

# WEST RIDGE MINE

007/041

INCIDENTAL BOUNDARY CHANGE  
(120.33 ACRES)

*TO ALLOW:*

**DEVELOPMENT MINING OF BLEEDER  
ENTRIES AND HEADGATE ENTRIES**

*IN THE*  
**HINKINS FEE LEASE**

## **NOTE TO REVIEWERS:**

- 1) **THIS APPLICATION ALLOWS FOR DEVELOPMENT MINING ONLY, NO LONGWALL MINING IS INCLUDED**
- 2) **THERE WILL BE NO SURFACE DISTURBANCE ASSOCIATED WITH THIS APPLICATION**

**SUBMITTED: JUNE 2, 2011**

Incoming  
0070041

#3856

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

June 6, 2011

File in:

Confidential  
 Shelf  
 Expandable

Date Folder 060611 C/0070041

See Confidential

Attn: Dana Dean  
Associate Director

Re: West Ridge Mine C/007/041  
Incidental Boundary Change  
Hinkins Fee Lease

RECEIVED

JUN 06 2011

DIV. OF OIL, GAS & MINING

Dear Ms. Dean:

Enclosed are six clean copies of an Incidental Boundary Change (IBC) for the West Ridge Mine. This application is in line with the plan which was discussed at the stakeholders meeting of May 15, 2011. As you will recall from that meeting, it was decided that the company would apply for an IBC to allow limited development mining within the newly-acquired Hinkins fee lease. This IBC would allow development to continue while also allowing additional time for hydrologic baseline data to be acquired through installation of several new flumes in Whitmore Canyon, as well as other actions. It was also discussed at the May 17 meeting that 1) approval for the development entries into the new lease did not imply nor assume any future approval of longwall mining under the Right Fork of Whitmore Canyon; 2) that any subsequent approval of longwall mining in this area would be based upon a complete hydrologic assessment and monitoring plan agreed upon by the Division, the stakeholders and the company; and 3) that the details for such an assessment plan would be agreed upon and implemented prior to submitting any future application for subsequent longwall mining in the new lease.

Please note that the following language for the IBC application has been included in Chapter 1 (legal), Chapter 5 (engineering) and Chapter 7 (hydrology) of the MRP:

*Note: In the spring of 2011 the company acquired the Hinkins fee lease along the eastern side of the permit area. Mining in this new lease will involve mining under the stream in the Right Fork of Whitmore Canyon which supplies most of the water to the Grassy Trail Reservoir. Due to concerns for the water rights in this area, the stakeholders have agreed that additional hydrologic data should be acquired prior to any*

*future full-extraction mining under the stream in the Right Fork. As of May, 2011, this data acquisition program is presently underway. In the meantime development mining (bleeder entries and headgate entries) for longwall panel #20 is proceeding, as shown on Map 5-4A. It is understood that permission for these development entries into the Hinkins fee lease does not presume nor imply ultimate approval of full-extraction longwall mining in this area. Such approval for longwall mining is withheld until the full potential for impact to the water rights in the Right Fork can be better evaluated based on the acquisition of new hydrologic data now underway. This data acquisition will include, but is not limited to the following:*

- 1) Installation and/or rehabilitation of measuring flumes in the upper and lower reaches of both Right and Left Forks of Whitmore Canyon above the reservoir (total of 4ea. flumes).*
- 2) Installation of continuous measuring/recording devices at each flume.*
- 3) Installation of subsidence monitoring stations at 50' intervals along the entire stretch of Right Fork subject to possible future longwall mining, with vertical detection accuracy of less than half an inch.*
- 4) Installation of flow meters within the underground mine water collection/pumping system sufficient to adequately assess the quantity and location of groundwater sources encountered in the mine works.*
- 5) Tritium (age-dating) analysis of the existing mine water to establish baseline data regarding the age-dating of the mine water as a function of location.*
- 6) On-site location and development of selected springs in the Right Fork area subject to future monitoring, conducted in conjunction with stakeholder input.*
- 7) Expansion of the seep and spring survey in the Right Fork to include more of the upper drainage area.*
- 8) Completion of a detailed gain-loss analysis of the stream flow in the Right Fork within the area of potential longwall mining.*

*The company acknowledges that inclusion of the Hinkins lease into the permit area at this time allows for limited development mining only, and expressly excludes longwall mining pending future data collection and permitting action.*

Also, the following notation has been added to the mine plan Maps 5-4A and 5-4B in reference to the new Hinkins fee lease IBC area:

**MINING IN THIS AREA IS LIMITED TO DEVELOPMENT MINING ONLY. NO LONGWALL MINING IS PERMITTED BELOW THE RIGHT FORK OF WHITMORE CANYON AT THIS TIME**

Dana Dean, P.E.  
June 6, 2011  
page 3

In reviewing this application please note the following:

a) The IBC consists of 120.33 acres, including 110 acres of the Hinkins fee lease and a small 10.33 acre parcel of federal lease UTU-78562 (recent modification). This is a total increase in the permit area of less than 1.7%.

b) Mining in this IBC would be limited to development entries (as described above), consisting of a total of 2 ea. headgate entries and 2 ea. bleeder entries.

c) At this location, development mining would take place at a depth of 2,250' below the stream in the bottom of the Right Fork of Whitmore Canyon. These four development entries would cross underneath the canyon at right-angles.

d) Nearly all surface associated with this IBC is private ownership. Only 0.48 acres of federal surface would be undermined, and this small area is located on the opposite side of the mine from the Hinkins fee lease and at a depth of 3400' of cover.

e) There would be no surface disturbance associated with this IBC.

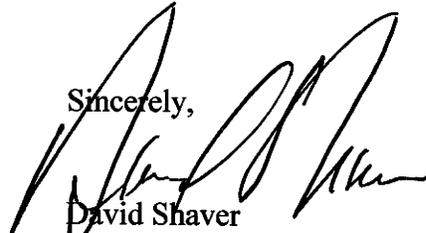
f) The IBC area has been cleared by the archeologist report.

g) The area has been surveyed for raptors, with no occurrence.

h) The area has been included within a seep-and-spring survey.

Due to the critical timing associated with these development entries we request an expedited review of this IBC application. If you have questions or comments please contact me at (435) 888-4017.

Sincerely,



David Shaver  
Resident Agent

## 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: <b>C/007/041</b>
Title of Proposal: <b>Incidental Boundary Change for Hinkins Fee Lease</b> <b>(Development entries only, no longwall mining)</b>						Mine: <b>WEST RIDGE MINE</b>
						Permittee: <b>WEST RIDGE Resources, Inc.</b>

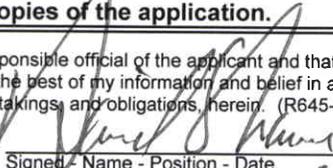
Description, include reason for application and timing required to implement.

**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.

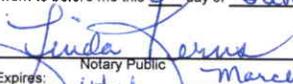
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1. Change in the size of the Permit Area? <u>120.33</u> acres Disturbed Area? _____ acres <input checked="" type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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 checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input 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 type="checkbox"/> Yes	<input checked="" 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  
 \_\_\_\_\_ agent 6/2/11

Subscribed and sworn to before me this 3<sup>rd</sup> day of June, 2011

  
 Notary Public  
 My Commission Expires: March 27, 2013  
 Attest: STATE OF Utah  
 COUNTY OF Carbon



Received by Oil, Gas & Mining

RECEIVED

JUN 06 2011

DIV. OF OIL, GAS & MINING  
ASSIGNED TRACKING NUMBER

## Application for Permit Processing Detailed Schedule of Changes to the MRP

Title of Application: <p style="text-align: center;">Incidental Boundary Change for Hinkins Fee Lease</p> <p style="text-align: center;">(Development entries only, no longwall mining)</p>	Permit Number: C/007/041 <hr/> Mine: WEST RIDGE MINE <hr/> Permittee: WEST RIDGE RESOURCES
--	--

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. Include page, section and drawing numbers as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 1 : all pages (text)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 5 : pg 5-1
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7 : pg 7-1, 7-27, 7-28, 7-29
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	7-40, 7-41, 7-42, 7-43
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-4 (Right of Entry) :
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4B(a) lease UTU-78562
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	modification
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(a) Penta Creek fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(b) " " " "
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	extension #1
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(c) " " "
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	extension #2
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G (a) Hinkins fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G (b) Marston fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G (c) Pagaw fee lease
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Maps : 1-0/1-1, 2-1, 3-1, 3-4A, 3-4B, 3-4C
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	3-4D, 4-1, 4-2, 5-2, 5-3, 5-4A, 5-4B,
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	5-7, 6-1, 6-2, 6-3, 7-3, 7-5, 7-6 7-7
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	7-8

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

RECEIVED

JUN 06 2011

DIV. OF OIL, GAS & MINING



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

June 6, 2011

Attn: Dana Dean  
Associate Director

Re: West Ridge Mine C/007/041  
Incidental Boundary Change  
Hinkins Fee Lease

RECEIVED  
JUN 06 2011  
DIV. OF OIL, GAS & MINING

Dear Ms. Dean:

Enclosed are six clean copies of an Incidental Boundary Change (IBC) for the West Ridge Mine. This application is in line with the plan which was discussed at the stakeholders meeting of May 15, 2011. As you will recall from that meeting, it was decided that the company would apply for an IBC to allow limited development mining within the newly-acquired Hinkins fee lease. This IBC would allow development to continue while also allowing additional time for hydrologic baseline data to be acquired through installation of several new flumes in Whitmore Canyon, as well as other actions. It was also discussed at the May 17 meeting that 1) approval for the development entries into the new lease did not imply nor assume any future approval of longwall mining under the Right Fork of Whitmore Canyon; 2) that any subsequent approval of longwall mining in this area would be based upon a complete hydrologic assessment and monitoring plan agreed upon by the Division, the stakeholders and the company; and 3) that the details for such an assessment plan would be agreed upon and implemented prior to submitting any future application for subsequent longwall mining in the new lease.

Please note that the following language for the IBC application has been included in Chapter 1 (legal), Chapter 5 (engineering) and Chapter 7 (hydrology) of the MRP:

*Note: In the spring of 2011 the company acquired the Hinkins fee lease along the eastern side of the permit area. Mining in this new lease will involve mining under the stream in the Right Fork of Whitmore Canyon which supplies most of the water to the Grassy Trail Reservoir. Due to concerns for the water rights in this area, the stakeholders have agreed that additional hydrologic data should be acquired prior to any*

*future full-extraction mining under the stream in the Right Fork. As of May, 2011, this data acquisition program is presently underway. In the meantime development mining (bleeder entries and headgate entries) for longwall panel #20 is proceeding, as shown on Map 5-4A. It is understood that permission for these development entries into the Hinkins fee lease does not presume nor imply ultimate approval of full-extraction longwall mining in this area. Such approval for longwall mining is withheld until the full potential for impact to the water rights in the Right Fork can be better evaluated based on the acquisition of new hydrologic data now underway. This data acquisition will include, but is not limited to the following:*

- 1) Installation and/or rehabilitation of measuring flumes in the upper and lower reaches of both Right and Left Forks of Whitmore Canyon above the reservoir (total of 4ea. flumes).*
- 2) Installation of continuous measuring/recording devices at each flume.*
- 3) Installation of subsidence monitoring stations at 50' intervals along the entire stretch of Right Fork subject to possible future longwall mining, with vertical detection accuracy of less than half an inch.*
- 4) Installation of flow meters within the underground mine water collection/pumping system sufficient to adequately assess the quantity and location of groundwater sources encountered in the mine works.*
- 5) Tritium (age-dating) analysis of the existing mine water to establish baseline data regarding the age-dating of the mine water as a function of location.*
- 6) On-site location and development of selected springs in the Right Fork area subject to future monitoring, conducted in conjunction with stakeholder input.*
- 7) Expansion of the seep and spring survey in the Right Fork to include more of the upper drainage area.*
- 8) Completion of a detailed gain-loss analysis of the stream flow in the Right Fork within the area of potential longwall mining.*

*The company acknowledges that inclusion of the Hinkins lease into the permit area at this time allows for limited development mining only, and expressly excludes longwall mining pending future data collection and permitting action.*

Also, the following notation has been added to the mine plan Maps 5-4A and 5-4B in reference to the new Hinkins fee lease IBC area:

**MINING IN THIS AREA IS LIMITED TO DEVELOPMENT MINING ONLY. NO LONGWALL MINING IS PERMITTED BELOW THE RIGHT FORK OF WHITMORE CANYON AT THIS TIME**

Dana Dean, P.E.  
June 6, 2011  
page 3

In reviewing this application please note the following:

a) The IBC consists of 120.33 acres, including 110 acres of the Hinkins fee lease and a small 10.33 acre parcel of federal lease UTU-78562 (recent modification). This is a total increase in the permit area of less than 1.7%.

b) Mining in this IBC would be limited to development entries (as described above), consisting of a total of 2 ea. headgate entries and 2 ea. bleeder entries.

c) At this location, development mining would take place at a depth of 2,250' below the stream in the bottom of the Right Fork of Whitmore Canyon. These four development entries would cross underneath the canyon at right-angles.

d) Nearly all surface associated with this IBC is private ownership. Only 0.48 acres of federal surface would be undermined, and this small area is located on the opposite side of the mine from the Hinkins fee lease and at a depth of 3400' of cover.

e) There would be no surface disturbance associated with this IBC.

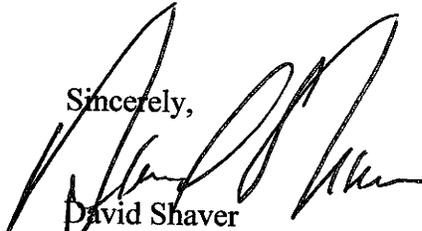
f) The IBC area has been cleared by the archeologist report.

g) The area has been surveyed for raptors, with no occurrence.

h) The area has been included within a seep-and-spring survey.

Due to the critical timing associated with these development entries we request an expedited review of this IBC application. If you have questions or comments please contact me at (435) 888-4017.

Sincerely,



David Shaver  
Resident Agent

# APPLICATION FOR PERMIT PROCESSING

Permit Change  
  New Permit  
  Renewal  
  Transfer  
  Exploration  
  Bond Release

Permit Number: **C/007/041**

Title of Proposal: **Incidental Boundary Change for Hinkins Fee Lease**  
 (Development entries only, no longwall mining)

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 checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | 1. Change in the size of the Permit Area? <u>120,33</u> acres Disturbed Area? _____ acres <input checked="" 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 checked="" type="checkbox"/> Yes | <input 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 checked="" type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use?   |
| <input checked="" type="checkbox"/> Yes | <input 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 type="checkbox"/> Yes            | <input checked="" 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: [Signature] Name - Position - Date 6/2/11  
 agent

Subscribed and sworn to before me this 3<sup>RD</sup> day of June, 2011

Notary Public  
 My Commission Expires: March 27, 2013  
 Attest: STATE OF Utah COUNTY OF Carbon



RECEIVED  
Received by Oil, Gas & Mining

JUN 06 2011

DIV. OF OIL, GAS & MINING

ASSIGNED TRACKING NUMBER

## Application for Permit Processing Detailed Schedule of Changes to the MRP

Title of Application: **Incidental Boundary Change for Hinkins Fee Lease**  
(Development entries only, no longwall mining)

Permit Number: C/007/041

Mine: WEST RIDGE MINE

Permittee: WEST RIDGE RESOURCES

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. Include page, section and drawing numbers as part of the description.

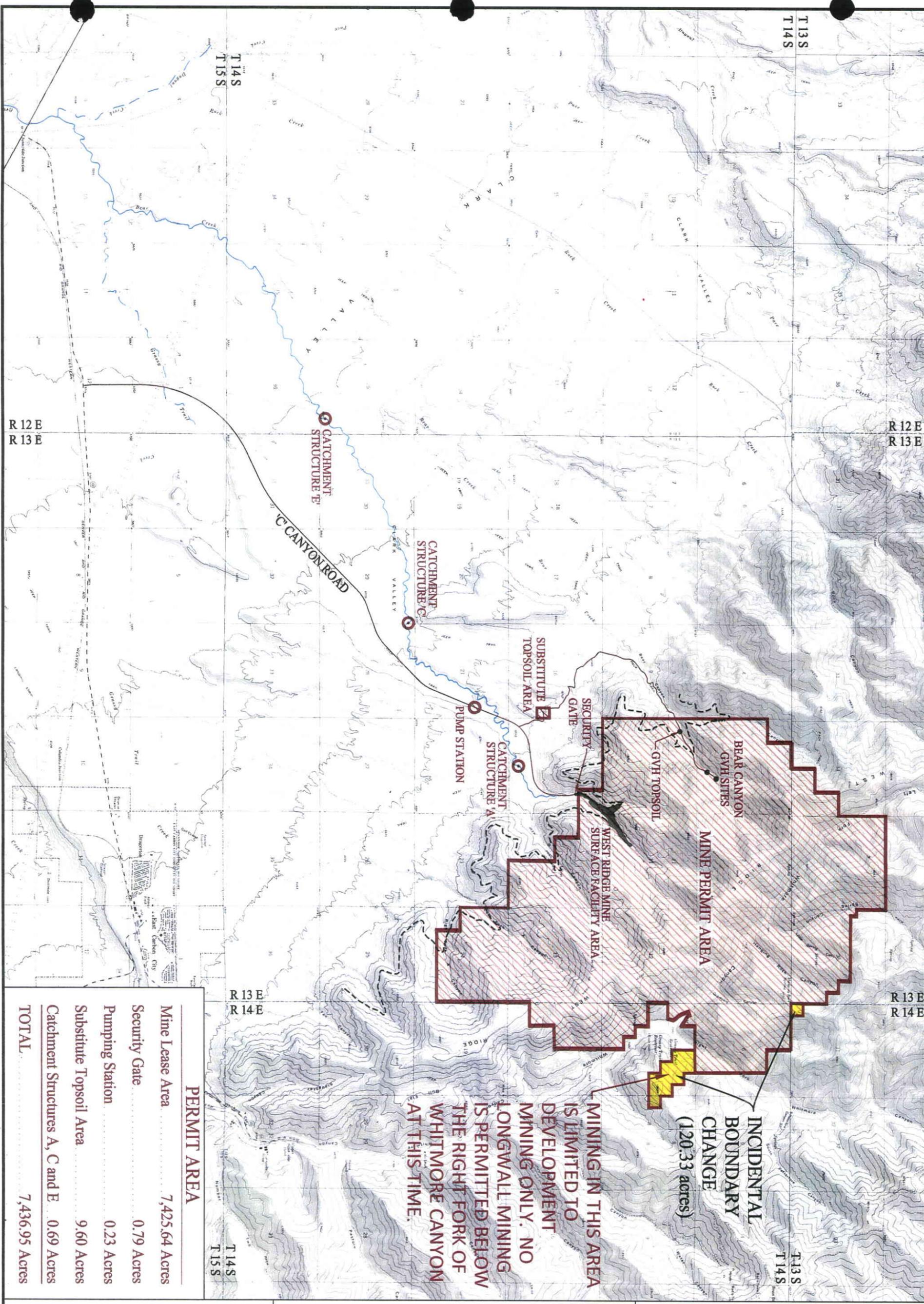
			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 1 : all pages (text)
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 5 : pg 5-1
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Chapter 7 : pg 7-1, 7-27, 7-28, 7-29
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	7-40, 7-41, 7-42, 7-43
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Appendix 1-4 (Right of Entry) :
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4B(a) lease UTM-78562
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	modification
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(a) Panta Creek fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(b) " " "
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	extension #1
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4F(c) " " "
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	extension #2
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G(a) Hinkins fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G(b) Marston fee lease
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	App 1-4G(c) Pagaw fee lease
<input type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	Maps : 1-0/1-1, 2-1, 3-1, 3-4A, 3-4B, 3-4C
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	3-4D, 4-1, 4-2, 5-2, 5-3, 5-4A, 5-4B,
<input type="checkbox"/> ADD	<input checked="" type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	5-7, 6-1, 6-2, 6-3, 7-3, 7-5, 7-6 7-7
<input checked="" type="checkbox"/> ADD	<input type="checkbox"/> REPLACE	<input type="checkbox"/> REMOVE	7-8

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

RECEIVED

JUN 06 2011

DIV. OF OIL, GAS & MINING



**INCIDENTAL BOUNDARY CHANGE (120.33 acres)**

**MINING IN THIS AREA IS LIMITED TO DEVELOPMENT ONLY. NO LONGWALL MINING IS PERMITTED BELOW THE RIGHT FORK OF WHITMORE CANYON AT THIS TIME.**

PERMIT AREA	
Mine Lease Area	7,425.64 Acres
Security Gate	0.79 Acres
Pumping Station	0.23 Acres
Substitute Topsoil Area	9.60 Acres
Catchment Structures A, C and E	0.69 Acres
<b>TOTAL</b>	<b>7,436.95 Acres</b>

**WEST RIDGE MINE**  
 Map 1-0, Permit Map  
 Map 1-1, Location Map

**LEGEND:**  
 Lease Areas ————  
 Surface Facility Area ————  
 GVH Site ●  
 Outcrop - - - - -



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



**WEST RIDGE RESOURCES, INC.**

SCALE: 1"=5000'

**~WEST RIDGE MINE - PERMIT APPLICATION PACKAGE~**

**TABLE OF CONTENTS- CHAPTER 1  
R645-301-100 PERMIT APPLICATION REQUIREMENTS: GENERAL  
CONTENTS**

<b>REGULATION NUMBER</b>	<b>CONTENTS</b>	<b>PAGE NUMBER</b>
R645-301-112	Identification of Interests .....	1
R645-301-113	Violation Information .....	5
R645-301-114	Right of Entry Information .....	5
	Table 1-1 Federal Coal Lease and Right-of-Way Properties .....	8
	Table 1-2 State (SITLA) Coal Lease and Special Use Properties .....	10
	Table 1-3 Penta Creek Fee Lease Properties .....	11
	Table 1-4 Legal Description of Permit Area, by Leasehold .....	12
	Table 1-5 Legal Description of Permit Area, Total Area .....	14
	Table 1-6 Surface Ownership of Permit Area .....	15
	Table 1-7 Legal Description, Disturbed Areas .....	16
R645-301-115	Status of Unsuitability Claims .....	17
R645-301-116	Permit Term .....	17
R645-301-117	Insurance, Proof of Publication and .....	18
	Facilities or Structures Used In Common	
R645-301-118	Filing Fee .....	18
R645-301-123	Notarized Statement .....	18
R645-301-130	Reporting Of Technical Data .....	18
R645-301-142	Maps And Plans .....	19

## TABLE OF CONTENTS- APPENDICES R645-301-100 CHAPTER 1

APPENDIX NUMBER	DESCRIPTION
APPENDIX 1-1	Certifications, Verifications, Publications Attachment 1-1 Certificate of Liability Insurance Attachment 1-2 Newspaper Advertisement Attachment 1-3 Proof of Publication Attachment 1-4 Filing Fee Verification Attachment 1-5 Verification Statement
APPENDIX 1-2	Violation Information
APPENDIX 1-3	Reference List
APPENDIX 1-4	Proof of Lease Assignment
APPENDIX 1-4A	Federal Lease SL-068754, U-01215
APPENDIX 1-4B	Federal Lease UTU-78562
APPENDIX 1-4B(a)	Federal Lease UTU-78562 Modification
APPENDIX 1-4C	State Lease ML-47711
APPENDIX 1-4D	State Lease ML-49287
APPENDIX 1-4E	State Lease ML-51744
APPENDIX 1-4F:	Penta Creek Fee Lease, which includes
APPENDIX 1-4F(a)	Original Fee Lease
APPENDIX 1-4F(b)	Lease Extension #1, August 24, 2010
APPENDIX 1-4F(c)	Lease Extension #2, March 10, 2011
APPENDIX 1-4G:	Hinkins Fee Lease, which includes:
APPENDIX 1-4G(a)	David P. Hinkins 50%
APPENDIX 1-4G(b)	Emily P. Marston 25%
APPENDIX 1-4G(c)	Leonard J. Pagano 25%
APPENDIX 1-5	Current and Previous Coal Mining Permits
APPENDIX 1-6	Consultation and Coordination
APPENDIX 1-7	Ownership and Control
APPENDIX 1-8	Letter from Carbon County
APPENDIX 1-9	*****Deleted*****
APPENDIX 1-10	SITLA - Special Use Lease (Topsoil Borrow Area)

**TABLE OF CONTENTS- APPENDICES  
R645-301-100 CHAPTER 1  
(continued)**

APPENDIX 1-11	Material Deposit Special Use Lease Agreement
APPENDIX 1-12	Waterline/Pump House Right of Way
APPENDIX 1-13	Correspondence Regarding Security Gate
APPENDIX 1-14	*****Moved*****
APPENDIX 1-15	Legal Description of Grassy Trail Reservoir

**TABLE OF CONTENTS- MAP LIST  
R645-301-100 CHAPTER 1**

<b>MAP NUMBER</b>	<b>DESCRIPTION</b>	<b>SCALE</b>
<b>MAP 1-0</b>	<b>Permit Map</b>	<b>1" = 2000'</b>
<b>MAP 1-1</b>	<b>Location Map</b>	<b>1" = 2000'</b>

## **R645-301-100 PERMIT APPLICATION REQUIREMENTS: GENERAL CONTENTS**

### **SCOPE**

The objective of this chapter is to set forth all relevant information concerning ownership and control of WEST RIDGE Resources, Inc., the ownership and control of the property to be affected by mining activities and all other information and documentation required under Part UMC.

### **R645-301-112 IDENTIFICATION OF INTERESTS**

- 112.100 WEST RIDGE Resources, Inc. is a corporation organized and existing under the laws of Utah and qualified to do business in Utah.
- 112.200 The applicant, WEST RIDGE Resources, Inc. will also be the operator.

WEST RIDGE Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520  
(435) 888-4000  
David Hibbs - President

Employer Identification Number: 87-0585129

- 112.220 The resident agent of the applicant, WEST RIDGE Resources, Inc., is:

Dave Shaver  
WEST RIDGE Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520

(435) 888-4000

- 112.230 WEST RIDGE Resources, Inc. will pay the abandoned mine land reclamation fee.

112.300      **Ownership and Control - See Appendix 1-7**

WEST RIDGE Resources, Inc. is the permittee and operator of the WEST RIDGE Mine. WEST RIDGE Resources, Inc. is a wholly owned subsidiary of ANDALEX Resources, Inc.. WEST RIDGE Resources, Inc. is a Utah corporation licensed to do business in the State of Utah. All leases associated with the WEST RIDGE Mine are owned by ANDALEX Resources, Inc. ANDALEX Resources, Inc. is a wholly owned subsidiary of UtahAmerican Energy Inc., which in turn is a wholly owned subsidiary of Murray Energy Corporation.

112.340      See Appendix 1-5

112.350      See Appendix 1-5

112.410      See Appendix 1-5

112.420      See Appendix 1-7

112.500      Surface Owners:

Bureau of Land Management  
Utah State Office  
136 East South Temple  
Salt Lake City, Utah 84111

Glen Wells  
700 West U.S. Hwy 6  
Price, Utah 84501

Penta Creek, LLC  
140 S. Newton  
Albert Lea, MN 56007

David Hinkins  
155 West 100 South  
Orangeville, Utah 84537

School and Institutional Trust  
Lands Administration  
355 West North Temple, Suite 400  
Salt Lake City, Utah 84180-1204

Matt Rauhala  
1236 East Main  
Price, Utah 84501

Subsurface Owners:

Bureau of Land Management  
Utah State Office  
136 East South Temple  
Salt Lake City, Utah 84111

Penta Creek, LLC  
140 S. Newton  
Albert Lea, MN 56007

David Hinkins  
155 West 100 South  
Orangeville, Utah 84537

Emily P Marston  
843 Genodle Drive  
Midvale, Utah 84047

Leonard J. Pagano  
55 West main Street  
Price, Utah 84501

School and Institutional Trust  
Lands Administration  
355 West North Temple, Suite 400  
Salt Lake City, Utah 84180-1204

WEST RIDGE Resources, Inc. is the holder of record for federal lease SL-068754 and UTU 78562 (see Table 1-1), state lease ML 47711 and ML 49287 (see Table 1-2A) and the Penta Creek Fee lease (see Table 1-2B).

Proof of lease assignment for all leases (Federal leases SL-068754 and UTU 78562, and State leases ML 47711 and ML 49287), and the Penta Creek fee lease can be found in Appendix 1-4.

112.600 Contiguous surface owners:

Bureau of Land Management  
Utah State Office  
136 East South Temple  
Salt Lake City, Utah 84111

Dave Hinkins  
155 West 100 South  
Orangeville, Utah 84537

Glen Wells  
700 West U.S. Hwy 6  
Price, Utah 84501

Penta Creek, LLC  
140 S. Newton  
Albert Lea, MN 56007

School and Institutional Trust  
Lands Administration  
355 West North Temple, Suite 400  
Salt Lake City, Utah 84180-1204

Contiguous subsurface owners:

School and Institutional Trust  
Lands Administration  
355 West North Temple, Suite 400  
Salt Lake City, Utah 84180-1204

Penta Creek, LLC  
140 S. Newton  
Albert Lea, MN 56007

David Hinkins  
155 West 100 South  
Orangeville, Utah 84537

Emily P Marston  
843 Genodle Drive  
Midvale, Utah 84047

Leonard J. Pagano  
55 West main Street  
Price, Utah 84501

Bureau of Land Management  
Utah State Office  
136 East South Temple  
Salt Lake City, Utah 84111

- 112.700 See Appendix 1-5
- 112.800 There are no pending interests or bids existing on lands contiguous to the present leased area.
- 112.900 After WEST RIDGE Resources, Inc. is notified that the application is approved, but before the permit is issued, WEST RIDGE Resources, Inc. will update, correct or indicate that no change has occurred in the information previously submitted under R645-301-112.100 through R645-301-112.800.

**R645-301-113 VIOLATION INFORMATION**

- 113.100 The applicant or any subsidiary, affiliate or persons controlled by or under common control with the applicant has not had a federal or state permit to conduct coal mining and reclamation operations suspended or revoked in the five years preceding the date of submission of the application.
- 113.120 The applicant etc. has not forfeited any performance bond or similar security
- 113.200 Not applicable
- 113.300 A listing of violations received by the applicant in connection with any coal mining and reclamation operation during the three year period preceding the application date is provided in Appendix 1-2. MSHA numbers for the operations can be found in Appendix 1-5. There have been no unabated violations or cessation orders issued to any affiliated companies during the previous three years.
- 113.400 After WEST RIDGE Resources, Inc. is notified that the application is approved, but before the permit is issued, WEST RIDGE Resources, Inc. will update, correct or indicate that no change has occurred in the information previously submitted under R645-301-113.

114.100 WEST RIDGE Resources, Inc., currently holds 5256.16 acres of federal coal (2,650.67 acres leased under SL-068754 and 2605.49 acres leased under UTU 78562) in the Book Cliffs coal field (refer to Maps 1-0 and 5-3). A complete legal description of all Federal leases held by WEST RIDGE is found in Table 1-1. WEST RIDGE currently holds 2162.34 acres of state coal (801.24 acres under ML 47711, 881.10 under ML 49287, and 480 acres under ML 51744). A complete legal description of all State leases held by WEST RIDGE is found in Table 1-2. WEST RIDGE also holds 1189.84 acres leased on contiguous private (fee) coal lands located along the eastern side of the mineable reserve. A complete legal description of this fee lease is found in Table 1-3. None of these leases are the subject of any pending litigation. Proof of lease assignment for all leases can be found in Appendix 1-4.

WEST RIDGE Resources, Inc. bases its legal right to enter and conduct mining activities in the permit area pursuant to the language contained in the Federal Coal Lease, Part I Lease Rights Granted which reads as follows:

*"That the lessor, in consideration of the rents and royalties to be paid and the covenants to be observed as hereinafter set forth, does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in, upon, or under the following described tracts of land, situated in the State of Utah... together with the right to construct all such works, buildings, plants, structures and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted."*

In addition to the coal leases, WEST RIDGE also holds several surface use permits as part of the operation, including:

1) SITLA Special Use Lease Agreement No. 1163. The substitute topsoil borrow area, which is also included within the permit area, is located on lands administered by the Utah School and Institutional Trust Lands Administration (SITLA). This area is located within the SE1/4 of section 16, T 14 S, R 13 E. SITLA has issued a long term special use permit to WEST RIDGE Resources, Inc. which provides full assurance that the topsoil resource in this area will be available for (and, indeed dedicated to) final reclamation of the West Ridge minesite if needed. This area is not contiguous with the main coal leasehold. (See Appendix 1-10 for details)

2) BLM Right-of-Way UTU-77120 This right-of-way authorizes the installation and operation of a pumping station used to facilitate the delivery of culinary water to the West Ridge Mine. This area is not contiguous with the main coal leasehold. (See

Appendix 1-12 for details)

3) BLM Right-of-Way 87110 This right-of way authorizes the installation of three (3 ea.) catchment structures in the C Canyon drainage below the mine. These catchments are designed to provide containment of unanticipated coal-fines accumulations from the mine discharge water. These catchment structures comprises a total of 0.69 acres (Refer to Appendix 5-15 for details).

The total permit area is 7436.95 acres. Refer to Map 1-1 for the permit area location. Refer to Table 1-4 for the legal description of the permit area by composite leasehold, and Table 1-5 for the legal description of the permit area in total area. Table 1-6 describes the surface ownership of the permit area.

The permit area consists of the following areas:

- 1) all of federal coal leases SL-068754-U-01215 (2,650.67 acres)
- 2) most of federal coal lease UTU 78562 (2,269.58 acres),
- 3) all of state coal leases ML-47711 (801.24 acres)
- 4) all of state coal lease ML-49287 (881.10 acres)
- 5) much of state coal lease ML-51744 (212.5 acres)
- 6) much of the Penta Creek fee coal lease (520.55 acres)
- 7) much of the Hinkins fee coal lease (90.0 acres) SEE NOTE BELOW
- 8) SITLA surface lease 1163, for topsoil borrow area (9.6 acres).
- 9) BLM right-of-way UTU-77120, for pumping station (0.23 acres)
- 10) BLM right-of-way UTU-87110, for catchment structures A, C and E (0.69 acres)
- 11) Carbon County authorization, road security gate (0.79 acres). See Appendix 1-13

*NOTE: In the spring of 2011 the company acquired the Hinkins fee lease along the eastern side of the permit area. Mining in this new lease will involve mining under the stream in the Right Fork of Whitmore Canyon which supplies most of the water to the Grassy Trail Reservoir. Due to concerns for the water rights in this area, the stakeholders have agreed that additional hydrologic data should be acquired prior to any future full-extraction mining under the stream in the Right Fork. As of May, 2011, this data acquisition program is presently underway. In the meantime development mining (bleeder entries and headgate entries) for longwall panel #20 is proceeding, as shown on Map 5-4A. It is understood that permission for these development entries into the Hinkins fee lease does not presume nor imply ultimate approval of full-extraction longwall mining in this area. Such approval for longwall mining is withheld until the full potential for impact to the water rights in the Right Fork can be better evaluated based on the acquisition of new hydrologic data now underway. This data acquisition will include, but is not limited to the following:*

- 1) Installation and/or rehabilitation of measuring flumes in the upper and lower reaches of both Right and Left Forks of Whitmore Canyon above the reservoir (total of 4ea. flumes).*
- 2) Installation of continuous measuring/recording devices at each flume.*

3) Installation of subsidence monitoring stations at 50' intervals along the entire stretch of Right Fork subject to possible future longwall mining, with vertical detection accuracy of less than half an inch.

4) Installation of flow meters within the underground mine water collection/pumping system sufficient to adequately assess the quantity and location of groundwater sources encountered in the mine works.

5) Tritium analysis of the existing mine water to establish baseline data regarding the age-dating of the mine water as a function of location.

6) On-site location and development of selected springs in the Right Fork area subject to future monitoring, conducted in conjunction with stakeholder input.

7) Expansion of the seep and spring survey in the Right Fork to include more of the upper drainage area.

8) Completion of a detailed gain-loss analysis of the stream flow in the Right Fork within the area of potential longwall mining.

*The company acknowledges that inclusion of the Hinkins lease into the permit area at this time allows for limited development mining only, and expressly excludes longwall mining pending future data collection and permitting action.*

Disturbed area within the permit area consists of the following:

1)	Minesite surface facilities	29.82 acres
2)	Pumping station	0.23 acres
3)	GVH installation (main pad)	0.24 acres
4)	GVH installation (GVH 5 "pullout")	0.02 acres
5)	GVH topsoil storage	0.1 acres
6)	Catchment structures A	0.12 acres
7)	Catchment structures C	0.23 acres
8)	Catchment structures E	<u>0.23 acres</u>
	TOTAL	30.99 acres

See Table 1-7 for complete legal description of disturbed areas.

114.200 Not applicable, the fee lease mineral estate is not severed from the surface estate.

**TABLE 1-1  
FEDERAL LEASE and R.O.W. PROPERTIES**

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
1) <u>FEDERAL COAL LEASE SL-068754</u> (SL-068754-U-01215)	2,650.67	T 14 S, R 13 E  Section 10: NE, E2NW, N2SE, SESE Section 11: All Section 12: S2SW, NWSW Section 13: S2, NW, S2NE, NWNE Section 14: E2, N2NW, SENW Section 15: NENE Section 24: N2, N2SE, NESW
2) <u>FEDERAL COAL LEASE UTU-78562</u>	2,249.25	T 13 S, R 13 E  Section 34: NESE, S2SE Section 35: All  T 13 S, R 14 E  Section 31: Lot 4, S2SESW, NESESW, SENWSESW, W2SWSE, S2SESWSE, S2S2SESE  T 14 S, R 13 E  Section 1: All Section 12: Lots 1 thru 4, S2N2, NESW, SE Section 13: NENE  T 14 S, R 14 E  Section 5: Lot 4, W2W2SWNW, SWNWSW, W2NWNWSW, W2SWSW  Section 6: Lot 6, NESW, NESE Section 7: Lots 3 and 4

3) PUMPING STATION  
(BLM R.O.W. UTU-7712)

0.23

Section 8: W2NWNW, W2SENWNW,  
SWNENWNW, W2SWNW,  
W2E2SWNW, W2NWSW,  
SWSW

Section 17: N2NWNWNE

Section 18: Lot 1, E2NW

T 14 S, R 13 E

Section 21: NENE (0.23 acres thereof)

4) CATCHMENT STRUCTURE A  
(BLM R.O.W. UTU-87110)

0.23

T 14 S, R 13 E

Section 15: SESW (0.23 acres therein)

5) CATCHMENT STRUCTURE C  
(BLM R.O.W. UTU-87110)

0.23

T 14 S, R 13 E

Section 28: NWNW (0.23 acres therein)

6) CATCHMENT STRUCTURE E  
(BLM R.O.W. UTU-87110)

0.23

T 14 S, R 12 E

Section 25: SESE (0.23 acres therein)

TOTAL FEDERAL

5257.08 acres

**TABLE 1-2**  
**STATE (SITLA) LEASE and SPECIAL USE PROPERTIES**

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
<u>1) STATE LEASE ML 47711</u>	801.24	T 14 S, R 13 E  Section 2: Lots 1 thru 4, S2N2, S2 (i.e. All)  T 13 S, R 13 E  Section 36: SW
<u>2) STATE COAL LEASE ML 49287</u>	881.10	T 14 S, R 13 E  Section 3: Lots 1, 2, 3, S2N2, S2  Section 10: W2NW, SW, SWSE
<u>3) STATE COAL LEASE ML 51744</u>	480	T 13 S, R 13 E  Section 36: N2, SE
<u>4) STATE SURFACE LEASE</u> SPECIAL USE PERMIT (Agreement #1163)	9.6	T 14 S, R 13  Section. 16: E2NESE (9.6 acres thereof, containing substitute topsil area)
<b><u>TOTAL STATE</u></b>	<b><u>2171.94</u></b>	

**TABLE 1-3  
FEE LEASE PROPERTIES  
(PENTA CREEK)**

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
<u>1) PENTA CREEK FEE LEASE</u>	382.08	T 14 S, R 14 E  Section 6: Lot 7, SESW  Section 7*: Lots 1* and 2*, NENW*, E2SW*, SWSE  Section 18: Lots 2 and 3, NWNE
<p>*Less and excepting from the portion of the above legal subdivisions in Section 7, those lands under and around Grassy Trail Dam and Reservoir owned by East Carbon City and Sunnyside City, such lands being more accurately described in Appendix 1-15.</p>		
<u>2) PENTA CREEK LEASE EXTENSION</u> (Extension 1, August, 2010)	352.36	T 14 S, R 14 E  Section 6: Lots 2, 3, 4 and 5, SENW, SWNE, NWSE, S2SE
<u>3) PENTA CREEK LEASE EXTENSION</u> (Extension 2, March, 2011)	295.40	T 14 S, R 14 E  Section 6: Lot 1, SENE  Section 7: SWNE, NWSE, SESE, SENW  Section 18: NENE
<u>4) HINKINS FEE LEASE**</u>	160.00	T 14 S, R 14 E Section 7: N2NE, SENE, NESE
<b><u>TOTAL FEE LEASES:</u></b>	<b><u>1189.84</u></b>	

\*\* This lease area is held as follows:  
(individually)

David P. Hinkins, Todd S. Hinkins and Ross D. Hinkins.....	50%
Emily P. Marston.....	25%
Leonard Pagano.....	25%

**TABLE 1-4  
LEGAL DESCRIPTION OF PERMIT AREA  
(BY LEASEHOLD)**

<u>PARCEL</u>	<u>ACREAGE</u>	<u>LEGAL DESCRIPTION</u>
<u>1) FEDERAL LEASE SL-068754</u> (SL-068754-U-01215)	2,650.67	T 14 S, R 13 E  Section 10: NE, E2NW, N2SE, SESE Section 11: All Section 12: S2SW, NWSW Section 13: S2, NW, S2NE, NWNE Section 14: E2, N2NW, SENW Section 15: NENE Section 24: N2, N2SE, NESW
<u>2) FEDERAL LEASE UTU-78562</u>	2269.58	T 13 S, R13 E  Section 34: NESE, S2SE Section 35: All  T 13 S, R 14 E Section 31: SWLot 4  T 14 S, R 13 E Section 1: All Section 12: Lots 1 thru 4, S2N2, NESW, SE Section 13: NENE  T 14 S, R 14 E Section 6: Lot 6, NESW Section 7: Lots 3 and 4 Section 8: SWSWNW Section 18: Lot 1, E2NW

TABLE 1-4 (continued)

<u>3) STATE LEASE ML 47711</u>	801.24	T 14 S, R 13 E
		Section 2: Lots 1 thru 4, S2N2, S2
		T 13 S, R 13 E
		Section 36: SW
<u>4) STATE LEASE ML 49287</u>	881.10	T 14 S, R 13 E
		Section 3: Lots 1, 2 and 3, S2N2, S2
		Section 10: W2NW, SW, SWSE
<u>5) STATE LEASE ML 51744</u>	212.5	T 13 S, R 13 E
		Section 36: SW, SWNWSWNW, S2S2NW, S2SWNE, W2SE, SESE, S2NESE, NWNESE
<u>6) PENTA CREEK FEE LEASE</u>	238.17	T 14 S, R 14 E
		Section 6: Lot 7, SESW
		Section 7*: Lot 1*, SESW, SWNESW
		Section 18: Lots 2 and 3
<u>7) PENTA CREEK LEASE EXTENSION</u> (Extension #1, August, 2010)	272.38	T 14 S, R 14 E
		Section 6: Lots 3, 4 and 5, SENW, SWNE, NWSE, SWSE
<u>8) PENTA CREEK LEASE EXTENSION</u> (Extension #2, March, 2011)	10.00	Section 7: NESWNE
<u>9) HINKINS FEE LEASE</u>	90.00	T 14 S, R 14 E
		Section 7: NWNE, SENE, SWNENE
<u>8) PUMPING STATION</u> (BLM R.O.W. UTU-7712)	0.23	T 14 S, R 13 E
		Section 21: NESENE (0.23 acres thereof, containing pumping station)

**TABLE 1-4 (continued)**

<u>9) TOPSOIL SALVAGE AREA</u> (SITLA special use agreement #1163)	9.6	T 14 S, R 13 E	Section 16: E2NESE (9.6 acres thereof, containing substitute topsoil area)
<u>10) CATCHMENT STRUCTURE A</u> (BLM R.O.W . UTU-87110)	0.23	T 14 S, R 13 E	Section 15: SESW (0.23 acres thereof, containing catchment structure)
<u>11) CATCHMENT STRUCTURE C</u> (BLM R.O.W . UTU-87110)	0.23	T 14 S, R 13 E	Section 28: NWNW (0.23 acres thereof, containing catchment structure)
<u>12) CATCHMENT STRUCTURE E</u> (BLM R.O.W . UTU-87110)	0.23	T 14 S, R 12 E	Section 25: SESE (0.23 acres thereof, containing catchment structure)
<u>13) SECURITY GATE</u> (Carbon County authorization)	0.79	T 14 S, R 13 E	Section 15: NWSENE (0.79 acres thereof, containing security gate)
<b><u>TOTAL PERMIT AREA</u></b>	<b><u>7436.95 acres</u></b>		

\*Less and excepting from the portion of the above legal subdivisions in Section 7, those lands under and around Grassy Trail Dam and Reservoir owned by East Carbon City and Sunnyside City, such lands being more accurately described in Appendix 1-15.

**TABLE 1-5  
LEGAL DESCRIPTION OF PERMIT AREA  
(TOTAL AREA)**

T13S, R13E	Section 34	NESE, S2SE
	Section 35	All
	Section 36	SW, SWNWSWNW, S2S2NW, S2SWNE, W2SE, SESE, S2NESE, NWNESE,
T13S, R14E	Section 31	SWLot 4
T14S, R12E	Section 25	SESE (part thereof containing catchment structure E)
T14S, R13E	Section 1	All
	Section 2	All
	Section 3	Lots 1, 2 and 3, S2N2, S2
	Section 10	All
	Section 11	All
	Section 12	All
	Section 13	All
	Section 14	E2, N2NW, SENW
	Section 15	NENE, NWSENE (part thereof, containing security gate) SESW (part thereof, containing catchment structure A)
	Section 16	E2NESE (part thereof, containing substitute topsoil area)
	Section 21	NESENE (part thereof, containing pumping station)
	Section 24	N2, N2SE, NESW
	Section 28	NWNW (part thereof, containing catchment structure C)
T14S, R14E	Section 6	Lots 3, 4, 5, 6 and 7, SENW, E2SW, W2SE
	Section 7*	Lots 1*, 3 and 4, SESW, SWNESW, NWNE, SWNENE, SENE, NESWNE
	Section 18	Lots 1, 2 and 3, E2NW

**TOTAL PERMIT AREA = 7436.95 acres.**

\*Less and excepting from the portion of the above legal subdivisions in Section 7, those lands under and around Grassy Trail Dam and Reservoir owned by East Carbon City and Sunnyside City, such lands being more accurately described in Appendix 1-15.

**TABLE 1-6  
SURFACE OWNERSHIP OF PERMIT AREA**

T(S)/R(E)	Section	BLM	Penta Creek	Hinkins	Wells	Rauhala	SITLA	Total
13/13	34	-	-	-	120.00	-	-	120.00
13/13	35	40.00	-	448.91	151.09	-	-	640.00
13/13	36	-	372.50	-	-	-	-	372.50
13/14	31	10.33	-	-	-	-	-	10.33
14/12	25	0.23	-	-	-	-	-	0.23
14/13	1	283.75	328.68	-	-	39.92	-	652.35
14/13	2	-	641.24	-	-	-	-	641.24
14/13	3	-	-	-	80.66	-	520.44	601.10
14/13	10	360.00	-	-	-	-	280.00	640.00
14/13	11	650.87	-	-	-	-	-	650.87
14/13	12	-	648.96	-	-	-	-	648.96
14/13	13	640.00	-	-	-	-	-	640.00
14/13	14	440.00	-	-	-	-	-	440.00
14/13	15	41.02	-	-	-	-	-	41.02
14/13	16	-	-	-	-	-	9.60	9.60
14/13	21	0.23	-	-	-	-	-	0.23
14/13	24	440.00	-	-	-	-	-	440.00
14/12	28	0.23	-	-	-	-	-	0.23
14/14	6	76.41	348.94	-	-	-	-	425.35
14/14	7	74.08	96.69	90.00	-	-	-	260.77
14/14	8	-	-	10.00	-	-	-	10.00
14/14	18	117.25	74.92	-	-	-	-	192.17
		3174.40	2511.93	548.91	351.75	39.92	810.04	7436.95

**TABLE 1-7  
DISTURBED AREA WITHIN PERMIT AREA**

1) Minesite surface facilities: portions of the following, totaling 29.82 acres (all BLM)

T14S, R13E	Section 10:	SESESE NESESE
T14S, R13E	Section 11:	SWNESW NWSESW NESWSW NWSWSW SWSWSW SESWSW
T14S, R13E	Section 15:	NENENE NWNENE SWNENE SENENE NWSENE

2) Pumphouse: portion thereof of the following, containing 0.23 acres (all BLM)

T14S, R13E	Section 21:	NESENE
------------	-------------	--------

3) Gob gas vent hole (GVH) installation (main pad): portion thereof of the following, containing 0.24 acres (all SITLA)

T14S, R13E	Section 3:	NESWSE
------------	------------	--------

4) Gob gas vent hole (GVH) installation (GVH 5 "pullout"): portion thereof of the following, containing 0.02 acres (all SITLA)

T14S, R13E	Section 3:	NESWSE
------------	------------	--------

5) Gob gas vent hole (GVH) topsoil pile: portion thereof of the following, containing 0.1 acres (all SITLA)

T14S, R13E	Section 10:	SENWNW
------------	-------------	--------

6) Catchment Structure A: portion thereof of the following, containing 0.12 acres (all BLM)

T 14 S, R 13 E      Section 15:    SESW

7) Catchment Structure C: portion thereof of the following, containing 0.23 acres (all BLM)

T 14 S, R 13 E      Section 28:    NWNW

8) Catchment Structure E: portion thereof of the following, containing 0.23 acres (all BLM)

T 14 S, R 12 E      Section 25:    SESE

**TOTAL DISTURBED AREA = 30.99 acres**

**R645-301-115 STATUS OF UNSUITABILITY CLAIMS**

115.100 The proposed permit area is not within an area designated as unsuitable for mining. WEST RIDGE Resources, Inc. is not aware of any petitions currently in progress to designate the area as unsuitable for coal mining and reclamation activities.

The area in which the proposed facility will be located has been evaluated within area management plans. It has not been found unsuitable for mining activities under any categories of examination.

115.200 Not applicable.

115.300 WEST RIDGE Resources, Inc. will not be conducting mining operations within 100 feet of an occupied dwelling. WEST RIDGE Resources, Inc. has received permission from Carbon County to construct facilities and operate coal mining activities within 100 feet of a public road. Refer to the letter from Carbon County in Appendix 1-8.

**R645-301-116 PERMIT TERM**

116.100 The anticipated starting and termination dates of the coal mining and reclamation operation are as follows:

	<u>Begin</u>	<u>Complete</u>
Construction of Mining Pad, Mining Support Structures, and Portals	Apr. 1999	Dec. 1999
Begin Mining	Jan. 2000	
Terminate Mining		Dec. 2017*
Remove Facilities	Jan. 2018*	June 2018*
Regrade Area	July 2018*	Sept. 2018*
Revegetate Site	Oct. 2018*	Nov. 2018*

\*This assumes mine life extended through acquisition of adjacent state and federal coal reserves.

116.200 The initial permit application will be for a five year term with successive five year permit renewals.

**R645-301-117      INSURANCE, PROOF OF PUBLICATION AND FACILITIES OR  
STRUCTURES USED IN COMMON**

- 117.100      The Certificate of Liability Insurance is included as Attachment 1-1 in Appendix 1-1.
- 117.200      A copy of the newspaper advertisement of the application for a permit and proof of publication are included as Attachment 1-2 and 1-3 respectively, in Appendix 1-1. A copy of the newspaper advertisement for the Whitmore lease revision is included as Attachment 1-3 in Appendix 1-1.
- 117.300      Not applicable.

**R645-301-118      FILING FEE**

Verification of filing fee payment is included as Attachment 1-4 in Appendix 1-1.

**R645-301-123      NOTARIZED STATEMENT**

A notarized statement attesting to the accuracy of the information submitted can be referenced as Attachment 1-5 in Appendix 1-1.

**R645-301-130      REPORTING OF TECHNICAL DATA**

Technical reports prepared by consultants specifically for WEST RIDGE Resources, Inc. are typically presented in an appendix format and, in general, provide the name and address of the person or company (consultant) preparing the report, the name of the report, the date of collection and analysis of the data, and descriptions of the methodology used to collect and analyze the data. The body of the report usually will provide the date the actual field work was conducted and a description of the methodology used to collect and analyze the data. The format of each report may vary depending on the contents of the report and organization preparing it.

For laboratory analyses, such as Appendix 7-2 and 7-3, the company performing the analyses as well as the date of the analyses, is presented on the laboratory report rather than the cover page.

A list of consultants and their appended reports is contained in Appendix 1-6, Consultation and Coordination. Sources used in the preparation of the permit application are referenced in Appendix 1-3. References in all chapters are keyed to this main reference list.

Mining and exploration activities had been conducted in the currently proposed disturbed area prior to August 3, 1977. A road existed into C Canyon in 1952 when drill hole B-6 was drilled in the right fork. A road was also constructed up the left fork of C Canyon to a drill hole site during the same year. In addition to the drill holes, the coal outcrop in the left fork of C Canyon was exposed for sampling purposes. A small pad was built at the outcrop location and it was left in place as were the roads.

In 1986, another drill hole, 86-2, was drilled west of the first drill hole in the right fork. A minor amount of road work was done in conjunction with this second drill hole. Kaiser Coal Company obtained permission from the BLM to grade the existing road and make it passable for the drill rig. The drill hole site was reclaimed but the road, a public road, was left in place.

Through use of aerial photography and site evaluations, it is possible to document previous mining related disturbances in C Canyon. Refer to Map 5-1 for delineation of the disturbance prior to August 3, 1977.

The total of all the previously disturbed areas within the minesite disturbed area is estimated to be as follows:

roads in right and left forks	=	1.27 acres
road culvert	=	.05 acres
water monitoring well	=	.05 acres
material storage pad	=	.05 acres
		<hr/>
		1.62 acres

WEST RIDGE Resources, Inc. is proposing to utilize the entire previously disturbed area in their current proposal and to reclaim it upon cessation of mining operations.

In the 1950's a road was constructed in the Right Fork of Bear Canyon to access an exploratory drillhole site. This road now provides access to the site of the Bear Canyon GVH installation. (Refer to Appendix 5-14 for a detailed description of the Bear Canyon GVH facility)

**CHAPTER 5**  
**R645-301-500 ENGINEERING**

*Historical Note 1: In the spring of 2009, and again in the summer of 2010, the company constructed small catchment structures in the C Canyon drainage below the minesite. The purpose of these structures was to contain coal-fines which had accumulated in the drainage channel as a result of non-compliance discharge water from the mine, and to assist in the subsequent clean-up project. After the unit was constructed it was determined that it should be included within the Mining and Reclamation Plan. Please refer to Appendix 5-15 for a complete description of these catchment structures, including history, location, right-of-entry, as-built design, operational criteria, and reclamation information.*

*Historical Note 2: In the spring of 2011 the company acquired the Hinkins fee lease along the eastern side of the permit area. Mining in this new lease will involve mining under the stream in the Right Fork of Whitmore Canyon which supplies most of the water to the Grassy Trail Reservoir. Due to concerns for the water rights in this area, the stakeholders have agreed that additional hydrologic data should be acquired prior to any future full-extraction mining under the stream in the Right Fork. As of May, 2011, this data acquisition program is presently underway. In the meantime development mining (bleeder entries and headgate entries) for longwall panel #20 is proceeding, as shown on Map 5-4A. It is understood that permission for these development entries into the Hinkins fee lease does not presume nor imply ultimate approval of full-extraction longwall mining in this area. Such approval for longwall mining is withheld until the full potential for impact to the water rights in the Right Fork can be better evaluated based on the acquisition of new hydrologic data now underway. This data acquisition will include, but is not limited to the following:*

- 1) Installation and/or rehabilitation of measuring flumes in the upper and lower reaches of both Right and Left Forks of Whitmore Canyon above the reservoir (total of 4ea. flumes).*
- 2) Installation of continuous measuring/recording devices at each flume.*
- 3) Installation of subsidence monitoring stations at 50' intervals along the entire stretch of Right Fork subject to possible future longwall mining, with vertical detection accuracy of less than half an inch.*
- 4) Installation of flow meters within the underground mine water collection/pumping system sufficient to adequately assess the quantity and location of groundwater sources encountered in the mine works.*
- 5) Tritium (age-dating) analysis of the existing mine water to establish baseline data regarding the age-dating of the mine water as a function of location.*
- 6) On-site location and development of selected springs in the Right Fork area subject to future monitoring, conducted in conjunction with stakeholder input.*
- 7) Expansion of the seep and spring survey in the Right Fork to include more of the upper drainage area.*
- 8) Completion of a detailed gain-loss analysis of the stream flow in the Right Fork within the area of potential longwall mining.*

*The company acknowledges that inclusion of the Hinkins lease into the permit area at this time allows for limited development mining only, and expressly excludes longwall mining pending future data collection and permitting action.*

Chapter 5 contains information regarding the proposed coal mining operation and reclamation plans, a discussion of its potential impact to the environment and methods to achieve compliance with design criteria.

Reclamation plans and estimates are presented for postmining restoration of the area.

NOTE: The following discussion for the remainder of R645-301-511 applies specifically to the Gob Gas Vent Hole (GVH) installation proposed in Bear Canyon. In order to facilitate the review it is presented here in its entirety rather than interspersed throughout the chapter. A more detailed and complete discussion of the Bear Canyon GVH proposal can be found in Appendix 5-14. Unless specifically noted in this following discussion, nothing related to the Bear Canyon GVH proposal affects the contents of the existing approved MRP as described hereinafter.

The GVH facility will consist of three drillholes, four methane extractor units, and interconnecting piping. A detailed description of the drillhole installation, and the assembly and operation of the methane extractor units can be found in Attachment 7 of Appendix 5-14. The site pad will consist of a narrow strip (approximately 35' wide x 300' long) located adjacent to and parallel with the road. The drillholes will be located at the southern (down-canyon) end of the site pad. The extractor units will be located in a serial arrangement along the northern (up-canyon) end of the site pad. The total facility area will be about 0.24 acres, including the adjacent cutslopes.

Three angled holes will be drilled at angles ranging from 20 degrees to 45 degrees from vertical. Drilling will be conducted using tri-cone rotary and/or hammer. Drilling fluid will be primarily compressed air (600-800 psi) with water and Baroid Quick Foam and EZ Mud (see Attachment 15 for MSDS sheets for these products). Cuttings will pass up the annulus and be diverted to the reserve pit on the surface. Each hole will be spudded with a 19" diameter hole into which a 16" diameter conductor casing will be set and grouted to an approximate depth of 20'. Thereafter, a 12.25" hole will be drilled to within 200' of the Lower Sunnyside coal seam (an inclined depth of 200'-300'). A 9.625" T&C casing will be set and grouted to total depth of the 12.25" bore. An 8.75" bit will be tripped in to drill out the shoe and will continue about 175' to within 25' of the coal seam horizon. Sections of 7" slotted casing will be tripped in from bottom of hole to about 40' above the bottom of the upper casing, but will not be grouted so that it can move with any additional subsidence.

Before construction starts identification signs will be posted at the site. These signs will list the company name as permit holder, the permit number, address and phone number. During the initial phase of construction, topsoil will be salvaged. Based on a recent Order 1 soils survey the current estimate of topsoil to be salvaged is approximately 515 cubic yds. (See Appendix 2-10 and also Attachment 2 of

**CHAPTER 7**  
**R645-301-700 HYDROLOGY**

*Historical Note 1: In the spring of 2009, and again in the summer of 2010, the company constructed small catchment structures in the C Canyon drainage below the minesite. The purpose of these structures was to contain coal-fines which had accumulated in the drainage channel as a result of non-compliance discharge water from the mine, and to assist in the subsequent clean-up project. Please refer to Appendix 5-15 for a complete description of these catchment structures, including history, location, right-of-entry, as-built design, operational criteria, and reclamation information.*

*Historical Note 2: In the spring of 2011 the company acquired the Hinkins fee lease along the eastern side of the permit area. Mining in this new lease will involve mining under the stream in the Right Fork of Whitmore Canyon which supplies most of the water to the Grassy Trail Reservoir. Due to concerns for the water rights in this area, the stakeholders have agreed that additional hydrologic data should be acquired prior to any future full-extraction mining under the stream in the Right Fork. As of May, 2011, this data acquisition program is presently underway. In the meantime development mining (bleeder entries and headgate entries) for longwall panel #20 is proceeding, as shown on Map 5-4A. It is understood that permission for these development entries into the Hinkins fee lease does not presume nor imply ultimate approval of full-extraction longwall mining in this area. Such approval for longwall mining is withheld until the full potential for impact to the water rights in the Right Fork can be better evaluated based on the acquisition of new hydrologic data now underway. This data acquisition will include, but is not limited to the following:*

- 1) Installation and/or rehabilitation of measuring flumes in the upper and lower reaches of both Right and Left Forks of Whitmore Canyon above the reservoir (total of 4ea. flumes).*
- 2) Installation of continuous measuring/recording devices at each flume.*
- 3) Installation of subsidence monitoring stations at 50' intervals along the entire stretch of Right Fork subject to possible future longwall mining, with vertical detection accuracy of less than half an inch.*
- 4) Installation of flow meters within the underground mine water collection/pumping system sufficient to adequately assess the quantity and location of groundwater sources encountered in the mine works.*
- 5) Tritium analysis of the existing mine water to establish baseline data regarding the age-dating of the mine water as a function of location.*
- 6) On-site location and development of selected springs in the Right Fork area subject to future monitoring, conducted in conjunction with stakeholder input.*
- 7) Expansion of the seep and spring survey in the Right Fork to include more of the upper drainage area.*
- 8) Completion of a detailed gain-loss analysis of the stream flow in the Right Fork within the area of potential longwall mining.*

*The company acknowledges that inclusion of the Hinkins lease into the permit area at this time allows for limited development mining only, and expressly excludes longwall mining pending future data collection and permitting action.*

## **R645-301-711      General Requirements**

This chapter includes a description of hydrology and hydrogeology of the West Ridge permit area. Specifically, this permit application includes:

- 711.100      Existing hydrologic resources according to R645-301-720.
- 711.200      Proposed operations and potential impacts to the hydrologic balance according to R645-301-730.
- 711.300      The methods and calculations utilized to achieve compliance with the hydrologic design criteria and plans according to R645-301-740.
- 711.400      Applicable hydrologic performance standards according to R645-301-750.
- 711.500      Reclamation activities according to R645-301-760.

NOTE: The following discussion for the remainder of R645-301-711 applies specifically to the Gob Gas Vent Hole (GVH) installation proposed in Bear Canyon. In order to facilitate the review it is presented here in its entirety rather than interspersed throughout the chapter. A more detailed and complete discussion of the Bear Canyon GVH proposal can be found in Appendix 5-14. Unless specifically noted in this following discussion, nothing related to the Bear Canyon GVH proposal affects the contents of the existing approved MRP as described hereinafter.

The GVH site will be located on the opposite side of the road (southeast side) from the primary canyon drainage channel. Therefore, construction and operation of the GVH facility will have no affect on the natural canyon drainage. Because of the limited size of the site (0.24 acres) and the narrow configuration within the confines of the narrow ledges of the canyon, there is insufficient room to construct a sediment control pond. Therefore the company intends to employ a combination of alternate sediment control methods at the site. During the construction phase of the pad site, adequate rows of excelsior logs will be placed downgrade from the site to prevent construction sediment from entering the channel. Once the pad site is finished, which should take less than two weeks, a disturbed area drainage ditch will be constructed along the toe of the cut. This ditch will be designed to handle the flow from the up-slope undisturbed area, the reclaimed cutslope, the drillpad, and the adjacent section of road. This ditch will discharge into the natural drainage channel a short distance below the drillhole location. This ditch will be armored with adequately-sized rip-rap for its entire length. This rip-rap will decrease the potential for erosion in the ditch, and will also act initially as a siltation trap as a certain amount of sediment is allowed to settle into the rip-rap voids.

DOGM, Bureau of Land Management, and the cities of East Carbon and Sunnyside. The report analyzed the potential impacts from both subsidence and seismicity associated with full extraction mining, with specific emphasis on panel #7, the longwall panel projected for mining nearest to the dam. The report concluded that the risk to the dam and reservoir is minimal, and that even the maximum probable seismic event or subsidence scenario would be well within the safety factor of the dam. In addition, there are no known faults that intercept the dam that could be encountered in the mining of Panel #7. The Division of Dam Safety, the BLM, and the cities of East Carbon and Sunnyside have all accepted the conclusions of the report. This report (Grassy Trail Dam and Reservoir Seismicity Report) is included in Appendix 5-11. This report also includes as an appendix an independent report prepared by Agapito Associates (Estimated Impacts to the Grassy Trail Reservoir due to Longwall Mining) which addresses the potential effects on the dam/reservoir due to longwall induced subsidence. A companion report (Grassy Trail Dam & Reservoir Phase II Dam Safety Study) is included as Appendix 5-12. WEST RIDGE has committed to an intensive program of monitoring of the dam and reservoir during the mining of Panel #7. This monitoring plan is outlined in section 301-114.100 of this Mining & Reclamation Plan and is included in detail in Appendix 5-13.

Based on subsequent approval of the mine plan, panel #7 was extracted starting in December, 2005, and completing in September 2006. Extraction closest to the Grassy Trail Reservoir occurred in March, 2006. Monitoring, as described above, was conducted continuously during the mining of panel #7. As predicted by the RB&G report, there was no mining related damage to the dam, although some slumpage of the adjacent hillside occurred, resulting in minor movement of the west abutment of the dam. There was no loss of integrity of the earthen structure of the dam. In January, 2008, after the area above and adjacent to panel 7 had completely stabilized, RB&G Engineering prepared a post-mining Summary Report of the mining-induced seismicity. This report is included in Appendix 5-16.

After panel 7 was completed, longwall mining moved to the west side of the mains near the outcrop (more than two miles distant from the dam), and then proceeded to the northeast. Also during this time, the company went to a panel-barrier system of longwall extraction, replacing the previous side-by-side panel method. This panel-barrier system leaves a 400' wide solid barrier pillar between each longwall panel, and has significantly reduced the magnitude and frequency of mining-related seismic events. During the ensuing five years of mining, the company has continued to monitor the dam and reservoir. Results of this monitoring have been provided to all the regulatory agencies and the owners of the reservoir on a regular basis. The results of this monitoring have shown that all mining-related effects on the reservoir have stabilized. RB&G Engineering then, in September, 2010, prepared a summary report update of the subsequent mining-induced seismicity, and this report is included in Appendix 5-17.

On July, 21, 2010, BLM approved the R2P2 for federal lease UTU-78562 and

approved mining of panels 18, 19 and 20 on the east side of the mains in the vicinity of the Grassy Trail Reservoir. In the decision document, BLM states, *"We agree with the conclusion that mining longwall panels 18 through 20 as submitted should have no adverse effects on the dam structure or reservoir. The dam structure has seen no detectable affects from the mining of panel number 7. The proposed panels are further distant from the reservoir and much further from the Grassy Trails Reservoir dam. Also, the new panel-barrier design has reduced dramatically the amount and intensity of any mining induced seismicity or subsidence. Additionally, this mining plan will comply with the lease stipulation to not subside perennial streams, unless authorized, as the Left Fork Whitmore Canyon Stream will be under a barrier pillar and no full extraction mining is planned under the stream."* A copy of the approved R2P2 for panels 18-20 is included in Appendix 5-3C. As with the previous mining of panel 7, the company commits to conducting the same level of intensive monitoring of the dam during longwall mining of panel block 18-20, as previously approved by the regulatory agencies, as stated above, and included in Appendix 5-13.

As mentioned in the BLM approval letter, mining of panel block 18-20 will be further distance away from the Grassy Trail dam than with panel 7. Panel 7 mined within 995' (horizontal) from the dam, while the closest mining from Block 18-20 would be more than 3000' (horizontal) away. Also, panel 7 was about 1664' stratigraphically lower than the dam, while panel block 18-20 is located more than 2200' lower than the dam. Also, panel 7 was mined using side-by-side panels, whereas panel block 18-20 will be mined as panel-barrier, further reducing the potential for seismicity.

Proposed mining activities in the Hinkins Fee Lease Incidental Boundary Change (IBC) area located in Section 7, Township 14 South, Range 14 East (shown on Map 7-8) will likely have no adverse impacts to the hydrologic balance or to groundwater or surface-water resources in the area. This conclusion is based on several factors. Firstly, the proposed mining in the IBC area will consist exclusively of full-support development mining for entries associated with Panel #20. Using these mining techniques, no subsidence of the land surface is anticipated and the potential for fracturing of overlying strata is minimized. Secondly, the coal seam in the proposed IBC area is isolated from the land surface by more than 2,200 feet of bedrock overburden. This overburden is made up of a heterogeneous sequence of bedrock formations which creates alternating horizons of mostly impermeable rocs and relatively permeable rocks (See Appendix 7-1). This heterogeneity likely prevents significant vertical or horizontal movement of groundwater within the overburden in the IBC area.

Appreciable groundwater resources have not been identified within the IBC area. In a spring and seep survey performed by Mayo and Associates (2000), no springs or seeps were identified in the region overlying the proposed IBC mining area (or within approximately 0.25 miles of the IBC boundary). The IBC area consists principally of a steep, upland mountainous terrain. Water supply wells have not

been identified in the IBC or adjacent area.

It should be noted that, while no perennial or intermittent streams flow across the proposed IBC area, the Right Fork of Grassy Trail Creek is present immediately northwest of the IBC area (See Map 7-8). The development entries that are proposed for mining in the IBC area will extend from the existing West Ridge Mine workings beneath the Right Fork of Grassy Trail Creek to the IBC area.

It is considered very unlikely that the proposed development entry mining activities will have detrimental impacts to water quantity or water quality in the Right Fork of Grassy Trail Creek. As discussed above, because the proposed mining activities will consist of development mining only, subsidence of the land surface beneath the Right Fork of Grassy Trail Creek is not anticipated. Additionally, the proposed development mining entries in the lower Blackhawk Formation will be effectively hydraulically isolated from the overlying stream channel by more than 2,000 feet of bedrock overburden (which bedrock does not support significant vertical or horizontal movement of groundwater; See Appendix 7-1). Accordingly, the potential for diversion of surface-water flows from the intact, unsubsided stream channel is considered remote.

It should also be noted that, as shown on Map 7-8, the portion of the Right Fork watershed in and adjacent to the IBC area comprises only a small percentage of the total Right Fork watershed surface area.

It has been the previous experience at the West Ridge Mine that most groundwater intercepted during mining operations has originated from sandstone channels in the mine roof. Because these sandstone channels are not in good hydraulic communication with shallow recharge sources, the mine inflows associated with these sandstone channels are generally short lived, with the mine inflow waters characteristically "drying up" behind mining operations. Seasonal variability in the mine inflow rates has not been observed. Groundwater has also been encountered in a fault system that was intercepted by the West Ridge Mine workings. It should be noted that if a water-bearing fault system were to be intercepted by the mine workings in the IBC area, appreciable groundwater inflows from the fault system could potentially occur. However, significant faulting in the proposed IBC area has not been identified. Additionally, because of the thickness of the overburden in the IBC area (> 2,200 feet), and the poor vertical water transmitting potential of the clay-rich overburden lithologies (which are known regionally to contain clay minerals that have the tendency to heal mining-induced fractures when wetted), the potential for a possible fault system to intercept shallow groundwater systems that could support springs or provide baseflow to streams (See Appendix 7-1) is considered low.

Accordingly, impacts to the hydrologic balance, to groundwater and surface-water availability, or to State appropriated waters as a result of the development entry mining in the proposed IBC area is considered unlikely.

An additional IBC area is proposed for mining in areas where the depth of cover exceeds 3,200 feet in the southwest corner of Section 31, Township 13 South, Range 14 East (See Map 7-8). Mining activities proposed within this area are to occur in a very small region in the extreme southwest corner of Section 31. For reasons similar to those discussed above, detrimental impacts to the hydrologic balance, to groundwater and surface-water availability, or to State appropriated waters as a result of mining-related activities are not anticipated. This conclusion is based on 1) the extreme depths below the surface at which mining will occur (greater than 3,200 feet), and 2) the lack of groundwater or surface-water resources (springs, seeps, or streams) overlying this proposed mining area (See Mayo and Associates 2000 spring and seep survey).

728.320

### Presence of acid-forming or toxic-forming materials

Acid-forming materials in western coal mines generally consist of sulfide minerals, namely pyrite and marcasite, which, when exposed to air and water, are oxidized causing the production of  $H^+$  ions (acid). Oxidation of pyrite will occur in the mine; however, acidic waters will not be observed in the mine. The acid is quickly consumed by dissolution of abundant, naturally occurring carbonate minerals. Iron is readily precipitated, as iron-hydroxide, and excess iron will be not observed in mine discharge water.

No other acid-forming materials or any toxic-forming materials have been identified or are suspected to exist in materials to be disturbed by mining.

728.331

### Sediment yield from the disturbed area

Undisturbed drainage from C Canyon upstream from the mine yard facility area will, for the most part, be culverted underneath the mine site by means of a 4' diameter corrugated metal pipe in the right fork and a 3' diameter culvert in the left fork drainage. This culvert has been sized to meet or exceed the design storm for this drainage area. Runoff from the mine site disturbed area and whatever natural runoff which flows onto the disturbed area will be channeled to the mine site sediment pond. The drainage control system for the mine site is shown on Map 7-2.

The culvert and ditch system is designed to handle drainage from a 10 year, 24 hour event. Any storm event that exceeds this amount will flow through the mine yard drainage structures to the sediment pond. If a storm should exceed the design event and the magnitude of the runoff exceeds the pond capacity, the over flow will be channeled through the pond cells and out the emergency spillway to the natural drainage channel below the sediment pond. This overflow will have a lower suspended solid content than the inflow to the pond or any drainage which may be flowing down the natural drainage channel. The sediment pond will detain the inflowing water and allow suspended solids to settle out in the pond cells prior to discharge. Given the ephemeral nature of the drainages and the fact that the sediment pond is designed for the complete retention of the 10 year, 24 hour storm event, it is unlikely that discharge from the sediment pond will occur very often if ever. Since the sediment pond is designed to completely contain the 10 year, 24 hour event, only a limited amount of outflow, that in excess of the design event, would be discharged. Excess water contained in the sediment pond following runoff events would be allowed to settle and evaporate, or be decanted in a controlled manner through the primary discharge pipe to reduce the potential for erosion downstream.

Using the Universal Soil Loss Equation (USLE), an estimate of the annual sediment yield from the mine site disturbed area (in the pre-mining condition) is 0.3082 acre-feet per year. In the operational phase, this same area (the mine yard disturbed area) would then yield 0.3090 acre-feet per year. During the postmining phase, the

## Springs

Eight springs in the permit and adjacent areas have been monitored since at least 1999; some of these have been monitored by WEST RIDGE since 1997, and some even earlier by other entities. Two other springs, SP-101 and SP-102 have been monitored since 2003. Four of these springs (SP-12, SP-13, SP-15, and SP-16) discharge from the lower slopes of West Ridge in Whitmore Canyon. Two springs, WR-1 and WR-2, discharge from the upper slope of West Ridge in Whitmore Canyon. Refer to Map 7-7. One spring (SP-8) discharges in the upper drainage of C Canyon. Hanging Rock Spring (S-80), SP-101 and SP-102 are located near the northeast corner of the permit area and discharges from the east slopes of Whitmore Canyon.

Most of the monitoring stations in this monitoring program are located on the east slope of West Ridge. This is because, with the exception of SP-8, there are no springs that are suitable for monitoring on the west side of West Ridge.

Beginning in 2<sup>nd</sup> Quarter of 2011, monitoring at SP-15, SP-16, WR-1 and WR-2 will be discontinued. These sites are away from the direction that mining is occurring or will occur in the future, a long record is in place to document that no impacts have occurred, and any past subsidence activities have long ceased. WR-1 is located outside the West Ridge Mine permit area. It was undermined by the adjacent Sunnyside Mine workings at a depth of more than 2000' below the surface as shown on Plate 7-7. This area was undermined at least fifteen years ago. WR-2 is located 2400' above the underlying coal seam and was undermined in June, 2004 as part of the West Ridge mining operation. Subsidence monitoring has been conducted by Ware Surveying as a part of the continuing monitoring program for the Grassy Trail Reservoir located not far away. Several of the subsidence points were located above longwall panel 7 and are less than 1700' feet from WR-2. These points were undermined in March, 2006. This survey shows that mining-induced subsidence in these areas has been completely stabilized for the past three years (see Appendix 7-13). Since WR-2 was undermined by longwall panel 5 nearly two years prior to the Grassy Trails subsidence points, this provides strong assurance that the area around WR-2 has now been similarly stabilized for an even longer time period.

At sites SP-12, SP-13, SP-101, SP-102, S-80 and SP-8, quarterly monitoring will continue.

## Wells

Only one groundwater monitoring well (DH86-2) exists in the permit area. This well monitors the Sunnyside Sandstone Member of the Blackhawk Formation, which is below the coal seam that will be mined. In addition to field parameters and operational water quality parameters, water level will be measured in this well. Because data collected at this site since 1997 exhibits more variability than at the other monitoring sites, quarterly analytical sampling will continue.

## Underground Sampling

UG-1 Starting in the fall of 2010, West Ridge Resources will begin an underground monitoring program on the pre-treatment mine-water. A monthly sample of the in-mine water will be collected prior to treatment and analyzed for operational field and laboratory parameters. Parameters will include total and dissolved iron, sulfate, alkalinity, total and dissolved solids, field conductivity, field temperature, field dissolved oxygen and field pH. The sample will be collected in 9<sup>th</sup> right between the seal and treatment area. This sample point will be called UG-1. Please refer to Appendix 5-15, Attachment 10 for a description and location of UG-1.

## Grassy Trial Flumes

In response to an agreement between the company and the owners of the Grassy Trail Dam/Reservoir (East Carbon City, Sunnyside City and Sunnyside Cogen Power Plant) flow measurements, field parameters, and lab analysis of the Right and Left Forks of Whitmore Canyon above the reservoir will be taken, as described below:

- RF-1 This is a 3' Parshall flume located in the Right Fork immediately above the reservoir. This is an existing flume, owned by East Carbon City, which was recently restored to operational condition. Initial flow readings began in May, 2011. This flume will be equipped with a continuous recording device. This flume is located downstream from any proposed projected future longwall mining activity below (underground). RF-1 will become an active monitoring site as soon as construction is complete, scheduled for July, 2011. This flume now replaces RST-1 as a stream monitoring point.
- RF-2 This is a newly installed 3' Parshall flume, presently (June, 2011) under construction. It is located in the Right Fork approximately one mile upstream (north) of the reservoir. It is also located upstream from the most northerly extent of any proposed projected future longwall mining below. The location of this flume was selected to provide baseline flow data, in conjunction with RF-1 located downstream, to help assess the affects of potential future longwall mining on the stream flow of the Right Fork. This flume will be equipped with a continuous recording device. RF-2 will become an active monitoring site as soon as construction is complete, scheduled for July, 2011.
- LF-1 This is a newly installed 2' Parshall flume located in the Left Fork immediately above the reservoir, and is presently (June, 2011) under construction. It is located in an area where an old flume, owned by East Carbon City, was previously located, but has for many years been dysfunctional. Although the coal reserves under the Left Fork have already been mined, LF-1 will provide baseline flow data to help assess the affects of previous longwall mining on the stream flow of the Left Fork. LF-1 will become an active monitoring site

as soon as construction is complete, scheduled for July, 2011. This flume will be equipped with a continuous recording device. When completed, LF-1 will replace ST-9 as a stream monitoring location.

LF-2 This is a new 2' Parshall flume located in the Left Fork approximately two miles upstream (west) of the reservoir, and is presently (June, 2011) under construction. Although the coal reserves under the Left Fork have already been mined, LF-2 will be located upstream from any mined out area below. The location of this flume was selected to provide baseline flow data, in conjunction with LF-1 downstream, to help assess the affect of previous longwall mining on the stream flow of the Left Fork. This flume will be equipped with a continuous recording device. LF-2 will become an active monitoring site as soon as construction is complete, scheduled for July, 2011. When completed, LF-2 will replace ST-10 as a stream monitoring location.

~~A 3' Parshall Flume or a comparable flume will be reconstructed in the right and left forks above Grassy Trail Reservoir in the Spring/Summer of 2011. Flumes will be equipped with a continuous flow monitor and will be downloaded and reported quarterly. See Appendix 7-14 for Grassy Trail Reservoir - Right Fork Historical Flow Data.~~

**Table 7- 1 HYDROLOGIC MONITORING PROTOCOLS AND LOCATIONS**

Name	Sample Parameters	Sample Frequency	Location Description
<b>Streams</b>			
RST-1 <sup>(1)</sup>	Flow, Field, Lab Analysis	Quarterly	Right Fork - Grassy Trail
ST-3	Flow, Field, Lab Analysis	Quarterly	Grassy Trail Creek
ST-6	Flow, Field, Lab Analysis	Quarterly	C Canyon
ST-8	Flow, Field, Lab Analysis	Quarterly	Grassy Trail Creek
ST-9 <sup>(2)</sup>	Flow, Field, Lab Analysis	Quarterly	Grassy Trail Creek
ST-10 <sup>(3)</sup>	Flow, Field, Lab Analysis	Annual - 3 <sup>rd</sup> Quarter	Grassy Trail Creek
ST-15	Flow, Field, Lab Analysis	Quarterly	Spring Canyon Stream
<b>Flumes</b>			
LF-1	Flow, Field, Lab Analysis	*Quarterly	Left Fork of Grassy Trail Reservoir
LF-2	Flow, Field, Lab Analysis	*Quarterly	Left Fork of Grassy Trail Reservoir
RF-1	Flow, Field, Lab Analysis	*Quarterly	Right Fork of Grassy Trail Reservoir
RF-2	Flow, Field, Lab Analysis	*Quarterly	Right Fork of Grassy Trail Reservoir
<b>Springs</b>			
SP-8	Flow, Field, Lab Analysis	Quarterly	North Horn Fm. In C Canyon
SP-12	Flow, Field, Lab Analysis	Quarterly	Colton Fm. Upper Whitmore Canyon
SP-13	Flow, Field, Lab Analysis	Quarterly	Colton Fm. Upper Whitmore Canyon
SP-101	Flow, Field, Lab Analysis	Quarterly	Little Spring Bottom
SP-102	Flow, Field, Lab Analysis	Quarterly	Spring Canyon Hillside
S-80	Flow, Field, Lab Analysis	Quarterly	Hanging Rock Spring
<b>Wells</b>			
DH86-2	Water Level, Field, Lab	Quarterly	Sunnyside Sandstone in C Canyon
<b>Underground</b>			
UG-1	Field, Lab Analysis	Monthly	West Ridge Mine

\* Flows are continually monitored and will be downloaded quarterly.

**Notes:**

- (1) RF-1 will replace RST-1 after flume is installed.
- (2) LF-1 will replace ST-9 after flume is installed.
- (3) LF-2 will replace ST-10 after flume is installed.

ST-5, ST-6A, ST-7, ST-11, ST-12, ST-13, SP-15, SP-16, WR-1 and WR-2 were dropped in 2011.

CONFIDENTIAL INFORMATION

NOTE TO REVIEWERS:

THE FOLLOWING INFORMATION IS INCLUDED IN  
THE CONFIDENTIAL BINDER:

- 1) ARCHEOLOGICAL INFORMATION FROM  
SENCO-PHENIX ARCHEOLOGICAL  
CONSULTANTS
- 2) 2010 RAPTOR SURVEY INFORMATION FROM  
EIS ENVIRONMENTAL CONSULTANTS

THIS INFORMATION HAS BEEN SUBMITTED AND  
APPROVED PREVIOUSLY FOR OTHER  
AMENDMENTS, BUT IS BEING SUBMITTED  
AGAIN FOR EASE OF REVIEW

APPENDIX 1-4B(a)  
LEASE ASSIGNMENT  
FEDERAL COAL LEASE  
UTU-78562 MODIFICATION



# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, UT 84145-0155

<http://www.blm.gov>

IN REPLY REFER TO:

3432

UTU-78562

(UT-9223)

**CERTIFIED MAIL- Return Receipt Requested**

### DECISION

Intermountain Power Agency (50%)  
10653 South River Front Parkway, Suite 120  
South Jordan, UT 84095

Coal Lease  
UTU-78562

ANDALEX Resources, Inc. (50%)  
794 North "C" Canyon Road  
P. O. Box 910  
East Carbon, UT 84520

### Evidence Required

An application for a modification of coal lease UTU-78562 was filed in this office on October 25, 2010, as amended by the amended application filed March 10, 2011. The proposed lease modification includes the following described lands in Carbon County, Utah:

T. 13 S., R. 14 E., SLM

Sec. 31, lot 4, S $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ ,  
S $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , S $\frac{1}{2}$ S $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ ;

T. 14 S., R. 14 E., SLM

Sec. 5, lot 4, W $\frac{1}{2}$ W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ , W $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ ,  
W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ ;

Sec. 6, NE $\frac{1}{4}$ SE $\frac{1}{4}$ ;

Sec. 8, W $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ ,  
W $\frac{1}{2}$ E $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ , W $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ , SW $\frac{1}{4}$ SW $\frac{1}{4}$ ;

Sec. 17, N $\frac{1}{2}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ .

Containing 356.24 acres

Carbon County

It has been determined that the proposed modification meets the requirements of the regulations under 43 CFR 3432.3 and that it would serve the interests of the United States to modify this lease under Sec. 3 of the Mineral Leasing Act of February 25, 1920, as amended. Accordingly prior to the execution of the modified lease, the enclosed lease forms and stipulations must be accepted, signed, dated and returned to this office accompanied by the following:

1. Rental in the amount of \$1,071.00. The additional yearly rental on the modified area at a rate of \$3.00 per acre is \$1,071.00. Rental in the amount of \$3.00 per acre, or a total of

- \$7,818.00, will be due on the anniversary date hereafter.
2. A signed statement that the personal lease bond covering this lease will cover the additional modification acreage.

A personal lease bond in the amount of \$900,000 is on file and has been determined to be adequate coverage to include the modification of coal lease UTU-78562.

A period of thirty days from the receipt of this decision is allowed in which to accept the modified lease forms and to submit the evidence required. If no action is taken within the time allowed, the case file will be closed as to the application for modification.

During the compliance period there is no right of appeal to the Interior Board of Land Appeals and an appeal filed within the compliance period is subject to dismissal as being premature. The 30-day appeal period commences upon expiration of the 30-day compliance period.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842.1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from receipt of this decision. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition (pursuant to regulation 43 CFR 4.21)(58 FR 4939, January 19, 1993) (request) for a stay (suspension) of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay **must** also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed in this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

#### Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards.

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success on the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted, and
- (4) Whether the public interest favors granting the stay.



Roger L. Bankert  
Chief, Branch of Minerals

Enclosures:

Form 1842.1  
Modified Lease (4 copies of 9 pp.)

cc: Price Coal Office

U. S. Forest Service, Pamela Brown, Forest Supervisor, Manti-LaSal National Forest, 599 West Price River Drive, Price, Utah  
LeeAnn Martin, ONRR, P. O. Box 25165 Denver, CO 80225-0165  
Accounts

APPENDIX 1-4F(a)

LEASE ASSIGNMENT

PENTA CREEK FEE LEASE

## MEMORANDUM OF UNDERGROUND COAL LEASE

THIS MEMORANDUM OF COAL LEASE made and entered into effective as of the 1st day of January, 2003, among **PENTA CREEKS, L.L.C.** (a.k.a. Penta Creek LLC), a Utah limited liability company and **MAGNIFICENT SEVEN, L.L.C.**, a Utah limited liability company, collectively referred to as "Lessors," having a single address for purposes of this Lease c/o Howard Jensen Real Estate, 111 East Clark Street, Albert Lea, Minnesota 56007; and **ANDALEX RESOURCES, INC.**, a Delaware corporation, with an address at 45 West 10000 South, Suite 401, Sandy, Utah 84070, and **INTERMOUNTAIN POWER AGENCY**, a political subdivision of the State of Utah, with an address at 480 East 6400 South, Murray, Utah 84107, each having an undivided 50% ownership interest in the leasehold estate created by this Lease as tenants in common and collectively referred to herein as "Lessee," having a single address c/o **ANDALEX Resources, Inc.**, 45 West 10000 South, Suite 401, Sandy, Utah 84070.

### WITNESSETH:

The parties hereto agree:

1. Upon the terms and conditions set forth in that certain Underground Coal Lease (hereinafter "Lease"), effective of even date herewith, all of which are hereby incorporated herein as if set forth in full, Lessors do hereby grant and lease unto Lessee for the purposes described in paragraph 2 of this Memorandum of Underground Coal Lease and in the Lease those certain lands situated in Carbon County, State of Utah, more particularly described as follows, to-wit:

#### Township 14 South, Range 14 East, SLB&M

Section 6: Lot 7, SE1/4SW1/4  
Section 7: Lots 1 and 2, NE1/4NW1/4, E1/2SW1/4, SW1/4SE1/4  
Section 18: Lots 2 and 3, NW1/4NE1/4

Less and excepting from the portion of the above described legal subdivisions in Section 7, those lands described in that certain Quitclaim Deed dated September 25, 1998 naming Penta Creeks, L.L.C. and Magnificent Seven, L.L.C., as Grantors, and East Carbon City and Sunnyside City as Grantees. Said Quitclaim Deed was recorded September 30, 1998 in Book 418 at pages 56 to 58, Carbon County Recorder, Utah.

And excepting and reserving to Lessors, to the extent of their ownership interest therein, all water and water rights, and the right of Lessors to access, use and divert those waters and water rights, (collectively herein the "Subject Water Rights") as follows:

Water Right No. 91-1640, including the beneficial use for stockwatering purposes from a point on the Left Fork, Grassy Trail Creek, beginning at SW1/4SW1/4, Section 6, Township 14 South, Range 14 East, SLBM, to a

**INCORPORATED**

**APR 13 2003**

DIV OF OIL GAS & MINING

point in the NE1/4SW1/4, Section 7, Township 14 South, Range 14 East, SLBM.

Water Right No. 91-3519, including the beneficial use for stockwatering purposes from a point on the Right Fork, Grassy Trail Creek in the NW1/4SE1/4, Section 6, Township 14 South, Range 14 East, SLBM, to a point in the SE1/4SW1/4, Section 6, Township 14 South, Range 14 East, SLBM.

Water Right No. 91-3520, including the beneficial use for stockwatering purposes from a point in the NE1/4NW1/4, Section 7, Township 14 South, Range 14 East, SLBM, to a point in the SE1/4NW1/4, Section 7, Township 14 South, Range 14 East, SLBM.

Subject to the following rights of way and agreements as they exist at the time of execution of this Lease:

- (1) Rights of third parties to access water rights on the leased premises.
- (2) Rights of way for roadways, both public and private as may exist over and across the leased premises.
- (3) Memorandum Agreement by and between Kaiser Steel Corporation and Frank Liddell and Effie Liddell, his wife, regarding cattle grazing and watershed control recorded February 20, 1958, as Entry No. 84105, in Book 53, at Page 204, Carbon County Recorder, Utah.
- (4) The right of ingress and egress granted to Sunnyside Fuel Corporation for the purpose of transporting, mining and removing tailings as contained in that certain Deed, Assignment and Bill of Sale recorded December 29, 1987, as Entry No. 19370, in Book 277, at Page 679, Carbon County Recorder, Utah.
- (5) Reservation of an easement for the delivery of Water Rights Nos. 91-362 and 91-367; also, a perpetual easement and right of way for water pipeline facilities including pipes, valves and related equipment with the right, privilege and authority to construct, operate, maintain, replace and repair said facilities under, over and across certain lands, as set forth and reserved in that certain Quit Claim Deed recorded March 27, 1996, as Entry No. 54278, in Book 370, at Page 121, Carbon County Recorder, Utah.
- (6) Right of way and Easements granted to East Carbon City and Sunnyside City for the following:

(A) For the purposes of maintaining the Grassy Trail Reservoir Dam and appurtenant works and pipelines.

(B) For the purposes of fluctuation of Grassy Trail Reservoir water levels and inundation of a subject property in conjunction with the operation, maintenance and repair of the Grassy Trail Reservoir Dam.

**INCORPORATED**

APR 12 2003

DIV OF OIL GAS & MINING

(C) For ingress and egress for the purpose of inspecting, measuring and insuring available flow of water.

(7) An easement originally in favor of Defense Plant Corporation to construct, operate, maintain, reconstruct, enlarge, alter or remove a water pipeline through and across certain lands, together with all rights and privileges, incident thereto, recorded April 26, 1944, as Entry No. 42483, in Book 3-X, at Page 390, Carbon County Recorder, Utah. Said Easement further set forth in various instruments of record, including Notice of Agreement, recorded December 29, 1987, as Entry No. 19373, in Book 277, at Page 709, Carbon County Recorder, Utah.

(8) As easement 25 feet in width for an existing water line connecting Grassy Trail Reservoir in said Section 7 with the reservoir of East Carbon City in Section 6, Township 15 South, Range 14 East, together with all rights and privileges incident thereto, recorded October 27, 1983, as Entry No. 1415, in Book 233, at Page 182.

The term "leased premises" as used in the Lease shall refer to said lands.

2. The Underground Coal Lease grants to Lessee the exclusive right and privilege to explore for, mine (by any lawful underground mining method), remove, extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations together with limited rights of access for environmental monitoring purposes. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessors after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

3. The term of the Lease is for a primary term of ten (10) years which commenced on January 1, 2003 and so long thereafter as mining operations are being conducted by Lessee in the general mining area.

IN WITNESS WHEREOF, the parties hereto have caused this Memorandum of Underground Coal Lease and the Underground Coal Lease to be signed effective as of the day and year first above written.

LESSORS:

SOCIAL SECURITY NUMBER OR  
EMPLOYER IDENTIFICATION NO.:

87-0548967

PENTA CREEKS, L.L.C.  
a Utah limited liability company

By:  
Its:

[Signature]  
[Signature] INCORPORATED

APR 02 2003

SOCIAL SECURITY NUMBER OR  
EMPLOYER IDENTIFICATION NO.:

87-0536833

MAGNIFICENT SEVEN, L.L.C.  
a Utah limited liability company

By: [Signature]  
Its: [Signature]

LESSEE:

ANDALEX RESOURCES, INC.,  
a Delaware corporation

By: [Signature]  
DOUGLAS H. SMITH  
President  
Date: March 11, 2003

INTERMOUNTAIN POWER AGENCY,  
a political subdivision of the State of Utah

By: [Signature]  
REED T. SEARLE  
General Manager  
Date: March 10, 2003

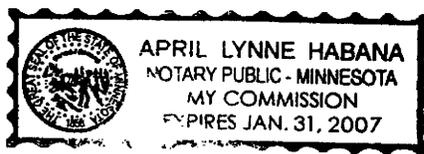
INCORPORATED  
APR 02 2003  
DIV OF OIL GAS & MINING

STATE OF Minnesota )  
 : ss.  
COUNTY OF Freeborn )

On the 12<sup>th</sup> day of March, 2003, personally appeared before me  
Greg Jensen, the member of Penta Creeks,  
L.L.C., a Utah limited liability company, who signed the foregoing instrument on behalf of  
Penta Creeks, L.L.C. and acknowledged to me that he executed the same.

April Habana  
Notary Public  
Residing at: Hayward, Mn

My commission expires:  
Jan. 31, 2007

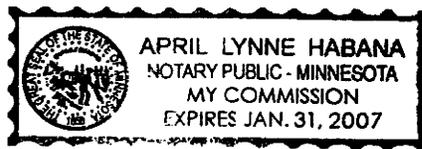


STATE OF Minnesota )  
 : ss.  
COUNTY OF Freeborn )

On the 12<sup>th</sup> day of March, 2003, personally appeared before me  
Greg Jensen, the member of Magnificent  
Seven, L.L.C., a Utah limited liability company, who signed the foregoing instrument on behalf  
of Magnificent Seven, L.L.C., and acknowledged to me that he executed the same.

April Habana  
Notary Public  
Residing at: Hayward, Mn

My commission expires:  
Jan. 31, 2007



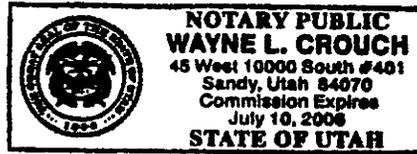
INCORPORATED  
APR 07 2003  
DIV OF OIL GAS & MINING

STATE OF UTAH )  
 ) : ss.  
COUNTY OF SALT LAKE )

On the 11<sup>th</sup> day of March, 2003, personally appeared before me Douglas H. Smith, the President of ANDALEX Resources, Inc., who signed the foregoing instrument on behalf of ANDALEX Resources, Inc. and acknowledged to me that he executed the same.

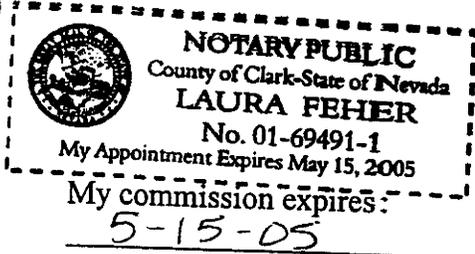
Wayne L Crouch  
Notary Public  
Residing at: Salt Lake County, Utah

My commission expires:  
10 July 2006



STATE OF ~~UTAH~~ NEVADA )  
 ) : ss.  
COUNTY OF ~~SALT LAKE~~ CLARK

On the 10 day of March, 2003, personally appeared before me Reed T. Searle, the General Manager of Intermountain Power Agency, who signed the foregoing instrument on behalf of Intermountain Power Agency and acknowledged to me that he executed the same.



Laura Feher  
Notary Public  
Residing at: LAS VEGAS, NV

INCORPORATED  
APR 02 2003  
DIV OF OIL GAS & MINING

APPENDIX 1-4F(b)

LEASE ASSIGNMENT

PENTA CREEK FEE LEASE EXTENSION #1  
AUGUST 24, 2010

EXHIBIT B

MEMORANDUM OF UNDERGROUND COAL LEASE

THIS MEMORANDUM OF COAL LEASE made and entered into effective as of the 1st day of January, 2003, among PENTA CREEKS, L.L.C. (a.k.a. Penta Creek LLC), a Utah limited liability company and MAGNIFICENT SEVEN, L.L.C., a Utah limited liability company, collectively referred to as "Lessors," having a single address for purposes of this Lease of Howard Jensen Real Estate, 111 East Clark Street, Albert Lea, Minnesota 56007; and ANDALEX RESOURCES, INC., a Delaware corporation, with an address at P.O. Box 910, East Carbon, Utah 84520, and INTERMOUNTAIN POWER AGENCY, a political subdivision of the State of Utah, with an address at 480 East 6400 South, Murray, Utah 84107, each having an undivided 50% ownership interest in the leasehold estate created by this Lease as tenants in common and collectively referred to herein as "Lessee," having a single address do ANDALEX Resources, Inc., P.O. Box 910, East Carbon, Utah 84520.

WITNESSETH:

The parties hereto agree:

1 Upon the terms and conditions set forth in that certain Underground Coal Lease (hereinafter "Lease"), effective of even date herewith, all of which are hereby incorporated herein as if set forth in full, Lessors do hereby grant and lease unto Lessee for the purposes described in paragraph 2 of this Memorandum of Underground Coal Lease and in the Lease, all of the coal and any substance (whether solid, liquid or gaseous) mixed with or encountered when mining coal (all hereinafter referred to collectively as "coal") in and underlying those certain lands situated in Carbon County, State of Utah, more particularly described as follows, to-wit:

Township 14 South, Range 14 East, SLB&M

Section 6: Lots 2, 3, 4 and 5, SE1/4NW1/4, SW1/4NE1/4, NW1/4SE1/4, S1/2SE1/4.

Comprising 352.36 acres, more or less.

2. The Underground Coal Lease grants to Lessee the exclusive right and privilege to explore for, mine (by any lawful underground mining method), remove, extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations together with limited rights of access for environmental monitoring purposes. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessors after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

Section 6: Lots 2, 3, 4 and 5, SE1/4NW1/4, SW1/4NE1/4, NW1/4SE1/4,  
S1/2SE1/4.

Comprising 352.36 acres, more or less

The parties agree that all other provisions of the LEASE shall remain in full force and effect.

**IN WITNESS WHEREOF**, with the intent to be legally bound hereby, the parties hereto have caused this Amendment to be executed as of the date and year first above written.

LESSORS:  
PENTA CREEKS, L.L.C.

By: [Signature]  
Its: Member

MAGNIFICENT SEVEN, L.L.C.

By: [Signature]  
Its: Member

LESSEES:  
ANDALEX RESOURCES, INC.

By: [Signature]  
Its: Treasurer

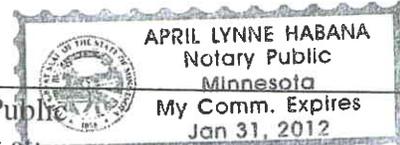
INTERMOUNTAIN POWER AGENCY

By: [Signature]  
Its: Agency Manager

INCORPORATED  
SEP 29 2010  
Div. of Oil, Gas & Mining

STATE OF Minnesota )  
 )  
 ) : ss.  
COUNTY OF Freeborn )

On the 29 day of Aug, 2010, personally appeared before me Greg Jewson, the member of Penta Creeks, L.L.C., a Utah limited liability company, who signed the foregoing instrument on behalf of Penta Creeks, L.L.C. and acknowledged to me that he executed the same.



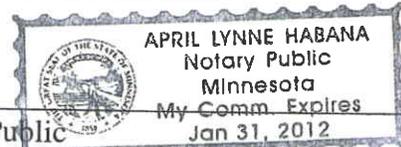
Notary Public  
Residing at: \_\_\_\_\_

My commission expires:

1-31-2012

STATE OF Minnesota )  
 )  
 ) : ss.  
COUNTY OF Freeborn )

On the 29 day of Aug, 2010, personally appeared before me Greg Jewson, the member of Magnificent Seven, L.L.C., a Utah limited liability company, who signed the foregoing instrument on behalf of Magnificent Seven, L.L.C. and acknowledged to me that he executed the same.



Notary Public  
Residing at: \_\_\_\_\_

My commission expires:

1-31-2012

INCORPORATED  
SEP 29 2010  
Div. of Oil, Gas & Mining

STATE OF Ohio )  
COUNTY OF Belmont ) : ss.

On the 26<sup>th</sup> day of August, 2010, personally appeared before me Robert D. Moore, the Treasurer of ANDALEX Resources, Inc., who signed the foregoing instrument on behalf of ANDALEX Resources, Inc. and acknowledged to me that he executed the same.



PENNY J. ELLIOTT  
Notary Public  
State of Ohio  
My Commission Expires Feb. 11, 2013

Penny J. Elliott  
Notary Public  
Residing at: 56854 Pleasant Ridge Rd  
Alledonia, Ohio 43902

STATE OF Utah )  
COUNTY OF Salt Lake ) : ss.

On the 30 day of August, 2010, personally appeared before me James A. Hewlett, the General Manager of Intermountain Power Agency, who signed the foregoing instrument on behalf of Intermountain Power Agency and acknowledged to me that he executed the same.



My commission expires:  
9-1-2011

Krista R Paull  
Notary Public  
Residing at: 5161 S. 1130 W.  
Taylorsville UT 84123

INCORPORATED  
SEP 29 2010  
Div. of Oil, Gas & Mining



APPENDIX 1-4F(c)

LEASE ASSIGNMENT

PENTA CREEK FEE LEASE EXTENSION #2  
MARCH 10, 2011

**UNDERGROUND COAL LEASE**

THIS UNDERGROUND COAL LEASE ("Lease") is entered into effective as of the 10<sup>th</sup> day of March, 2011, among Steven Ladlie, Penny Ladlie, Gary J. Pestorius, Dawn K. Pestorius, William Dress, Jeffrey Dress, Gregory D. Jensen as Trustee of the Gregory D. Jensen Trust, and Gregory D. Jensen, as Trustee of the SMJ Trust, collectively referred to as "Lessors," having a single address for purposes of this Lease of Greg Jensen Real Estate, 111 East Clark Street, Albert Lea, Minnesota 56007; and WEST RIDGE RESOURCES, INC., a Utah corporation, with an address at P.O. Box 910, East Carbon, Utah 84542 (hereinafter "Lessee").

**WITNESSETH:**

**SECTION 1. Agreement to Lease.**

Each of the Lessors, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each Lessor, and in further consideration of the mutual covenants and agreements hereinafter set forth, does hereby lease unto Lessee those interests held by Lessors<sup>1</sup> in underground coal, including any substance (whether solid, liquid or gaseous) mixed with or encountered when mining coal, in the following land, such Lessor's interests in such lands hereafter the "Leased Premises," located in Carbon County, State of Utah, and more particularly described as follows, to-wit:

Township 14 South, Range 14 East, SLB&M

- Section 6: E1/2 NE1/4 (legally: Lot 1, SE 1/4 NE 1/4)  
39.96 ac
- Section 7: SW1/4 NE1/4; NW1/4 SE1/4; SE1/4 SE1/4; SE1/4 NW1/4 except for real property described in that certain Quitclaim Deed dated September 25, 1998 and recorded on September 30, 1998 in Book 418 at Page 56 in the office of the Carbon County Recorder, Utah.
- Section 18: NE1/4 NE1/4

Comprising 295.40 acres, more or less.

Together with the following:

---

<sup>1</sup> Steven Ladlie and Penny Ladlie, as joint tenants, an undivided 25% interest; Gary J. Pestorius and Dawn K. Pestorius, as joint tenants, an undivided 25% interest; Will Dress and Jeffrey Dress, as tenants in common, an undivided 25% interest; Gregory D. Jensen, as Trustee of the Gregory D. Jensen Trust, an undivided 2/3 interest of a 25% interest; and Gregory D. Jensen, as Trustee of the SMJ Trust, an undivided 1/3 interest of a 25% interest.

A PARCEL OF LAND LOCATED IN CARBON COUNTY, STATE OF UTAH, WHICH IS IN THE NORTHWEST QUARTER AND THE NORTH HALF OF THE SOUTHWEST QUARTER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN, BEING FURTHER DESCRIBED AS FOLLOWS WITH A BEARING OF NORTH 0°00'00" EAST, BETWEEN THE WEST QUARTER CORNER AND THE NORTHWEST CORNER OF SAID SECTION 7 USED AS THE BASIS OF BEARING, AND BEING MORE PARTICULARLY DESCRIBED ACCORDING TO THE FOLLOWING COURSES AND DISTANCES, TO-WIT:

BEGINNING AT A POINT WHICH IS LOCATED SOUTH 89°34'34" WEST, 577.93 FEET ALONG THE SECTION LINE AND SOUTH 0°25'26" EAST, 616.36 FEET FROM THE NORTH QUARTER CORNER OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 14 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE SOUTH 02°41'16" EAST, 167.59 FEET TO A POINT HAVING AN ELEVATION OF 7620.9 FEET; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET, THENCE SOUTH 06°04'29" WEST, 57.48 FEET; THENCE SOUTH 15°31'01" WEST, 39.60 FEET; THENCE SOUTH 31°57'10 " WEST, 47.67 FEET; THENCE SOUTH 42°15'37" EAST, 50.63 FEET; THENCE SOUTH 00°42'36" EAST, 28.81 FEET; THENCE SOUTH 22°35'01" WEST, 44.34 FEET; THENCE SOUTH 25°42'34" WEST, 57.64 FEET; THENCE SOUTH 17°26'08" WEST, 67.42 FEET; THENCE SOUTH 37°19'52" WEST, 43.03 FEET; THENCE SOUTH 10°25'22" WEST, 38.28 FEET; THENCE SOUTH 27°18'51" WEST, 156.31 FEET; THENCE SOUTH 39°02'28" WEST, 53.40 FEET; THENCE SOUTH 45°00'45" WEST, 31.74 FEET; THENCE SOUTH 45°48'21" WEST, 99.45 FEET; THENCE SOUTH 21°28'34" WEST, 33.14 FEET; THENCE SOUTH 12°32'15" WEST, 78.54 FEET; THENCE SOUTH 06°45'46" WEST, 60.04 FEET; THENCE SOUTH 07°00'30" WEST, 41.44 FEET; THENCE SOUTH 03°29'47" EAST, 58.65 FEET; THENCE SOUTH 03°42'50" WEST, 89.17 FEET; THENCE SOUTH 06°39'56" WEST, 87.35 FEET; THENCE SOUTH 02°26'03" WEST, 131.79 FEET; THENCE SOUTH 01°48'02" WEST, 20.71 FEET; THENCE SOUTH 10°50'14" EAST, 121.17 FEET; THENCE SOUTH 02°51'32" EAST, 43.74 FEET; THENCE SOUTH 09°14'58" EAST, 44.46 FEET; THENCE SOUTH 22°58'03" EAST, 65.76 FEET; THENCE SOUTH 21°31'59" EAST, 167.75 FEET; THENCE LEAVING ELEVATION 7620.9 FEET; THENCE NORTH 90°00'00" EAST, 343.42 FEET; THENCE SOUTH 0°00'00" WEST, 203.21 FEET; THENCE SOUTH 49°46'54" WEST, 286.20 FEET; THENCE SOUTH 01°55'09" EAST, 150.27 FEET; THENCE SOUTH 74°29'37" WEST, 619.03 FEET TO THE EAST EDGE OF AN EXISTING ROAD; THENCE ALONG THE EAST EDGE OF AN EXISTING ROAD THE FOLLOWING FIVE CALLS; THENCE NORTH 33°21'55" WEST, 24.04 FEET; THENCE NORTH 24°08'49" WEST, 22.74 FEET; THENCE NORTH 16°21'28" WEST, 105.80 FEET; THENCE NORTH 10°56'05" WEST, 39.36 FEET; THENCE NORTH 4°35'47" WEST, 3.13 FEET TO THE EAST LINE OF LOT 3 OF SAID SECTION 7: THENCE NORTH 0°12'18" WEST, 403.37 FEET TO THE NORTHEAST CORNER OF SAID LOT 3; THENCE SOUTH 89°35'34" WEST, 305.92 FEET ALONG THE NORTH LINE OF SAID LOT 3; THENCE ALONG THE FOLLOWING COURSES AND DISTANCES HAVING AN ELEVATION OF 7620.9 FEET; THENCE NORTH 42°28'33" WEST, 10.05 FEET; THENCE NORTH 0°24'23" EAST, 87.17 FEET; THENCE NORTH 11°38'06" EAST, 63.67 FEET; THENCE NORTH 02°37'09" EAST, 59.99 FEET; THENCE NORTH 13°37'12" WEST, 51.20 FEET; THENCE NORTH 04°48'33" WEST, 116.52 FEET; THENCE NORTH 05°16'17" WEST, 58.68 FEET; THENCE NORTH 03°09'16" WEST, 32.25 FEET; THENCE NORTH

01°27'55" EAST, 239.53 FEET; THENCE NORTH 03°21'52" EAST, 64.03 FEET; THENCE NORTH 01°16'56" EAST, 79.58 FEET; THENCE NORTH 06°07'44" EAST, 64.79 FEET; THENCE NORTH 05°44'08 EAST, 67.38 FEET; THENCE NORTH 01°58'53" EAST, 59.43 FEET; THENCE NORTH 20°51'15" EAST, 41.86 FEET; THENCE NORTH 35°05'08" EAST, 54.15 FEET; THENCE NORTH 51°13'30" EAST, 77.72 FEET; THENCE NORTH 17°16'59" EAST, 15.12 FEET; THENCE NORTH 75°19'34" WEST, 74.24 FEET THENCE NORTH 13°07'54" EAST, 111.56 FEET; THENCE NORTH 26°10'10" EAST, 55.50 FEET; THENCE NORTH 05°47'47" EAST, 31.20 FEET; THENCE NORTH 27°33'55" WEST, 14.64 FEET; THENCE NORTH 44°03'09" WEST, 33.66 FEET; THENCE NORTH 34°27'47" WEST, 15.32 FEET; THENCE NORTH 32°53'17" WEST, 43.88 FEET; THENCE NORTH 30°47'37" WEST, 56.62 FEET; THENCE NORTH 35°50'20" WEST, 89.68 FEET; THENCE NORTH 48°39'14" WEST, 142.33 FEET; THENCE NORTH 31°05'31" WEST, 227.43 FEET; THENCE NORTH 21°04'32" WEST, 308.53 FEET CROSSING AN EXISTING ROAD; THENCE NORTH 68°55'28" EAST, 3.00 FEET; THENCE SOUTH 21°04'32" EAST, 60.19 FEET CROSSING AN EXISTING ROAD; THENCE SOUTH 57°07'04" EAST, 258.58 FEET; THENCE SOUTH 64°11'32" EAST, 119.79 FEET; THENCE SOUTH 59°28'18" EAST, 72.31 FEET; THENCE SOUTH 59°52'51" EAST, 43.41 FEET; THENCE SOUTH 46°34'03" EAST, 54.09 FEET; THENCE SOUTH 45°44'11" EAST, 46.23 FEET; THENCE SOUTH 79°53'05" EAST, 18.19 FEET; THENCE SOUTH 72°28'00" EAST, 28.13 FEET; THENCE SOUTH 66°07'17" EAST, 46.38 FEET; THENCE SOUTH 55°30'45" EAST, 63.83 FEET; THENCE SOUTH 50°26'19" EAST, 50.41 FEET; THENCE SOUTH 69°26'12" EAST, 90.12 FEET; THENCE SOUTH 58°53'36" EAST, 74.37 FEET; THENCE SOUTH 33°52'10" EAST, 38.44 FEET; THENCE SOUTH 71°49'18" EAST, 20.00 FEET; THENCE SOUTH 82°39'43" EAST, 3.68 FEET; THENCE NORTH 88°40'41" EAST, 55.25 FEET; THENCE NORTH 85°45'27" EAST, 66.99 FEET; THENCE NORTH 68°02'56" EAST, 30.93 FEET; THENCE NORTH 37°54'32" EAST, 138.07 FEET; THENCE NORTH 49°36'46" EAST, 133.26 FEET; THENCE LEAVING ELEVATION 7620.9 FEET GOING NORTH 48°56'09" EAST, 289.71 FEET TO THE POINT OF BEGINNING.

CONTAINS 44.52 ACRES, MORE OR LESS.

And excepting and reserving to Lessors, to the extent of their ownership interest therein, all water and water rights, and the right of Lessors to access, use and divert those waters and water rights, (collectively herein the "Subject Water Rights") as follows:

Water Right No. 91-1640, including the beneficial use for stockwatering purposes from a point on the Left Fork, Grassy Trail Creek, beginning in SW1/4SW1/4, Section 6, Township 14 South, Range 14 East, SLBM, to a point in the NE1/4SW1/4, Section 7, Township 14 South, Range 14 East, SLBM.

Water Right No. 91-3519, including the beneficial use for stockwatering purposes from a point on the Right Fork, Grassy Trail Creek in the NW1/4SE1/4, Section 6, Township 14 South, Range 14 East, SLBM, to a point in the SE1/4SW1/4, Section 6, Township 14 South, Range 14 East, SLBM.

Water Right No. 91-3520, including the beneficial use for stockwatering purposes from a point in the NE1/4NW1/4, Section 7, Township 14 South, Range 14 East, SLBM, to a point in the SE1/4NW1/4, Section 7, Township 14 South, Range 14 East, SLBM.

Subject to the following rights of way and agreements as they exist at the time of execution of this Lease:

- (1) Rights of third parties to access water rights on the leased premises.
- (2) Rights of way for roadways, both public and private as may exist over and across the leased premises.
- (3) Memorandum Agreement by and between Kaiser Steel Corporation and Frank Liddell and Effie Liddell, his wife, regarding cattle grazing and watershed control recorded February 20, 1958, as Entry No. 84105, in Book 53, at Page 204, Carbon County Recorder, Utah.
- (4) The right of ingress and egress granted to Sunnyside Fuel Corporation for the purpose of transporting, mining and removing tailings as contained in that certain Deed, Assignment and Bill of Sale recorded December 29, 1987, as Entry No. 19370, in Book 277, at Page 679, Carbon County Recorder, Utah.
- (5) Reservation of an easement for the delivery of Water Rights Nos. 91-362 and 91-367; also, a perpetual easement and right of way for water pipeline facilities including pipes, valves and related equipment with the right, privilege and authority to construct, operate, maintain, replace and repair said facilities under, over and across certain lands, as set forth and reserved in that certain Quit Claim Deed recorded March 27, 1996, as Entry No. 54278, in Book 370, at Page 121, Carbon County Recorder, Utah.
- (6) Right of way and Easements granted to East Carbon City and Sunnyside City for the following:
  - (A) For the purposes of maintaining the Grassy Trail Reservoir Dam and appurtenant works and pipelines.
  - (B) For the purposes of fluctuation of Grassy Trail Reservoir water levels and inundation of a subject property in conjunction with the operation, maintenance and repair of the Grassy Trail Reservoir Dam.
  - (C) For ingress and egress for the purpose of inspecting, measuring and insuring available flow of water.
- (7) An easement originally in favor of Defense Plant Corporation to construct, operate, maintain, reconstruct, enlarge, alter or remove a water pipeline through and across certain lands, together with all rights and privileges, incident thereto, recorded April 26, 1944, as Entry No. 42483, in Book 3-X, at Page 390, Carbon County Recorder, Utah. Said Easement further set forth in various instruments of record, including Notice of Agreement, recorded December 29, 1987, as Entry No. 19373, in Book 277, at Page 709, Carbon County Recorder, Utah.

(8) As easement 25 feet in width for an existing water line connecting Grassy Trail Reservoir in said Section 7 with the reservoir of East Carbon City in Section 6, Township 15 South, Range 14 East, together with all rights and privileges incident thereto, recorded October 27, 1983, as Entry No. 1415, in Book 233, at Page 182.

**SECTION 2. Interest Leased.**

This Lease covers and includes the Leased Premises, and also conveys unto the Lessee any reversionary, contingent or future interest now owned by Lessors or hereinafter acquired by Lessors, excluding, however, any rights of first refusal granted in that Quitclaim Deed dated September 25, 1998 and recorded on September 30, 1998 in Book 418 at Page 56 in the office of the Carbon County Recorder, Utah, together with all of the mining rights and privileges appurtenant to the aforesaid coal and incident to the ownership thereof. In further explanation of the rights granted to Lessee, this Lease is intended to include the following rights and privileges:

(a) The exclusive right and privilege to explore for, mine, remove, extract, store, prepare, ship and dispose of, by underground operations on the Leased Premises, the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations, the right to enter into and through said Leased Premises, at such points and in such manner as may be necessary or convenient for the purpose of mining coal by any lawful underground mining method, provided that such access shall be underground and shall include, without limitation, the right to transport coal, mining equipment, men, supplies and any and all other things necessary or convenient in connection with the mining or transportation of coal underground from the portal of the general mining area. The rights and privileges granted to Lessee specifically exclude the right to use the surface of the Leased Premises to drill bore holes for the purpose of venting gas occurring in coal seams on the Leased Premises or to access such operations as well as the right to mine by surface strip mining methods.

(b) The right to have and use the free and uninterrupted underground right-of-way into and under said Leased Premises, at such points and in such manner as may be necessary or convenient to the mining, removal, processing and marketing of said coal.

(c) The right to transport under and through the Leased Premises any coal now or hereafter owned, leased or otherwise acquired by Lessee and located within the general mining area as hereinafter defined in Section 5.

(d) The right to include the Leased Premises or any portion thereof with other lands in the general mining area in any plan of unitization for coal or a Federal logical mining unit pursuant to any such unitization, and so that operations or mining in any portion of the Leased Premises shall be deemed operations or mining on the logical mining unit for Federal diligent development and continued operations requirements.

(e) To the extent not already owned by Lessee, the right to subside, collapse, sink, lower, and alter the surface, subsurface, and superadjacent strata of the Leased Premises as a result of Lessee's permitted operations hereunder. Lessee agrees to replace the Subject Water Rights (as defined in Section 1) for the period and to the extent Lessors can demonstrate that

Lessee's operations on the Leased Premises have proximately caused an adverse impact on the Subject Water Rights by contamination, diminution or interruption of such right. To the extent Lessee is authorized by Lessors to do so and it is both technologically and economically feasible under the circumstances, Lessee shall eliminate any condition on the surface of the Leased Premises caused by Lessee's mining operations that constitutes a hazard to the health and safety of the public. In addition, Lessee may, but shall not be obligated to, establish subsidence monitoring monuments within the boundaries of the Leased Premises. Subject to the limitations set forth below, Lessee shall have a right of passage for required environmental monitoring (including possession of a key to any locked gates) on roads on the lands of the Lessors in the vicinity of the Leased Premises that provide access to the general mining area. Uses shall include the right to collect data related to permitting and compliance requirements imposed by law and/or regulation, such as the collection of base line data, and monitoring having to do with hydrologic, wildlife, vegetation, seismic, subsidence and other environmental issues, together with the right to collect such environmental data and conduct such environmental monitoring as may be required by the governmental agencies having jurisdiction to obtain and maintain any and all permits and/or approvals required in order to conduct mining operations on the Leased Premises and in the general mining area. Lessee understands and agrees that the rights granted by Lessors to Lessee pursuant to this subsection (e) shall not necessarily survive a sale of the surface estate in the Leased Premises and shall be subject to renegotiation in the event the Lessors dispose of the Lessors' interest in this Lease. Persons conducting the required environmental monitoring authorized under this subsection (e) shall be instructed concerning the terms of this Lease and Lessee shall maintain a log of the persons conducting such activities and the date and time of such activities, which shall be available to Lessors upon request. Unless otherwise required by the laws, rules and regulations of a governmental authority having jurisdiction or authorized by Lessors, access to the surface to conduct such activities shall be limited to no more than a total of 12 days per year and it is currently anticipated that access will occur roughly quarterly with approximately three days of access per quarter. Annually, during the month of December, Lessee will provide Lessors with an outline of the required environmental monitoring activities Lessee anticipates it will conduct under this subsection (e) during the following calendar year. When feasible to do so, Lessee will notify Lessors one month in advance of any environmental monitoring activities to be conducted pursuant to this subsection (e). Nothing in this paragraph shall limit access to the surface to the extent it is required by a governmental authority having jurisdiction for purposes of inspection or other governmental activities related to the conduct of Lessee's coal mining operations.

The bonus and royalty payment provision contained in this Lease fully compensate Lessors for all the rights and privileges granted Lessee under this or any other provision of this Lease except as provided in this subsection (e) and Section 25.

### SECTION 3. Rights Surviving.

At the termination of this Lease, either at the end of the term or prior thereto by cancellation or surrender, all rights granted to Lessee shall terminate; provided, that (i) Lessee shall have ninety (90) days in which to remove Lessee's machinery, equipment and other property from the Leased Premises; (ii) all obligations of Lessee shall cease, except (a) accrued obligations of Lessee as of the date the Lease is terminated, cancelled or surrendered, (b) the right of access to the surface, upon prior notification to Lessors, for the purposes of assessing

damage to or replacing the Subject Water Rights or assessing other subsidence damage to the Leased Premises and conducting repair, reclamation or environmental remediation on the surface and, (c) indemnification obligations set forth at Section 28.

**SECTION 4. Lease Term.**

Unless cancelled or voluntarily surrendered by Lessee at an earlier date as provided herein, the primary term of this Lease shall run for a period of five (5) years from and after the date hereof. This Lease shall continue so long thereafter as Lessee is engaged in diligent development efforts to mine coal on the Leased Premises, and the yearly mining of commercial quantities of recoverable coal reserves following the conclusion of diligent development efforts, unless excused by Force Majeure as defined in Section 19.

**SECTION 5. General Mining Area.**

The term "general mining area" as used in this Lease shall refer to the area included within the permit area and adjacent areas, as amended from time to time, as more particularly described in Lessee's mining permit for the WEST RIDGE Mine No. C007/041 (herein "coal permit"), and shall include, but not be limited to, all fee lands and all fee, county, state, and federal leases whether now owned or hereafter acquired.

**SECTION 6. Compliance with Laws.**

Lessee agrees to conduct all mining operations on the Leased Premises in a good and workmanlike manner and shall materially comply with and abide by all applicable Federal, state and local laws, rules, regulations and orders including, but not limited to environmental laws.

**SECTION 7. Reserved Minerals.**

The rights hereby granted to Lessee shall not include mining rights with respect to oils, gases or other minerals other than coal and substances (whether solid, liquid or gaseous, and including but not limited to gas or coalbed methane gas) mixed with or encountered when mining coal. Notwithstanding the foregoing, Lessee shall have the right to vent any gases or coalbed methane gases which are encountered in Lessee's mining operations as a safety measure, but Lessee shall not have the right to commercially exploit any such gases or coalbed methane gases. Lessee shall not have the right to use the surface of the Leased Premises to drill bore holes for the purpose of venting gas occurring in coal seams on the Leased Premises. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessors after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

Upon completion of its extraction operations on the Leased Premises, Lessee shall provide written notice of that completion to Lessors together with maps showing: (i) the extent of its underground operations, and (ii) any portion of the Leased Premises that Lessee will need to continue to utilize for access or other mining related purposes. Lessors shall then be free to allow development of other minerals or substances other than coal in those areas shown as no

longer needed by Lessee so long as such development does not interfere with the uses identified by Lessee in the notice.

**SECTION 8. Payments.**

Upon execution of this Lease, Lessee shall pay to Lessors, in the manner hereinafter provided, the amount of [REDACTED] (the "Initial Payment"). Said Initial Payment shall constitute a non-refundable prepayment of Lease Bonus Payments and Production Royalty Payments, as those terms are defined below, and shall be fully recoupable as herein provided.

Lessee shall further pay to Lessors, in the manner hereinafter provided, a lease bonus payment ("Lease Bonus Payment") on coal produced from the Leased Premises and all other property identified in Section 1 of this Lease ("Other Section 1 Property"), in the amount of [REDACTED] per ton (2,000 pounds). The Initial Payment and Lease Bonus Payment shall be recouped or payable at the same time as the Production Royalty Payment (as hereinafter defined in Section 9) is payable. The Production Royalty Payment shall be in the amount and shall be recouped at the time it is otherwise payable, as set out in Section 9.

At such time as the Initial Payment has been fully recouped by Lessee through setoff against the Lease Bonus Payments and Production Royalty Payments as they accrue, Lessee shall commence actual payment of the Lease Bonus Payments and the Production Royalty Payments.

**SECTION 9. Production Royalty.**

Lessee shall pay to Lessors as a production royalty ("Production Royalty Payment") for all coal actually mined, removed and sold from the Leased Premises and Other Section 1 Property the sum of eight percent (8%) of Gross Realization (as hereinafter defined in Section 10).

For purposes of determining the weight of the coal produced from the Leased Premises and Other Section 1 Property, Lessee shall complete volumetric calculations on a monthly basis as of the last day of each calendar month of all active mining areas contributing to the commingled coal produced from the general mining area and any other areas as to which coal is commingled prior to being weighed at the mine belt scale by Lessee.

A preliminary calculation of the weight of the coal produced from the Leased Premises plus Other Section 1 Property and other separately owned or leased properties shall be made by multiplying the total cubic feet of mined area during the month by 85 pounds per cubic foot and dividing by 2,000 pounds per ton to determine the preliminary tons of coal produced from the Leased Premises and Other Section 1 Property and all other premises contributing to the commingled coal. Based upon the preliminary calculation, the portion of the coal produced during the month from the Leased Premises and Other Section 1 Property plus each of the other properties shall be calculated as a percentage of total production. The percentage so determined shall then be used to determine the tonnage actually produced from the Leased Premises and Other Section 1 Property and from other leases or areas based upon the mine belt scale weights. It is the expressed intent of the parties that all weights be determined and allocated among the

Leased Premises, Other Section 1 Property, and all other leased properties as accurately as possible under the circumstances of Lessee's operations.

The method described above to allocate production of commingled coal under the provisions of this Lease have been determined to be acceptable for Federal lease purposes. In the event the method used to allocate commingled production for Federal lease purposes is changed, the provisions of this Lease will be deemed changed to reflect the new method. The parties agree to execute an amendment to this Lease to confirm any such change.

Lease Bonus Payments and Production Royalty Payment will be recouped or paid on coal sold. Lessee shall maintain a schedule on a monthly basis showing the total coal inventory available for sale broken down by the leases (including the Leased Premises and Other Section 1 Property) or property from which the coal was mined. Such schedules and sales allocations shall be available to Lessors upon request. Sales will be allocated by lease or property in proportion to the coal inventoried from each lease or property. The FIFO (first in-first out) accounting method will be used to allocate coal sales.

Lease Bonus Payment and Production Royalty Payments due and payable for coal actually mined, removed and sold from the Leased Premises and Other Section 1 Property during any calendar month shall be setoff against the Initial Payment or paid on or before the last day of the next succeeding calendar month.

**SECTION 10. Gross Realization.**

Gross realization shall have the same meaning as the term "gross proceeds" as defined from time to time in 30 C.F.R. Subpart F, with respect to federal coal leases within the general mining area. The value and time of payment for royalty purposes with respect to coal from the Leased Premises and Other Section 1 Property shall be determined under the provisions of such subpart applicable to federal ad valorem coal leases, including amendments thereto and administrative and judicial interpretation thereof which shall include, without limitation, any deductions, adjustments or allowances now existing or hereafter permitted in calculating royalty due under federal coal leases. Deductions include, but are not limited to, trucking and loading expenses.

**SECTION 11. Depository for Payments.**

Lessee shall pay the Initial Payment, Lease Bonus Payment and Production Royalty Payment to the Lessors on the basis of 25% to Steven Ladlie and Penny Ladlie; 25% to Gary J. Pestorious and Dawn K Pestorious, 25% to Will Dress and Jeffrey Dress, 2/3 of 25% to Gregory D. Jensen as Trustee of the Gregory D. Jensen Trust; and 1/3 of 25% to Gregory D. Jensen, as Trustee of the SMJ Trust. Lessors will provide to Lessee the identity of the depository bank and account information for such payments upon execution of this Lease.

All such payments of royalties shall be considered tendered when made by wire transfer, check or draft of Lessee or of any assignee of Lessee and mailed or delivered to Lessors or to the depository bank and accounts to be identified.

**SECTION 12. Records and Accounts.**

Lessee shall keep a true and correct record of all coal mined, removed and sold from the Leased Premises and Other Section 1 Property and all royalty calculations applicable thereto and shall permit Lessors or Lessors' agents at all reasonable times and at Lessors' expense to examine such records. On or before the last day of each calendar month following the date on which Lessee shall commence actual mining operations hereunder, Lessee shall furnish Lessors a true and correct statement showing the tons of coal actually mined, removed, and sold during the preceding calendar month from the Leased Premises and Other Section 1 Property, the general mining area, and all other areas whose production is commingled with coal mined from the Leased Premises and Other Section 1 Property prior to the first certified weighing of coal. The weight of coal mined, removed and sold from the general mining area shall be determined on scales properly installed, inspected and approved as accurate in accordance with the contracts under which the coal is sold by Lessee. Lessors, or their audit representatives, at Lessors' expense, shall have the right at any reasonable time or times to examine, audit and reproduce the records, vouchers and their source documents which serve as the basis for royalty payments. All such records of Lessee kept in the ordinary course of its business, and all payments made in accordance therewith, shall be presumed to be accurate after a period of three (3) years. In the event it is determined by a court of competent jurisdiction that Lessee has knowingly or materially misstated the weight of coal mined from the general mining area, Lessee will pay Lessors as liquidated damages an amount calculated as three times the amount of the difference between the production royalty actually paid Lessors and the production royalty that would otherwise have been due from the Leased Premises and other Section 1 Property had the weights been accurately calculated at the time of coal severance.

**SECTION 13. Representations and Warranties.**

(a) **Representations of Lessors**

1. **LESSORS EXPRESSLY DISCLAIM ANY REPRESENTATION OR WARRANTY WITH RESPECT TO THE QUANTITY, QUALITY, MINEABILITY, MERCHANTABILITY OR MARKETABILITY OF COAL RESERVES WITHIN THE LEASED PREMISES.**
2. **Lessors make no warranty of title as to their ownership interest in the coal situated in the Other Section 1 Property as of the date of this Lease. Lessee agrees that if, on the date of this Lease, Lessors own an interest in the coal situated in the Other Section 1 Property less than the entire fee simple estate, the Lease Bonus Payment and Royalty Production Payment to be paid under this Lease shall not be reduced or eliminated. Lessee shall not have the right to suspend any payments due under this Lease in the event of any title dispute or title defect to coal within the Other Section 1 Property that existed as of the date of this Lease. Lessee agrees that it will pay the Lease Bonus Payment and Royalty Production Payment on each ton of coal mined and removed from the Other Section 1 Property even should Lessors be deemed not to have owned the coal as of the date of this Lease.**

3. Lessors represent that they each have the power to own and lease the Leased Property, and to execute, deliver and carry out the terms and provisions of this Lease.
4. Lessors represent that the Lease will, upon execution, constitute the valid, binding obligation of Lessors, duly enforceable severally against each Lessor according to that Lessor's interest in the Leased Property, and will not conflict or violate the terms of any other agreement to which Lessors, individually or jointly, are bound. Gregory D. Jensen, as Trustee of the Gregory D. Jensen Trust and as Trustee of the SMJ Trust, represents that the execution of this Lease is permissible under the governing documents of such trusts, and violates no provisions of any agreements governing such trusts.

(b) **Representations of Lessee**

1. Lessee represents that it has made its own independent examination of the adequacy of the Leased Premises.
2. Lessee represents that it is a corporation duly organized, validly existing and in good standing under the laws of the State of Utah, is qualified to do business and is in good standing as a foreign corporation authorized to do business in the State of Utah, that it has the power to own property, operate mines and to execute, deliver and carry out the terms and provisions of this Lease.
3. Lessee represents that the execution, delivery and performance of this Lease by Lessee has been fully authorized by all necessary actions. The Lease will, upon execution, constitute the valid, binding obligation of Lessee as its interests appear herein, duly enforceable against Lessee.

**SECTION 14. Breach of Lease Obligations.**

Breach by Lessee of any obligation arising hereunder shall not work a forfeiture or termination of this Lease or cause a termination or reversion of the rights hereby created, nor be grounds for cancellation hereof in whole or in part, except as herein expressly provided. In the event that Lessors consider that Lessee's mining operations are not at any time being conducted in compliance with this Lease, Lessors shall notify Lessee in writing of the fact relied upon as constituting a breach hereof, and Lessee, if in default under the Lease, shall have ninety (90) days after receipt of such notice in which to comply with the obligations imposed by this Lease. Should Lessee fail timely to comply with such obligations, Lessors may then terminate this Lease, provided, however, that neither notice nor attempted compliance shall be evidence that a breach has occurred. If the alleged default relates to a payment due Lessors under the Lease, Lessee shall have ten (10) days from receipt of such notice to remedy the payment default, whereupon, if the default is not remedied, Lessors may terminate this Lease.

**SECTION 15. Obligations of Lessee.**

Lessee agrees to diligently operate the Leased Premises unless precluded by Force Majeure, as defined in Section 19, and in a manner that results in the ultimate maximum economic recovery of coal from the Leased Premises.

The fact that Lessee may fulfill some or all of its obligations under a coal sales contract with production from the Leased Premises is not intended to nor shall it give Lessors any rights in or to said coal sales contract. Lessee shall not be required to mine, remove or pay any production royalty on unmerchantable coal or waste material, unless Lessee actually sells the same. Any amounts received by Lessee for a buyout, buydown or amendment to a coal sales contract shall not be deemed gross realization subject to royalty.

**SECTION 16. Taxes.**

Lessors covenant to pay promptly all taxes and assessments levied against the Leased Premises or any part thereof during the entire term of this Lease, and any renewal or extension hereto and if they fail to do so, or if there shall be any taxes or encumbrances now on the Leased Premises or any part thereof, Lessee may, without being obligated so to do, pay such taxes or encumbrances and any penalties thereon or redeem said Leased Premises from tax sale. Any payments so made may be considered as an advance against Lease Bonus Payments and Production Royalty Payments and may be credited on or deducted from Lease Bonus Payments and Production Royalty Payments as the same become due and payable under this Lease. Lessee shall pay all validly assessed and levied property taxes on its coal operations within the Leased Premises, its improvements, if any, and property and shall pay all of the taxes and fees, including but not limited to black lung payments, abandoned mine land fund fees and severance taxes, if any, validly assessed and levied against its rights in the coal covered by this Lease.

**SECTION 17. Right of Surrender or Termination.**

Lessee may at any time and from time to time, in its sole discretion upon thirty (30) days' prior written notice to Lessors, execute and transfer to Lessors or file for record, in the official records of the county where the Leased Premises are situated, a release or releases covering all or any portion of the Leased Premises and thereby surrender this Lease as to such portion of the Leased Premises and terminate from and after the date of such surrender all obligations as to the acreage surrendered, except those obligations to indemnify Lessors as provided herein at Section 25; replace Subject Water Rights as required herein; and to take such remedial actions as may be required by Lessee's coal permit or environmental laws.

**SECTION 18. Energy Policy Act.**

Lessors specifically acknowledge that prior to the execution of this Lease, they have been made aware of the provisions of § 2504(a)(1) of the Energy Policy Act of 1992, Public Law 102486, 106 Stat. 2776 (enacted October 24, 1992) (codified at 30 U.S.C. § 1309a), and they also hereby acknowledge that, with the exception of the replacement of the Subject Water Rights as provided herein at Section 2(f), the consideration provided for herein is intended to fully compensate Lessors for any and all damages and liability of Lessee to Lessors under § 2504(a)(1) of the Energy Policy Act for subsidence caused by underground mining operations

(to the extent they are owned by the Lessors) to any occupied residential dwelling and structures related thereto or to any non-commercial building, or for the effects of any underground coal mining operations on any state appropriated water supply in existence prior to Lessee's application for a coal mining and reclamation permit. Except as set forth herein, Lessors specifically waive any and all other rights they might have under § 2504(a)(1) of the Energy Policy Act and any regulations or State legislation implementing such Section, with regard to such damages or compensation or insurance therefor. Lessors agree to execute an express waiver of the rights described above with respect to those portions of the Leased Premises, if any, in which they own the surface estate. Notwithstanding the foregoing waiver of Lessors' rights under § 2504(a)(1) of the Energy Policy Act, Lessee's indemnity under Section 28 shall include any alleged noncompliance with § 2504(a)(1) or implementing statutes or regulations and any contamination arising from Lessee's use of the Leased Premises that is asserted by any party other than Lessors.

**SECTION 19. Force Majeure.**

Lessee shall not be deemed in default for failure to perform any of its obligations during periods in which performance is prevented by any cause reasonably beyond Lessee's control (any such cause being herein called "Force Majeure") such as, for example and not by way of limitation, fire, cave-in, floods, windstorms, other damage from the elements, strikes, riots, unavailability of transportation or necessary equipment, action of governmental authority, litigation, acts of God and acts of the public enemy. The duration of this Lease shall be extended, unless sooner terminated by Lessee by release as herein above provided, for a period equal to the period for which performance is suspended due to Force Majeure. All periods of Force Majeure shall be deemed to begin at the time Lessee provides actual notice of such Force Majeure to Lessors, and Lessor shall make commercially reasonable efforts to terminate any Force Majeure. Events of Force Majeure shall not excuse timely payment to Lessors for any Initial Payment, Bonus Lease Payment or Production Royalty Payment accrued prior to the time the Force Majeure is effective.

**SECTION 20. Successors and Assigns.**

This Lease states the entire consideration for each and all of the rights and privileges herein granted as a whole. The terms and provisions hereof shall be binding upon and inure to the benefit of the parties hereto, their heirs, executors, administrators, successors and assigns.

**SECTION 21. Assignment or Sublease.**

Subject to thirty (30) days' advance written notice and approval, which approval shall not be unreasonably delayed or withheld, the estate of either party to this Lease may be subleased, assigned or transferred in whole or in part. Upon approval of the transfer of the coal permit by the State of Utah, Division of Oil, Gas and Mining, the Assignor/Lessee shall be relieved of all further obligations to the Lessors under this Lease. No change or division of ownership in the Leased Premises or in the royalties payable under this Lease shall (except at Lessee's option in any particular case) be binding upon Lessee until thirty (30) days after Lessee shall have been furnished, at its address shown above, with the original recorded instruments, or duly certified

copies thereof, properly evidencing the same. No such change or division of ownership shall operate to enlarge the obligations or diminish the rights of Lessee.

**SECTION 22. Notices.**

All notices shall be in writing and may be served in person, or may be given by United States registered or certified mail, return receipt requested, postage prepaid, addressed to the Lessors collectively or the individual party concerned at the respective addresses first above written and shall be deemed to have been duly given three days after the mailing thereof by certified mail, return receipt requested.

**SECTION 23. Homestead and Dower.**

Lessors, and each of them, hereby release and waive all rights of homestead and dower insofar as such rights may in any way affect the purpose for which this Lease is made.

**SECTION 24. Genders.**

Wherever used herein, the plural shall include the singular and vice versa, and each gender shall include the other as the text and tenor of this Lease shall indicate.

**SECTION 25. Indemnification.**

(a) Lessee will defend, hold harmless and fully indemnify Lessors against all claims or demands of any kind or nature which may be made upon Lessors or against Lessors' interest in the Leased Premises for, or on account of, any debt or expense contracted or incurred by Lessee in conducting its activities, as well as against any and all acts, transactions and omissions of Lessee, its employees, agents, contractors, subcontractors, lessees, partners or coventurers, licensees and suppliers in conducting such activities, and Lessee will defend and save Lessors harmless and fully indemnify Lessors as to liability or asserted liability, for, or on account of, injury to, or death of, any person or damage to any property sustained during the term of this Lease, alleged to have resulted from any such act or omission of Lessee, its employees, agents, contractors, subcontractors, lessees, partners, or coventurers, licensees and suppliers, or any unsafe condition of the Leased Premises created by Lessee or Lessee's operations. In addition, Lessee will pay, hold harmless and fully indemnify Lessors against any and all penalties or charges imposed upon Lessors by federal, state, or local authorities on account of Lessee's operations or Lessee's failure to comply with all laws, rules, regulations or orders of such authorities including, but not limited to environmental laws.

(b) Further, Lessee agrees to defend, hold harmless and fully indemnify Lessors from and against any and all claims of environmental damages and demands arising directly out of the operations that may be asserted by third parties, including but not limited to claims by individuals or groups, whether public or private by federal, state, or local agencies and/or by any other party bringing said action against Lessors, unless Lessors, or any person or instrumentality acting in Lessors' behalf shall have been a contributing cause to the event giving rise to such claim or demand. Lessors agree to cooperate with Lessee in the conduct of any suits arising from claims and demands under this subsection.

(c) Lessors will defend, hold harmless and fully indemnify Lessee against all claims or demands of any kind or nature which may be made upon Lessee or against Lessee's interest in the Leased Premises for, or on account of, any debt or expense contracted or incurred by Lessors in conducting their activities, as well as against any and all acts, transactions and omissions of Lessors, its employees, agents, contractors, subcontractors, lessees, partners or coventurers, licensees and suppliers in conducting such activities, and Lessors will defend and save Lessee harmless and fully indemnify Lessee as to liability or asserted liability, for, or on account of, injury to, or death of, any person or damage to any property sustained during the term of this Lease, alleged to have resulted from any such act or omission of Lessors, their employees, agents, contractors, subcontractors, lessees, partners, or coventurers, licensees and suppliers, or any unsafe condition of the Leased Premises created by Lessors or Lessors' operations.

**SECTION 26. Lessors' Cooperation.**

Lessors shall further cooperate with Lessee in any manner as may be reasonably necessary to assure the complete and full development of the coal contained in the Leased Premises, and Lessors shall execute and deliver to Lessee any and all documents, waivers, releases or covenants which may be needed, including, but not limited to any consent to mining which may be required under any current or future laws, rules or regulations of any Federal, State, or local government.

**SECTION 27. Recording.**

The parties agree that they will execute a Memorandum of Underground Coal Lease in a form substantially similar to that attached as Exhibit A, and that the executed Memorandum will be placed on record in the county containing the Leased Premises. This Lease will not be placed of record.

**SECTION 28. Governing Laws.**

This Lease shall be construed in accordance with and governed by the laws of the State of Utah.

**SECTION 29. Time of the Essence.**

Time is of the essence of this Lease and each and every term and provision hereof.

**SECTION 30. Counterparts.**

This Lease may be executed in counterparts.

IN WITNESS WHEREOF, this instrument is executed as of the day and year first above written.

(Signature pages follow)

LESSORS:

Steven Ladlie  
STEVEN LADLIE

Dated this 10 day of March, 2011

STATE OF California,  
COUNTY OF Riverside; ss.

On the 10<sup>th</sup> day of March, 2011, personally appeared before me Steven Ladlie who signed the foregoing instrument and acknowledged to me that he executed the same.



S. A. Bardsnes  
Notary Public  
Residing at Palm Desert

My commission expires: 9-13-12.

Penny Ladlie  
PENNY LADLIE

Dated this 10 day of March, 2011

STATE OF California  
COUNTY OF Riverside ss.

On the 10<sup>th</sup> day of March, 2011, personally appeared before me Penny Ladlie who signed the foregoing instrument and acknowledged to me that she executed the same.



S. A. Bardsnes  
Notary Public  
Residing at: Palm Desert

My commission expires: 9-13-12

GARY J. PESTORIOUS

By: Mary Antonia

Its: \_\_\_\_\_

Date: 3/9/11

STATE OF Nevada )  
COUNTY OF Clark ) ss.

On the 9th day of March, 2011, personally appeared before me who signed the foregoing instrument and acknowledged to me that he executed the same:

[Signature]  
Notary Public



Residing at: Mandalay Bay Hotel  
3950 Las Vegas Blvd South  
Las Vegas NV 89119

DAWN K. PESTORIOUS

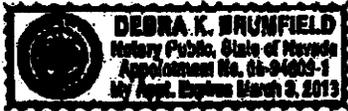
By: Dawn Pestorius

Its: \_\_\_\_\_

Date: 3/9/11

STATE OF Nevada )  
COUNTY OF Clark ) ss.

On the 9<sup>th</sup> day of March, 2011, personally appeared before me who signed the foregoing instrument and acknowledged to me that she executed the same.



Debra K. Brunfield  
Notary Public

Residing at: Mandalay Bay Hotel  
3150 Las Vegas Blvd South  
Las Vegas NV 89119

My commission expires: 3-3-2013

William Dress

WILLIAM DRESS

Dated this 9<sup>th</sup> day of March, 2011

STATE OF Washington

COUNTY OF Burke

On the 9<sup>th</sup> day of March, 2011, personally appeared before me William Dress who signed the foregoing instrument and acknowledged to me that he executed the same.

Bonnie J. Johnson  
Notary Public

Residing at: Provo, USA

My commission expires: 5/22/13



Jeffrey H. Dress  
JEFFREY DRESS  
Dated this 9<sup>th</sup> day of March, 2011

STATE OF Washington  
COUNTY OF Benton

On the 9<sup>th</sup> day of March, 2011, personally appeared before me Jeffrey Dress who signed the foregoing instrument and acknowledged to me that he executed the same.

Bonnie Johnson  
Notary Public  
Residing at: Pasco, WA

My commission expires: 5/22/13







LESSEE:

WEST RIDGE RESOURCES, INC.,

By: *[Signature]*

Its: Treasurer

Date: 3/10/11

STATE OF Ohio )  
 : ss.  
COUNTY OF Belmont )

On the 10<sup>th</sup> day of March, 2011, personally appeared before me Robert D. Moore, the Treasurer of WEST RIDGE RESOURCES, INC., who signed the foregoing instrument on behalf of WEST RIDGE RESOURCES, INC. and acknowledged to me that he executed the same.



DENISE R. JACKSON  
Notary Public, State of Ohio  
My Commission Expires 09/28/2015

*[Signature]*  
Notary Public  
Residing at: Belmont County

My commission expires:

APPENDIX 1-4G(a)

LEASE ASSIGNMENT

HINKINS FEE LEASE  
(DAVID P. HINKINS)

EXHIBIT A

MEMORANDUM OF UNDERGROUND COAL LEASE

THIS MEMORANDUM OF COAL LEASE made and entered into effective as of the 1st day of May, 2011, among DAVID P. HINKINS, TODD S. HINKINS and ROSS D. HINKINS, all as tenants in common, as to an undivided one-half interest in the Leased Premises described herein, collectively referred to as "Lessors" having an address for purposes of this Lease c/o Box 225 485 Drangville Ut 84537; and WEST RIDGE RESOURCES, INC., a Utah corporation, having an address at P.O. Box 910, 794 North "C" Canyon Road, East Carbon, Utah 84520, referred to herein as "Lessee."

WITNESSETH:

The parties hereto agree:

1. Upon the terms and conditions set forth in that certain Underground Coal Lease (hereinafter "Lease"), effective of even date herewith, all of which are hereby incorporated herein as if set forth in full, Lessor does hereby grant and lease unto Lessee for the purposes described in paragraph 2 of this Memorandum of Underground Coal Lease and in the Lease those certain lands situated in Carbon County, State of Utah, (referred to herein as the "Leased Premises") and more particularly described as follows:

Township 14 South, Range 14 East, SLB&M  
Section 7: N1/2 NE1/4; SE1/4 NE1/4; NE1/4 SE1/4

2. The Underground Coal Lease grants to Lessee the exclusive right and privilege to explore for, mine (~~by any method~~), remove extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations (provided such activities are not in violation of the Conservation Easement currently encumbering the Leased Premises), including but not limited to flaring any such gases or coalbed methane gases to generate carbon credits; provided that the right to commercially exploit such gas or coalbed methane gas shall be addressed in a separate agreement. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessors after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

3. The term of the Lease is for a primary term of five (5) years which commenced on May 26, 2011; and is subject to the right of the parties to mutually extend said term for an additional five (5) year period and so long thereafter as mining operations are being conducted by Lessee on the Leased Premises.

IN WITNESS WHEREOF, this instrument is executed as of the day and year first above written.

**LESSORS:**

David P. Hinkins  
DAVID P. HINKINS

Todd S. Hinkins  
TODD S. HINKINS

Ross D. Hinkins  
ROSS D. HINKINS

**LESSEE:**

WEST RIDGE RESOURCES, INC.,  
a Utah corporation

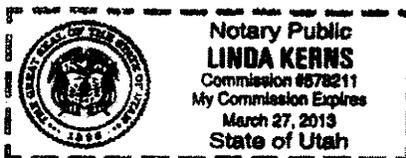
By: David W. Hibbs  
Its: President

STATE OF UTAH )  
COUNTY OF Carbon ) : ss.

On the 27<sup>th</sup> day of May, 2011, personally appeared before me David W. Hibbs, the President of WEST RIDGE RESOURCES, INC., who signed the foregoing instrument on behalf of WEST RIDGE RESOURCES, INC. and acknowledged to me that he executed the same.

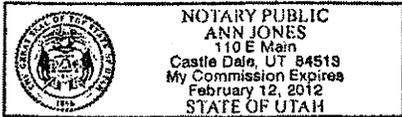
Linda Kerns  
Notary Public  
Residing at: 345 North 700 East, Price, Utah 84501

My commission expires:  
March 27, 2013



STATE OF UTAH )  
 )  
COUNTY OF Emery ) : ss.

On the 26 day of May, 2011, personally appeared before me DAVID P. HINKINS, who duly acknowledged to me that he executed the same.

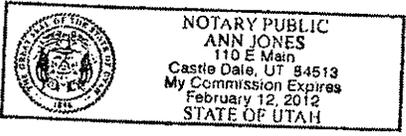


Ann Jones  
Notary Public  
Residing at: Castle Dale

My commission expires:  
2.12.12

STATE OF UTAH )  
 )  
COUNTY OF Emery ) : ss.

On the 26 day of May, 2011, personally appeared before me ROSS D. HINKINS, who duly acknowledged to me that he executed the same.

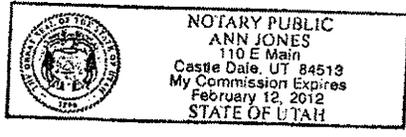


Ann Jones  
Notary Public  
Residing at: Castle Dale

My commission expires:  
2.12.12

STATE OF UTAH )  
 )  
COUNTY OF Emery ) : ss.

On the 26 day of May, 2011, personally appeared before me TODD S. HINKINS, who duly acknowledged to me that he executed the same.



Ann Jones  
Notary Public  
Residing at: Castle Dale

My commission expires:  
2.12.12



APPENDIX 1-4G(b)

LEASE ASSIGNMENT

HINKINS FEE LEASE  
(EMILY P. MARSTON)

EXHIBIT A

MEMORANDUM OF UNDERGROUND COAL LEASE

THIS MEMORANDUM OF COAL LEASE made and entered into effective as of the 1st day of Apr., 2011, by and between **EMILY P. MARSTON**, as to an undivided one-quarter interest in the Leased Premises described herein, referred to as "Lessor," having an address of 843 Grenoble Drive, Midvale, Utah 84047; and **WEST RIDGE RESOURCES, INC.**, a Utah corporation, having an address at P.O. Box 910, 794 North "C" Canyon Road, East Carbon, Utah 84520, referred to herein as "Lessee."

WITNESSETH:

The parties hereto agree:

1. Upon the terms and conditions set forth in that certain Underground Coal Lease (hereinafter "Lease"), effective of even date herewith, all of which is incorporated herein as if set forth in full, Lessor does hereby grant and lease unto Lessee for the purposes described in paragraph 2 of this Memorandum of Underground Coal Lease and in the Lease those certain lands situated in Carbon County, State of Utah, (referred to herein as the "Leased Premises") and more particularly described as follows:

Township 14 South, Range 14 East, SLB&M  
Section 7: N1/2 NE1/4; SE1/4 NE1/4; NE1/4 SE1/4

2. The Underground Coal Lease grants to Lessee the exclusive right and privilege to explore for, mine, remove extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented as a non-commercial substance in conjunction with coal development or extraction operations, including but not limited to flaring any such gases or coalbed methane gases to generate carbon credits; provided that the right to commercially exploit such gas or coalbed methane gas shall be addressed in a separate agreement. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessor after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

3. The term of the Lease is for a primary term of five (5) years which commenced on April 18, 2011; and is subject to the right of Lessee to extend said term for an additional five (5) year period and so long thereafter as mining operations are being conducted by Lessee in the general mining area.

IN WITNESS WHEREOF, this instrument is executed as of the day and year first above written.

**LESSOR:**

Emily P. Marston  
EMILY P. MARSTON

**LESSEE:**

WEST RIDGE RESOURCES, INC.,  
a Utah corporation

By: David W. Hibbs  
Its: President

STATE OF UTAH )  
COUNTY OF Carbon ) : ss.

On the 22<sup>nd</sup> day of April, 2011, personally appeared before me David W. Hibbs, the President of WEST RIDGE RESOURCES, INC., who signed the foregoing instrument on behalf of WEST RIDGE RESOURCES, INC. and acknowledged to me that she executed the same.

Linda Kerns  
Notary Public  
Residing at: 345 North 700 East, Price, Ut. 84501

My commission expires:

March 27, 2013



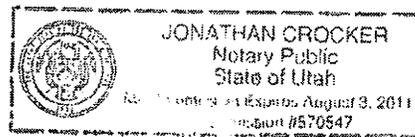
STATE OF UTAH )  
COUNTY OF Salt Lake ) : ss.

On the 20<sup>th</sup> day of April, 2011, personally appeared before me EMILY P. MARSTON, who duly acknowledged to me that she executed the same.

Jonathan Crocker  
Notary Public  
Residing at: 915 E. Fort Union Blvd. Midvale, UT 84047

My commission expires:

August 3, 2011



APPENDIX 1-4G(c)

LEASE ASSIGNMENT

HINKINS FEE LEASE  
(LEONARD J. PAGANO)

**EXHIBIT A**

**MEMORANDUM OF UNDERGROUND COAL LEASE**

THIS MEMORANDUM OF COAL LEASE made and entered into effective as of the 1st<sup>19<sup>th</sup></sup> day of April, 2011, by and between **LEONARD J. PAGANO**, as to an undivided one-quarter interest in the Leased Premises described herein, referred to as "Lessor," having an address at 55 West Main Street, Price, Utah 84501; and **WEST RIDGE RESOURCES, INC.**, a Utah corporation, having an address at P.O. Box 910, 794 North "C" Canyon Road, East Carbon, Utah 84520, referred to herein as "Lessee."

**WITNESSETH:**

The parties hereto agree:

1. Upon the terms and conditions set forth in that certain Underground Coal Lease (hereinafter "Lease"), effective of even date herewith, all of which is hereby incorporated herein as if set forth in full, Lessor does hereby grant and lease unto Lessee for the purposes described in paragraph 2 of this Memorandum of Underground Coal Lease in those certain lands situated in Carbon County, State of Utah, (referred to herein as the "Leased Premises") and more particularly described as follows:

Township 14 South, Range 14 East, SLB&M  
Section 7: N1/2 NE1/4; SE1/4 NE1/4; NE1/4 SE1/4

2. The Underground Coal Lease grants to Lessee the exclusive right and privilege to explore for, mine, remove extract, store, prepare, ship and dispose of the coal and gas occurring in coal seams, beds or deposits when vented in conjunction with coal development or extraction operations including but not limited to flaring any such gases or coal bed methane gases to generate carbon credits; provided that the right to commercially exploit such gas or coalbed methane gas shall be addressed in a separate agreement. The leasing, exploration for, or development of other minerals or substances other than coal and substances mixed with coal shall not interfere in any way with the coal mining operations of the Lessee during the term of this Lease. Leases related to other minerals issued by Lessor after the date of this Lease shall be specifically made subject to the priority of the coal mining operations.

3. The term of the Lease is for a primary term of five (5) years which commenced on April 19, 2011; and is subject to the right of Lessee to extend said term for an additional five (5) year period and so long thereafter as mining operations are being conducted by Lessee in the general mining area.

IN WITNESS WHEREOF, this instrument is executed as of the day and year first above written.

**LESSOR:**

Leonard J. Pagano  
LEONARD J. PAGANO

**LESSEE:**

WEST RIDGE RESOURCES, INC.,  
a Utah corporation

By: David W. Hibbs  
Its: President

STATE OF UTAH )  
COUNTY OF Carbon ) : SS.

On the 19<sup>th</sup> day of April, 2011, personally appeared before me David W. Hibbs, the President of WEST RIDGE RESOURCES, INC., who signed the foregoing instrument on behalf of WEST RIDGE RESOURCES, INC. and acknowledged to me that he executed the same.

Linda Kerns  
Notary Public  
Residing at: 345 North 700 East, Price, ut 84501

My commission expires:  
March 27, 2013

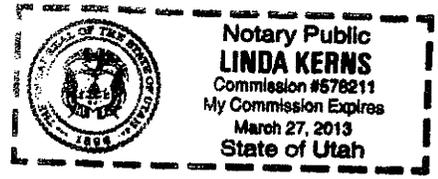
STATE OF UTAH )  
COUNTY OF Carbon ) : SS.



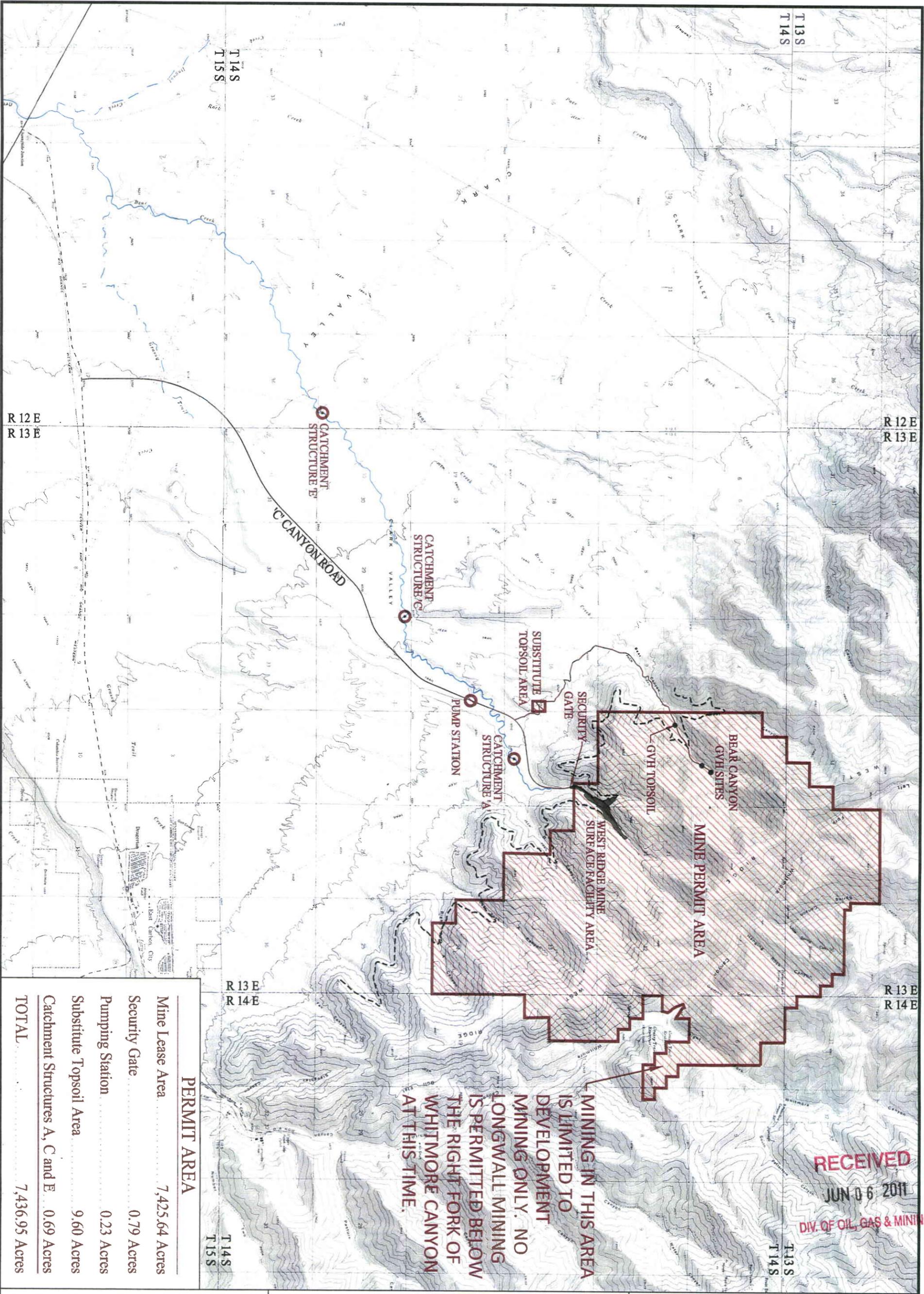
On the 19<sup>th</sup> day of April, 2011, personally appeared before me LEONARD J. PAGANO, who duly acknowledged to me that he executed the same.

Linda Kerns  
Notary Public  
Residing at: 345 North 700 East, Price, utah 84501

My commission expires:  
March 27, 2013



MAPS



PERMIT AREA	
Mine Lease Area	7,425.64 Acres
Security Gate	0.79 Acres
Pumping Station	0.23 Acres
Substitute Topsoil Area	9.60 Acres
Catchment Structures A, C and E	0.69 Acres
<b>TOTAL</b>	<b>7,436.95 Acres</b>

**WEST RIDGE MINE**  
 Map 1-0, Permit Map  
 Map 1-1, Location Map

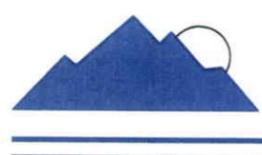
DATE: 5-18-11      REV: 13      ACAD REF: Maps 1-0 and 1-1 Rev 13

**LEGEND:**

- Lease Areas
- Surface Facility Area
- GVH Site
- Outcrop

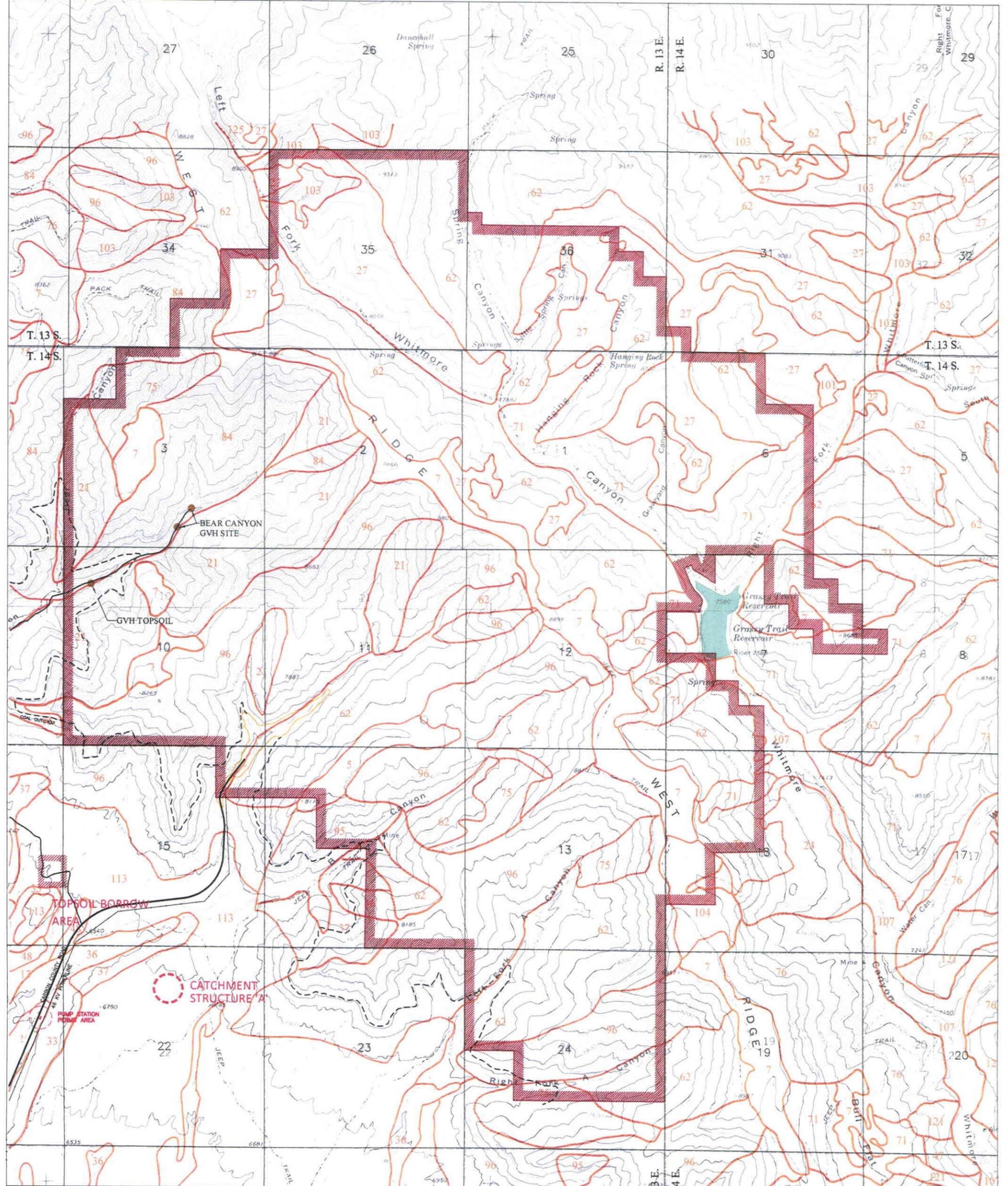


I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=5000'



**SOIL MAP UNITS**

5 Beje complex	75 Perma family, 15 to 40 percent slopes
7 Beje-Trag complex	76 Perma family-Datno complex
21 Croxdon loam, 8 to 30 percent slopes	84 Peds-Rock outcrop complex
24 Datno Variant very stony loam, 90 to 80 percent slopes	92 Rock outcrop
27 Dones-Toze families complex	96 Rock outcrop-Rabbitland-Travessilla complex
33 Gerst-Badland-Rabbitland complex, 15 to 50 percent slopes	101 Sencheri loam, 3 to 15 percent slopes
36 Gerst-Slych-Badland complex, 3 to 50 percent slopes	105 Sencheri-Toze family complex
37 Gerst-Slych-Badland complex, 50 to 70 percent slopes	104 Sencheri family, 3 to 15 percent slopes
48 Haverdad loam, 1 to 8 percent slopes	107 Shupers-Wacnet complex
49 Haverdad loam, alkali, 0 to 3 percent slopes	113 Slych very stony loam, 3 to 15 percent slopes
82 Hernandez family, 3 to 8 percent slopes	125 Umato-Toze families complex
62 Midfork family-Cammodore complex	
71 Piedhead extremely bouldery fine sandy loam, 40 to 70 percent slopes	

**RECEIVED**  
**JUN 06 2011**  
 DIV. OF OIL, GAS & MINING

CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE

**DAVID W. HIBBS**  
 #6449561  
 PROFESSIONAL ENGINEER

**Catchment Structures C and E (Permit Areas)**  
 Catchment Structure C: Soil Unit 36  
 Catchment Structure E: Soil Unit 49  
 See Appendix 5-15; Attachment 11  
 See Map 1-1 for Catchment Locations  
 Source: Carbon County Soil Survey, U.S.D.A., Soil Conservation Service

**WEST RIDGE MINE**  
**Map 2-1**  
**Regional Soil Map**

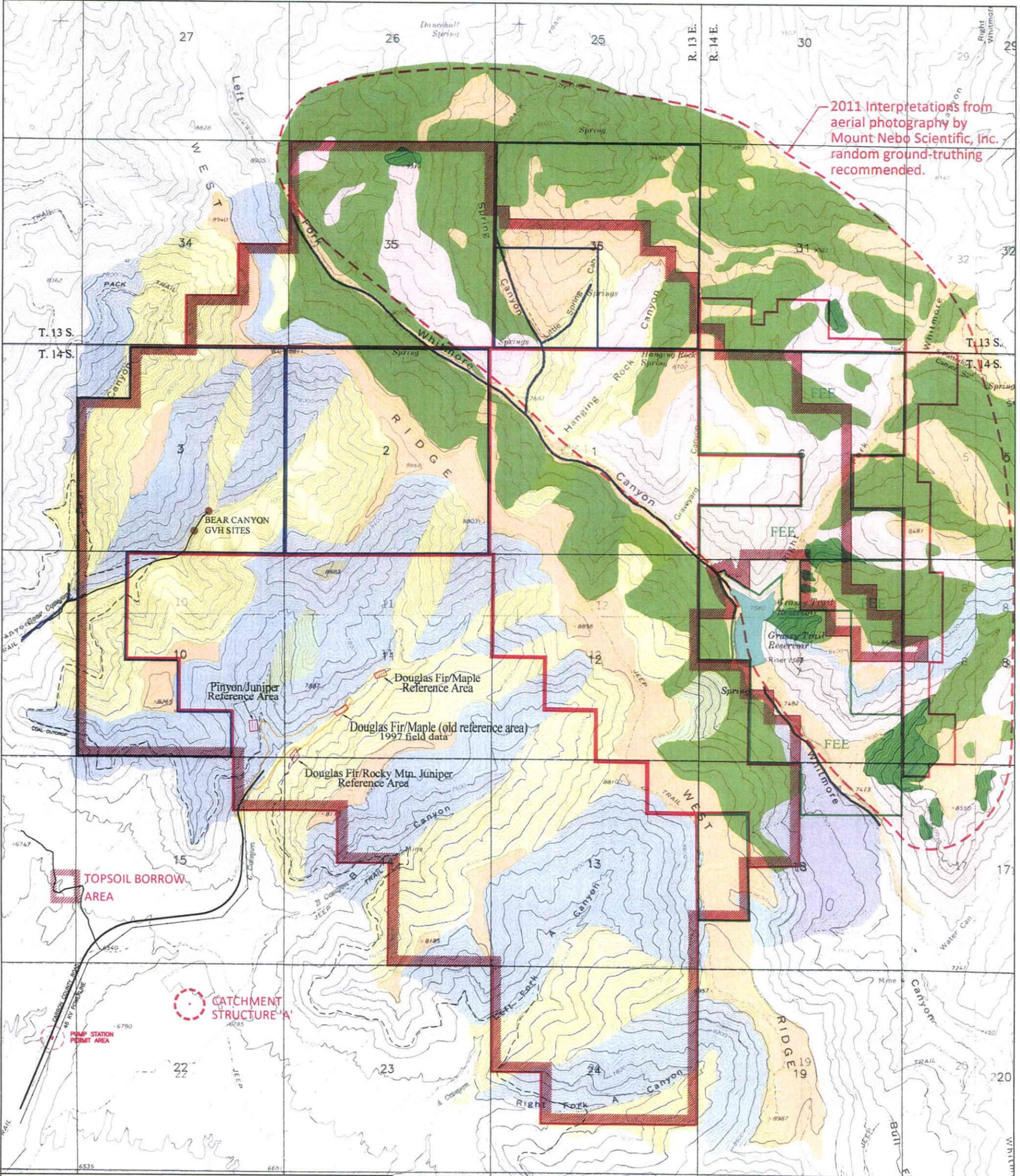
ATE: 5-18-11    REV: 21    ACAD REF: MAP2-1 REGSOIL REV21

**LEGEND:**

- Permit Boundary
- Federal Lease
- State Lease
- Penta Creek Fee
- Surface Facility Area
- GVH Site
- Soil Mapping Boundary
- Soil Map Number

**WEST RIDGE**  
**RESOURCES, INC.**

SCALE: 1"=2500'



2011 Interpretations from aerial photography by Mount Nebo Scientific, Inc. random ground-truthing recommended.

**VEGETATION COMMUNITIES**

Douglas Fir	
Pinyon/Juniper	
Sagebrush/Grass/Herbland	
Aspen	
Mountain Brush/Sagebrush	
Mixed Conifer	
Open Water	
Riparian	

Note: Vegetation communities based on interpretations from aerial photography (8/20/97) with some ground-checking in 2003 by Mount Nebo Scientific, Inc.  
 Note: See Appendix 3-12 for description of Whitmore Canyon riparian areas.

Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: Pinyon/Juniper  
 Catchment Structure E: Sagebrush  
 See Appendix 5-15; Attachment 11

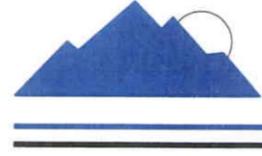
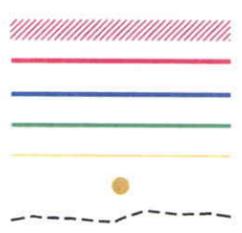
I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
**Map 3-1**  
**General Vegetation**  
**Communities**

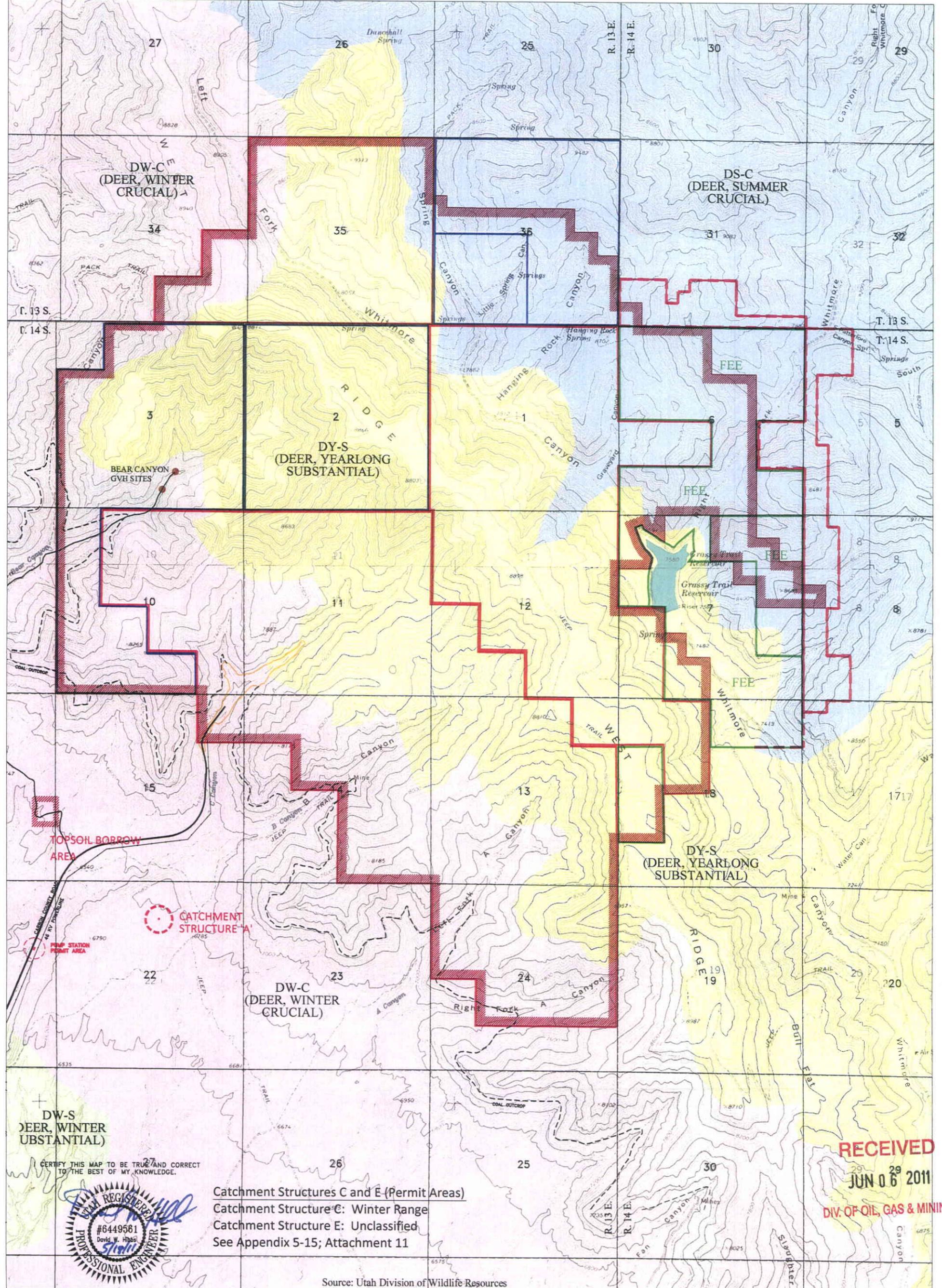
**LEGEND:**  
 Permit Boundary  
 Federal Lease  
 State Lease  
 Penta Creek Fee  
 Surface Facility Area  
 GVH Site  
 Outcrop



**WEST RIDGE**  
**RESOURCES, INC.**



SCALE: 1"=2500'



**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: Winter Range  
 Catchment Structure E: Unclassified  
 See Appendix 5-15; Attachment 11

Source: Utah Division of Wildlife Resources

# WEST RIDGE MINE

## Map 3-4B

### Wildlife Map - Deer Range

DATE: 5-18-11 REV: 21 ACAD REF: MAP3-4B DEER REV21

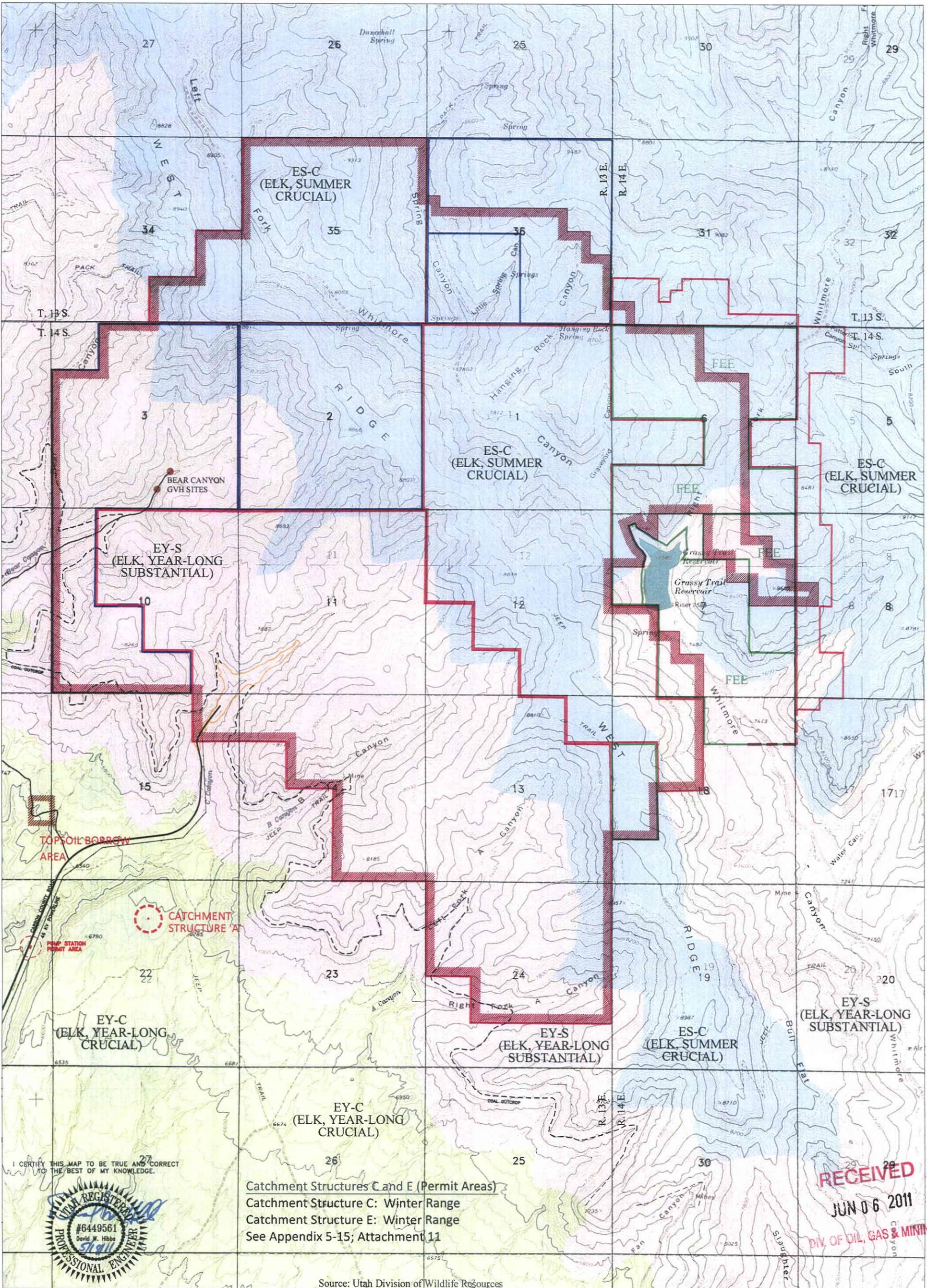
**LEGEND:**

Permit Boundary	
Federal Lease	
State Lease	
Private Fee	
Surface Facility Area	
GVH Site	
DW-S	
DW-C	
DS-C	
DY-S	



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: Winter Range  
 Catchment Structure E: Winter Range  
 See Appendix 5-15; Attachment 11

Source: Utah Division of Wildlife Resources

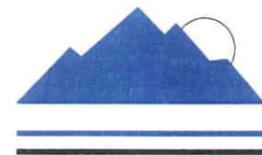
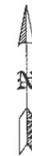
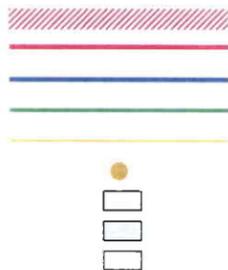
# WEST RIDGE MINE

## Map 3-4C

### Wildlife Map - Elk Range

DATE: 5-18-11 REV: 21 ACAD REF: MAP 3-4C ELK REV21

- Permit Boundary
- Federal Lease
- State Lease
- Private Fee
- Surface Facility Area
- GVH Site
- EY-C
- ES-C
- EY-S



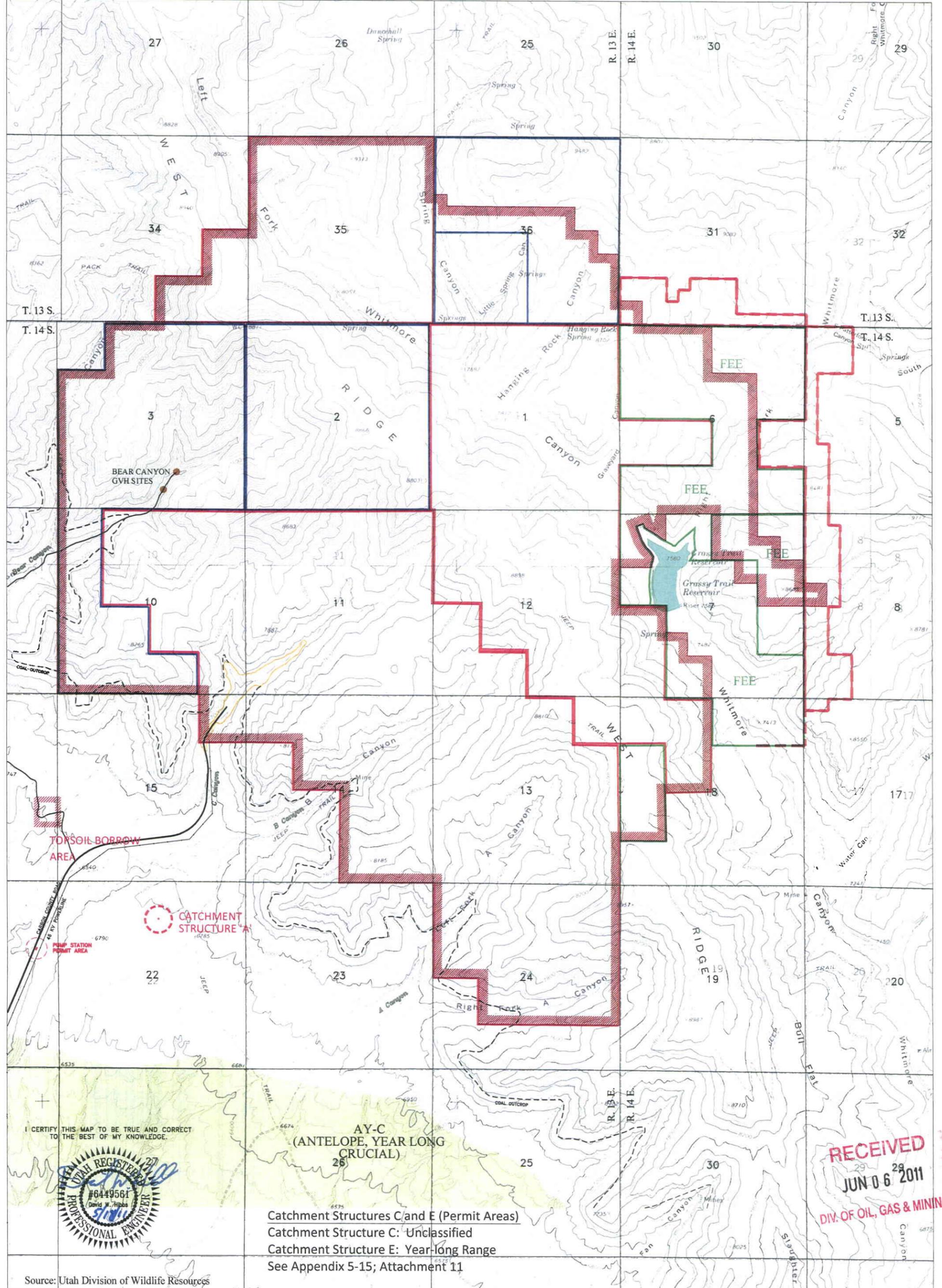
**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'

**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: Unclassified  
 Catchment Structure E: Year-long Range  
 See Appendix 5-15; Attachment 11

Source: Utah Division of Wildlife Resources

RECEIVED  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

# WEST RIDGE MINE

## Map 3-4D

### Wildlife Map - Antelope Range

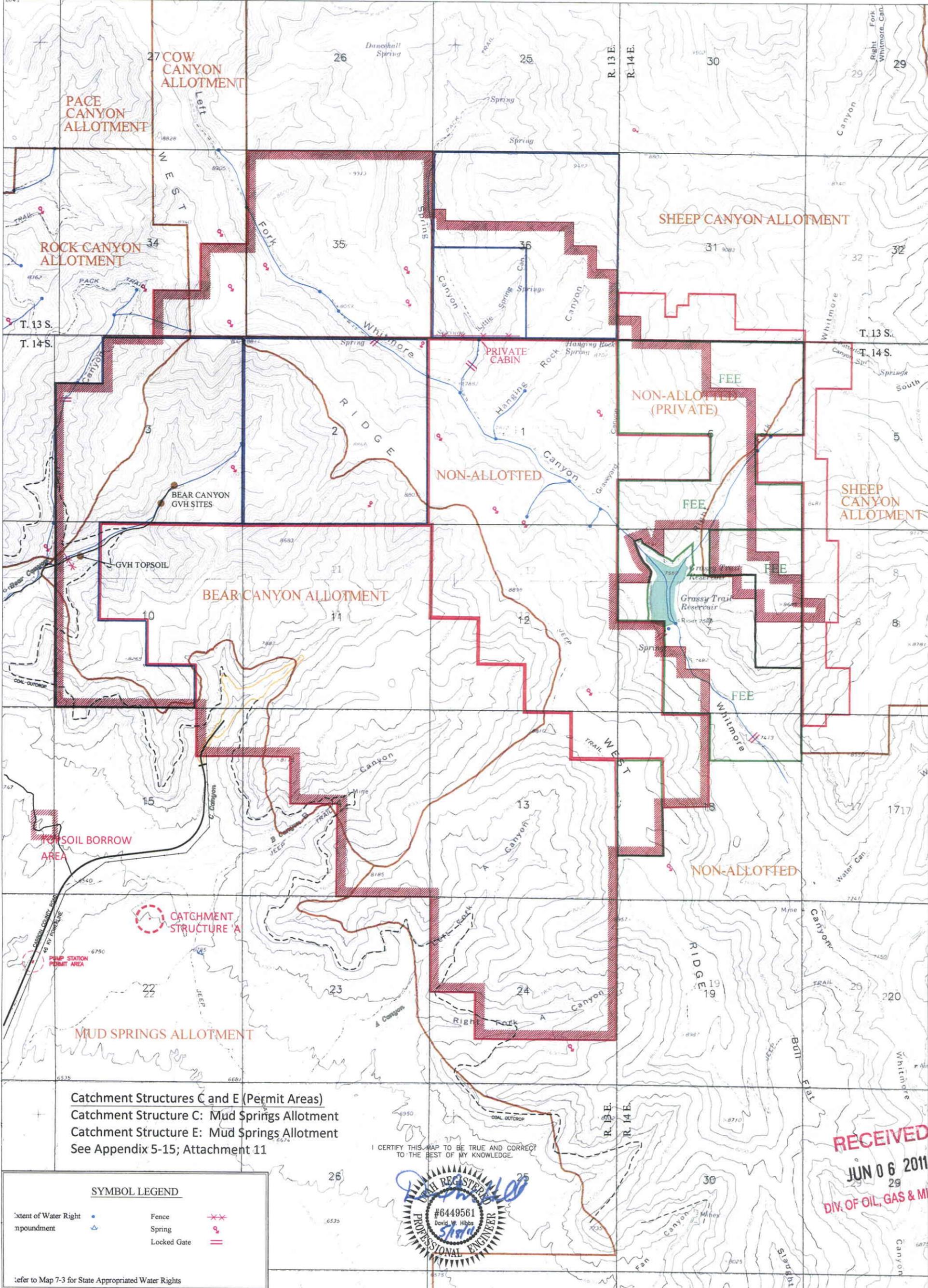
DATE: 5-18-11 REV: 21 ACAD REF. MAP3-4D ANTELOPE REV21

**LEGEND:**

- Permit Boundary
- Federal Lease
- State Lease
- Private Fee
- Surface Facility Area
- GVH Site
- AY-H

**WEST RIDGE**  
RESOURCES, INC.

SCALE: 1"=2500'



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: Mud Springs Allotment  
 Catchment Structure E: Mud Springs Allotment  
 See Appendix 5-15; Attachment 11

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



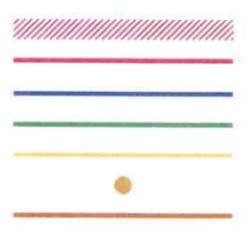
RECEIVED  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

**SYMBOL LEGEND**

Extent of Water Right	•	Fence	✖
Impoundment	◡	Spring	⊕
		Locked Gate	

Refer to Map 7-3 for State Appropriated Water Rights

**LEGEND:**  
 Permit Boundary  
 Federal Lease  
 State Lease  
 Penta Creek Fee  
 Surface Facility Area  
 GVH Site  
 Grazing Allotment Boundary

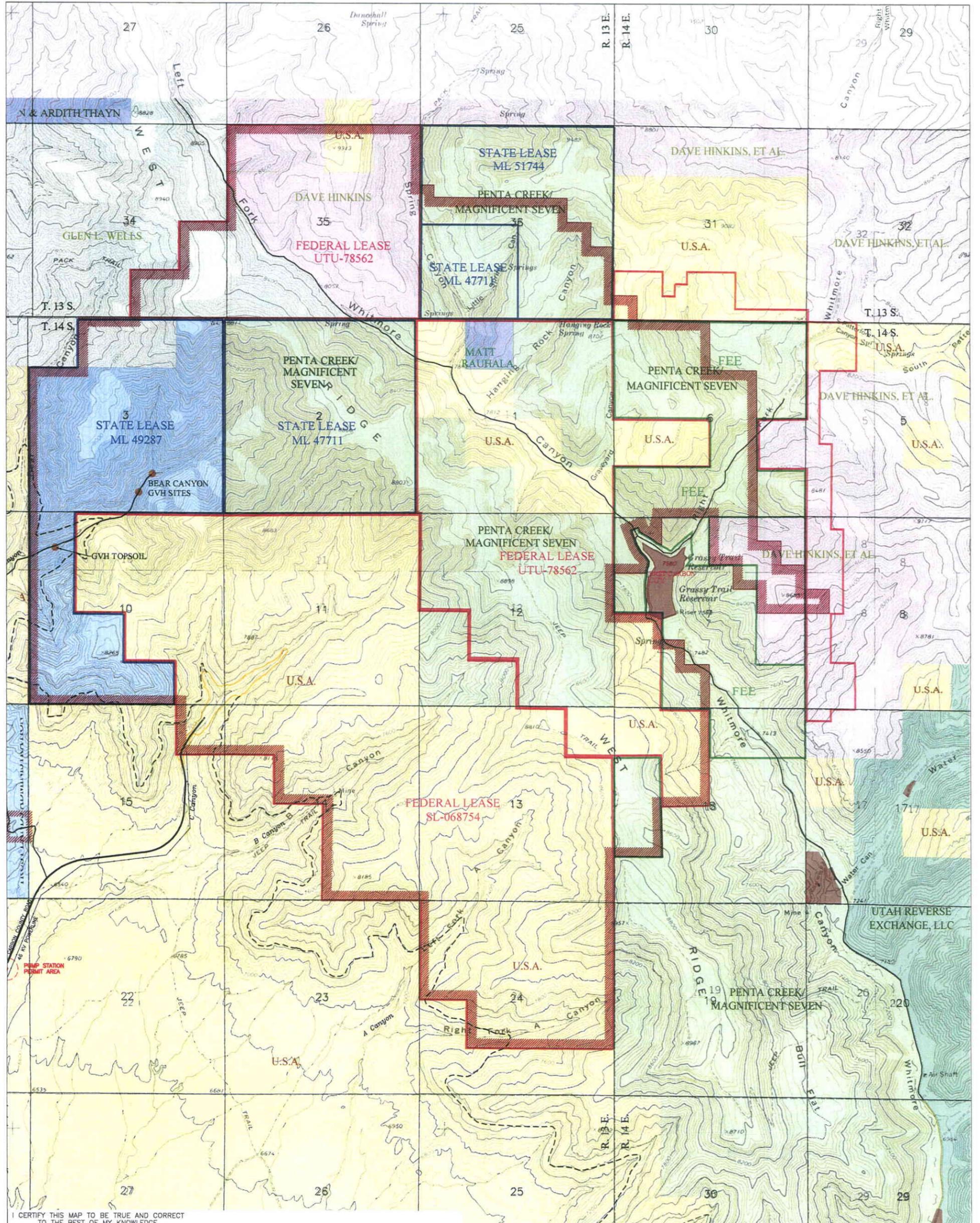


**WEST RIDGE**  
 RESOURCES, INC.



SCALE: 1"=2500'

**WEST RIDGE MINE**  
 Map 4-1  
 Existing Land Use



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: U.S.A. (BLM)  
 Catchment Structure E: U.S.A. (BLM)  
 See Appendix 5-15; Attachment 11

**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

# WEST RIDGE MINE

## Map 5-2

### Surface Ownership Map

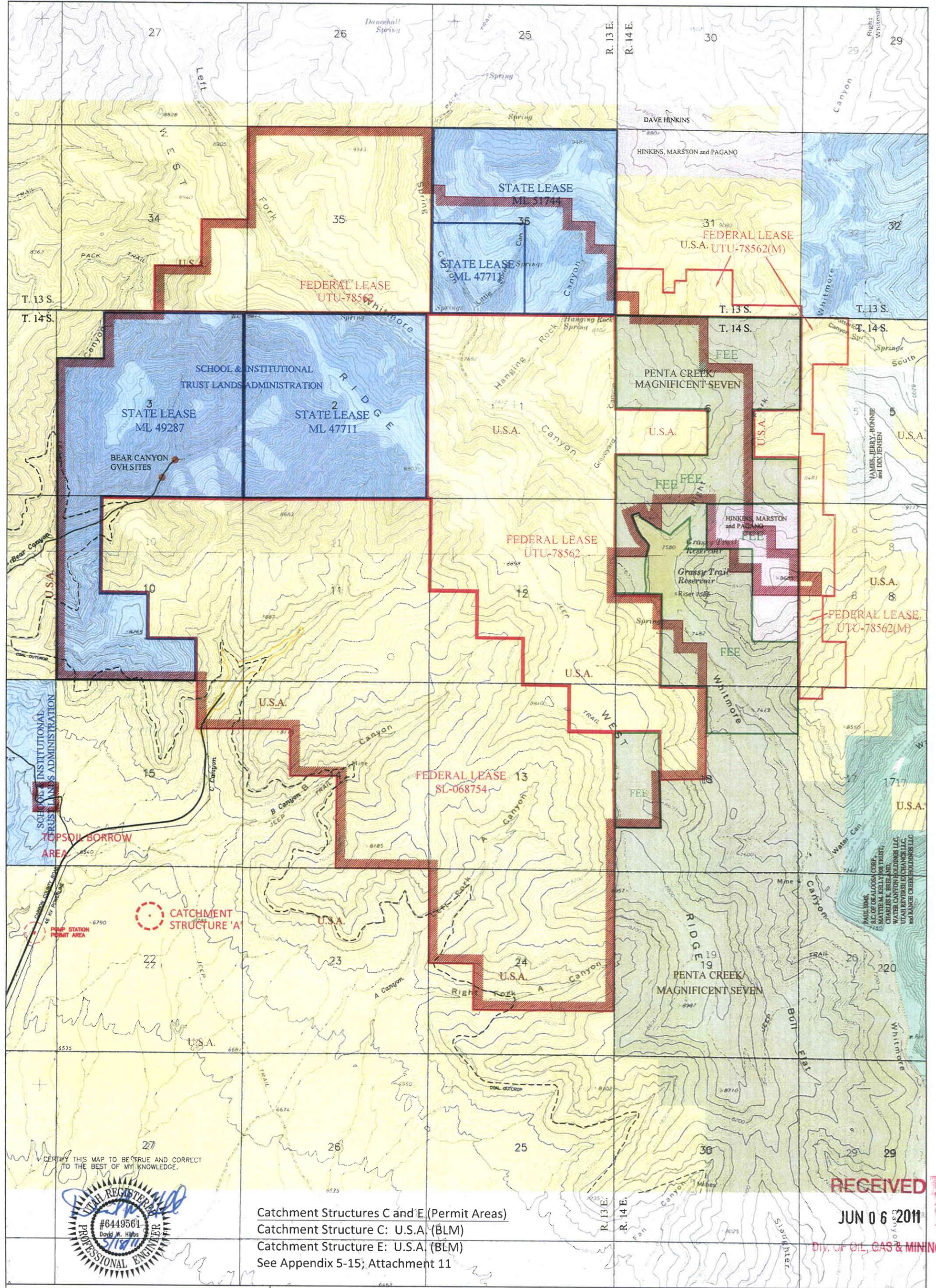
**LEGEND:**

Permit Boundary		School Trust Land (SITLA)	
Federal Lease		Penta Creek/Magnificent Seven	
State Lease		U.S.A. (BLM)	
Penta Creek Fee		Dave Hinkins, et al.	
Surface Facility Area		Glen L. Wells	
GVH Site		Matt Rauhala	
Outcrop		Milton & Ardith Thayn	
		East Carbon City	
		Utah Reverse Exchange	



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: U.S.A. (BLM)  
 Catchment Structure E: U.S.A. (BLM)  
 See Appendix 5-15; Attachment 11

**RECEIVED**  
**JUN 06 2011**  
 DIV. OF OIL, GAS & MINING



# WEST RIDGE MINE

## Map 5-3

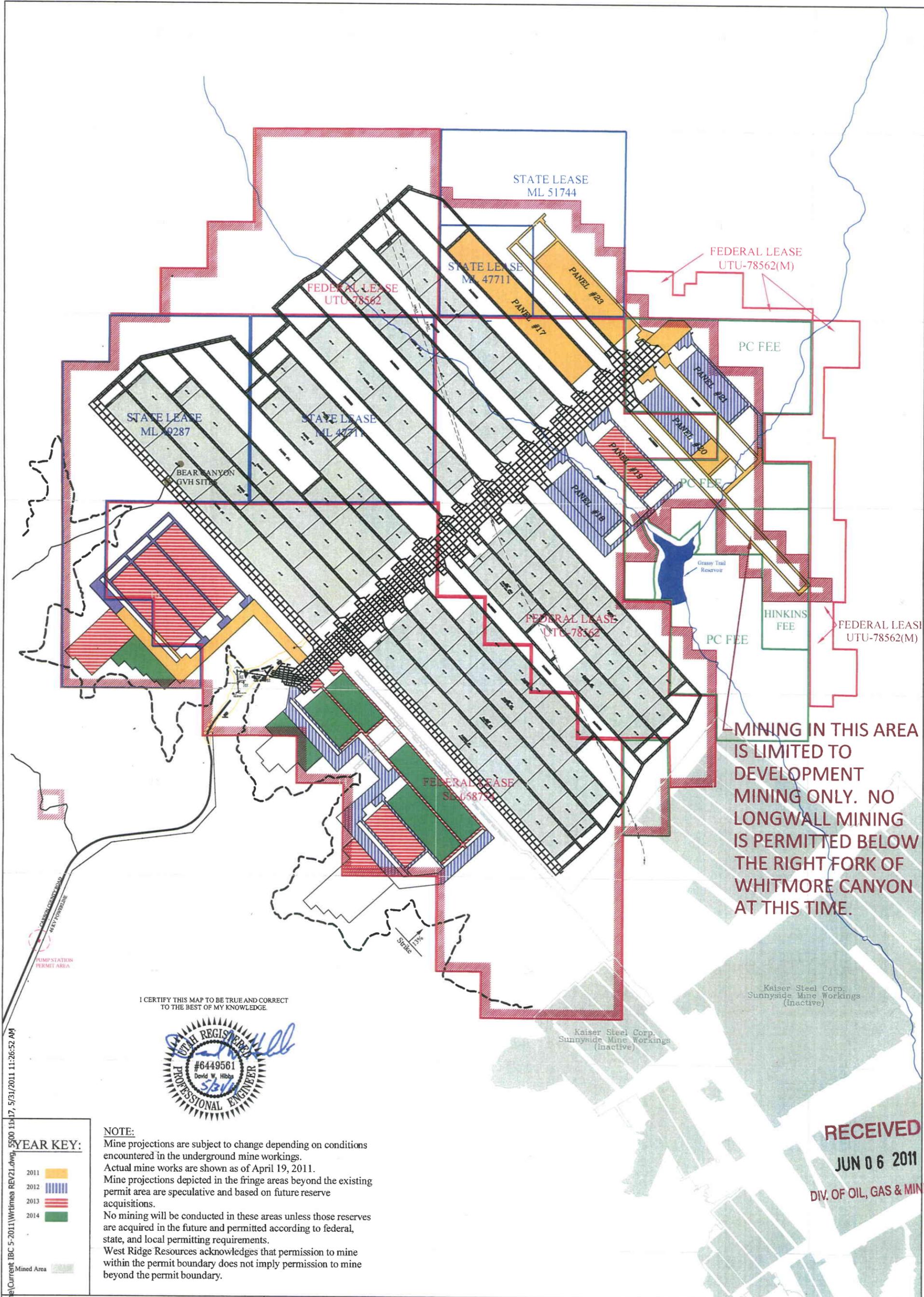
### Sub-surface Ownership Map

**LEGEND:**

Permit Boundary		School Trust Lands (SITLA)	
Federal Lease		Penta Creek/Magnificent Seven	
State Lease		U.S.A. (BLM)	
Penta Creek Fee		Dave Hinkins, et al.	
Surface Facility Area		East Carbon City	
GVH Site		James T. Jensen, et al.	
Outcrop		Paul Sims, et al.	

**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



**WEST RIDGE MINE**  
**Map 5-4A**  
**Mining Projections**

**LEGEND:**  
 Permit Boundary  
 Federal Lease  
 State Lease  
 Private Fee  
 Surface Facility Area  
 GVH Site  
 Outcrop

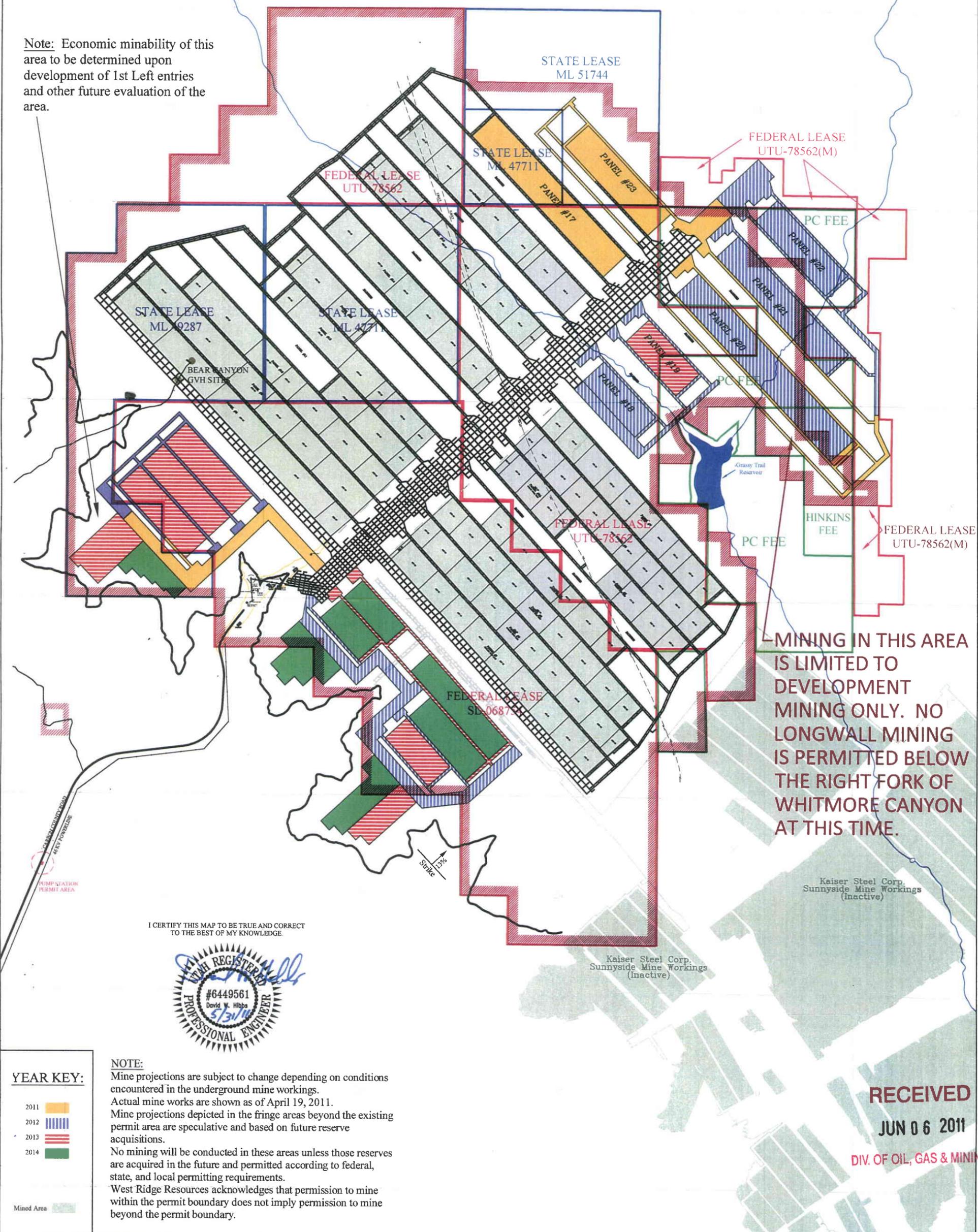


**WEST RIDGE**  
**RESOURCES, INC.**

SCALE: 1"=2500'

G:\Current Drawings\MRP Maps\West Ridge Mine\Current\IBC 5-2011\Wrtmea REV21.dwg, 5/31/2011 11:26:52 AM

Note: Economic minability of this area to be determined upon development of 1st Left entries and other future evaluation of the area.



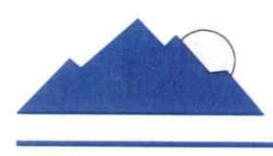
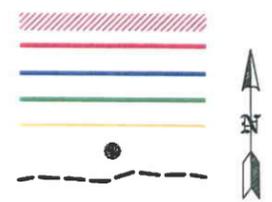
**YEAR KEY:**

- 2011
- 2012
- 2013
- 2014

**NOTE:**  
 Mine projections are subject to change depending on conditions encountered in the underground mine workings.  
 Actual mine works are shown as of April 19, 2011.  
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions.  
 No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.  
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.

**WEST RIDGE MINE**  
**Map 5-4B**  
**Mining Projections**  
**(Extended Reserves)**

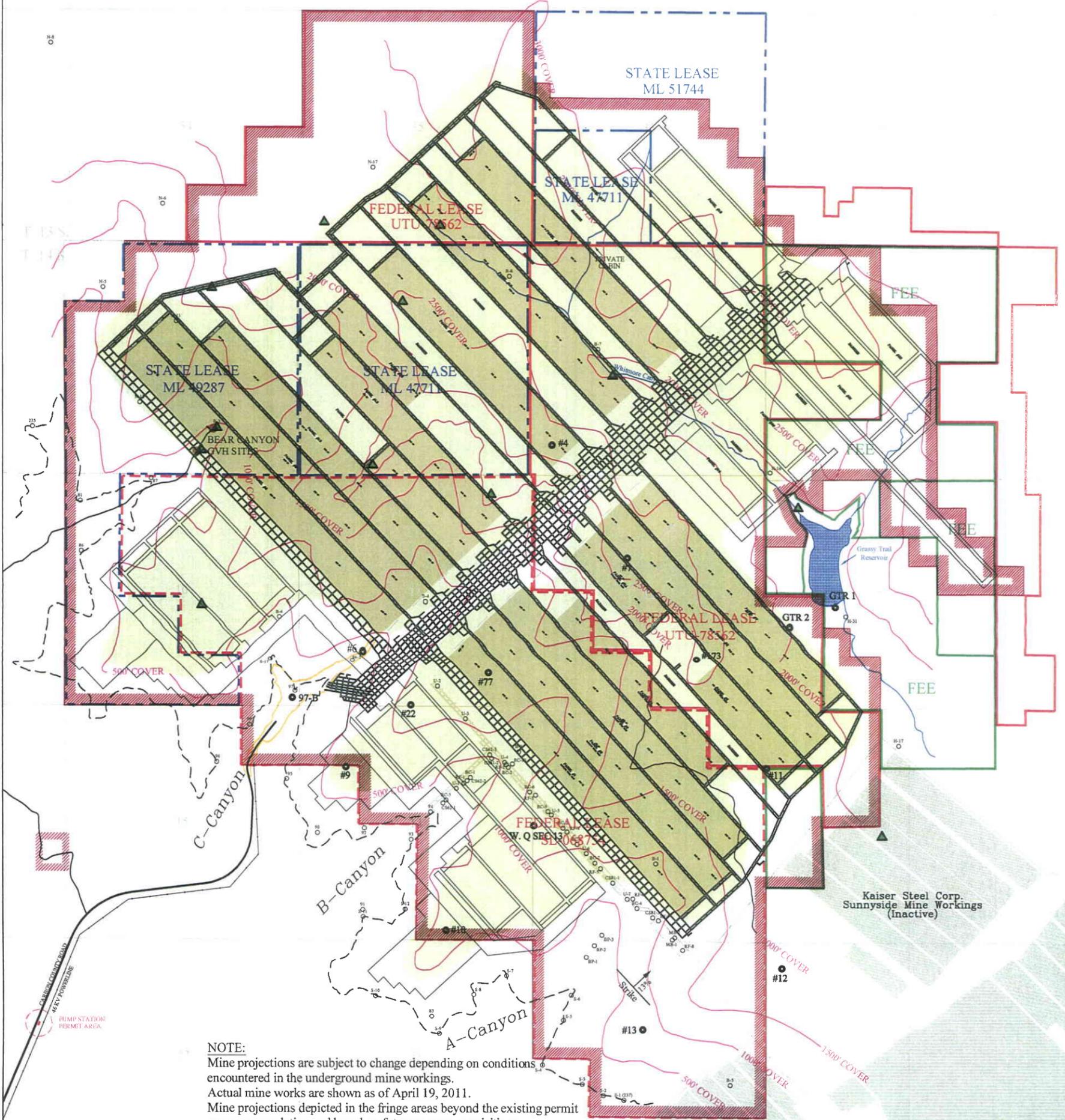
- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Private Fee
  - Surface Facility Area
  - GVH Site
  - Outcrop



**WEST RIDGE**  
**RESOURCES, INC.**

SCALE: 1"=2500'

**RECEIVED**  
**JUN 06 2011**  
 DIV. OF OIL, GAS & MINING



**NOTE:**  
 Mine projections are subject to change depending on conditions encountered in the underground mine workings.  
 Actual mine works are shown as of April 19, 2011.  
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions.  
 No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.  
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.  
 Longwall panels will be reconfigured as needed to prevent unauthorized subsidence beyond the permit area if extended reserves are not acquired in the future.  
 Additional control points will be added as mine advances.

CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



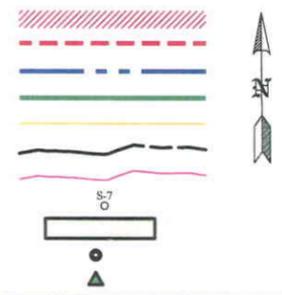
**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

# WEST RIDGE MINE

## Map 5-7

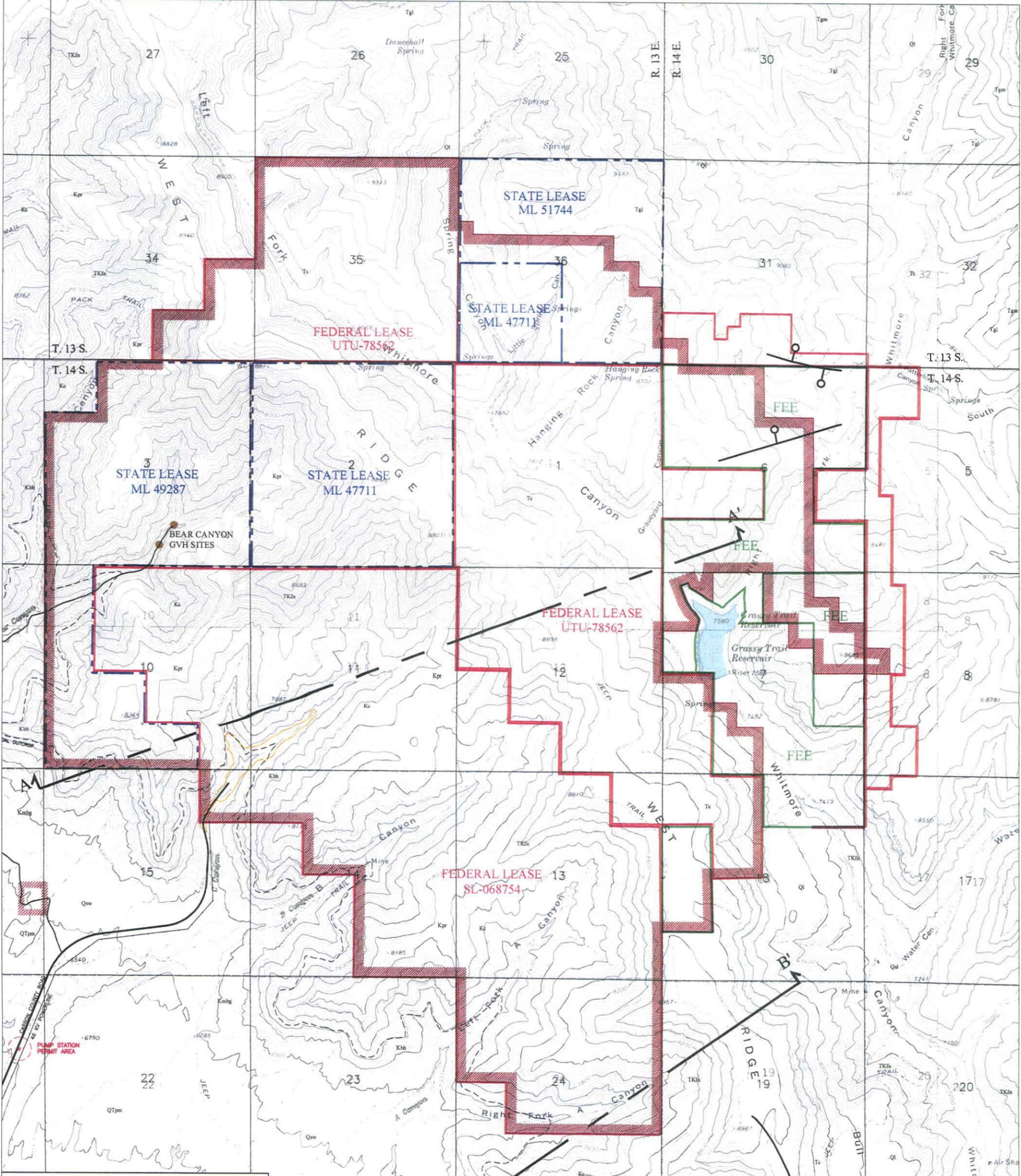
### Subsidence Map

- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Private Fee
  - Surface Facility Area
  - Outcrop
  - Cover
  - Drill Hole
  - Possible Subsidence Area
  - Existing Photogrammetric Control Points
  - Future Photogrammetric Control Points



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



**FORMATION LEGEND:**

Quaternary	Qul	Alluvium Undifferentiated	Tertiary and Cretaceous	TKfn	Flagstaff Limestone and North Horn Formation
	Ql	Landslide Deposits		Cretaceous	Kpr
	Qw	Slope-wash Deposits	Kc		Castlegate Sandstone
Pliocene to Miocene(?)	QTpm	Pediment Mantle	Kbh		Blackhawk Formation
	Tertiary	Tgm	Middle Member	Kmbg	Main Body of the Blue Gate Member
Tgl		Lower Member			
Tc		Colton Formation			

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED PROFESSIONAL ENGINEER  
#6449561  
David W. Hibbs  
5/18/11

Refer to Map 6-1A for cross-section.

**RECEIVED**  
JUN 08 2011  
DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
Map 6-1  
Regional Geology Map

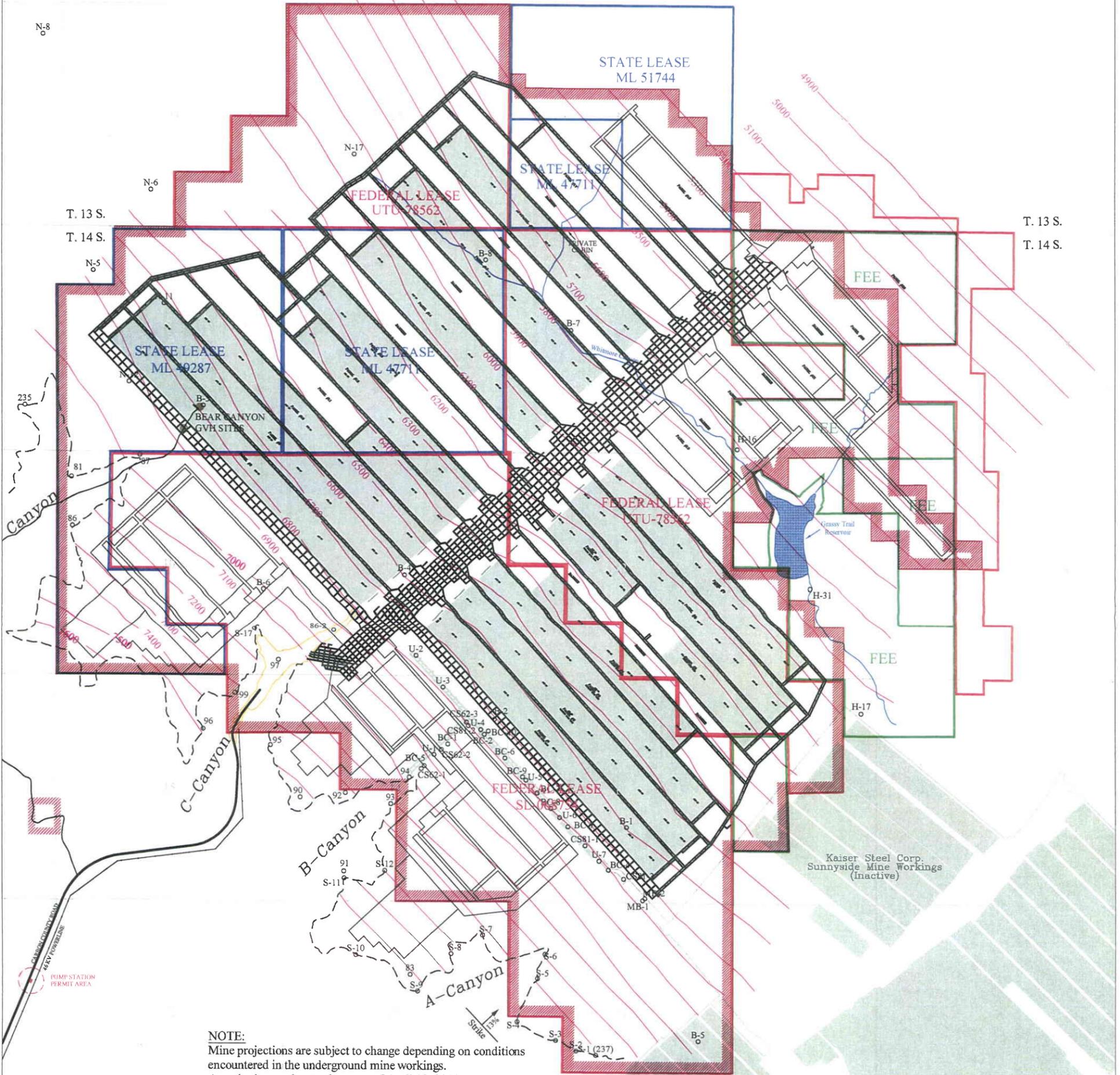
DATE: 5-18-11    REV: 19    ACAD REF: MAP6-1 GEOLOGY REV19

**LEGEND:**

	Permit Boundary
	Federal Lease
	State Lease
	Penta Creek Fee
	Surface Facility Area
	GVH Site
	Fault

**WEST RIDGE RESOURCES, INC.**

SCALE: 1"=2500'



**NOTE:**  
 Mine projections are subject to change depending on conditions encountered in the underground mine workings. Actual mine works are shown as of April 19, 2011. Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions. No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements. West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.

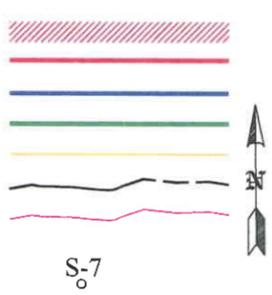
CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE



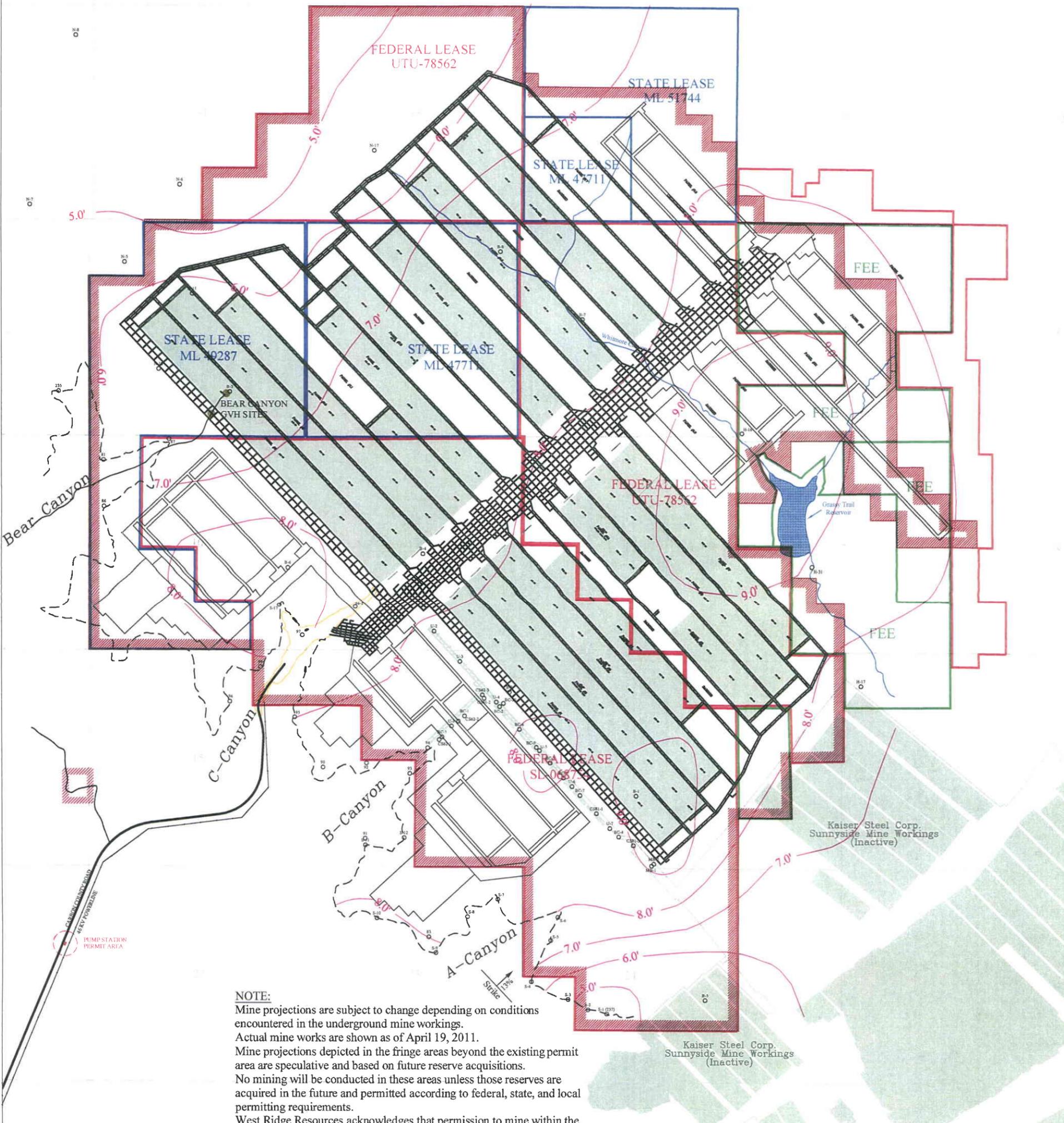
**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
**Map 6-2**  
**Coal Seam Structure Map**

- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Penta Creek Fee
  - Surface Facility Area
  - Outcrop
  - Structure Contour
  - (Base of Lower Sunnyside Seam)
  - Drill Hole/Channel Samples



SCALE: 1"=2500'



**NOTE:**  
 Mine projections are subject to change depending on conditions encountered in the underground mine workings.  
 Actual mine works are shown as of April 19, 2011.  
 Mine projections depicted in the fringe areas beyond the existing permit area are speculative and based on future reserve acquisitions.  
 No mining will be conducted in these areas unless those reserves are acquired in the future and permitted according to federal, state, and local permitting requirements.  
 West Ridge Resources acknowledges that permission to mine within the permit boundary does not imply permission to mine beyond the permit boundary.

CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

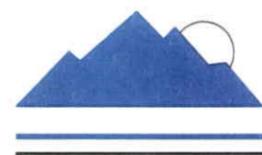
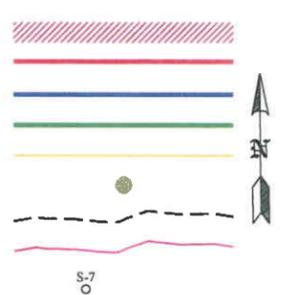


**RECEIVED**  
**JUN 06 2011**  
 DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
**Map 6-3**  
**Lower Sunnyside Coal Seam**  
**Isopach Map**

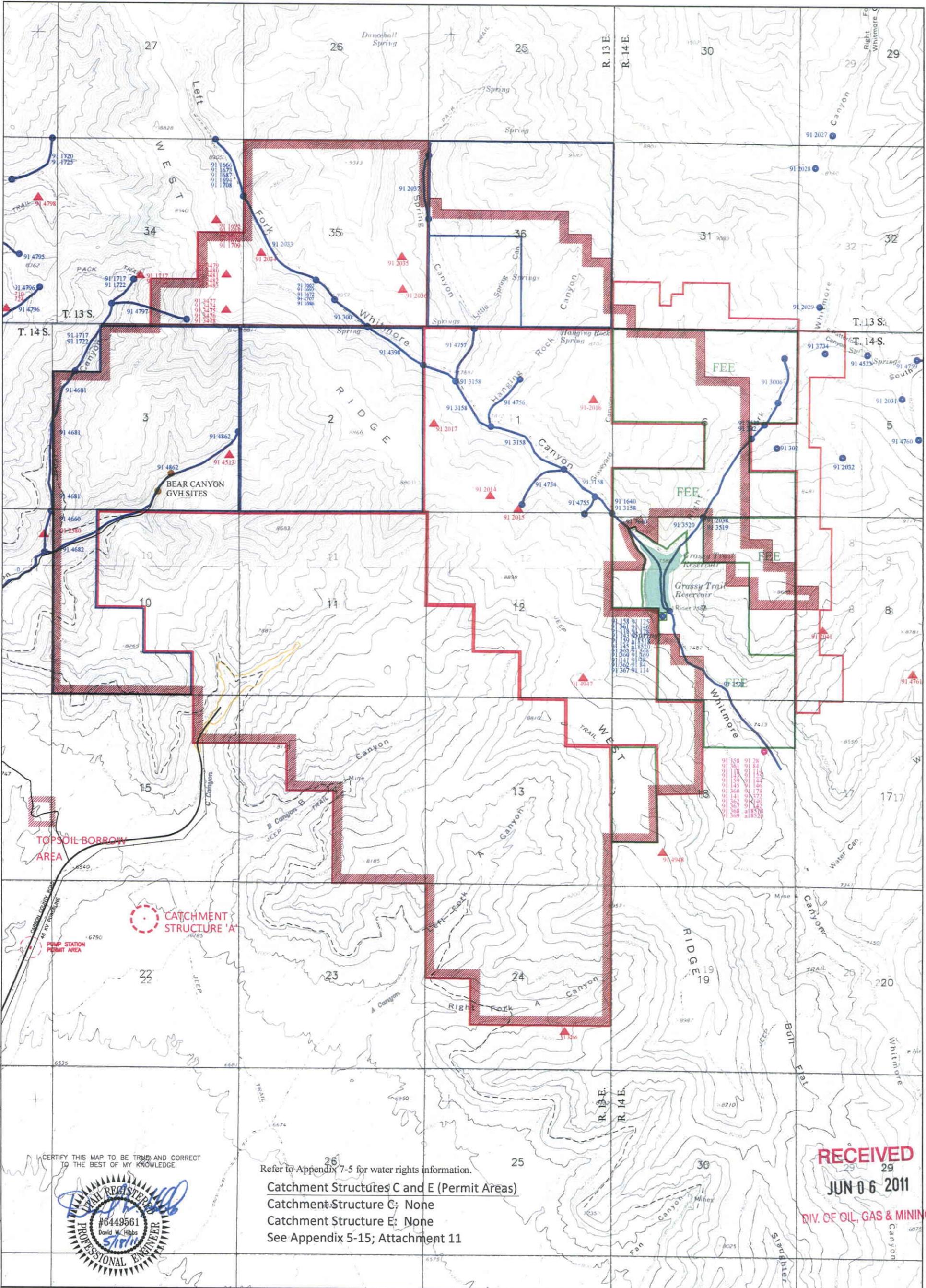
TE: 5-18-11 REV: 22 ACAD REF: MAP6-3 ISOPACH REV22

- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Penta Creek Fee
  - Surface Facility Area
  - GVH Site
  - Outcrop
  - Coal Isopachs
  - Drill Hole/Channel Samples



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



Refer to Appendix 7-5 for water rights information.

Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: None  
 Catchment Structure E: None  
 See Appendix 5-15; Attachment 11

**RECEIVED**  
 JUN 06 2011

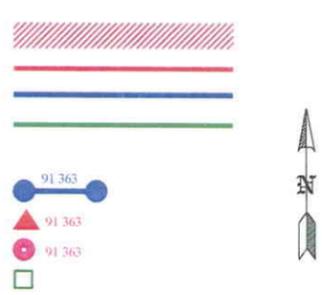
DIV. OF OIL, GAS & MINING

# WEST RIDGE MINE

## Map 7-3

### Water Rights

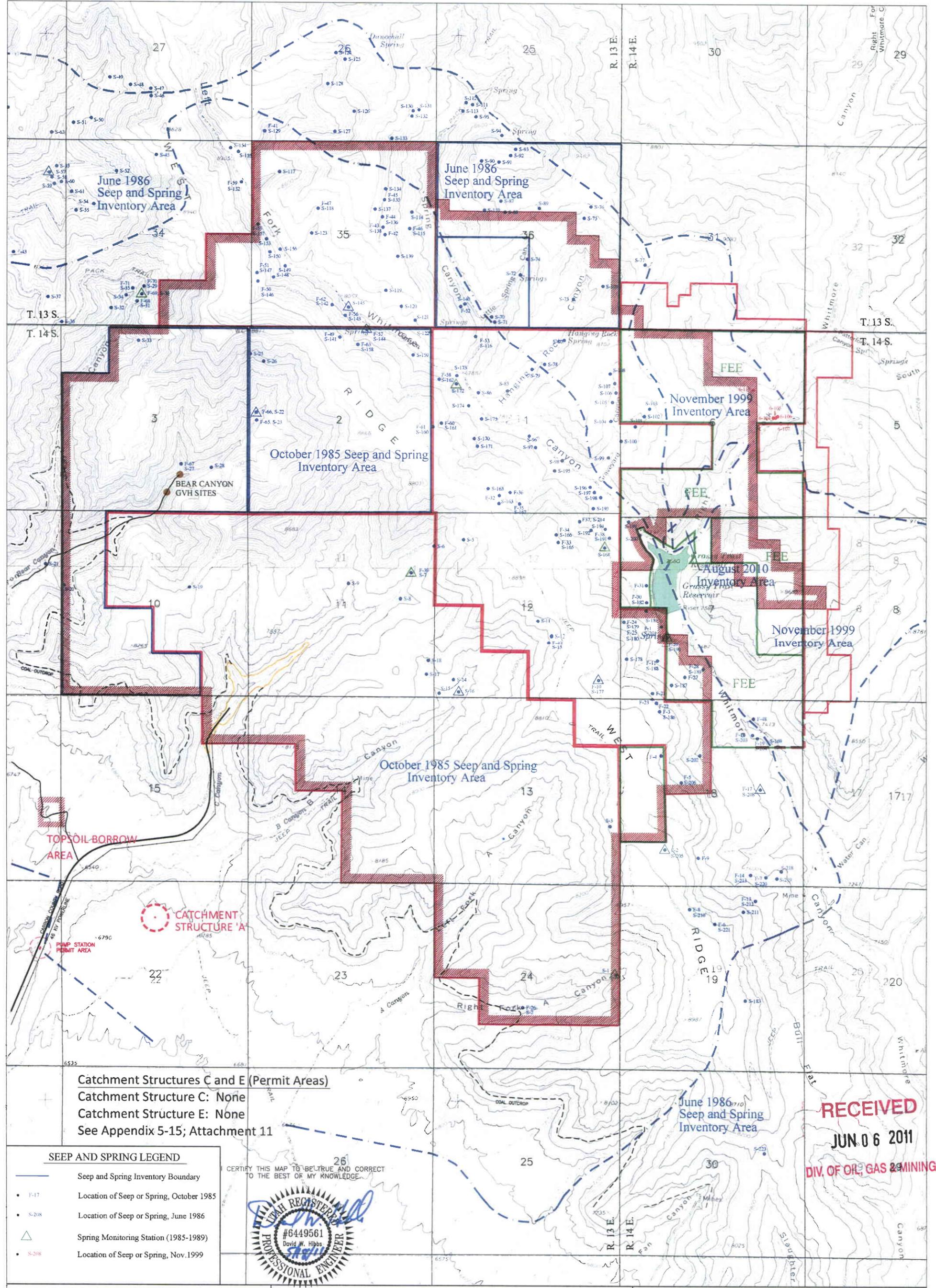
- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Penta Creek Fee
  - Surface Water Right:
    - Point to Point
    - Spring
  - Ground Water Right
  - Municipal Water System Intake



**WEST RIDGE**  
 RESOURCES, INC.



SCALE: 1"=2500'



Catchment Structures C and E (Permit Areas)  
 Catchment Structure C: None  
 Catchment Structure E: None  
 See Appendix 5-15; Attachment 11

**SEEP AND SPRING LEGEND**

	Seep and Spring Inventory Boundary
	Location of Seep or Spring, October 1985
	Location of Seep or Spring, June 1986
	Spring Monitoring Station (1985-1989)
	Location of Seep or Spring, Nov. 1999



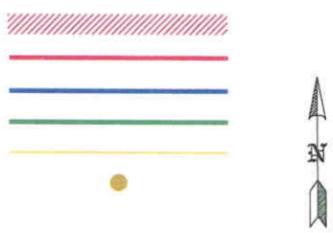
**RECEIVED**  
 JUN 06 2011  
 DIV. OF OIL, GAS & MINING

# WEST RIDGE MINE

## Map 7-5

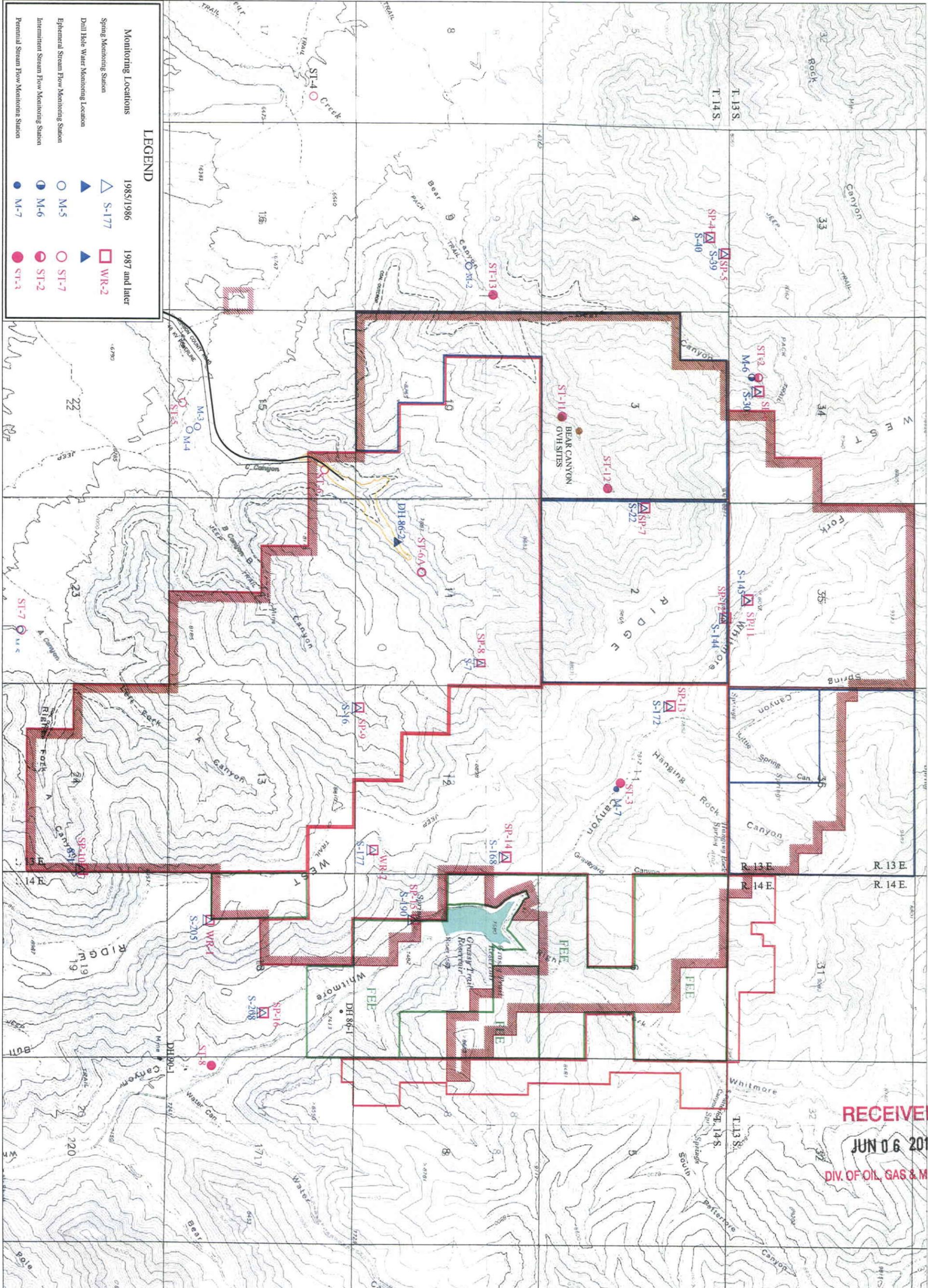
### Seep/Spring Survey Map

**LEGEND:**  
 Permit Boundary  
 Federal Lease  
 State Lease  
 Penta Creek Fee  
 Surface Facility Area  
 GVH Site



**WEST RIDGE**  
 RESOURCES, INC.

SCALE: 1"=2500'



LEGEND	
Monitoring Locations	1985/1986
Spring Monitoring Station	△ S-177
Drill Hole Water Monitoring Location	△ WR-2
Epithermal Stream Flow Monitoring Station	○ M-5
Intermittent Stream Flow Monitoring Station	○ M-6
Perennial Stream Flow Monitoring Station	○ M-7
	1987 and later
	△ S-177
	△ WR-2
	○ M-5
	○ M-6
	○ M-7
	○ ST-1
	○ ST-2
	○ ST-3

RECEIVED  
JUN 06 2011  
DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
Map 7-6  
Hydrologic Monitoring Map  
(Historical Monitoring Locations)

TE: 5-18-11    REV: 22    ACAD REF: MAP7-6 MONITOR-HIS REV22

**LEGEND:**

- Permit Boundary (Red hatched)
- Federal Lease (Blue hatched)
- State Lease (Green hatched)
- Penta Creek Fee (Yellow hatched)
- Surface Facility Area (Blue hatched)
- GVH Site (Brown hatched)

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

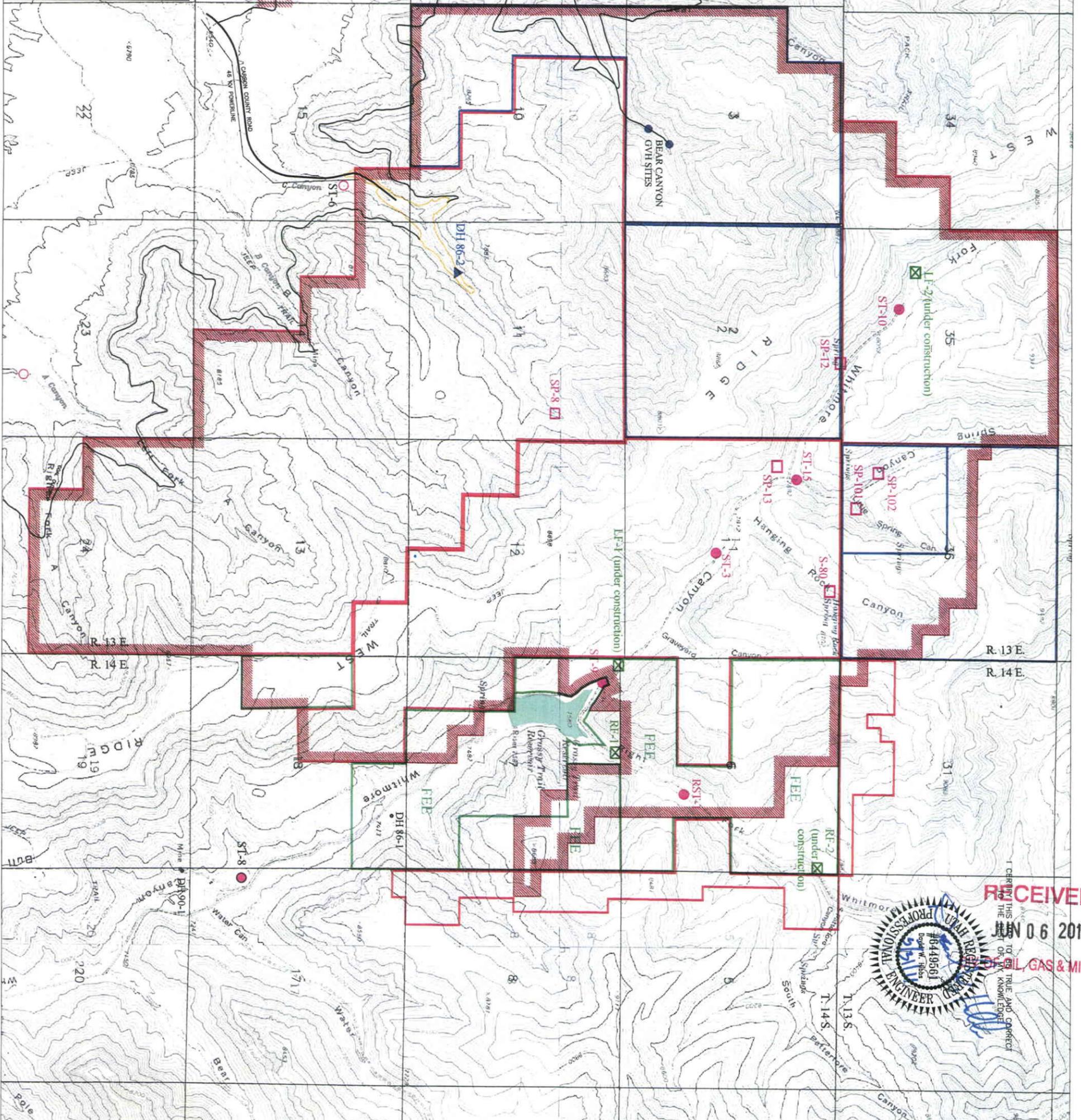
**WEST RIDGE RESOURCES, INC.**

SCALE: 1"=2500'

**LEGEND**

**Operational Monitoring Locations**

- Spring Monitoring Station □ WR-2
- Drill Hole Water Monitoring Location ▲ DH 86-2
- Ephemeral Stream Flow Monitoring Station ○ ST-5
- Intermittent Stream Flow Monitoring Station ● ST-8
- Plume Monitoring Station ⊠ RF-2



**RECEIVED**  
MAY 06 2011  
OIL, GAS & MINING

I CERTIFY THIS IS A TRUE AND CORRECT REPRESENTATION OF MY KNOWLEDGE

**WEST RIDGE MINE**  
**Map 7-7**  
**Operational Monitoring Locations**

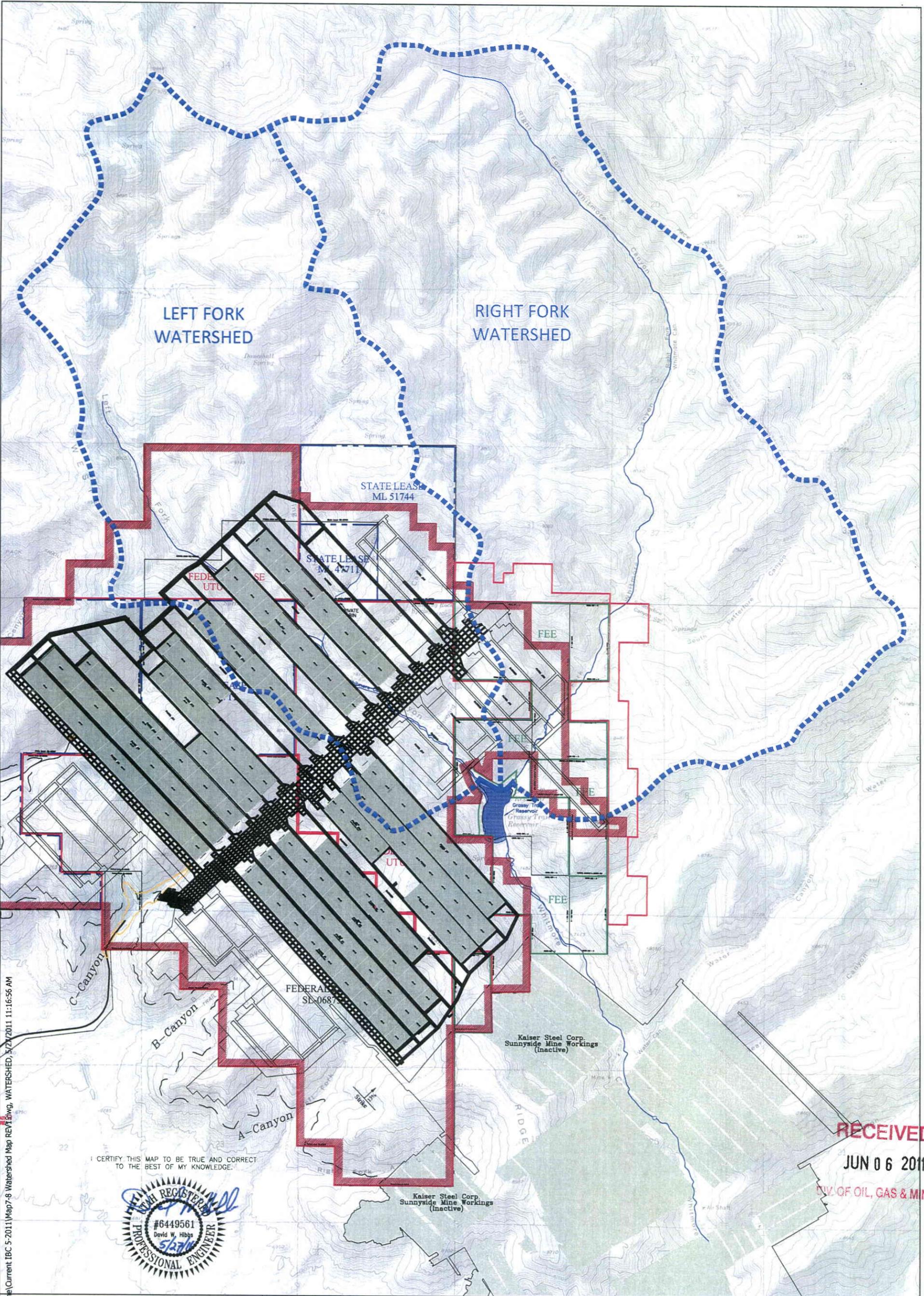
DATE: 5-18-11    REV: 23    ACAD REF: MAP7-7 MONITOR-OP REV23

**LEGEND:**

- Permit Boundary ▨
- Federal Lease —
- State Lease —
- Penta Creek Fee —
- Surface Facility Area —
- GVH Site ●

**WEST RIDGE**  
RESOURCES, INC.

SCALE: 1" = 2500'



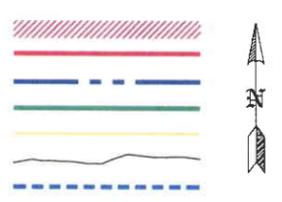
I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



RECEIVED  
JUN 06 2011  
DIV. OF OIL, GAS & MINING

**WEST RIDGE MINE**  
Map 7-8  
Whitmore Canyon  
Watershed Map

- LEGEND:**
- Permit Boundary
  - Federal Lease
  - State Lease
  - Private Fee
  - Surface Facility Area
  - Outcrop
  - Watershed Boundary



SCALE: 1"=3000'

I:\Current Drawings\MRP Maps\West Ridge Mine\Current IBC 5-2011\Map7-8 Watershed Map REV1.dwg, WATERSHED, 5/27/2011 11:16:56 AM