23	\$ 1.1	2.88	\$	9.29	5	1.57	\$	0.95	\$ 0	.15	\$ 14.33	5	23.12	\$	4.16	5	27.29
Cat 924H 4-WD Wheel Loader	\$ 8.05	\$ 2	.76	\$ 2.63	\$	2.30	\$	1.85	\$	2.85	\$ 1.8	4.12	\$	13.32	\$	1.87	\$	1.83	<u>s</u> (	.24	\$ 21.91	\$	39.50	\$	7.11	\$	46.61
Cal 615C Elevaling Scarper	\$ 17.88	\$ 7.	.79	\$ 7.88	\$	7.89	\$	14.79	\$	12.27	<b>\$</b> 13.3	10.07	\$	32.52	\$	5.18	\$	3.33	<u>s</u> 1	.14	\$ 67.75	\$	123.98	\$	22.32	\$	146.30
Cat D8R Dozer - Semi U Blade	\$ 21.97	<b>S</b> 7.	.90	\$ 7.53	\$	7.89	\$	14.36	\$	8.77	\$ 13.8	11.36	5	36.69	\$	5.41	\$		\$ 2	.01	\$ 66.74	5	126.39	s	22.75	\$	149.14
Cat 320C L Trackhoe	<u>\$ 16.31</u>	\$ 5	.02	\$ 3.64	\$	5.70	\$	5.60	5	5.70	\$ 5.6	5.80	\$	18.72	5	3.52	\$		\$ (	.90	\$ 34.44	\$	70.71	\$	12.73	5	83.44
Concrete Jaws Labounty - CP-60	\$ 1.57	5 0	.47	5_0.47	5	0.81	\$	0.39	\$	7.30	\$ 1.9	;	5		5	0.21	\$	-	\$		\$ 9.46	s	13.17	\$	2.37	\$	15.54
Grove RT700E 50 ton RT Crane	\$ 20.62	\$ 6	.85	\$ 8.83	\$	6.07	\$	9.81	\$	5.85	\$ 13.7	11.54	5	37.28	\$	6.22	\$	5.70	5	-	\$ 68.84	\$	121.02	\$	21.78	\$	142.80
Vermeer 1230 Chipper	\$ 2.19	\$ 0	.40	\$ D.60	\$	1.21	\$	1.38	\$	0.99	<b>\$</b> 1.0	2.92	\$	9.43	\$	0.83	S	0.26	\$ (	.69	\$ 13.22	\$	19.00	\$	3.42	\$	22.41
JLG 600S Manlift - 60 ft (Gas)	\$ 11,12	<b>\$</b> 2	.18	\$ 1.51	\$	5.10	5	4.52	\$	5.26	\$ 1.8	3.11	5	9.33	\$	1.71	5	0.80	\$		<b>\$</b> 18.97	5	43.40	\$	7.81	s	51.21
Pressure Washer 5 gpm 2200 psi	\$ 0.21	\$ O	.04	\$ 0.03	5	0.34	5	0.09	\$	0.52	\$ 0.0	0.50	5	1.50	\$	0.17	\$	-	\$	-	\$ 2.23	\$	2.94	\$	0.53	\$	3.47
Pick-up Truck 3/4 Ion 4X4	\$ 2.66	\$ 0	.44	\$ 0.37	\$	0.59	\$	0.54	\$	0.75	\$ 0.5	2 3.14	1 5	9.42	\$	0.79	\$	0.40	5	-	<b>5 11.8</b>	5	16.48	5	2.97	\$	19.45
Pulling Unit - Truck 1.75 Ton 4X4	\$ 4.06	\$ 0	.71	\$ 0.72	\$	0.66	5	0.68	Ś	0.83	\$ 0.8	6.88	\$	20.63	5	1.66	\$	0.65	\$	-	\$ 24.62	\$	31.65	+			
Hoisting Unit - Hydraulic 18000#	\$ 4.91	5 0	.90	\$ 0.78		1.46		1.32		1.80		2 -	\$	-		0.46		•	\$	-	\$ 3.78	\$	13.15				
Pulling Unit Total	\$ 8.97	<b>5</b> 1	.61	\$ 1.50	\$	2.12	\$	2.20	5	2.63	\$ 2.3	6.88	\$	20.63	S	2,12	\$	0.65	\$		\$ 28.40	5	44.80	\$	8.06	\$	52.87
MIT Truck - 1.75 Ton 4X4 Gas	\$ 4.06	\$ 0	.71	<u>\$</u> 0.72	5	0.66	\$	0.88	\$	0.83	\$ 0.8	5 6.88	\$	20.63	\$	1.66	\$	0.65	\$	·	\$ 24.62	\$	31.65	5	5.70	\$	37.35
Mobile Mixer Trailer Mounted - Cementer - Grout mixer pumper	\$ 5.86	<b>S</b> 1	.12	<b>\$</b> 1.07	\$	4.16	\$	1.68	\$	5.48	S 1.8	5 2.02	\$	6.52	5	0.85	5	0.40	\$	-	\$ 15.10	) <b>S</b>	28.99	s	5.22	\$	34.21
Gooseneck Trailer 3 Axle - fixed	\$ 2,85	<b>\$</b> 0	.76	\$ 0.45	\$	1.42	\$	0.88	5	1.64	\$ 1.2	2	\$	· .	\$	0.29	\$	2.24	s	-	\$ 5.39	5	11.75	\$	2.12	\$	13.87
GEHL DL-8 Rough Terrain Lift Truck	\$ 8.35	<u>s</u> 1	.88	<b>\$</b> _1.92	\$	5.06	\$	4.93	\$	5.28	\$ 3.3	3.23	S	10.44	\$	1.61	5	1.43	\$		\$_22.07	'\$	44.21	5	7.96	\$	52.17

#### Mine Unit Date

		Mine Unit T	Mine Unit 1	Mine Unit J	Mine Unit 4	Mone Unit a
Total number of production webs		140			0	
Total number of specton wells		300			ù	
Total number of monthly works		75			0	0
Flere Fector		15			<u> </u>	0
Wellbeld Ares (12)		1 005 400	0	0	0	0
Wedleid Ares (arres)		23 53	0.00	0.00	600	000
Affected Ore Zone Area (82)		1.095.400	0	0	0	0
Avg Completed Thickness		20 0	200	20.0	200	20 a
Paradity		0 27	0.27	027	0 27	027
Affected Volume (fl3)		32,662,000	0	0	0	D
Kgabara per Pore Volume		60 308	0	0	0	0
Number of Patients in Unit(s)						<b>↓</b> −−−−
Humber of Pagents in Unique)	Current	<del></del>	0	0	0	
	Estimated next report	140	0	0	<u> </u>	0
·····	Total Estimated	140	0		0	0
Number of Wells in Unit(s)		I	ł			
Production Webs					<b> </b>	+
	Current			0		
····	Estimated next (eport	140	<u> </u>			
	Total Estimated	140			t	
Injection Wells						t—∹—
	Current	0	0	0	0	0
	Estimated next report	250	8	8	0	0
	Total Estimated	260	0	0	0	0
Monthe and Restoration Wells						
	Current	0	0	0	0	8
	Estimated next report	80	0	0	0	0
	Total Estimated	60	0	D	0	0
Number of Wells per Wallfield		480	0	0	0	0
Total Number of Wells		480				
Average Weil Depth (fi)		680	0	0	0	l
Average Dismeter of Caung (not	vm)	3	5	5	5	1
Delinestion Holes Estimated Next	Report Period	700	0	0		0
Length of Fancing (N)	····	0	0		<u> </u>	0
Number of Deep Disposal Wells		2			ł	· · · · ·
Electrical Costs		2009 Actual				
Power cost		<0.0478	kwłty		<b> </b>	
Klowett te Horsepower		0,745	KWHP		†~~ <u>~</u> ~~~	·
Horsepower per gallon per minute		D.107	HP/gpm			1
	· · · · · · · · · · · · · · · · · · ·					
Labor Rates						
Latest Avadable, Wyoming, Moun					Ì	1
Council, July, 2009 or 2011 Bidg-	Cost Prevaling Wages					1
(Guideline 12 method)		Inc 42% benefit			L	<u> </u>
		l	(i.e. overhead)			L
Environmental Manager/RSO		\$45.4.2	\$64 51	hour		Employers Council
Reportion Manager/Hydrologist		\$32.21	\$45.74	haur		Employers Council
Operator		\$23.22	\$27.95	hour	12011 Hidg Const	Prevaling Wages
Laborer		\$15 17	\$17.23	hour	12017 Bildg Const	Prevailing Wages
Engineer Rediction/Environmental Enginee	and Technician	18 92	\$28.87	hour	Material Solution	Employers Council Employers Council
THE REPORT OF THE PROPERTY OF THE	I COLUMN		\$20.01		Turner from States	Linkerten Count
2,080 working hours at a yest		173	fram the munth		1	<b> -</b>
and a second second second second		+			1	+
<b></b>		+	t	h		1
Chamical Costs		2010 Actual	t		1	1
Arithscalars1 for RO		\$16.19	gat	<u> </u>	t	
Socium Sulide		50 38	pormd		1	
Methanol		\$2.43	provide a second s	t		1
Coment		55 94	suck	· · · · · · · · · · · · · · · · · · ·		<u>├───</u>
Bestonte Tubes		\$2.90	6.be	· · · · · · · · · · · · · · · · · · ·	1	1
Phug Gel		\$7 30	sach		1	1
Well Cap		57 50	pech		1	1
Hydrochiaric Acid		50 16	pound		1	1
*		· · · · · · · · · · · · · · · · · · ·			·	

			·····			
Analytical Costs			1			
Guideline 5 (contract heb adjusted	by surrent contract coart	\$337.00	enalysia			
8 persmeter (p-house) Esi Rate (0		\$100.00	erselvata.			
Other (radon, bro, etc.) Est Rate (C		\$1,000 00	ribnam			
Equipment Coste		·	ł			
Equipment Cal 924G Londer	Bana Raniel Rain (Mini) 846 61	Labor Costa (Site) N/A	Renak Reserve Costa (\$4n)	Euel Costa (3/m)	Mob & Densob.	[pia( (\$/hr) \$48 61
Cet 418 Backhoo	527 29	NA		anc	inc.	\$27.29
Shredder	322 41	NA	THC I	inc	inc	\$22.41
Cut D&N Bulldozer	7146 20	N/A	Inc	inc	İnc	\$146 30
Pulling Unit with Operator	<110 00	Inc	ine	thc	inc	1110 00
MIT Unit with Operator	537 35	N/A	inc	Inc	Inc	\$37.35
Drill Rig (workover, repair, PBA) w	200 00	Enc.	Inc	inc	Inc	\$200.00
Goose Neck Trader	513 87	N/A	inc i	nc	inc	\$13 67
Mankfi Rental	551 21	Inc	inc	Inc	inc	\$51 21
Cementer	534 21	N/A	INC	Inc I	EXC.	\$34 21
Crans Rental with Operator	5142 80	inc	inc	0~0	inc	\$142 80
Cal 320C L Trackhoe	\$149.14	N'A	inc	the	inc	\$149 14
Concrete Jaws Labourty - CP-	583 44	N/A	inc	me	nc	\$83 44
Pick-up Truck 3/4 Ion 4X4	\$19.45	N/A	Inc I	BIC	the state	\$19.45
Hose Reel	\$62 50	N/A	enc	inc	inc	\$62.50
Bobcal S250 Skid Steer Loads	\$23.03	N/A	Inc	inc	inc	\$23 03
Cat 14H Grader - 14' Blede	\$105.43	N/A	Inc	inc	inc	\$105 43
Cet 815C Eleveting Scarper	3148 30	N/A	inc	Inc	nt	\$148.30
Baum			1			
Drill Rig Based on Current Contra	al		1			
Equipment rates based on Coal R	everence Guide Equipmen	t Wetch 2010 up	odated addition (se	UIC-Equip Cost)		
Pulling Unit Cost Based on Quete						
Diesel costs from EIA projected en				\$3 230	gallon	
Gasoline costs from EIA projected	average for 2011			\$3 000	ration	

Wasie Form	£19		Density Correction Factor (Top/(143)	Een per Cubic	. Irenances		Isiai Iumisenaiten aud Discost	
Sol, Concrete, Bulk Byproduct Material	3110 00	per Ton	0 54	\$59 40	\$143.50	per Yd3	\$202.90	per Yd3
							\$7.51	Ch req
Unpackaged Bulk Byproduct Material (e.g., prpe)	S1 30 00	per Ton	042	\$54 60	\$143.50	per Yd3	\$198 10	per Yd3
							\$7 34	per fi3
Solid Wirste (landfill)	12300 02	perLb			brd	perLb	\$0 00927	pertb
Solid Wests (land50)	\$132 /4	per Load			Ind	per Load	\$133 75	per Load
Void Fector (for disposal)	1 25						1	
Transportation Cost per toad	32 800	bsolvebry	30	yd			1	
Ban Rental (90 days @ \$13 00 per day)	SI 170						1	
Decontemenation Fee	\$170	per Load					1	
Unloading Fee	\$165	perLoad						
Tobal Transportation	54 305							
Disposel Costs are Based on the Current Contract							<u>+</u> ↓	
With Denkion Mines good Brough 2015								
Temportation is Celouteted from SRH							·   · · ·	

	tion Factore son solid material			
Materiel	Pounds/CY Solid (bank)	Broken (Loose)		Load Factor
Granita	4536	2781	39%	0.61
Umestone	4401	2619	40%	0 60
Sandatone	3815	2538	35%	0 65
Concrete	3996	2176	48%	0.54
Send & gravel	2700	2400	11%	0 89

Guideline No. 12 Unit Costs (Includes Profil						
Peragraph 12, Miscellaneous (Administrative, Overhead as	ad Contingency)					
Extrapolated percentage based on numbers provided	T			15	percent	
					·	
App K, Cost Estimates for Demolition and Removal of Rate	and Smith and Fer	aties Buildings				
Task Cost per un		pional Goal Adusta		Aduated Cost per	Und	
Mbrbire of Types 40 2	dan	0 957		\$0 249		
	4 13	- 1947		\$0 230		
Disposal (Average) 84	8 cy	0 257		\$8 115	<u> </u>	
Criv Landia Dump Charges \$100 0		0 957		595 700	2	
Concrete Footings and Foundations	400	0 957		50 000		
	. <u> </u>			35 053		
	6 62	0 957	·			
Footnigs - 2' Thick, 3' Wide 18 9	Sibn A	0 957		518 135	in, 4	
Concrete Disposal On-Site 7.2	8 67	0 957		SE 967	9	
Dump truck from Appendit J 64 3.	3 hr					
Catarpeter 980G from Appendix J 106 0	5 7					
	1					
City Lundfill Dump Charges x demuty correction factor	1	0 42		342 00		
······································	1	1				
App C, Calculations for Moving Mitterials with a Caterplian	TUG Push Part C	Cancel Final		Operating Cost a	et berrik (er aftu) cuit	hic varies
One-Way Distance 500 feet, 0% grade	1			50 913	Ibey 1	
One-Way Distance 1,000 feet, 0% grade				51 090		
				51 040	pcy	
One-Way Distance 2,000 fast, 0% grads		· · · · · · · · · · · · · · · · · · ·		51 413	100Y	
One-Way Distance 6 500 lest, 5% grade, resisting				\$3 820	bey	
	L	L				
App E. Calculations for Moving Material with a Caterplian I	39R Dozer			Operating Cost p	er ineer cubic yerd	
Distance 50 feet		I		50 133	ley .	
	1					
App H, Cost Estimates for Handling Wire Fending and Elec	ctrical Power Lines					
Fenong Removal	T			50 31	linear foot	
		t				
App I, Cost Estimate for Ripping Asphalt Using a Caterplit	NOR Correct	·····		Operating Cost	<b> </b>	
the fight of the second s	1	<u>↓</u>		5703.07	per aure	
·				5/02 01	100.000	
		}				
App 11, Cost Estimate for Repping Overburden Using a Ca		1		Operating Costs		
02	7 ecre/hour	·			per hour	
			~	\$1,104.19	per nore	
				-		
App J, Cost Estimate for Removing one 20' Section of CM	P			Operating Cost		
	1			5122 07	per 20' section	
					·	
App L, Abandonment and Sealing of Cased Drift Holes and	J Montior Weils					
Site Grading	T			\$30.00	per site	
Seeding		1			persite	
Large Snew 100' x 100'		1			per site	
App O Cost to Remove One Meteorological Station	+			CODE AS	per site	
The Control Remove Control Control Control	+	f		2000 40		
··			L	t		
	1					1
App P. Cost Estimates for Scarification of Compacted Sur	inces Using Cat 18	H Grader	L	Operating Costs		
	Pacre/hour				per hour	
	· · · · · · · · · · · · · · · · · · ·	1	L	\$62.93	per acra	1
Vehicle Operating Costs						1
Picinip (Gas) 526 15						1
Pickup (Diesel) \$72.65	1	T				1
	T	1				
	1					
Seeding Unit Costs	1	1	<u> </u>	+	+	
Dalung / Seating/Topsol Costs		2010 Actual		·	1	{
Seed cost	+		per stre	+	+	1
						1
Hay Mutch Crimped and TecloBer Soll Amendment	1	\$540	per scre		I	ł
1						
Seed and Mulch Depth of Topsol			per noss feet			1

# North Butte Satellite Plant Dimension Calculations

Satellite Plant Dime	nsions		
Exterior	T		·····
Main Building	Height, ft	Width, ft	Length,ft
	22	80	160
Office	19	40	160
Restoration	19	40	160
Roof			
Half of total building		80	160

Shop Dimensions			
Interior			
Interior Wall Dim	Height, ft	Width, ft	Length,ft
	19	40	
Floor			
Main Satellite		80	160
Restoration Area		40	160

Satellite Plant Surface	Area	
Ends	3,520	ft <sup>2</sup>
Side 1	3,520	ft <sup>2</sup>
Side 2	3,520	ft <sup>2</sup>
Total	10,560	ft <sup>2</sup>
Office and Maint		
Side 1	3,040	ft <sup>2</sup>
Ends	1,520	ft <sup>2</sup>
Restoration		
Side 1	3,040	ft <sup>2</sup>
Ends	1,520	
Total	4,560	ft <sup>2</sup>
Subtotal	19,680	ft <sup>2</sup>
Outside Walls		
Roof	25,600	ft <sup>2</sup>
2 halves		
Main Shop Floor	12,800	
Restoration	6,400	ft <sup>2</sup>
Offices	6,400	ft <sup>2</sup>
Interior Walls		
5 walls total		
5 Walls	3,800	ft <sup>2</sup>
Total Building Surface Area	49,080	ft <sup>2</sup>

Ν

Building Volume		
Main Plant	281,600	ft <sup>3</sup>
Support Spaces	243,200	ft <sup>3</sup>
Total Building Volume	524,800	ft <sup>3</sup>
Demolition		
volume	33,000	ft <sup>3</sup>

# DDW Building Dimensions Exterior

Main Building	Height	Width	Length
Dimensions	ft	ft	ft
· _ · · · · · · · · · · · · · · · · · ·	10	20	24
			l
			··
Building Volume	4800	ft <sup>3</sup>	
Surface Area for the	Satellite PI	ant	
Ends	400	ft <sup>2</sup>	····
Side 1	240	ft <sup>2</sup>	
Side 2	240		
Total	880		
Roof	480	ft <sup>2</sup>	
2 halves			
Main Shop Floor	480	ft <sup>2</sup>	
Total Building Surface Area	1360	ft <sup>2</sup>	
Volume of Building			
Main Plant	4800	ft <sup>3</sup>	
Support Spaces	0	ft <sup>3</sup>	
Total Building Volume	4800	ft <sup>3</sup>	
Demolition			
volume	1000	ft <sup>3</sup>	

#### Table RP 6-1 Reclamation Cost Estimate

## Abbreviations/Acronyms

\$	Dollars
\$/Kgal	Dollars per 1000 gallons
avg	average
ft	feet
ft2	square feet
ft3	cubic feet
gal	gallon
gpm	galtons per minute
H&S	Health and Safety
H2S	Hydrogen Sulfide
H2SO4	Sulfuric Acid
HCI	Hydrochloric Acid
Hp	Horsepower
Kgal	1000 gallons
Kwth	Kilowatt-hours
NaOH	Caustic Soda
OD	Outside Diameter
PPE	personal protective equipment
PV	Pore Volume Estimate
reqm't	requirement
RO	Reverse Osmosis
WDW	Waste Disposal Well
cv	cubic vards
WDW	Waste Disposal Well
cy	cubic yards
yr	year



CAMECO RESOURCES

Project Development 550 N. Poplar Street Suite 100 Casper, WY 82601 USA

Tel: (307) 237 - 2128 Fax: (307) 237 - 2142 www.cameco.com

September 19, 2011

Mr. Glenn Mooney, Sr. Analyst WDEQ Land Quality Division – District III 2100 W. 5th Street Sheridan, WY 82801

RE: Request for Partial Bond Release North Butte Uranium ISR Project Campbell County

Dear Mr. Mooney:

Cameco Resources (Cameco) is enclosing two (2) paper copies of an Abandoned Drill Site Report (Table 1) and 2010/11 Plugged and Abandoned Borehole Map - North Butte (Map 1).

Following a drill site inspection on March 16, 2011 LQD approved a reclamation surety bond of \$1,735,000 for the proposed drilling program for 2011 of 400 boreholes. At this time LQD also released partial bond of 123 boreholes from the 2010 drilling program.<sup>1</sup>

On August 31, 2011 Cameco requested another site drilling inspection with Glenn Mooney, LQD, following the completion of the 2011 Delineation Program. There were 509 delineation holes drilled from September 2010 to July 2011. Of the 509 holes, 123 were released from the bond during the March 16, 2011 inspection. The remaining 386 delineation holes have all been reclaimed through surface cement capping, and the locations have been contoured (see enclosed Table 1 and Map 1). Seeding for the boreholes will take place beginning the week of September 19<sup>th</sup>, 2011. Cameco is requesting partial credit for theses remaining 386 delineation holes.

NUCLEAR. The Clean Air Energy.

<sup>&</sup>lt;sup>1</sup> Letter dated 3/31/2011 from Glenn Mooney to Jean Lawlor, re: NB ISL Operation, Permit No. 632

Page 2 of 2 September 19, 2011 G. Mooney / LQD Sheridan Cameco / Request for Partial Bond Release

For the remainder of 2011 Cameco intends to drill approximately 60 monitor wells and a deep disposal test well. Both the monitor wells and the deep disposal test well are covered in our approved 2010/11 surety of \$1,735,000. If you have comments or questions concerning this request for partial bond release, please contact Jeanie Wolford in Casper at telephone 307-333-7644 or at e-mail Jeanie\_Wolford@cameco.com.

Sincerely, Cameco Resources

Josh Leftwich Director, Radiation Safety & Licensing

Enclosures: Table1 - Abandoned Drill Site Report Map 1 - Plugged and Abandoned Borehole Map - North Butte

cc: file NB4.3.4.2 B.Soliz / CR Casper (pdf only) Cheyenne (pdf only)

JL/jmw/ah H:\NorthButte\Annual Reports\2010\Addendum\_2010 Annual Report.doc

To Be Filed with the WDEQ-Land Quality Division, as required by W.S.35-11-404(d)&(e)

	Organizatio	sources	00						ate of Report: r the Year of:	<u>9/1/11</u> 2010-11			CN#	DN# R&D#
	550 N. Popla Casper, WY Tel. 307-237	82601	00					N	INERAL CON	MODITY:	<u>uranium</u>			
	Tel. 307-237	-2120	Locati	on near	est 40-	acre sub	division					<u> </u>	[	- I
Hole No.	Date Drilled	Date Aban- doned	TWN N	RNG W	SECT	<u>00</u>	State Plane Northing, ft	State Plane Easting, ft	County	Land Status**	Totai Depth Drilled	artestian flow gpm	how surface capped	ebandonment procedures remarks Abandoned
13-470	1/27/11	1/27/2011	44	76	13		1136099	298881	CAMPBELL	4	659	0	Cement Plug	according to W.S. 3 11-404 & WDEQ/LQD Ch.8
13-476	2/14/11	2/14/2011	44	76	13	_	1136453	298487	CAMPBELL	1	677	0	Cement Plug	Mocarcao onto
13-477	2/11/11 2/14/11	2/11/2011 2/14/2011	44	76	13		1136254 1136150	298481 298482	CAMPBELL	- 1	678 683		Cement Plug Cement Plug	+
13-479	2/11/11	2/11/2011	44	76	13		1136051	298480	CAMPBELL	1	683	0	Cement Plug	
13-484 13-486	2/22/11	2/22/2011 2/22/2011	44	76	13 13		_1136146 1136046	298935 298832	CAMPBELL	1	666 679	0	Cement Plug Cement Plug	+
13-487	2/22/11	2/22/2011	44	76	13		1136003	298732	CAMPBELL	1	682	0	Cement Plug	
13-490 13-491	2/16/11	2/16/2011 2/17/2011	44	76	13		1136302 1136100	298633 298634	CAMPBELL	1	680	0	Cement Plug Cement Plug	+
13-492	2/23/11	2/23/2011 2/18/2011	44	76	13		1136002	298632	CAMPBELL	1	680	0	Cement Plug	
13-494 13-495	2/18/11 2/16/11	2/16/2011	44	76	13 13		1136101 1136199	298533 298532	CAMPBELL	1	683 685		Cement Plug Cement Plug	·
13-497	2/15/11	2/15/2011	44	76	13		1136502	298431	CAMPBELL	1	698	0	Cement Plug	
13-498 13-500	2/17/11 2/17/11	2/17/2011 2/17/2011	44	76 76	13 13		1136402 1136200	298432 298433	CAMPBELL	1	704 679	0	Cement Plug Cement Plug	
13-507 13-513	2/15/11	2/15/2011 3/14/2011	44 44	76 76	13 13		1136394 1136456	298341 297885	CAMPBELL CAMPBELL	1	699 739	0	Cement Plug Cement Plug	
13-520	3/8/11	3/8/2011	44	76	13		1136656	297789	CAMPBELL	1	760	0	Cement Plug	
13-526 13-527	3/8/11	3/8/2011 3/7/2011	44	76 76	13 13	]	113685E 1136856	297888	CAMPBELL	1	740	0	Cement Plug Cement Plug	
13-535	3/1/11	3/1/2011	44	76	13		1137256	297791	CAMPBELL	1	740	0	Cement Plug	•
13-543 13-544	3/1/11	3/1/2011 3/3/2011	44 44	76 76	13 13		1137657 1137657	297694 297593	CAMPBELL	1	760	0	Cement Plug Cement Plug	- <u> </u>
18-153	10/07/10	10/7/2010	44	75	18		1136078	301031	CAMPBELL	1	660	0	Cement Plug	
18-154	10/08/10	10/8/2010	44	75 75	18 18		1136048 1136080	300927 300832	CAMPBELL	1	<u>659</u> 659	0	Cement Plug Cement Plug	
18-158	10/14/10	10/11/2010	44	75	18		1136082	300733	CAMPBELL	1	659	0	Cement Plug	
18-159 18-162	10/19/10	10/19/2010	44	75 75	18 18		1136182	300732 300633	CAMPBELL	1	657 658	0	Cement Plug Cement Plug	<del>:</del>
18-163	11/08/10	11/8/2010	44	75	18		1136080	300521	CAMPBELL	. 1	681	0	Cement Plug	
18-164	10/20/10 11/5/10	10/20/2010	44	75 75	18 18		1136183	300534 300439	CAMPBELL	1	679 661	8	Cement Plug Cement Plug	· · · · · · · · · · · · · · · · · · ·
18-171	10/21/10	10/21/2010	44	75	18		1136272	300431	CAMPBELL	1	677	0	Cement Plug	
18-172 18-174	10/21/10 11/5/10	10/21/2010 11/5/2010	44	75 75	18 18		1136182 1135988	300449 300333	CAMPBELL	1	678 680	0	Cement Plug Cement Plug	
18-175 18-176	11/17/10 10/22/10	11/17/2010	44	75 75	18 18		1136185 1136285	300338	CAMPBELL	<u>1</u>	681	0	Cement Plug Cement Plug	
18-177	10/28/10	10/28/2010	44	75	18		1136385	300338	CAMPBELL	1	680 659	0	Cement Plug	•
18-179 18-181	11/4/10	11/4/2010	44	75 75	18		1136585	300338 300236	CAMPBELL	1	<u>657</u> 659	0	Cement Plug Cement Plug	
18-182	10/29/10	10/29/2010	44	75	18		1136388	300236	CAMPBELL	1	660	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
18-184 18-185	11/12/10 11/23/10	11/12/2010	44	75	18		1136187	300236 300234	CAMPBELL	1	658 637	0	Cement Plug Cement Plug	
18-186	12/2/10	12/2/2010	44	75	18		1135990	300235	CAMPBELL	1	687	0	Cement Plug	
18-188	11/17/10	11/17/2010	44	75	18		1136088 1136188	300137 300136	CAMPBELL		<u>667</u> 661	0	Cement Plug Cement Plug	+
18-191	1/21/11	1/21/2011	44	75	18		1136387	300137	CAMPBELL	1	665	0	Cement Plug	
18-192 18-193	11/02/10	11/2/2010	44	75	18 18		1136588	300138	CAMPBELL	1	660 659	0	Cement Plug Cement Plug	+
18-194	11/3/10	11/3/2010	44	75	18		1136788	300138	CAMPBELL	1	660	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
18-195	1/14/11 1/14/11	1/14/2011	44	75	18 18	+	1136792 1136688	300028 300039	CAMPBELL	1	662 661	0	Cement Plug Cement Plug	+
18-197	1/7/11	1/7/2011	44	75	18		1136589	300038	CAMPBELL	1	664	0	Cement Plug	
18-198 18-199	12/3/10 12/6/10	12/3/2010	44	75	18		1136488 1136389	300037 300034	CAMPBELL	1	665	0	Cement Plug Cement Plug	· · · · · · · · · · · · · · · · · · ·
18-200	12/2/10	12/2/2010	44	75 75	18		1136287	300034	CAMPBELL	1	660	0	Cement Plug	
18-201 18-202	12/6/10 12/1/10	12/1/2010	44	75	18 18		1136188 1136088	300034 300034	CAMPBELL	1	658 668	0	Cement Plug Cement Plug	
18-205 18-206		12/13/2010	44	75 75	18 18		1136086 1136189	299932	CAMPBELL	1	660	0	Cement Plug Cement Plug	
18-208	12/9/10	12/9/2010	44	75	18	<u> </u>	1136385	299937 299934	CAMPBELL	1	666 665	0	Cement Plug	
18-210	1/6/11 1/12/11	1/6/2011	44	75 75	18 18		1136591	299936 299941	CAMPBELL		661	0	Cement Plug	
18-211 18-213	1/14/11	1/14/2011	44	75	18 18		1136688 1136787	299941 299830	CAMPBELL	1	658 661	0	Cement Plug Cement Plug	
18-216 18-217		12/13/2010	44	75 75	18 18		1136490 1136391	299836 299837	CAMPBELL	1	670	0	Cement Plug	
18-221	12/15/10	12/15/2010	44	75	18		1135988	299832	CAMPBELL	1	667 667	0	Cement Plug Cement Plug	
18-227 18-232	12/17/10	12/17/2010	44	75 75	18 18	_ <del></del>	1136489 1136206	299737 299635	CAMPBELL	1	663 662	0	Cement Plug Cement Plug	
18-234	1/6/11	1/6/2011	44	75	18		1135991	299631	CAMPBELL	1	663	0	Cement Plug	· · · ·
18-240 18-241	1/25/11 1/21/11	1/25/2011	44	75 75	18 18	$-\top$	1135992 1136093	299331 299334	CAMPBELL	1	662 661	0	Cement Plug Cement Plug	
18-243	1/24/11	1/24/2011	44	75	18		1135996	299230	CAMPBELL	1	641	0	Cement Plug	
18-259	11/19/10	11/19/2010	44	75	18		1135602	300449	CAMPBELL	1	660	0	Cement Plug	
18-260 18-262		2/18/2010	44	75 75	18 18	_+	1135996 1136097	300326 299032	CAMPBELL	1	688 659	0	Cement Plug Cement Plug	<u>+</u>
18-263	2/18/11	2/18/2011	44	75	18		1135995	299029	CAMPBELL	1	658	0	Cement Plug	
19-309 19-310	9/17/10 09/09/10	9/17/2010 9/9/2010	44	75	19 19	_+	1134820 1134820	301922 302022	CAMPBELL	1	578 577	0	Cement Plug Cement Plug	<u> </u>
19-311	09/24/10	9/24/2010	44	75	19		1135022	301924	CAMPBELL	_1		0	Cement Plug	
19-313 19-317		9/8/2010 9/28/2010	44	75 75	19 19	_+	1135072 1135209	301624 301646	CAMPBELL CAMPBELL	1	<u>577</u> 599	-0	Cement Plug Cement Plug	·
19-318		9/17/2010	44	75	19		1135223	301477	CAMPBELL	1	598	0	Cement Plug	· · · ·

[	1	1	Locati	on near	es1 40-	acre sub	division	· · · ·		1	· · · · ·	1	r · · · · - · · ·	<u> </u>
		Date Aban-	TWN	RNG			State Plane	State Plane		Land	Total Depth	ertestien		abandonment
Hole No. 19-322	Date Drilled 09/10/10	doned 9/10/2010	<u>N</u> 44	W 75	SECT 19	00	Northing, ft 1135475	Easting, ft 301427	County CAMPBELL	Status** 1	Drilled 578	flow gpm 0	how surface capped Cement Plug	procedures remarks
19-323	9/20/10	9/20/2010	44	75	19		1135626	301471	CAMPBELL	1	719	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
<u>19-326</u> 19-327	9/21/10 09/24/10	9/21/2010 9/24/2010	44	75	<u>19</u> 19		1135730	301335 301268	CAMPBELL	1	620	0	Cement Plug	·
19-328	9/21/10	9/21/2010	44	75	19		1135823	301266	CAMPBELL	1	<u>617</u> 619		Cement Plug Cement Plug	
19-329	9/22/10	9/22/2010	44	75	19		1135829	301223	CAMPBELL	1	619	0	Cement Plug	•
19-331	09/30/10	9/30/2010 9/30/2010	44	75	19 19		1135960 1135977	301279 301131	CAMPBELL	1 1	719	0	Cement Plug Cement Plug	
19-332 19-333	09/29/10	9/29/2010	44	75	19		1135873	301086	CAMPBELL	$\frac{1}{1}$	736		Cement Plug	
19-334	10/01/10	10/1/2010	44	75	19		1135928	301031	CAMPBELL	1	739	0	Cement Plug	
19-335 19-336	10/04/10	10/4/2010 10/6/2010	44	75	19 19		1135878 1135978	300931 300931	CAMPBELL	1 1	739	0	Cement Plug Cement Plug	
19-337	10/13/10	10/13/2010	44	75	19		1135980	300832	CAMPBELL	1	738	0	Cement Plug	·
19-338	10/05/10	10/5/2010	44	75	19		1135881	300832	CAMPBELL	1	739	0	Cement Plug	•
19-339 19-340	11/4/10	11/4/2010	44 44	75 75	19 19		1135882 1135982	300733 300733	CAMPBELL CAMPBELL		742 659	0	Cement Plug Cement Plug	
19-340	11/01/10	11/1/2010	44	.75	19		1135981	300632	CAMPBELL	1	661	6	Cement Plug	
19-342	11/2/10	11/2/2010	44	75	19		1135976	300534	CAMPBELL	1	685	0	Cement Plug	•
<u>19-343</u> 19-344	11/3/10	11/3/2010	44 44	75	19 19		1135887 1135889	<u>300334</u> 300236	CAMPBELL CAMPBELL		686 680	0	Cement Plug Cement Plug	
19-345	2/10/11	2/10/2011	44	75	19		1135947	299082	CAMPBELL	1	661	0	Cement Plug	•
19-349	11/19/10	11/19/2010	44	75	19		1135888	300137	CAMPBELL	1	667	0	Cement Plug	
19-361 19-367	12/16/10	12/16/2010	44	75	19 19			299732 299331	CAMPBELL	1	<u>649</u> 643	0	Cement Plug Cement Plug	<u> </u>
19-370	1/14/11	1/14/2011	44	75	19		1135694	299229	CAMPBELL	1	643 641	0	Cement Plug	1
19-371	1/21/11	1/21/2011	44	75	19		1135795	299230	CAMPBELL	1	627	0	Cement Plug	
<u>19-374</u> 19-393	1/17/11	1/17/2011 11/16/2010	44 44	75 75	<u>19</u> 19		1135745 1135788	299083 300235	CAMPBELL	1	646 687	0	Cement Plug Cement Plug	<u> </u>
19-394	11/23/10	11/23/2010	44	75	19		1135882	300224	CAMPBELL	1	687	0	Cement Plug	<u> </u>
19-396	2/10/11	2/10/2011	44	75	19		1135648	299078	CAMPBELL	1	640	0	Cement Plug	
19-402 19-404	2/10/11 2/17/11	2/10/2011 2/17/2011	44 44	75 75	19 19		1135592	299329 299033	CAMPBELL CAMPBELL	1	640 659	0	Cement Plug Gement Plug	<del> </del>
19-410	2/17/11	2/17/2011	44	75	19		1135897	299132	CAMPBELL	1	639	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
24-1282 24-1283	2/11/2011 2/9/2011	2/11/2011 2/9/2011	44	76 76	24 24	]	1135693 1135799	298880 298879	CAMPBELL	1	660	0	Cement Plug	
24-1283	2/11/2011	2/11/2011	44	76	24		1135799	298578	CAMPBELL	1	660 682	0	Cement Plug Cement Plug	
24-1287	2/28/2011	2/28/2011	44	76	24		1135848	298933	CAMPBELL	1	660	0	Cement Plug	•
24-1292	2/24/2011 1/26/11	2/24/2011 1/26/2011	44	76 76	24 13		1135747 1135997	298728 298883	CAMPBELL	1	679 634	0	Cement Plug Cement Plug	
13-471	1/27/11	1/27/2011	44	76	13		1136197	298882	CAMPBELL		662	0	Cement Plug	<u> </u>
13-472	2/4/11	2/4/2011	44	76	13		1136350	298684	CAMPBELL	1	680	0	Cement Plug	•
13-473 13-474	2/3/11 2/4/11	2/3/2011 2/4/2011	44	76	13 13		1136149 1136049	298683 298683	CAMPBELL	1	<u>679</u> 679	0	Cement Plug Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-475	2/14/11	2/14/2011	44	76	13		1136452	298583	CAMPBELL	1	679	ő	Cement Plug	
13-483	2/7/11	2/7/2011	44	. 76	_13		1136350	298684	CAMPBELL	1	682	0	Cement Plug	
13-485 13-488	2/21/11 2/17/11	3/21/2011 2/17/2011	44	76 76	13 13		1136148	298832 298732	CAMPBELL	1	680 686	0	Cement Plug Cement Plug	
13-489_	2/18/11	2/18/2011	44	76	13		1136202	298729	CAMPBELL	1	684	0	Cement Plug	
13-493	2/23/11	2/23/2011	44	76	13		1135997	298530	CAMPBELL	1	685	0	Cement Plug	
13-496	2/16/11 2/15/11	2/16/2011 2/15/2011	44	76	13		1136300	298531 298435	CAMPBELL	1	<u>682</u> 672	0	Cement Plug Cement Plug	
13-501	3/22/11	3/22/2011	44	76	13		1136101	298433	CAMPBELL	1	691	ð	Cement Plug	•
13-502	3/22/11	3/22/2011	_44	76	13		1135998	298435	CAMPBELL	1	683	0	Cement Plug	
13-510	5/02/11 3/23/11	5/2/2011 3/23/2011	44	76	13 13		1136006	298222 298133	CAMPBELL	1	698 720	0	Cement Plug Cement Plug	
13-512	3/10/11	3/10/2011	44	76	13		1136456	297986	CAMPBELL	1	1049	0	Cement Plug	•
13-514	3/23/11 3/23/11	3/23/2011	44	76	13 13		1136455 1136456	297786 297684	CAMPBELL	1	739	0	Cement Plug	· _ ·
13-515	3/23/11	3/23/2011	44	76	13		1136453	297585	CAMPBELL		751 763	0	Cement Plug Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-517	3/22/11	3/22/2011	44	76	13		1136663	297489	CAMPBELL	1	760	0	Cement Plug	•
13-518	3/23/11 3/23/11	3/23/2011 3/23/2011	44	76	13		1136659 1136655	297587 297688	CAMPBELL	1 1	771	0	Cement Plug Cement Plug	
13-519 13-521	3/16/11	3/16/2011	44	76	13		1136656	297889	CAMPBELL	1	740	0	Cement Plug	·
13-522	3/14/11	3/14/2011	44	76	13		1136656	297989	CAMPBELL	1	739	0	Cement Plug	
13-523	3/15/11 3/8/11	3/15/2011 3/8/2011	44	76	13 13		1136656	298089	CAMPBELL	1	741 753	0	Cement Plug Cement Plug	·
13-528	3/23/11	3/23/2011	44	76	13		1136856	297690	CAMPBELL	1	761	0	Cement Plug	
13-529	3/22/11 3/9/11	3/22/2011	44	76	13 13		1137058	297709	CAMPBELL	1	740	0	Cement Plug	:
<u>13-531</u> 13-532	3/8/11	3/9/2011 3/8/2011	44	76 76	13		1137058 1137057	297892 297992	CAMPBELL CAMPBELL	$-\frac{1}{1}$	732	0	Cement Plug Cement Plug	
13-533	3/3/11	3/3/2011	44	76	13		1137259	297993	CAMBPELL	. 1	751	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-534	3/2/11 3/14/11	3/2/2011 3/14/2011	44	76	13 13	+	1137257 1137258	297892 297693	CAMPBELL	1	734		Cement Plug	
13-536	3/14/11	3/21/2011	44	76	13		1137259	297693	CAMPBELL	$\frac{1}{1}$	760	0	Cement Plug Cement Plug	
13-539	3/21/11	3/21/2011	44	76	13		1137456	297587	CAMPBELL	1	759	D	Cement Plug	·····
13-540	3/3/11 3/2/11	3/3/2011 3/2/2011	44	76	13 13		1137457 1137457	297694 297794	CAMPBELL	1	761	0	Cament Plug	·
13-542	3/24/11	3/24/2011	44	76	13	ŀ	1137457	297895	CAMPBELL		742	0	Cement Plug Cement Plug	
13-545	2/22/11	2/22/2011	44	76	13		1136148	298832	CAMPBELL	1	989	0	Cement Plug	•
13-546	3/21/11 3/21/11	3/21/2011 3/21/2011	44	76	13		1135996 1136401	298799 298535	CAMPBELL		690 680	0	Cement Plug Cement Plug	
13-548	3/22/11	3/22/2011	44	76	13		1136553	298482	CAMPBELL		696	ō	Cement Plug	
13-549	3/15/11	3/15/2011	44	76	13		1137208	297942	CAMPBELL	1	739	0	Cement Plug	•
13-550	3/15/11 3/16/11	3/15/2011 3/16/2011	44	76	13		1137207 1137207	297843 297742	CAMPBELL CAMPBELL	$-\frac{1}{1}$	752	0	Cement Plug Cement Plug	;
13-552	3/16/11	3/16/2011	44	76	13		1137307	297742	CAMPBELL		738	0	Cement Plug	
13-553	3/16/11	3/16/2011	44	76	13		1137307	297842	CAMPBELL	1	743	0	Cement Plug	•
13-554	3/17/11 3/16/11	3/17/2011 3/16/2011	44	76	13 13	<u> </u>	1137307	297942	CAMPBELL		738	0	Cement Plug Cement Plug	
13-556	3/10/11	3/17/2011	44	76	13		1137406	297744	CAMPBELL	1	739	0	Cement Plug	
13-557	3/17/11	3/17/2011	44	76	13		1137406	297644	CAMPBELL	1	773	0	Cement Plug	
13-558	3/21/11 3/17/11	3/17/2011 3/17/2011	44	76	13 13		1137509		CAMPBELL		773	0	Cement Plug Cement Plug	
13-559	3/15/11	3/15/2011	44	76	13		1137507	297844	CAMPBELL		739	0	Cement Plug Cement Plug	
13-561	3/17/11	3/17/2011	44	76	13		1137608	297746	CAMPBELL	1	759	0	Cement Plug	•
13-562		3/18/2011	44	76	13		1137608				759	0	Cement Plug	
13-563	3/21/11	3/21/2011	44	76	13	l-	1137608	297544	CAMPBELL	1	758	0	Cement Plug	

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			Locati	on near	est 40-	acre sul	odivision			I	1		1	1
										1	Totel			
Hole No.	Date Drilled	Date Aban- doned	TWN	RNG	SECT	00	State Plane Northing, ft	State Plane Easting, ft	County	Land Status**	Depth Drilled	flow gpm	how surface capped	abandonment procedures remarks
13-564	3/18/11	3/18/2011	44	76	_13		1137707	297544	CAMPBELL	1	763	0	Cement Plug	procedures remains
13-565	3/18/11	3/18/2011	44	76 76	13		1137708 1137709	297646	CAMPBELL	1	760	0	Cement Plug	
13-566 13-567	3/15/11 3/14/11	3/15/2011 3/14/2011	44 44	76	13 13		1137709	297746 297796	CAMPBELL	1	761	0	Cement Plug Cement Plug	•
13-568	04/01/11	3/30/2011 3/24/2011	44	76	13		1137657	297493	CAMPBELL	1	773	0	Cement Plug	
13-569 13-570	3/24/11 3/24/11	3/24/2011	44	76	13 13		1137708 1137608	297844 297843	CAMPBELL		766	0	Cement Plug Cement Plug	•
13-573	3/24/11	3/24/2011	44	76	13		1137209	298043	CAMPBELL	1	733	0	Cament Plug	
13-574 13-575	3/25/11 3/25/11	3/25/2011 3/25/2011	44 44	76 76	13		1137107 1137006	297942 297942	CAMPBELL		755	0	Cement Plug Cement Plug	
13-576	3/24/11	3/24/2011	44	76	13		1136906	297838	CAMPBELL	1	741	0	Cement Plug	
13-577 13-578	3/25/11 3/24/11	3/25/2011 3/24/2011	44	76 76	13		1136806 1136706	297838 297839	CAMPBELL CAMPBELL	1	741 742	0	Cement Plug Cement Plug	+
13-579	3/28/11	3/28/2011	44	76	13		1136706	297939	CAMPBELL	1	739	0	Cement Plug	•
13-580 13-581	3/29/11 3/28/11	3/29/2011 3/28/2011	44 44	76 76	13 13		1136704 1136706	298037 298139	CAMPBELL CAMPBELL	1	745	0	Cement Plug Cement Plug	
13-582	03/30/11	3/30/2011	44	76	13		1136610	298152	CAMPBELL	1	740	0	Cement Plug	•
13-583 13-584	3/29/11 3/29/11	3/29/2011 3/29/2011	44 44	76 76	13 13		1136607 1136608	298039 297939	CAMPBELL		750		Cement Plug Cement Plug	
13-585	03/29/11	3/29/2011	44	76	13		1136606	297841	CAMPBELL	1	739	0	Cement Plug	•
13-586 13-587	03/30/11 03/29/11	3/30/2011 3/29/2011	44 44	76 76	13 13		1136506 1136507	297835 297937	CAMPBELL	1	743	0	Cement Plug Cement Plug	
13-588	03/29/11	3/29/2011	44	76	13		1136507	298036	CAMPBELL	1	748	0	Cement Plug	•
13-589 13-590	03/30/11 03/29/11	3/30/2011 3/29/2011	44	76 76	13 13		1136407 1136410	297935 297850	CAMPBELL	1	740	0	Cement Plug Cement Plug	
13-591	04/04/2011	4/4/2011	44	76	13	<b></b>	1136654	298190	CAMPBELL	1	740	0	Cement Plug	
13-592 13-593	04/01/2011 4/5/11	4/1/2011 4/5/2011	44 44	76	13 13		1136706 1137007	298239 297742	CAMPBELL	1	739	0	Cement Plug Cement Plug	<u> </u>
13-595	4/6/11	4/6/2011	44	76	13		1137404	297945	CAMPBELL	1	740	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-596 13-597	04/04/2011 04/01/2011	4/4/2011 4/1/2011	44	76 76	13 13		1137507 1137557	297946 297896	CAMPBELL	1	743	0	Cement Plug Cement Plug	· · ·
13-598	4/11/11	4/11/2011	44	76	13		1137658	297895	CAMPBELL	1	761	0	Cement Plug	
13-599 13-600	4/7/11 4/7/11	4/7/2011 4/7/2011	44	76 76	13 13		1137858	297896 297796	CAMPBELL	1	763	0	Cement Plug Cement Plug	•
13-601	4/6/11	4/6/2011	44	76	13		1137855	297698	CAMPBELL	1	760	0	Cement Plug	•
13-602	4/12/11 4/11/11	4/12/2011 4/7/2011	44	76 76	13 13		1137855 1137857	297489 297396	CAMPBELL	1	801	0	Cement Plug Cement Plug	
13-604	4/7/11	4/7/2011	44	76	13		1137855	297297	CAMPBELL	1	800	Ö	Cement Plug	•
13-605	4/20/11	4/20/2011 4/11/2011	44	76 76	13 13		1138060 1138060	297500 297409	CAMPBELL CAMPBELL	1	0 841	0	Cement Plug Cement Plug	•
13-607	4/7/11	4/7/2011	44	76	13		1138063	297301	CAMPBELL	1	839	0	Cement Plug	• • • • •
13-608 13-609	4/11/11 4/11/11	4/11/2011 4/11/2011	44	76 76	13 13		1138061 1138061	297200 297100	CAMPBELL		<u>841</u> 841	0	Cement Plug Cement Plug	
13-610	4/25/11	4/25/2011	44	76	13		1138061	297001	CAMPBELL	1	842	0	Cement Plug	•
13-611	4/12/11 4/20/11	4/12/2011 4/20/2011	44	76 76	13 13		1138262 1138260	296999 297098	CAMPBELL	1	860	0	Cement Plug Cement Plug	
13-613	4/12/11	4/12/2011	44	76	13		1138261	297200	CAMPBELL	1	840	0	Cement Plug	•
13-614 13-615	4/25/11 4/25/11	4/25/2011	44	76 76	13 13		1138262 1136901	297295 297742	CAMPBELL	1	842 763	00	Cement Plug Cement Plug	
13-616	4/25/11	4/25/2011	44	76	13		1136797	297730	CAMPBELL	1	763	0	Cement Plug	
13-617 13-618	4/20/11 4/20/11	4/20/2011	44	76 76	13		1136506 1136507	297734 297634	CAMPBELL	1	740		Cement Plug Cement Plug	
13-619	4/25/11	4/25/2011	44	76_	13		1136506	297534	CAMPBELL	1	763	0	Cement Plug	•
13-620 13-621	4/25/11 4/26/11	4/25/2011 4/26/2011	44	76	13 13		1136406 1136406	297535 297663	CAMPBELL	1	761	0	Cement Plug Cement Plug	
13-622	4/26/11	4/26/2011	44	76	13		1136408	297732	CAMPBELL	1	748	0	Cement Plug	· · · ·
13-623	4/26/11 4/26/11	4/26/2011 4/26/2011	44	76	13		1136053 1136053	298083 298182	CAMPBELL	1	761	0	Cement Plug Cement Plug	
13-625	6/27/2011	6/27/2011	44	76	13		1136607	297741	CAMPBELL	1	767	0	Cement Plug	
13-626	6/22/2011 6/8/11	8/1/2011 6/8/2011	44	76	13 13		1136706	297739 397839	CAMPBELL		760	0	Cement Plug Cement Plug	
13-629	6/7/11	6/7/2011	44	76	13		1136756	298288	CAMPBELL	1	742	0	Cement Plug	•
13-630	6/8/11 6/1/11	6/8/2011 6/1/2011	44	76	13 13		1136648	298280 298045	CAMPBELL CAMPBELL	$-\frac{1}{1}$	738	0	Cement Plug Cement Plug	
13-632	6/1/11	6/1/2011	44	76	13		1137458	297996	CAMPBELL	1	742	0	Cement Plug	
13-633	6/2/11 6/2/11	6/2/2011 6/2/2011	44	76	13		1137557	297994 297850	CAMPBELL	1	742 762	0	Cement Plug Cement Plug	
13-635	6/3/11	6/3/2011	44	76	13		1137908	297849	CAMPBELL	1	762	0	Cement Plug	·
13-636 13-637	6/2/11 6/3/11	6/2/2011 6/3/2011	44 44	76 76	13 13		1137908 1137808	297748 297749	CAMPBELL	1	7 <u>59</u> 764	0	Cement Plug Cement Plug	•
13-638	6/2/11	6/2/2011 6/2/2011	44	76	13		1137807	297648	CAMPBELL	1	761 762	0	Cement Plug	
13-639 13-640	6/2/11 6/3/11	6/3/2011	44 44	76 76	13 13		1137909 1137858	297649 297598	CAMPBELL	1	762	0	Cement Plug Cement Plug	
13-641	6/3/11	6/3/2011	44	76	13		1137812	297550	CAMPBELL	1	782	0	Cement Plug	
13-642 13-643	6/8/11 6/3/11	6/8/2011 6/3/2011	44 44	76 76	13 13		1137806 1137707	297445 297445	CAMPBELL		801 783	0	Cement Plug Cement Plug	•
13-644	6/3/11	6/3/2011	44	76	13		1137608	297446	CAMPBELL	1	784	0	Cement Plug	
13-646	6/6/11 6/6/11	6/6/2011 6/6/2011	44	76 76	13 13		1137809 1137813	297348 297249	CAMPBELL	1	801 803	0	Cement Plug Cement Plug	· · ·
13-648	6/6/11	6/6/2011	44	76	13		1137911	297248	CAMPBELL		801 701	0	Cement Plug	
13-649 13-650	6/7/11 6/8/11	6/6/2011 6/8/2011	44 44	76 76	13 13		1137911 1138018	297348 297352	CAMPBELL		791 842	0	Cement Plug Cement Plug	•
13-651	6/7/11	6/7/2011	44	76	13		1138012	297251	CAMPBELL	1	843	0	Cemant Plug	
13-652 13-653	6/7/11 6/7/11	6/7/2011 6/7/2011	44 44	76 76	13 13	<u> </u>	1138015 1138007	297151 297050	CAMPBELL	1	837 842	0	Cement Plug Cement Plug	<u> </u>
13-654	6/7/11	6/7/2011	44	76	13		1138114	297049	CAMPBELL	1	843 842	0	Cement Plug	
13-655	6/13/11 6/8/11	6/13/2011 6/8/2011	44	76	13 13		1138113 1138115	297150 297250	CAMPBELL CAMPBELL	$-\frac{1}{1}$	<u>842</u> 642	0	Cement Plug Cement Plug	
13-657	6/13/11	6/13/2011	44	76	13		1138114	297351	CAMPBELL	1	842	0	Cement Plug	
13-658	6/14/2011 6/13/11	6/14/2011 6/13/2011	44	76	13 13		1138464	297253	CAMPBELL	1	858	0	Cement Plug Cement Plug	•
13-660	6/8/11	6/8/2011	44	76	13		1138465	297054	CAMPBELL	1	861	0	Cement Plug	
13-661	6/2/11	6/2/2011	44	76	13 13		1138061	297500 297147	CAMPBELL	1	842 822	0	Cement Plug Cement Plug	
13-663	6/14/11	6/14/2011	44	76	13		1138013	296948	CAMPBELL	1	862	0	Cement Plug	
13-664		6/13/2011 6/13/2011	44	76	13 13		1137913	297047 297149	CAMPBELL	- 1	B41 798		Cement Plug Cement Plug	
			<u></u>							· · ·				

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			Locatio	on near	st 40-a	acre sul	division					T		1
											Total			
Hole No.	Date Drilled	Date Aban- doned	TWN N	RNG W	SECT	00	State Plane Northing, ft	State Plane Easting, ft	County	Land Status**	Depth Drilled	artestian flow gpm	how surface capped	abandonment procedures remarks
13-666	6/23/2011	7/8/2011	44	76	13		1137707	297343	CAMPBELL	1	800	0	Cement Plug	
13-667 13-668	6/14/11 6/14/11	6/14/2011 6/14/2011	44	76 76	13 13		1137706 1137707	297242 297141	CAMPBELL	1	802 778	0	Cement Plug Cement Plug	
13-670	6/15/11 6/15/11	6/15/2011 6/14/2011	44	76	13		1137206 1137207	297442 297344	CAMPBELL	1	782 781	0	Cement Plug Cement Plug	
13-671 13-672	7/1/2011	7/1/2011	44	76 76	<u>13</u> 13		1136002	297344	CAMPBELL	1	764	0	Cement Plug	•
13-673 13-674	6/30/2011 7/1/2011	6/30/2011 7/1/2011	44 44	76 76	13 13		1136052 1136102	297982 298032	CAMPBELL CAMPBELL	1	764	0	Cement Plug Cement Plug	
13-675	6/23/2011	7/8/2011	44	76	13		1136912	297539	CAMPBELL	1	760	0	Cement Plug	•
13-676 13-677	6/24/2011 6/27/11	7/8/2011 6/27/2011	44	76 76	13		1136862 1136912	297489 297439	CAMPBELL	1	760	0	Cement Plug Cement Plug	<u></u>
13-678	6/24/2011	7/8/2011	44	76	13		1136912	297339	CAMPBELL	1	780	0	Cement Plug	
13-679 13-680	6/27/2011 6/24/2011	6/27/2011 7/8/2011	44 44	76 76	13		1137012 1137012	297239 297339	CAMPBELL	. 1	786	0	Cement Plug Cement Plug	
13-681	6/24/2011	7/8/2011	44	76	13		1137012	297439	CAMPBELL	1	780	0	Cement Plug	ļ
13-682 13-683	6/24/2011 6/23/2011	7/8/2011 7/8/2011	44	76 76	13		1137012 1137062	297539 297489	CAMPBELL	1	760 780	0	Cement Plug Cement Plug	
13-684 13-685	6/23/2011 6/27/2011	7/8/2011 6/27/2011	44	<u>76</u> 76	13 13		1137062 1137059	297389 297286	CAMPBELL	1	780 785	0	Cement Plug Cement Plug	<b>↓</b>
13-686	6/27/2011	6/27/2011	44	76	13		1137111	297233	CAMPBELL	1	806	0	Cement Plug	· · ·
13-687 13-688	6/28/2011 6/29/2011	7/8/2011 8/2/2011	44	76 76	13 13		1137112 1137112	297339 297439	CAMPBELL	1	760	0	Cement Plug Cement Plug	
13-689	6/30/2011	6/30/2011	44	76	13		1137111	297539	CAMPBELL	1	767	0	Cement Plug	
13-690 13-691	6/28/2011 6/30/2011	6/28/2011 6/30/2011	44	76 76	13 13		1137206 1137258	297241 297297	CAMPBELL	11	804 802	0	Cement Plug	<u> </u>
13-692	6/28/2011 6/29/2011	6/28/2011	44	76	13		1137258	297395 297443	CAMPBELL	1	782	0	Cement Plug	
13-693 13-694	6/29/2011	7/8/2011 7/8/2011	44	76 76	13 13		1137308 1137308	297343	CAMPBELL CAMPBELL	1	780	0	Cement Plug Cement Plug	• ·
13-695 13-696	7/5/2011 6/23/2011	7/5/2011 7/8/2011	44	76 76	13 13		1137306 1137863	297243 297200	CAMPBELL CAMPBELL	1	797 800	0	Cement Plug Cement Plug	
13-697	6/22/11	6/22/2011	44	76	13		1138114	296950	CAMPBELL	1	872	0	Cement Plug	<u>+</u>
13-698 13-699	6/17/2011 6/22/2011	7/7/11 7/27/2011	44	76	13 13		1138214 1138214	296952 297052	CAMPBELL CAMPBELL	1	860 860	0	Cement Plug Cement Plug	
13-700	6/17/2011	7/7/11	44	76	13		1138214	297152	CAMPBELL	1	840	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-701 13-702	6/15/11 6/30/2011	6/15/2011 6/30/2011	44	76 76	13 13		1138214 1138217	297250 297353	CAMPBELL	1	841 846	0	Cement Plug Cement Plug	
13-703	7/7/2011 6/16/2011	7/7/2011 7/7/11	44	76 76	13 13		1138313 1138314	297352 297252	CAMPBELL	1	841 840	0	Cement Plug Cement Plug	
13-705	6/16/2011	7/7/11	44	76	13		1138314	297152	CAMPBELL	1	860	0	Cement Plug	
13-706 13-707	6/17/2011 6/16/2011	7/7/11 6/15/2011	44	76	13		1138314 1138314	297052 296952	CAMPBELL	1	860	0	Cement Plug Cement Plug	
13-708c	6/28/2011	7/18/2011	44	76	13		1136653	298094	CAMPBELL	1	720	0	Cement Plug	·
13-709	6/16/2011 6/29/11	7/7/11 6/29/2011	44	76	13		1138314	296952 297253	CAMPBELL CAMPBELL		860	0	Cement Plug Cement Plug	<u> </u>
13-711	7/5/2011	7/5/2011 7/6/2011	44	76	13		1138202	297367	CAMPBELL	1	837	0	Cement Plug	
13-712 13-713	7/6/2011 7/7/2011	7/7/2011	44	76	13 13		1136890 1136915	297447 297241	CAMPBELL CAMPBELL	1	785 783	0	Cement Plug Cement Plug	•
13-714	7/13/2011	7/7/2011 7/13/2011	44	76	13 13		1137012 1137114	297140 297141	CAMPBELL		776 817	0	Cement Plug Cement Plug	
13-716	7/11/2011	7/8/2011	44	76	13		1137114	297041	CAMPBELL	1	820	0	Cement Plug	
13-717	7/12/2011 7/8/2011	7/12/2011 7/8/2011	44	76	13		1137113	297042 297141	CAMPBELL CAMPBELL	1	816 817	0	Cement Plug Cement Plug	
13-719	7/8/2011	7/8/2011	44	76	13		1137314	297141	CAMPBELL	- 1	638	0	Cement Plug	
13-720 13-721	7/11/2011 7/8/2011	7/11/2011 7/8/2011	44	76 76	13 13		1137212	297041 296997	CAMPBELL		840 843	0	Cement Plug	•
13-722	7/11/2011 7/11/2011	7/11/2011 7/11/2011	44 44	76 76	13 13		1137262	297097 297143	CAMPBELL	1	<u>842</u> 837	0	Cement Plug Cement Plug	
13-724	7/11/2011	7/11/2011	44	76	13		1137312	297040	CAMPBELL	1	841	0	Cement Plug	
13-725	7/13/2011 7/13/2011	7/13/2011 7/13/2011	44	76	13 13		1137412	297041 297091	CAMPBELL		839 840	0	Cement Plug Cement Plug	
13-727	7/19/2011	7/19/2011	44	76	13		1137416	297232	CAMPBELL	1	840	0	Cement Plug	
13-728	7/12/2011 7/13/2011	7/12/2011 7/13/2011	44	76 76	13 13		1137413 1137415	297341 297441	CAMPBELL	1	840 822	0	Cement Plug Cement Plug	· · · · ·
13-730 13-731	7/13/2011 7/12/2011	7/13/2011	44	76 76	13 13		1137461 1137466	297395 297298	CAMPBELL	- 1	819 815	0	Cement Plug Cement Plug	
13-732	7/13/2011	7/13/2011	44	76	13		1137463	297196	CAMPBELL	1	820	0	Cement Plug	· · ·
13-733	7/18/2011 7/18/2011	7/18/2011 7/18/2011	44	76	13		1137459 1137453	297097 296996	CAMPBELL	$-\frac{1}{1}$	<u>837</u> 841	0	Cement Plug Cement Plug	
13-735	7/14/2011	7/14/2011	44	76	13		1137663	296896	CAMPBELL	1	863	0	Cement Plug	
13-736 13-737	7/13/2011 7/14/2011	7/13/2011	44	76 76	13 13		1137663 1137663	296996 297096	CAMPBELL CAMPBELL	1	863 841	0	Cement Plug Cement Plug	
13-738	7/14/2011 7/15/2011	7/14/2011 7/15/2011	44	76 76	13 13		1137664 1137664	297196 297295	CAMPBELL CAMPBELL	1	840 821	0 0	Cement Plug	
13-739 13-740	7/14/2011	7/14/2011	44	76	13		1137664	297402	CAMPBELL	1	801	0	Cement Plug Cement Plug	•
13-741	7/15/2011 7/15/2011	7/15/2011 7/15/2011	44	76 76	13 13		1137865 1137866	296999 296900	CAMPBELL CAMPBELL	1	841 843	0	Cement Plug Cement Plug	
13-743	7/18/2011	7/18/2011	44	76	13		1137864	296801	CAMPBELL	1	860	0	Cement Plug	
13-744	7/19/2011 7/18/2011	7/19/2011 7/18/2011	44	76	13 13	{	1138065 1138165	296898 296999	CAMPBELL		842 862	0	Cement Plug Cement Plug	
13-746	7/14/2011	7/14/2011	44	76	13		1137049	296996	CAMPBELL	1	816	0	Cement Plug	
13-747	7/14/2011 7/15/2011	7/14/2011 7/15/2011	44	76 76	13 13		1137463 1137395	297196 297146	CAMPBELL	1	820 844	0	Cement Plug Cement Plug	
13-749	7/15/2011 7/21/2011	7/15/2011 7/21/2011	44 44	76 76	13 13		1137457 1137265	297198 296893	CAMPBELL	1	822 833	0	Cement Plug Cement Plug	
13-750 13-753	7/21/2011	7/21/2011	44	76	13		1137066	296893	CAMPBELL	1	638	0	Cement Plug	•
13-759	7/21/2011 7/22/2011	7/21/2011 7/22/2011	44	76 76	13 13		1136868 1136664	296992 296792	CAMPBELL	1	820 799	0	Cement Plug	
13-763	7/22/2011	7/22/2011	44	76	13		1136665	296B91	CAMPBELL	1	784	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·
13-764		7/22/2011 7/21/2011	44	76	13 13		1136667	296992 297095	CAMPBELL	1	761 764	0	Cement Plug Cement Plug	•
13-766	7/21/2011	7/21/2011	44	76	13		1136666	297193	CAMPBELL	1	761	0	Cement Plug	
18-161	11/3/10	10/15/2010	44	75 75	18 18		1136184 1136085	300635 300438	CAMPBELL	1	660 683	0	Cement Plug Cement Plug	· · · · ·
18-187		1/17/2011 12/2/2010	44		18 18		1135992 1136288	300136 300136	CAMPBELL	1	659 660	0	Cement Plug Cement Plug	•
18-190 18-203	12/9/10	12/9/2010	44	75	18		1135986	300035	CAMPBELL	1	616	0	Cement Plug	
18-207	12/9/10	12/9/2010	44	75	18	[	1136285	299933	CAMPBELL	1	666	0	Cement Plug	· · · · · · · · · · · · · · · · · · ·

# TABLE 1 PLUGGED ABANDONED DRILL SITE REPORT

Date Drilled         Date A           Hole No.         Date Drilled         dom           18-209         1/20/11         1/20/11           18-212         1/7/11         1/7/21           18-214         1/6/11         1/6/21           18-215         1/7/11         1/7/21           18-216         12/11/11         1/7/21           18-218         12/15/10         12/15/10           18-219         12/16/10         12/15/10           18-229         12/16/10         12/15/10	ban- TV sd N 011 4 011 4 011 4	VN RN N V 14 7	G SEC		State Plane	Støte Plane		Land	Total Depth	artestian		
Hole No.         Date Drilled         dom           18:209         1/20/11         1/20/21           18:212         1/7/11         1/7/2           18:214         1/6/11         1/6/2           18:215         1/7/11         1/7/2           18:216         12/15/10         12/15/10           18:219         12/16/10         12/15/10	ad N 011 4 011 4 011 4	N N 4 7	SEC	00		State Plane			l Deoth	1 ortection		
18-209         1/20/11         1/20/2           18-212         1/7/11         1/7/2           18-214         1/6/11         1/6/2           18-215         1/7/11         1/7/2           18-216         1/7/11         1/7/2           18-218         12/15/10         12/15/2           18-219         12/16/10         12/16/2	011 4 011 4 011 4	4 7			Northing, ft	Easting, ft	County	Land Status**	Drilled	flow gpm	how surface capped	abandonment procedures remarks
18-214         1/6/1         1/6/2           18-215         1/7/1         1/7/2           18-218         12/15/10         12/15/           18-219         12/16/10         12/16/10	011 4				1136485	299934	CAMPBELL	1	665	0	Cement Plug	
18-215         1/7/11         1/7/20           18-218         12/15/10         12/15/10           18-219         12/16/10         12/16/10					1136789 1136688	299939 299830	CAMPBELL	1	<u>667</u> 663	0	Cement Plug Cement Plug	·
18-219 12/16/10 12/16/		4 7	5 18		1136590	299835	CAMPBELL	1	661	0	Cement Plug	
		4 7		+	1136290	299836 299832	CAMPBELL	1	641 661	0	Cement Plug Cement Plug	+
	2010 4	4 7	5 18		1136088	299832	CAMPBELL	1	664	0	Cement Plug	
18-222 12/16/10 12/16/ 18-223 12/17/10 12/17/		4 7		+	1135991 1136091	299734 299734	CAMPBELL		665 669	0	Cement Plug Cement Plug	<u> </u>
18-224 12/17/10 12/17/	2010 4	4 7	5 18		1136192	299734	CAMPBELL	1	666	0	Cement Plug	
18-225 1/6/11 1/6/20 18-226 1/4/11 1/4/20				+	1136291 1136390	299733 299736	CAMPBELL	- 1	667 661	0	Cement Plug Cement Plug	
18-228 1/6/11 1/6/20	011 4	4 7	5 18	1	1136590	299735	CAMPBELL.	1	665	0	Cement Plug	•
18-229 1/5/11 1/5/20 18-233 12/17/10 12/17/2		<u>4 7</u> 4 7		+	1136690 1136092	299737 299631	CAMPBELL	1	670 669	0	Cement Plug Cement Plug	
18-242 1/26/11 1/26/2		4 7 4 7		-	1136095	299231	CAMPBELL	1	659	0	Cement Plug	
18-244 1/26/11 1/26/2 18-245 1/24/11 1/24/2		4 7: 4 7:			1136097 1136196	299132 299134	CAMPBELL CAMPBELL	1	640 662	0	Cement Plug Cement Plug	•
18-245 2/4/11 2/4/20 18-247 1/27/11 1/27/2					1136245 1136145	299083 299083	CAMPBELL CAMPBELL	1	662 664	0	Cement Plug Cement Plug	
18-248 1/25/11 1/24/2	011 4	4 7			1136196	299033	CAMPBELL	1	654	0	Cement Plug	
18-252 4/6/11 4/6/20 18-253 4/6/11 4/6/20					1136073 1136173	301583 301583	CAMPBELL	1	722 722	0	Cement Plug Cement Plug	
18-254 4/5/11 4/5/20	11 4	4 7	5 18	1	1136224	301485	CAMPBELL	1	722	0	Cement Plug	
18-261 2/10/11 2/10/2 18-264 2/18/11 2/18/2					1136043 1135999	299080 299131	CAMPBELL	1	661 657	0	Cement Plug Cement Plug	
18-265 2/22/11 2/22/2	011 4	4 7	5 18		1136197	299235	CAMPBELL	1	659	0	Cement Plug	·
18-267 7/6/2011 7/6/20 18-268 7/6/2011 7/6/20				+	1136273 1136322	301581 301483	CAMPBELL CAMPBELL	- 1	723	0	Cement Plug Cement Plug	·
19-316 2/14/11 2/14/2	011 4	4 7:	5 19	ļ	1135805	299334	CAMPBELL	1	636	0	Cement Plug	<u>.</u>
19-346 12/16/10 12/16/2 19-348 12/9/10 12/9/2					1135691 1135788	300234 300136	CAMPBELL CAMPBELL	1	667 540	0	Cement Plug Cement Plug	
19-350 12/9/10 12/9/2	010 4	4 7!	5 19	[	1135887	300035	CAMPBELL	1	667	0	Cement Plug	
19-363 1/14/11 1/14/2 19-364 1/14/11 1/14/2					1135691 1135692	299631 299532	CAMPBELL	<u> </u>	645 629	0	Cement Plug Cement Plug	
19-365 1/13/11 1/13/2	011 4	4 7:	5 19		1135792	299531	CAMPBELL	1	648	0	Cement Plug	
19-368 1/14/11 1/14/2 19-369 1/17/11 1/17/2					1135797 1135595	299331 299230	CAMPBELL	1	641 645	0	Cement Plug Cement Plug	
19-372 2/3/11 2/3/20					1135894 1135846	299230 299084	CAMPBELL	1	642 649	0	Cement Plug Cement Plug	
19-375 4/5/11 4/5/20	11 4				1134873	302025	CAMPBELL	1	921	0	Cement Plug	•
19-376 3/30/11 3/30/2 19-377 03/30/11 3/30/2					1134871 1134972	301874 301823	CAMPBELL	1	580 589	0	Cement Plug Cement Plug	•
19-378 4/5/11 4/5/20	11 4	4 75	19		1134974	301924	CAMPBELL	1	580	0	Cement Plug	•
19-383 03/30/11 3/30/2 19-388 4/6/11 4/6/20					1135223 1135674	301377 301480	CAMPBELL		<u>580</u> 718	0	Cement Plug Cement Plug	·····
19-390 04/01/2011 4/1/20	11 44	4 75	19		1135878	301232	CAMPBELL	1	719	0	Cement Plug	
19-391 04/04/2011 4/4/20 19-392 04/01/2011 4/1/20					1135928 1135977	301231 301081	CAMPBELL	1	<u>724</u> 963	0	Cement Plug Cement Plug	
19-395 12/15/10 12/15/2	010 44	4 75	19		1135788	300136	CAMPBELL	1	667	0	Cement Plug	•
19-397 2/7/11 2/7/20 19-399 2/11/11 2/11/20					1135547 1135394	299079 299227	CAMPBELL	1	641 900	0	Cement Plug Cement Plug	
19-401 2/7/11 2/7/20		1 75	19		1135494	299328	CAMPBELL	1	646	0	Cement Plug	
19-403 2/4/11 2/4/20 19-405 2/17/11 2/17/20					1135695 1135797	299327 299033	CAMPBALL CAMPBELL	1	643 638	0	Cement Plug Cement Plug	
19-406 2/17/11 2/17/20 19-407 2/28/11 2/28/20					1135697 1135596	299028	CAMPBELL CAMPBELL	1	639 637	0	Cament Plug Cement Plug	
19-408 2/24/11 2/24/20	11 44	1 75	19		1135444	299077	CAMPBELL	1	651	0	Cement Plug	•
19-409 2/15/11 2/15/20 19-412 2/14/11 2/14/20					1135796 1135592	299132 299337	CAMPBELL	1	639 631	0	Cement Plug Cement Plug	•
19-413 3/25/11 3/25/20	11 44	1 75	19		1135793	299430	CAMPBELL	1	644	0	Cement Plug	•
19-414 03/28/11 3/28/20 19-416 03/28/11 3/28/20				$\left  \right $	1135589 1135697	299430 299128	CAMPBELL		620 650	0	Cement Plug Cement Plug	
19-417 5/16/11 5/16/20	11 44	75	19		1135486	300329	CAMPBELL	1	741	0	Cement Plug	•
19-418 5/17/2011 5/16/20 19-419 5/6/11 5/6/20				╞──┤	1135585 1135685	300329 300320	CAMPBELL		660 683	- 0	Cement Plug Cement Plug	• •
19-420 5/5/11 5/5/20	11 44	75	19		1135884	300436	CAMPBELL	1	683	0	Cement Plug	
19-421 5/5/11 5/5/20 19-422 5/6/11 5/6/20				<u> </u>	1135785 1135684	300431 300430	CAMPBELL	1	685 687	0	Cement Plug Cement Plug	
19-423 5/9/11 5/9/20	11 44	75	19		1135584	300431	CAMPBELL	1	663	0	Cement Plug	
19-424 5/16/11 5/16/20 19-425 5/6/11 5/6/20					1135484 1135383	300429 300430	CAMPBELL	1	743 748	0	Cement Plug Cement Plug	•
19-426 5/9/11 5/9/20	11 44	75	19		1135385	300528	CAMPBELL		742 741	0	Cement Plug	·
19-427 5/6/11 5/6/20 19-428 5/9/11 5/9/20	11 44				1135485 1135585	300530 300529	CAMPBELL	1	741 740	0	Cement Plug Cement Plug	
19-429 5/5/11 5/5/20	11 44	75	19		1135683	300526	CAMPBELL	1	748	0	Cement Plug Cement Plug	
19-430 5/6/11 5/6/20 19-431 5/9/11 5/9/20					1135783 1135881	300531 300630			743 743		Cement Plug Cement Plug	<u> </u>
19-432 5/5/11 5/2/20	1 44	75	19		1135780	300630	CAMPBELL		740	0	Cement Plug	
19-433 5/9/11 5/9/20 19-434 05/05/11 5/5/20	1 44	75	19		1135581 1135682	300629 300729	CAMPBELL	1	742 743	0	Cement Plug Cement Plug	•
19-435 5/2/11 5/2/20 19-436 4/26/11 4/26/20		75	19		1135781 1135782	300729	CAMPBELL	1	749 751	0	Cement Plug Cement Plug	•
19-437 5/16/11 5/16/20	11 44	75	19		1135582	300829	CAMPBELL	1	741	0	Cement Plug	•
19-438 6/1/11 6/1/20 19-439 5/16/11 5/16/20			19 19		1135482 1135681	300828 300926	CAMPBELL	1	742 743	0	Cement Plug Cement Plug	·
19-440 5/17/11 5/17/20	11 44	75	19		1134868	302074	CAMPBELL	1	582	D	Cement Plug	•
19-441 6/1/11 6/1/20 19-442 5/17/11 5/17/20		76	19 19		1135022 1135023	301872 301773	CAMPBELL	1	582 581	0	Cement Plug Cement Plug	
19-443 6/1/11 6/1/201	1 44	75	19		1134872	301773	CAMPBELL	1	584	0	Cement Plug	•
19-444 5/17/2011 5/17/20			19		1135175 1135272	301428 301427	CAMPBELL CAMPBELL		602 602	0	Cement Plug Cement Plug	·
19-445 5/17/11 5/17/20 19-446 6/2/11 6/2/201	1 44	75	19 19		1135585	300329	CAMPBELL	1	660	0	Cement Plug	•
19-447 7/6/2011 7/6/201 19-448 7/7/2011 7/7/201			19 19		1134819 1134870	302122 302121	CAMPBELL	1	584 585	0	Cement Plug Cement Plug	
19-450 7/7/2011 7/7/201			19		1134955	302121	CAMPBELL	1	579	0	Cement Plug	•
19-451 7/5/2011 7/5/201	1 44		19		1134972	301726	CAMPBELL	1	580	0	Cement Plug	

			Location nearest 40-acre subdivision							T		[]		T
											Total			
		Date Aban-	TWN	RNG			State Plane	State Plane		Land	Depth	artestian		abandonment
Hole No.	Date Drilled	doned	N	w	SECT	00	Northing, fr	Easting, ft	County	Status**	Drilled	flow gpm	how surface capped	procedures remarks
19-452	7/5/2011	7/5/2011	44	75	19		1135078	301728	CAMPBELL	1	58D	0	Cement Plug	
19-453	7/6/2011	7/6/2011	44	75	19		1135123	301625	CAMPBELL	1	600	0	Cement Plug	•
19-454	7/5/2011	7/5/2011	44	75	19		1135173	301523	CAMPBELL	1	600	0	Cement Plug	
19-455	7/7/2011	7/7/2011	44	75	19		1135782	300930	CAMPBELL	1	739	0	Cement Plug	•
19-456	7/5/2011	7/5/2011	44	75	19		1135681	300829	CAMPBELL	1	745	0	Cement Plug	
19-457	7/1/2011	7/1/2011	44	75	19		1135582	300729	CAMPBELL	1	742	0	Cement Plug	•
19-458c	6/22/2011	8/1/2011	44	75	19		1135497	300350	CAMPBELL	1	720	0	Cement Plug	
19-459	7/20/2011	7/20/2011	44	75	19		1135481	300927	CAMPBELL	1	71B	0	Cement Plug	
19-460	7/19/2011	7/19/2011	44	75	19		1135481	301029	CAMPBELL	1	682	0	Cement Plug	•
19-461	7/20/2011	7/20/2011	44	75	19		1135480	301130	CAMPBELL	1	684	0	Cement Plug	•
19-462	7/20/2011	7/20/2011	44	75	19		1135463	301207	CAMPBELL	1	679	0	Cement Plug	
19-463	7/21/2011	7/21/2011	44	75	19		1135481	301328	CAMPBELL	1	678	0	Cement Plug	•
19-464	7/19/2011	7/19/2011	44	75	19		1135432	301078	CAMPBELL	1	680	0	Cement Plug	•
19-465	7/19/2011	7/19/2011	44	75	19		1135431	300978	CAMPBELL	1	683	0	Cement Plug	· · ·
19-466	7/19/2011	7/19/2011	44	75	19		1135432	300878	CAMPBELL	1	676	0	Cement Plug	•
19-467	7/18/2011	7/18/2011	44	75	19		1135380	300829	CAMPBELL	1	723	0	Cement Plug	
19-468	7/19/2011	7/19/2011	44	75	19		1135381	300928	CAMPBELL	1	679	0	Cement Plug	•
19-469	7/20/2011	7/20/2011	44	75	19		1135381	301028	CAMPBELL	1	686	0	Cemant Plug	•
19-470	7/19/2011	7/19/2011	44	75	19		1135379	301127	CAMPBELL	1	719	0	Cement Plug	•
19-472	7/20/2011	7/20/2011	44	75	19		1135374	301325	CAMPBELL	1	720	0	Cement Plug	· · ·
19-473	7/20/2011	7/20/2011	44	75	19		1135381	301427	CAMPBELL	1	724	0	Cement Plug	•
24-1281	2/3/2011	2/3/2011	44	76	24		1135897	298883	CAMPBELL	1	661	0	Cement Plug	1
24-1286	2/24/2011	2/24/2011	44	76	24		1135645	298928	CAMPBELL	1	638	0	Cement Plug	•
24-1288	2/22/2011	2/22/2011	44	76	24		1135949	298931	CAMPBELL	1	659	0	Cement Plug	•
24-1289	2/23/2011	2/23/2011	44	76	24		1135946	298832	CAMPBELL	1	659	0	Cement Plug	•
24-1290	2/23/2011	2/23/2011	44	76	24		1135849	298833	CAMPBELL	1	662	0	Cement Plug	
24-1291	2/28/2011	2/28/2011	44	76	24		1135747	298832	CAMPBELL	1	683	0	Cement Plug	
24-1293	2/23/2011	2/23/2011	44	76	24		1135849	298731	CAMPBELL	1	690	0	Cement Plug	•
24-1294	2/23/2011	2/23/2011	44	76	24		1135902	298633	CAMPBELL	1	679	0	Cement Plug	•
24-1297	3/25/2011	3/25/2011	44	76	24		1135903	298232	CAMPBELL	1	700	0	Cement Plug	
24-1298	3/24/2011	3/24/2011	44	76	24	_	1135902	298132	CAMPBELL	1	722	0	Cement Plug	•
24-1299	3/21/2011	3/18/2011	44	76	24		1135901	298782	CAMPBELL	1	674	0	Cement Plug	•
24-1300	3/18/2011	3/18/2011	44	76	24		1135899	298682	CAMPBELL	1	680	Q I	Cement Plug	· ·
24-1301	3/22/2011	3/22/2011	44	76	24		1135800	298682	CAMPBELL	1	686	0	Cement Plug	•
24-1302c	6/30/2011	7/7/11	44	76	24		1134368	296706	CAMPBELL	1	700	0	Cement Plug	
25-364c	7/1/2011	7/7/11	44	76	25		1130140	295805	CAMPBELL	1	400	0	Cement Plug	
509				-							368,933			

All coordinates are in State Plane

Light blue = Release boreholes as of 3/31/2011 \*\* 1 = Private; 2 = State; 3 = Federal

mitiel: <u>E.K.</u> Date: <u>9/21</u>/2011

List current through: 9/1/11

