

C/007/041 Incoming

#3928 R



WEST RIDGE
RESOURCES, INC.

P.O. Box 910, East Carbon, Utah 84520
Telephone (435) 888-4000 Fax (435) 888-4002

Utah Division of Oil, Gas & Mining
Utah Coal Program
1594 West North Temple, Suite 1210
P.O.Box 145801
Salt Lake City, UT 84114-5801

December 13, 2011

Attn: Daron Haddock
Permit Supervisor

Re: West Ridge Mine C/007/041
Change of Maps 5-5 and 7-2, Clean Copies
Task 3928, Additional Information

Dear Mr. Haddock:

In response to your letter of December 8, 2011, enclosed are six clean copies of Map 5-5 (surface facility map) and Map 7-2 (surface drainage map), submitted in response to Task 3928. This submittal also includes the additional information required for Appendix 7-4.

If you have questions or comments please contact me at (435) 888-4017.

Sincerely,

David Shaver
Resident Agent

RECEIVED

DEC 19 2011

DIV. OF OIL, GAS & MINING

File in:

Confidential

Shelf

Expandable

Date Folder 12/19/11 C/0070041

Incoming

APPLICATION FOR PERMIT PROCESSING

<input type="checkbox"/> Permit Change	<input type="checkbox"/> New Permit	<input type="checkbox"/> Renewal	<input type="checkbox"/> Transfer	<input type="checkbox"/> Exploration	<input type="checkbox"/> Bond Release	Permit Number: C/007/041
Title of Proposal: Change of Maps 5-5 and 7-2 showing gas pumps and culvert extension, clean copies, Task 3928. Also, additional information for Appendix 7-4						Mine: WEST RIDGE MINE
						Permittee: WEST RIDGE Resources, Inc.

Description, include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? _____ acres <input type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Is the application submitted as a result of a Division Order?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Does application include operations in hydrologic basins other than as currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does the application require or include public notice/publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Is the application submitted as a result of a Violation?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Is the application submitted as a result of other laws or regulations or policies? Explain:
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the application affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does the application require or include underground design or mine sequence and timing?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Does the application require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does application require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does the application require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	18. Does the application require or include water monitoring, sediment or drainage control measures?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	19. Does the application require or include certified designs, maps, or calculations?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does the application require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided for?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

Attach 3 complete copies of the application.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations herein. (R645-301-123)

Signed _____ Name - Position - Date

Subscribed and sworn to before me this 13th day of December, 2011



My Commission Expires: 3-27-13
 STATE OF _____
 COUNTY OF Garfield

Received by Oil, Gas & Mining
RECEIVED
DEC 19 2011
DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

APPENDIX 7-4

**WEST RIDGE MINE
SEDIMENTATION AND DRAINAGE CONTROL PLAN
(AS CONSTRUCTED)**



**PREPARED BY: DAN W. GUY, P.E.
BLACKHAWK ENGINEERING, INC.**

**TABLE 10
DRAINAGE STRUCTURES**

Structure	Drainage From:	Remarks:
UC-AA	UA-AA, DA-X	Right Fork Undisturbed + ASCA-X
UC-DD	UA-DD	Right Fork Undisturbed
UC-EE	UC-AA + UC-DD + 2.0 cfs Mine Water	Right Fork Undisturbed + ASCA-X
UC-FF	UA-FF	Right Fork Undisturbed
UC-GG	UC-AA Thru UC-FF	Right Fork Undisturbed + ASCA-X
UC-HH	UA-HH, DA-Y	Left Fork Undisturbed + ASCA-Y
UC-JJ	UA-JJ	Left Fork Undisturbed
UC-KK	UC-HH and UC-JJ	Left Fork Undisturbed + ASCA-Y
UC-LL	UC-AA Thru UC-KK	Main Canyon
UC-MM	UA-MM	Main Canyon
UC-NN	UC-AA Thru UC-MM	Main Canyon
UC-OO	UC-NN + Sediment Pond Overflow	Main Canyon + Ponds
UC-PP	UA-PP	Main Canyon (Below Pond)
UC-RR	1/3 OF UA-PP	Main Canyon (Below Pond)
UD-Z	UA-PP	Main Canyon (UC-PP)
UD-15	UA-15, DA-15	County Road
DD-1	UA-1a, UA-1b, DA-1	
DD-2	DD-1, UA-2a, UA-2b, DA-2	
DD-3	UA-3, DA-3	
DD-4	DD-2, DD-3, DA-4	
DD-4a	DA-4a, UA-4 + 0.51 cfs Mine Water	
DD-5	DD-4a, UA-5, DA-5	
DD-6	DA-6, DD-4, DD-5	
DD-8	DA-8, UA-8	
DD-8a	DD-6, DD-8	
DD-9	UA-7, DA-7, UA-9, DA-9	
DD-10	UA-10a, UA-10b, UA-10c, DA-10	
DD-11	DA-11, DD-8a	
DD-12	DD-10, UA-12, DA-12	
DD-13	DA-13	

TABLE 10 (Continued)
DRAINAGE STRUCTURES

DC-2	DD-2 + DD-3	
DC-2A	DD-2	
DC-4a	DD-4a	
DC-5	DA-5, UA-5	
DC-6	DD-5	
DC-7	DD-6, DD-8	
DC-8	DA-8	
DC-8a	DD-8a	
DC-8AR	DD-8A Freeboard	To Lower Pond
DC-10	DA-10	
DC-10A	DD-10	
DC-11	DD-11	
DC-12	DD-12	To Lower Pond
DC-13	DD-11, DD-13	To Upper Pond

**TABLE 11
DRAINAGE STRUCTURE FLOW SUMMARY**

Structure	10/6 Cfs	10/24 Cfs	25/6 Cfs	100/6 Cfs	Flows To:
UC-AA	12.97	45.12	25.65	46.45	Undisturbed Bypass
UC-DD	0.15	0.64	0.44	0.92	Undisturbed Bypass
UC-EE**	15.12	47.76	28.09	49.37	Undisturbed Bypass
UC-FF	0.16	0.67	0.46	0.95	Undisturbed Bypass
UC-GG	15.28	48.43	28.55	50.32	Undisturbed Bypass
UC-HH	7.39	32.82	13.08	25.48	Undisturbed Bypass
UC-JJ	0.50	2.65	1.12	2.16	Undisturbed Bypass
UC-KK	7.89	35.47	14.20	27.64	Undisturbed Bypass
UC-LL	23.17	83.90	42.75	77.96	Undisturbed Bypass
UC-MM	0.07	0.32	0.24	0.52	Undisturbed Bypass
UC-NN	23.24	84.22	42.99	78.48	Undisturbed Bypass
UC-OO	46.97	107.95	66.72	102.21	Undisturbed Bypass
UC-PP	0.11	0.49	0.33	0.69	Undisturbed Bypass
*UC-RR	0.04	0.16	0.11	0.23	Undisturbed Bypass
UD-Z	0.11	0.49	0.33	0.69	Main Canyon
UD-15	1.05	3.43	1.80	2.96	County Road
DD-1	1.79	7.13	3.48	6.17	Sediment Pond
DD-2	3.22	12.52	6.13	10.79	Sediment Pond
DD-3	1.18	4.30	2.13	3.65	Sediment Pond
DD-4	5.08	18.32	9.24	15.83	Sediment Pond
DD-4a***	1.20	2.07	1.53	2.01	Sediment Pond
DD-5	1.77	3.32	2.35	3.19	Sediment Pond
DD-6	7.13	22.25	11.99	19.58	Sediment Pond
DD-8	0.68	1.69	1.03	1.53	Sediment Pond
DD-8a	7.81	23.94	13.02	21.11	Sediment Pond
DD-9	1.26	2.86	1.88	2.75	Sediment Pond
DD-10	2.58	7.44	4.09	6.52	Sediment Pond
DD-11	8.09	24.56	13.43	21.69	Sediment Pond
DD-12	4.11	13.51	6.99	11.62	Sediment Pond
DD-13	0.28	0.61	0.40	0.56	Sediment Pond

* Carries 1/3 of drainage from UA-PP.

** Includes 2.0 cfs Mine Water.

*** Includes 0.51 cfs Mine Water.

TABLE 11 (Continued)
DRAINAGE STRUCTURE FLOW SUMMARY

Structure	10/6 Cfs	10/24 Cfs	25/6 Cfs	100/6 Cfs	Flows To:
DC-2	4.4	16.82	8.26	14.44	Sediment Pond
DC-2A	3.22	12.52	6.13	10.79	Sediment Pond
DC-4a***	1.2	2.07	1.53	2.01	Sediment Pond
DC-5	0.57	1.25	0.82	1.18	Sediment Pond
DC-6***	1.77	3.32	2.35	3.19	Sediment Pond
DC-7	7.81	23.94	13.02	21.11	Sediment Pond
DC-8	0.62	1.37	0.89	1.27	Sediment Pond
DC-8a***	7.81	23.94	13.02	21.11	Sediment Pond
DC-8AR	1.73	1.73	1.73	1.73	To Lower Pond
DC-10	2.1	4.66	3.03	4.32	Sediment Pond
DC-10a	2.58	7.44	4.09	6.52	Sediment Pond
DC-11***	8.09	24.56	13.43	21.69	Sediment Pond
DC-12	4.11	13.51	6.99	11.62	To Lower Pond
DC-13***	8.37	25.17	13.83	22.25	To Upper Pond

*** Includes 0.51 cfs Mine Water.

**TABLE 14
DISTURBED CULVERT DATA**

Culvert ID	Length (ft)	Slope %	Manning's No.
DC-2	45	2.0%	0.020
DC-2A	50	2.0%	0.020
DC-4A	170	6.0%	0.020
DC-5	25	2.0%	0.020
DC-6	80	2.0%	0.020
DC-7	50	2.0%	0.020
DC-8	50	10.0%	0.020
DC-8A	150	16.0%	0.020
DC-10	85	25.0%	0.020
DC-10A	60	20.0%	0.020
DC-11	60	5.0%	0.020
DC-12	75	10.0%	0.020
DC-13	65	5.0%	0.020
*DC-8AR	3@40'	6.0%	0.020

* Relief Culverts for DC-8A.

**TABLE 15
DISTURBED CULVERT DESIGN SUMMARY**

Culvert	10 yr - 6 hr Event 1.30"			10 yr - 24 hr Event 2.00"			As-Constructed Diameter (ft.)	Flow Capacity (cfs)	Rip-Rap Req'd Y/N	Rip-Rap D ₅₀
	Peak Flow Cfs	Velocity fps	Min. Diam. Req'd ft.	Peak Flow Cfs	Velocity fps	Min. Diam. Req'd ft.				
DC-2	4.40	4.49	1.12	16.82	6.28	1.85	2.0	20.80	N	-
DC-2A***	3.22	4.15	0.99	12.52	5.83	1.65	1.25	5.94	N	-
DC-4A*	1.20	4.90	0.56	2.07	5.61	0.69	1.5	16.72	N	-
DC-5	0.57	2.69	0.52	1.25	3.28	0.70	1.5	9.66	N	-
DC-6*	1.77	3.58	0.79	3.32	4.18	1.01	1.5	9.66	N	-
DC-7*	7.81	5.18	1.39	23.94	6.86	2.11	2.0	20.80	Y	0.50
DC-8	0.62	5.03	0.40	1.37	6.13	0.53	1.5	21.59	Y	0.50
DC-8A*	7.81	11.30	0.94	23.94	14.95	1.43	1.5	27.31	Y	1.20
DC-10	2.10	9.62	0.53	4.66	11.74	0.71	1.5	34.14	Y	1.00
DC-10A	2.58	9.32	0.59	7.44	12.14	0.88	1.5	30.53	Y	1.00
DC-11*	8.09	7.37	1.18	24.56	9.73	1.79	2.0	32.88	Y	0.50
DC-12	4.11	8.07	0.81	13.51	10.87	1.26	1.5	21.59	Y	0.75
DC-13*	8.37	7.43	1.20	25.17	9.79	1.81	2.0	32.88	Y	0.50
**DC-8AR	1.73	5.37	0.64	1.73	5.37	0.64	3@0.64	5.19	Y	0.50

* Includes 0.51 cfs Mine Water.

** Relief Culverts for DC-8A.

*** Adequate for 10yr/6hr event.

**Circular Channel Analysis & Design
Solved with Manning's Equation
Open Channel – Uniform flow**

Worksheet Name: *WEST RIDGE MINE*

Comment: *CULVERT DC-2A (10/6)*

Solve For Full Flow Diameter

Given Input Data:

Slope	<i>0.0200 ft/ft</i>
Manning's n	<i>0.020</i>
Discharge	<i>3.22 cfs</i>

Computed Results:

Full Flow diameter	<i>0.99 ft</i>
Full Flow Depth	<i>0.99 ft</i>
Velocity	<i>4.15 fps</i>
Flow Area	<i>0.78 sf</i>
Critical Depth	<i>0.77 ft</i>
Critical Slope	<i>0.0224 ft/ft</i>
Percent Full	<i>100%</i>
Full Capacity	<i>3.22 cfs</i>
QMAX @ .94D	<i>3.46 cfs</i>
Froude Number	<i>FULL</i>

**Circular Channel Analysis & Design
Solved with Manning's Equation
Open Channel – Uniform flow**

Worksheet Name: *WEST RIDGE MINE*

Comment: *CULVERT DC-2A (10/24)*

Solve For Full Flow Diameter

Given Input Data:

Slope	<i>0.0200 ft/ft</i>
Manning's n	<i>0.020</i>
Discharge	<i>12.52 cfs</i>

Computed Results:

Full Flow diameter	<i>1.65 ft</i>
Full Flow Depth	<i>1.65 ft</i>
Velocity	<i>5.83 fps</i>
Flow Area	<i>2.15 sf</i>
Critical Depth	<i>1.33 ft</i>
Critical Slope	<i>0.0206 ft/ft</i>
Percent Full	<i>100%</i>
Full Capacity	<i>12.52 cfs</i>
QMAX @ .94D	<i>13.47 cfs</i>
Froude Number	<i>FULL</i>

**Circular Channel Analysis & Design
Solved with Manning's Equation
Open Channel – Uniform flow**

Worksheet Name: *WEST RIDGE MINE*

Comment: *CULVERT DC-2A*

Solve For Full Flow Capacity

Given Input Data:

Diameter	<i>1.25 ft</i>
Slope	<i>0.0200 ft/ft</i>
Manning's n	<i>0.020</i>
Discharge	<i>5.94 cfs</i>

Computed Results:

Full Flow Capacity	<i>5.94 cfs</i>
Full Flow Depth	<i>1.25 ft</i>
Velocity	<i>4.84 fps</i>
Flow Area	<i>1.23 sf</i>
Critical Depth	<i>0.99 ft</i>
Critical Slope	<i>0.0215 ft/ft</i>
Percent Full	<i>100%</i>
Full Capacity	<i>5.94 cfs</i>
QMAX @ .94D	<i>6.39 cfs</i>
Froude Number	<i>FULL</i>