

MINING PERMIT APPLICATION PENNINGTON COUNTY, SOUTH DAKOTA

PC MEETING DATE/TIME: 11-14	-2018	Fee Paid:	2,500		
BOC MEETING DATE/TIME:		TAMES TO SURVEY OF THE			
PUBLIC HEARING NOTICES TO BE SEN	IT BY AND SIGN TO BE	POSTED BY: 10-12-	2018		· ·
PUBLIC HEARING NOTICES TO BE SEN	IT BT AND SIGN TO BE	TOSTED BT.			
I certify that all information con relation to this application is tra applicable Federal, State and loc and, I FURTHER UNDERSTAND GUARANTEE APPROVAL OF THE F	ue and accurate to al laws and regulat THAT SUBMITTAL (the best of my knowled ions in compliance with	dge; I certify ti the use for whi	hat I will o ich this pei	comply with all mit is intended
	BM.	- Alan Cood	Inc. 9-5	18	
CIRCLE ONE OR MORE	SIGNATURE	(Gr) cross	DATE		
Property Address:	Ropid City	Permit Limit Size (acres):	Zoning: GENE	RAL	ure (MM) 10-11-
13842 South Huy IL	Z D	1630	-muited	Haricult	ure 10-11-
Legal Description: 51/2 NE114;	IE14 NW14; Port	ion lying n of Hwy	16 Section	7 TIS	R7E
51/2 NW14 lying west o					
1		section 10 TIS	RTE		
SURROUNDING ZONING: NORTH	Aq sou	th A 5 east	A ₅	WEST	20
PHYSICAL CHARACTERISTICS: evi				ne / Po	wer
Applicant Name:		Operator Name:			
Croell Inc.		Croell Inc.			
Applicant Address: PO Box 1352	Phone:	Address:	_	Phone:	
Sundance WY 82729	307 283 2221	PO Box 135	2		3 2221
Property Owner Name:		City: Sundance		State:	Zip: 5-2729
Croell Inc.	Phone:	Email:			10.101
Address: PO Box 430 Aew Hompton IA 50459	Kyle. Frisinger & croell. com				
City: State:	41 394 6789 Zip:	Mine License #:			
New Hampton IA	50659	96-604 s	ite 60401	O	
Email:		SD DENR Permit #(s):			
Kyle. frisinger @ croel	1. com.	SDROOB591	Sturmwate	r . ·	
		50605A320	Air Qual	i ja	

50605A319

Air Qualit

Additional Property Information Required				
Section Line(s) on Property? NO YES X Is one or mor	re Vacated or Relocated?	NO _	X	*YES
*If yes, enter Document Number or date of hearing: \	2 8/1/17			
Is the property platted? NO X *YES *If yes, the most co	urrent plat # is:			
İs the Permit Limit within National Forest Service lands? NO 🗴	YES			
DESCRIPTION OF MINING OPERATION:				
Soil disturbing activities will include: logging,				
controls, grading, execution necessary for mining,	utilities, construction	of roads,	and	2 preparet
for final seeding, mulering, and landscaping.				•
mining Activities will include: drilling & blasting	is execution, hauling,	arushing	and	lor washi
aggregates, stockpiling, loading and Hawling finish		stomer.		
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REDACTED PER SDCL §1-27-	1.5			····
KEDACTED TER SDCD 31-27	1.0			
The following documents are required for submittal of this Applic	ation:			
(Check) Required Documentation:				
(Check) Required Documentation: Agency Comments (as they pertain to SD Mine Licer	nca)			
Complete Site Plan (see attached list of requirements)				
Complete Operation Plan (see attached list of requirement				
Complete Operation Flair (see attached list of requir	rementaj			
hereby acknowledge review of and compliance with the provision	ns in § 320 of the Penningto	n County 2	Zoninę	g Ordinance
and I understand that I am responsible for payment of any require	ed fees and penalties any vio	olation ass	ociat	ed with this
application request. I also acknowledge that I am authorizing t		aff and de	esigne	ees to enter
onto and inspect the property associated with this application req	uest.			
0.00				
BM. 7 6M Croell Inc 9	1/5/18			
Signature of Property Owner/Applicant/Agent Date				
	· cth · · colon	01001		155
Subscribed and sworn to before me at Rapid City, South Dakota th	his 3 day of 36401	1000	_, 20_	10.
	<u> </u>			 1
Notary Public: Kisby Haxles		•		
Notary Labric. 1 11. Sept. 1 Sec. 1				
	KIRBY L. HARLESS - NO	TARY PUBLIC	7	
My Commission Expires: DCCOOC Q5, 2019		STATE OF	{	
	COUNTY OF CROOK	WYOMING	{	
	My Commission Expires O	ictober 28, 2019	1	
	Sacrana Comment	₩₩₩₩₩₩₩	-	1

NOTARY SEAL

MINING PERMIT APPLICATION PENNINGTON COUNTY, SOUTH DAKOTA

M	Meeting Date/Time:	Fee Paid:
	ADDITIONALL COOL TOO	DAYTIME PHONE: 307 2F3 2221
	MAILING ADDRESS: Po Box 1352	SUMMARCE WY 82127
	AUTHORIZED AGENT: Croell Inc.	DAYTIME PHONE: 307 283 2221
	MAILING ADDRESS: PO Box 1352	-
	MAIDING ADDICEDS. 100 DOX 1000	Julistance Co. 1 12 27
	PROPERTY OWNER: CIVEL Inc.	DAYTIME PHONE: 641 394 6789
	MAILING ADDRESS: Po Box 430	New Hampton IA 50659
	· · · · · · · · · · · · · · · · · · ·	7700 1100-9-0-0
	DESCRIPTION OF MINING ACTIVITY TO BE DE	RFORMED:
	\sim \sim \sim \sim \sim \sim \sim \sim \sim	
	See MATAGINIEM 1.	
	anogg A annual a	
		DIMENSIONS: <u>0.75 mile x 0.40 mile</u>
	CUBIC YARDS OF MATERIAL TO BE EXCAVATI	ED: will vary depending on mining area
•	CUBIC YARDS OF MATERIAL TO BE EXCAVATION: SYZ NE 1/4; SE 1/4 Y	BD: will vary depending on mining area Iw'y; Portion lying n of Hwy 16 Section
•	CUBIC YARDS OF MATERIAL TO BE EXCAVATE LEGAL DESCRIPTION: 5/2 NE'14; SE 1/4 n 5/2 NW'14) ying west of Hwy 16. Porhum	ED: will vary depending on mining area wy 1; Portion lying N of Hwy 16 Section of Sw/4 14ths N; W of Hwy 16 Section
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	CUBIC YARDS OF MATERIAL TO BE EXCAVATE LEGAL DESCRIPTION: S'z nE'/4; SE 1/4 m S'/2 NW'/4) ying west of Hwy 16. Poshor SITE ADDRESS: 13842 S. Hwy 16 LANDMARK LOCATION: NORTH Ag SOU PHYSICAL CHARACTERISTICS: Existing rod I hereby agree to do the proposed work as described in Ordinance #34 Revised Pennington County Zoning of designees to enter onto and inspect the above-described Signature of Property Owner Subscribed and sworn to before me at Rapid City. South	ED: will vary depending on mining area 1 w'y; Portion lying N of Hwy 16 Section 1 of Sw/4 lying N; W of Hwy 16 Section TIS RIE Pennington TH Aq EAST Aq WEST Co k quarty UTILITIES: Phone / Power this application and in accordance with Pennington County Ordinance. I authorize the Pennington County staff and property. 9/4/18 Date

Mining Permit Application

Pennington County, South Dakota

Attachment 1.

Description of Work:

Croell Redi Mix is planning on operating the active Perli Quarry as a rock quarry for the Rapid City and surrounding area. Soil disturbing activities will include: logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.

Estimated Project Start: September 2018

Estimated Project End: January 2043

CONSTRUCTION PERMIT APPLICATION OCT 0 2 2016 PENNINGTON COUNTY, SOUTH DAKOTA BY: CAFE

1.	Applicant: Croell Inc. Daytime Phone: 307 283 2221
	Mailing Address: PO Box 1352 Sundance WY \$2729
	(Street or P.O. Box) (City, State, Zip)
	Landowner: Croell Inc. Daytime Phone: 307 283 2221
	Mailing Address: PO Box 1352 Sundance WY F2729
	Contractor: Croell Inc. Daytime Phone: 307 ZF3 ZZZI
	Mailing Address: PO Box 1352 Sundance WY 82729
2.	Legal Description: See Attachment 2, Section 1.d.
	Location of Project: 13542 South Hwy 16 Rapid City SD
	Description of Work: (use separate sheet of paper to describe work)
	Quantity of Disturbance: Excavation and/or Grading: Length Width Depth = TOTAL: sqft
	Stockpile: Length Width Height Number of Stockpiles = TOTAL: sqft
	Anna ta ba Jinturkad burunun ada ur la hari da
	Area to be disturbed by proposed work: 124 acres
	Will the proposed work be located in Floodplain? If yes, has a Floodplain Development Permit been issued? Yes No
	Site Plan and/or SWPPP Prepared by: Kyle Frisinger Air Quality Permit # (if applicable)
	Identify types of Erosion Control to be applied: See Attachment 2, Section 9.a.
	Person responsible for Erosion Control Implementation and Maintenance: AHochmet 2, Section 3
	Identify Stabilization Practices: Attachment 2, Section 9.a.
	A General Permit for Storm Water Discharge from the South Dakota DENR may be required if the work under this application or the overall plan of development will result in the disturbance of over 1 acre of land.
	Storm Water Permit application attached: Yes No No N/A
	I hereby agree to do the proposed work as described in this application and in accordance with the Pennington County Zoning Ordinance. I authorize the Pennington County staff and designees to enter onto and inspect the above-described property. I understand this permit is void one (1) year from issue date.
	10/2/18
	Signature of Landowner Date
	Subscribed and sworn to before me at Rapid City, South Dakota, this
	Signature of Landowner Subscribed and sworn to before me at Rapid City, South Dakota, this 2 day of October, 2018. Notary Public: Yill December 2018. My Commission Expires: October 26 20 f
	This permit will expire on:
	Approved (Staff Authorized Signature)
	KIRBY L. HARLESS - NOTARY PUBLIC **The Planning Department must be notified upon start of work and completion of work for inspectional process.

My Commission Expires October 28, 2019

AGENDA PENNINGTON COUNTY PLANNING COMMISSION May 8, 2019 @ 3:00 p.m.

County Commissioners' Meeting Room - Pennington County Administration Building

The Planning Commission requests public comment(s), if possible, be submitted in writing to the Commission Office prior to the hearing to provide opportunity for meaningful consideration. Please email public comment(s) to pcboc@pennco.org or deliver to the Commission Office.

- 1. ROLL CALL
- 2. <u>APPROVAL OF THE AGENDA</u>
- 3. <u>INTRODUCTION AND STAFF PRESENTATION(S)</u>
- 4. PUBLIC COMMENT PERIOD

There will be a single public comment period to address all agenda items. Public comment(s) will be limited to a total of three minutes per person. (To be clear, each individual is limited to a total of three minutes to address **ALL** agenda items - not three minutes for each agenda item for a total of nine minutes.)

- 5. MINING PERMIT / MP 18-02 UNDER PCZO §§ 205(C)(31) and 320 effective on or about March 28, 2018: Croell, Inc. To continue the operation of the active Perli pit as a rock quarry. Planning Commission to make a recommendation to the Board of Commissioners.
- 6. <u>CONSTRUCTION PERMIT / CP 18-11 UNDER PCZO § 205(B)(17) effective April 26, 2017 and § 507(A) effective September 25, 2013</u>: Croell, Inc. To continue the operation of the active Perli pit as a rock quarry. Planning Director to make a decision on the Construction Permit.
- 7. MINING PERMIT / MP 18-03 UNDER PCZO § 507(B) effective May 1, 2001: Croell, Inc. To continue the operation of the active Perli pit as a rock quarry. Planning Commission to make a decision on the Mining Permit.
- 8. ADJOURNMENT

ADA Compliance: Pennington County fully subscribes to the provisions of the Americans with Disabilities Act. If you desire to attend this public meeting and are in need of special accommodations, please notify the Commission Office so that appropriate auxiliary aids and services are available.

AGENDA ITEM #5

MINING PERMIT / MP 18-02 UNDER PCZO §§ 205(C)(31) and 320

effective on or about March 28, 2018:

Croell, Inc. To continue the operation of the active Perli pit as a rock quarry.

Planning Commission to make a recommendation to the Board of Commissioners.

STAFF REPORT

GENERAL INFORMATION:

REQUEST: MINING PERMIT / MP 18-02: To continue the

operation of the active Perli pit as a rock quarry for the Rapid City and surrounding area in accordance with Pennington County Zoning Ordinance ("PCZO") §§ 205 and 320 in effect on or about

March 28, 2018.

APPLICANT: Croell, Inc.

APPLICANT ADDRESS: P.O. Box 1352, Sundance, WY 82709

P.O. Box 430, New Hampton, IA 50659

LEGAL DESCRIPTION: S1/2NE1/4; SE1/4NW1/4; That PT of NE1/4SW1/4

lying N of Hwy 16; That PT of SE1/4 lying N of Hwy 16 Including Abandoned Lot H1 of SE1/4, Section 9, T1S, R7E; and That PT of S1/2NW1/4 lying W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4NW1/4; That PT of SW1/4 lying N and W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4, Section 10, T1S, R7E, BHM, Pennington County, South

Dakota.

SITE LOCATION: 13840 S. Highway 16; approximately 0.4 mile from

the intersection of S. Highway 16 and Neck Yoke

Road.

TAX ID: 53734 / 53736

SIZE: 267.86 acres

EXISTING LAND USE: Gravel Mining

ZONING REFERENCE: PCZO §§ 205 and 320

CURRENT ZONING: General Agriculture District

Highway Service District

SURROUNDING ZONING:

North General Agriculture District

South General Agriculture District
East General Agriculture District
West General Agriculture District
Highway Service District

PHYSICAL CHARACTERISTICS: Forested / Hills

UTILITIES: None

REPORT BY: Brittney Molitor

I. PROPOSED RECOMMENDATION

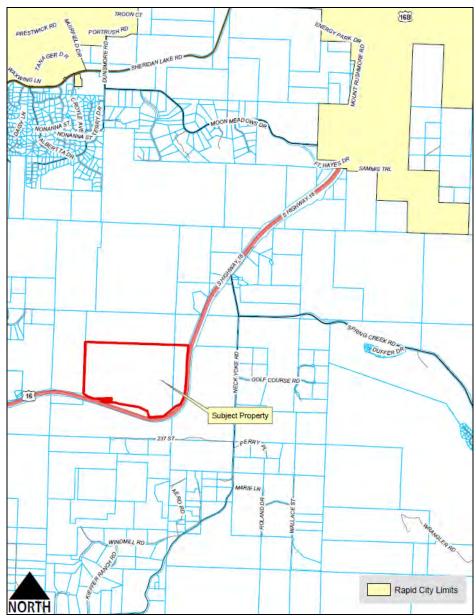
A. Staff will be recommending approval of Mining Permit / MP 18-02 under PCZO §§ 205(C)(31) and 320 effective on or about March 28, 2018.

II. GENERAL DESCRIPTION

- A. To operate the active Perli Quarry as a rock quarry for the Rapid City and surrounding area.
 - 1. Soil disturbing activities will include logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping.
 - 2. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.
 - 3. Applicant stated that the estimated dates of operation are September 2018 to January 2043.

III. EXISTING CONDITIONS

- A. S1/2NE1/4; SE1/4NW1/4; THAT PT OF NE1/4SW1/4 LYING N OF HWY 16; THAT PT OF SE1/4 LYING N OF HWY 16 INCLUDING ABANDONED LOT H1 OF SE1/4 in Section 9.
 - 1. Is 241.32 acres.
 - a. General Agriculture District ~ 208.89 acres.
 - b. Highway Service District ~ 32.43 acres.
- B. THAT PT OF \$1/2NW1/4 LYING W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4NW1/4; THAT PT OF \$W1/4 LYING N AND W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4 in Section 10.
 - 1. Is 26.54 acres.
 - a. General Agriculture District.



Location of Mining / Construction Permit Request

IV. PROPERTY HISTORY

- A. 1966 Materials testing, haul and pit layouts of Perli Pit for a South Dakota Department of Transportation Project.
- B. 1973 Record of first Subdivision platted (Phase 1 of Cochran Addition) within one mile of existing mining operation.
- C. 1982 South Dakota Department of Environment and Natural Resources (SDDENR) began issuing Mine Licenses.
- D. 1982-1993 South Dakota Department of Transportation (SDDOT) mined sand and gravel at the Perli Pit.
- E. 1983-2011 Pennington County Highway Department mined sand and gravel at the Perli Pit.
- F. 1986-1999 C.R. Schultz Construction Company mined sand and gravel at the Perli Pit.
- G. 1993-1999 Aggregate Construction, Inc. mined sand and gravel at the Perli Pit.
- H. 1999-2005 Quinn Construction, Inc. mined sand and gravel at the Perli Pit.
- I. 2000 Conditional Use Permit / CU 00-36 issued to Border States Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- J. 2002-2006 Pete Lien and Sons, Inc. mined limestone at the Perli Pit. (Mine License indicates an end date of 2148)
- K. 2009-2016 Talley Construction mined sand and gravel at the Perli Pit. (Mine License indicates an end date of 2020)
- L. 2013 Conditional Use Permit / CU 13-06 issued to Bituminous Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- M. 2015 Croell Redi-Mix, Inc. submitted a request for a Construction Permit / CP 15-17 to continue mining at the Perli Pit.
- N. 2016 Construction Permit / CP 15-17 was denied by the Board of Commissioners.
- O. 2017 Vacation of Section Line Right-of-Way between Sections 9 and 10 approved by the Board of Commissioners.

V. AERIAL PHOTOGRAPHY OF SITE (1998 – 2018)



Perli Pit 1998



Perli Pit 2002



Perli Pit 2003



Perli Pit 2008



Perli Pit 2009



Perli Pit 2011



Perli Pit 2013



Perli Pit 2016



Perli Pit 2017



Perli Pit 2018

VI. REQUEST FOR COMMENT

- A. County Highway Department
 - 1. Highway Department has no comments since the subject property abuts a State Highway and drainage issues are addressed in the permit documents.
- B. County Environmental Planning Supervisor
 - 1. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit for Storm Water Discharges Associated with Industrial Activities be continually met.
 - 2. That the applicant continually maintains and adheres to the Storm Water Pollution Prevention Plan.
 - 3. That erosion control measures, such as seeding and mulching the disturbed area, shall be implemented immediately after the work is completed in the area, but in no case later than 14 days after the Mining Activity has stopped. All erosion control methods (mulch and seed) need to be certified noxious weed-free.
 - 4. That the requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed.
 - 5. There is no Special Flood Hazard Area on the subject property.
 - 6. The site shall be re-vegetated as outlined in the Reclamation Plan.
 - a. Staff Comment: Staff will address as Conditions of Approval.
- C. County Environmental Planner
 - 1. The applicant must provide self-contained toilets on-site: one (1) unit per 50 employees. The self-contained toilets must meet all State and County regulations, including setbacks. The method and schedule of disposal of the solid waste must be provided to the Planning Department in writing and be in compliance with State and local rules and regulations.
 - a. Staff Comment: Staff will address as Condition of Approval.
- D. County Natural Resources Director
 - 1. See Noxious Weed Management Plan.
 - a. Staff Comment: Previously signed by applicant.
- E. County 9-1-1
 - 1. No 911 related concerns.
- F. County Ordinance Enforcement
 - 1. Ordinance Enforcement has no objection.
- G. County Fire Administrator
 - 1. At a minimum, additional turning lanes need to be installed along with other modern day traffic safety devices according to South Dakota Department of Transportation and Manual of Uniform

- Traffic Devices specifications at that intersection to mitigate traffic issues.
- 2. Follow recommendations of the South Dakota Department of Transportation (SDDOT), Transportation Impact Study ("TIS").
- 3. The amount of water used at this mining location will be of concern. The Rockerville Volunteer Fire Department has drilled a well west of this location at Station One. This includes the installation of a large water storage unit to be used for fire suppression in the Rockerville Volunteer Fire Department Protection District. If the water tables were to drop due to a large amount of water being used at the Perli Pit, this new water system for fire suppression could be interrupted.
- 4. Applicable Mine Safety and Health Administration rules and regulations should be followed and enforced.
- 5. Site safety, emergency response plans, to include on site emergency response teams, should be shared with the Rockerville Volunteer Fire Department and the Rapid City Fire Department. This is to include all applicable Local Emergency Planning Commission Data, Material Safety Data Sheets, et-al.
- 6. Emergency Contact Information is to be kept updated with the Pennington County Emergency Services Communications Center.
 - a. Staff Comment: Staff will address the Emergency Response Plan, safety requirements, and emergency information as Conditions of Approval.
- H. South Dakota Department of Transportation
 - 1. SDDOT will continue to work with Croell, Inc. to mitigate sight distance as identified in the TIS upon approval of Mining Permit.
 - 2. If the traffic characteristics of an access to a state highway changes, SDDOT requires the landowner to contact the department, or SDDOT will contact the landowner to determine if a new access permit and mitigations to the existing access are required to maintain appropriate highway safety,
 - http://sdlegislature.gov/rules/DisplayRule.aspx?Rule=70:09:03:03
 - 3. ARSD 70:09:03:03. Permittee to notify the department of changes in traffic characteristics. The permittee shall contact the department to determine if a new access permit and modifications to the access are required if: (1) The land use served by the access changes (2) The traffic volume using the access increases by at least 25%; or (3) The truck percentage of total vehicular volume using the access increases by at least 10%.
 - 4. The department may, without receiving notice from the permittee, initiate such a review and determination, with notice to the permittee.

- a. Staff Comments: A copy of the TIS's Conclusions and Recommendations is attached to this Staff Report.
- I. Rapid City Community Planning and Development
 - 1. The City's Future Land Use Plan identifies the appropriate use of the property as "Agriculture". U.S. Highway 16 is identified as a principal arterial street on the City's Major Street Plan. Any use of the property must be designed to ensure that it does not impact U.S. Highway 16 functioning as a principal arterial street.

VII. MINING PERMIT / MP 18-02 REQUIREMENTS UNDER § 320 (Section 320 effective on or about March 28, 2018)

- A. NOTICE OF PLANNING COMMISSION HEARINGS (ORIGINAL)
 - 1. Rapid City Journal October 19, 2018, October 26, 2018, November 2, 2018.
 - 2. Pennington County Courant October 18, 2018, November 1, 2018.
 - a. The Pennington County Courant failed to advertise the Notice of Hearing for the October 25, 2018 publication date.
 - b. Due to their failure to publish Staff's request for legal advertisement, the Notices were re-advertised for a new Planning Commission meeting date.
 - 3. Hill City Prevailer October 17, 2018, October 24, 2018, October 31, 2018.

B. NOTICE OF PLANNING COMMISSION HEARINGS (UPDATE)

- 1. Rapid City Journal April 5, 2019, April 12, 2019 and, April 19, 2019.
- 2. Pennington County Courant April 4, 2019, April 11, 2019 and, April 18, 2019.
- 3. Hill City Prevailer April 3, 2019, April 10, 2019 and, April 17, 2019.

C. DATE OF MAILINGS (ORIGINAL)

- 1. Notice sent to surrounding landowners (within 0.5 mile) and Tribal Historic Preservation Officers October 10, 2018.
- 2. Staff verified 55 Certified Mail (with return receipt).
- 3. On October 19, 2018, additional letter (with Operation Plan and Reclamation Plan) sent to surrounding landowners (within 0.5 mile) and Tribal Historic Preservation Officers requesting submission of written comments and documents prior to Planning Commission Hearing.
- 4. Due to the Pennington County Courant's failure to publish the required legal advertisements (two successive publications of the Hearing date and time), new Notices with a new Planning Commission date were resent by the applicant to surrounding

landowners (within 0.5 mile) and Tribal Historical Preservation Officers.

D. DATE OF MAILINGS (UPDATE)

- 1. Notice sent to surrounding landowners (within 0.5 mile) and Tribal Historic Preservation Officers on April 5, 2019.
- 2. Staff verified 55 Certified Mail (with return receipt).

E. MINING PERMIT SIGN

1. Posted by the applicant and verified by Staff on October 12, 2018.



F. MINING PERMIT APPLICATION REQUIREMENTS

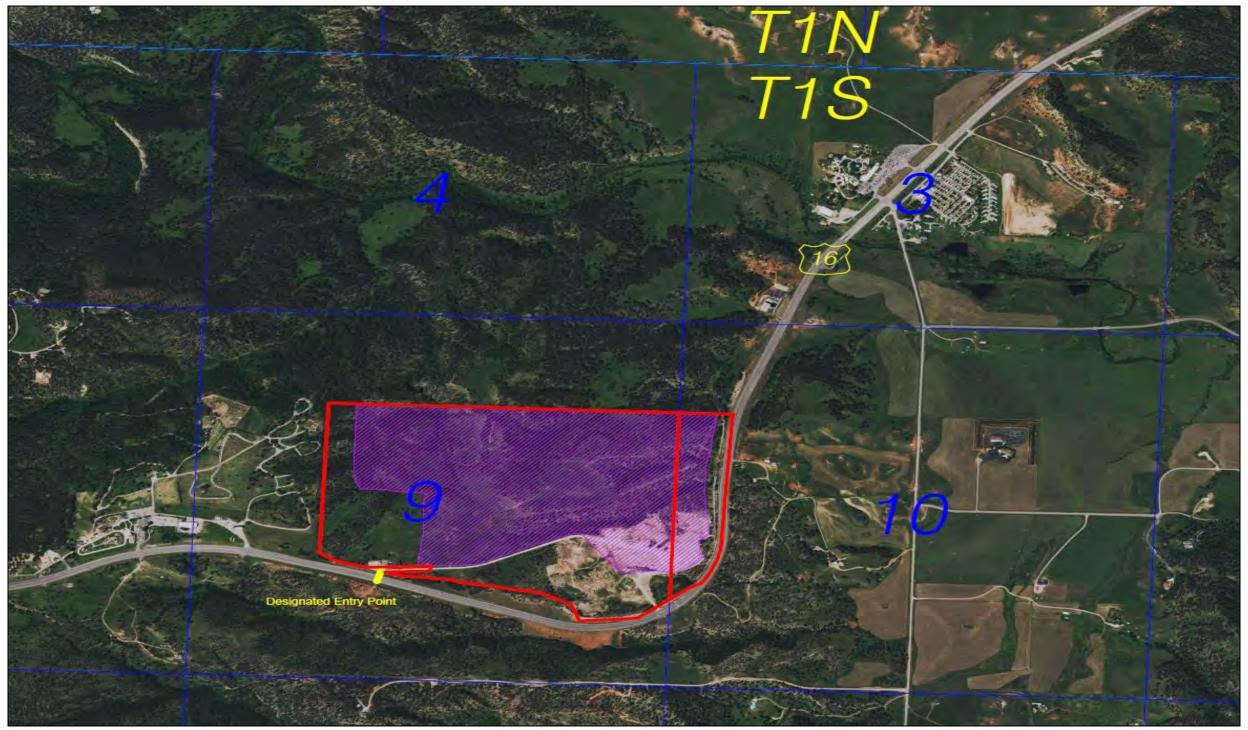
- 1. Contact information.
 - a. Applicant
 - i. Croell, Inc., P.O. Box 1352, Sundance, WY 82729.
 - b. Operator
 - i. Croell, Inc., P.O. Box 1352, Sundance, WY 82729.

- c. Owner
 - i. Croell, Inc., P.O. Box 430, New Hampton, IA 50659.
- d. Corporation Information South Dakota
 - i. Name of business entity Croell, Inc. (formally Croell Redi-Mix, Inc.).
 - ii. Date of registration April 8, 1996 (Croell Redi-Mix, Inc.).
 - iii. State of Incorporation Iowa.
 - iv. Confirmed registrations in Iowa, South Dakota, and Wyoming.
 - v. Registered Agent for South Dakota TJ Ewing, 2480 Dyess Ave, Rapid City, SD 57701.

2. Other Documents

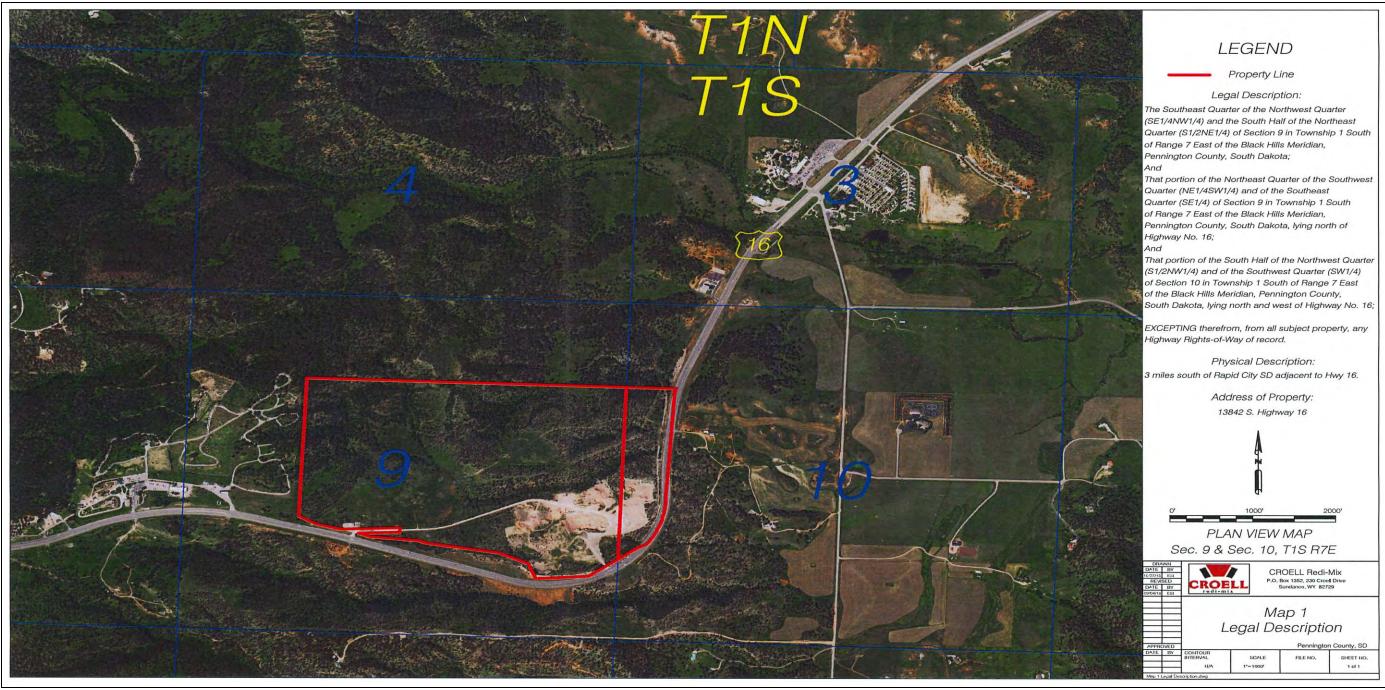
- a. Signed statement from Kyle Frisinger, Aggregate Manager received October 15, 2018.
- b. Agency Comments
 - i. South Dakota Historical Society *No effect on known cultural resources*.
 - ii. South Dakota Department of Environment and Natural Resources (SDDENR) Mine License number is 96-604 and the site number is 604010.
 - (a) Notice of Intent to Mine published in the Rapid City Journal on December 24, 2015.

3. Mining Permit Limit

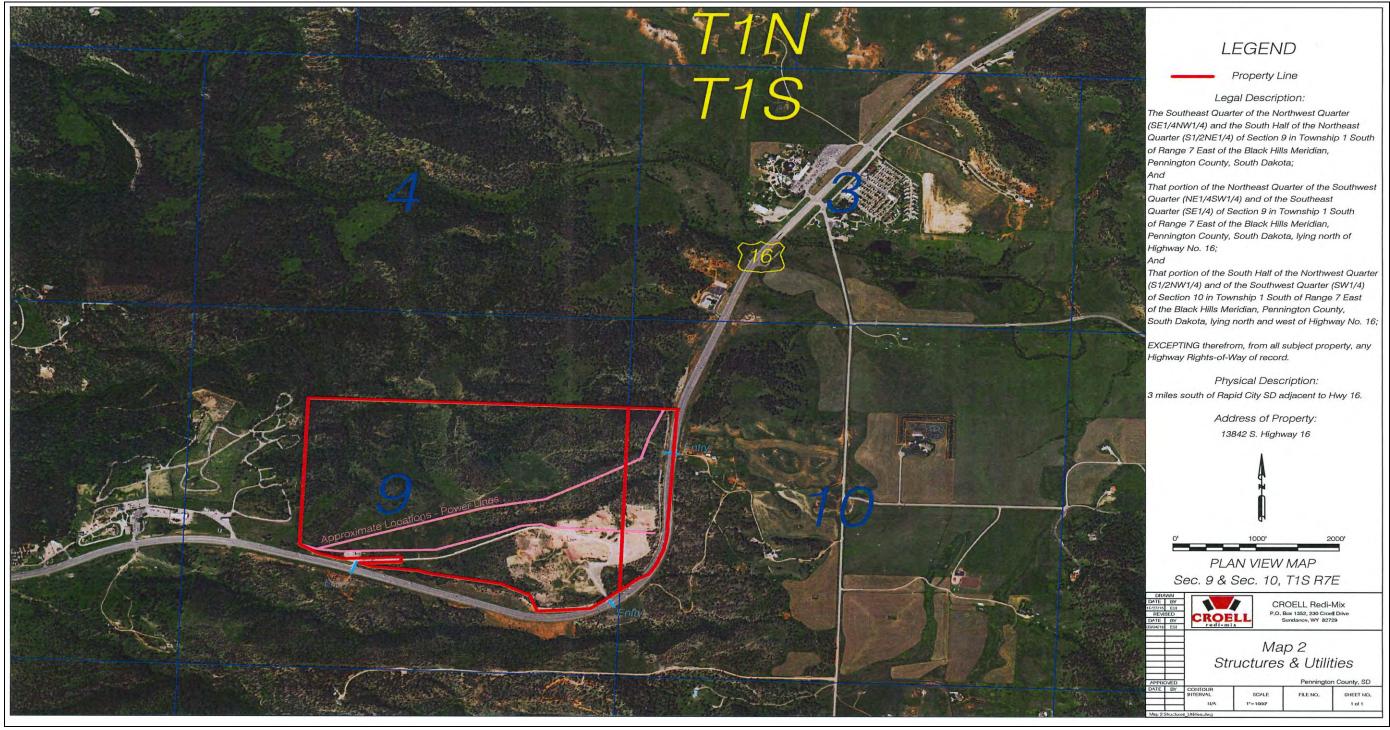


"Permit Limit" (red outline in both Sections 9 and 10) and Area of Future Disturbance (purple)

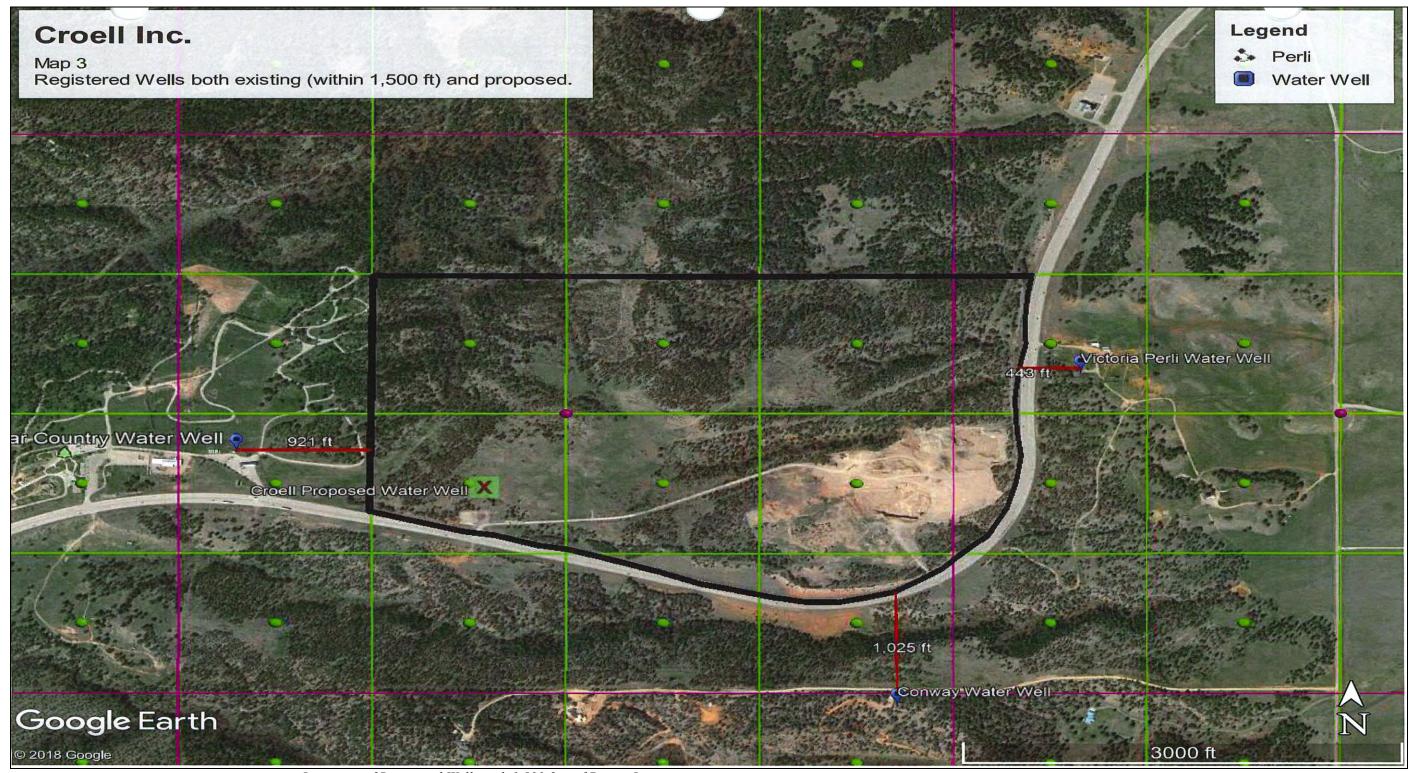
4. Site Plan (See maps below)



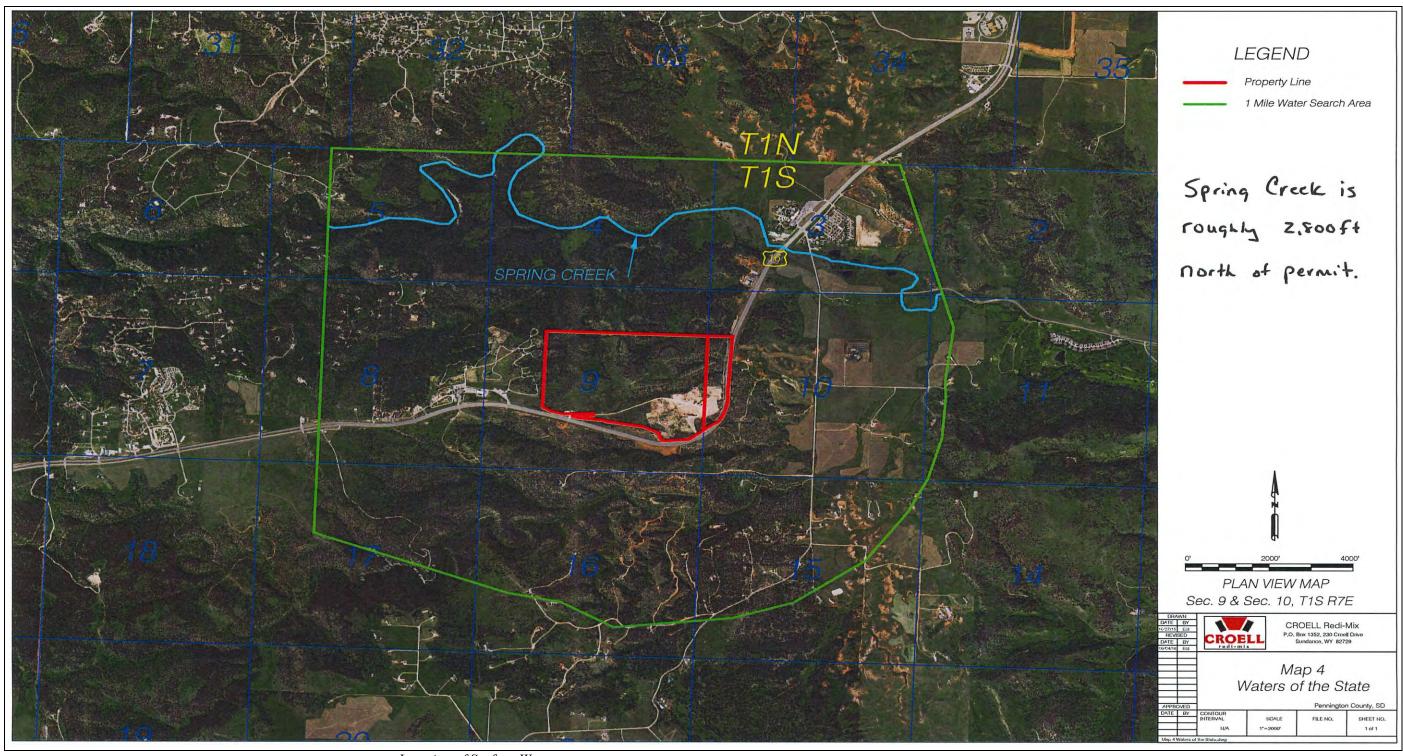
Location and Property Boundary (Permit Limit)



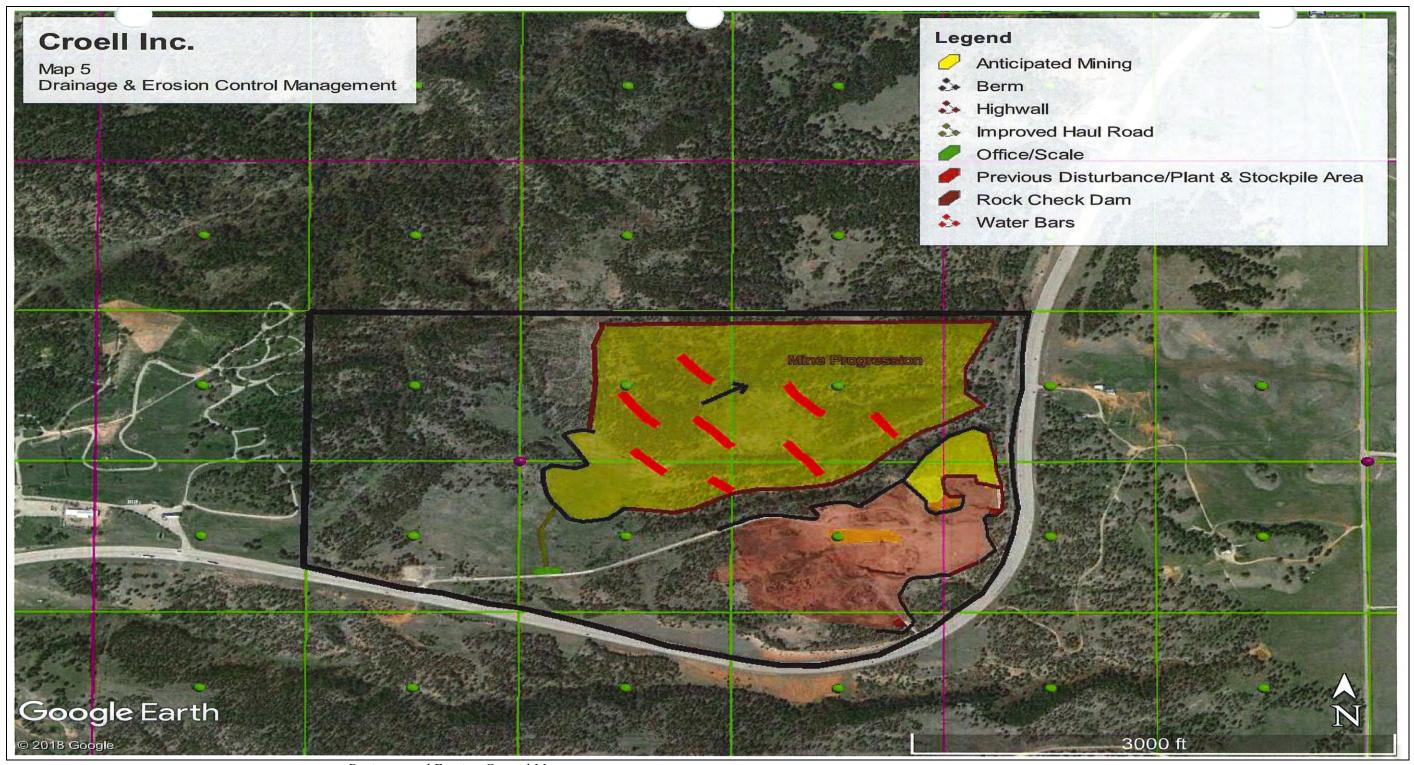
Utilities and Entrance Points



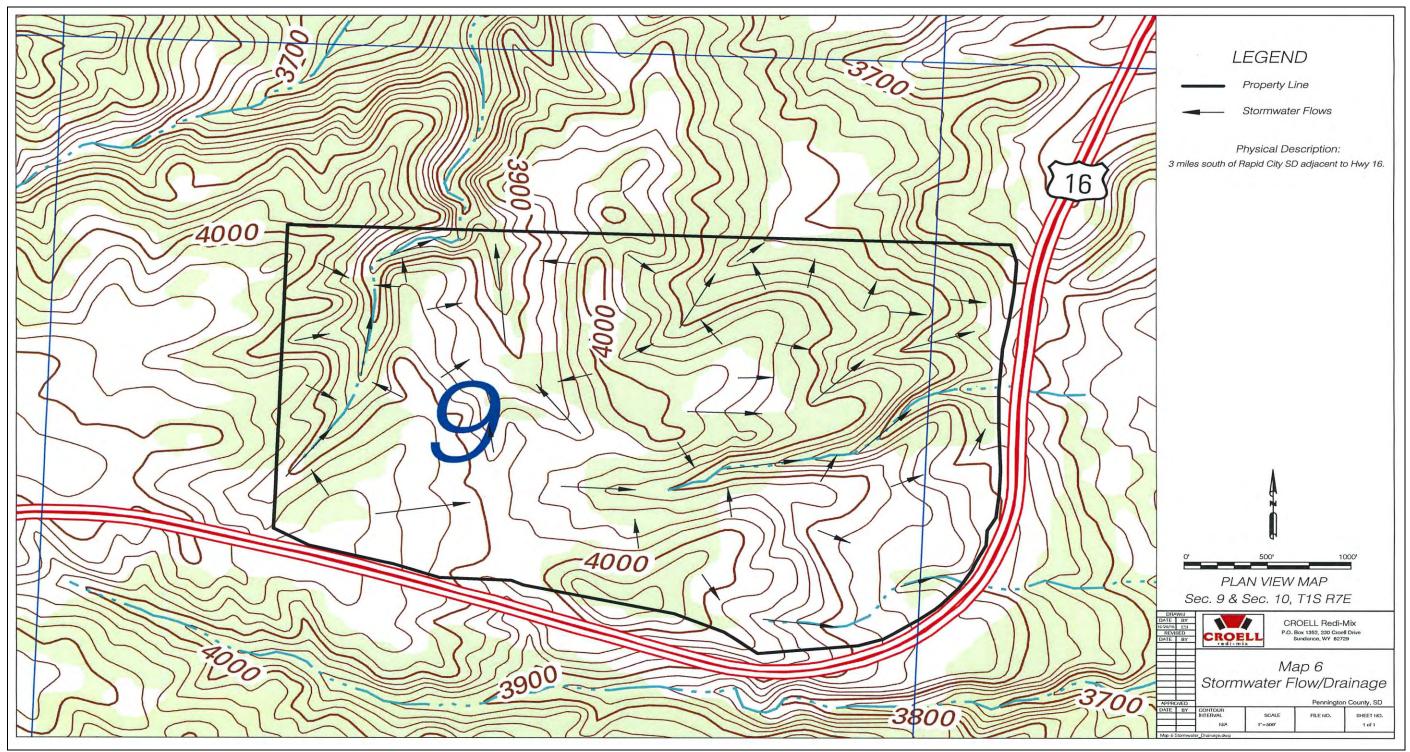
Locations of Registered Wells with 1,500 feet of Permit Limit



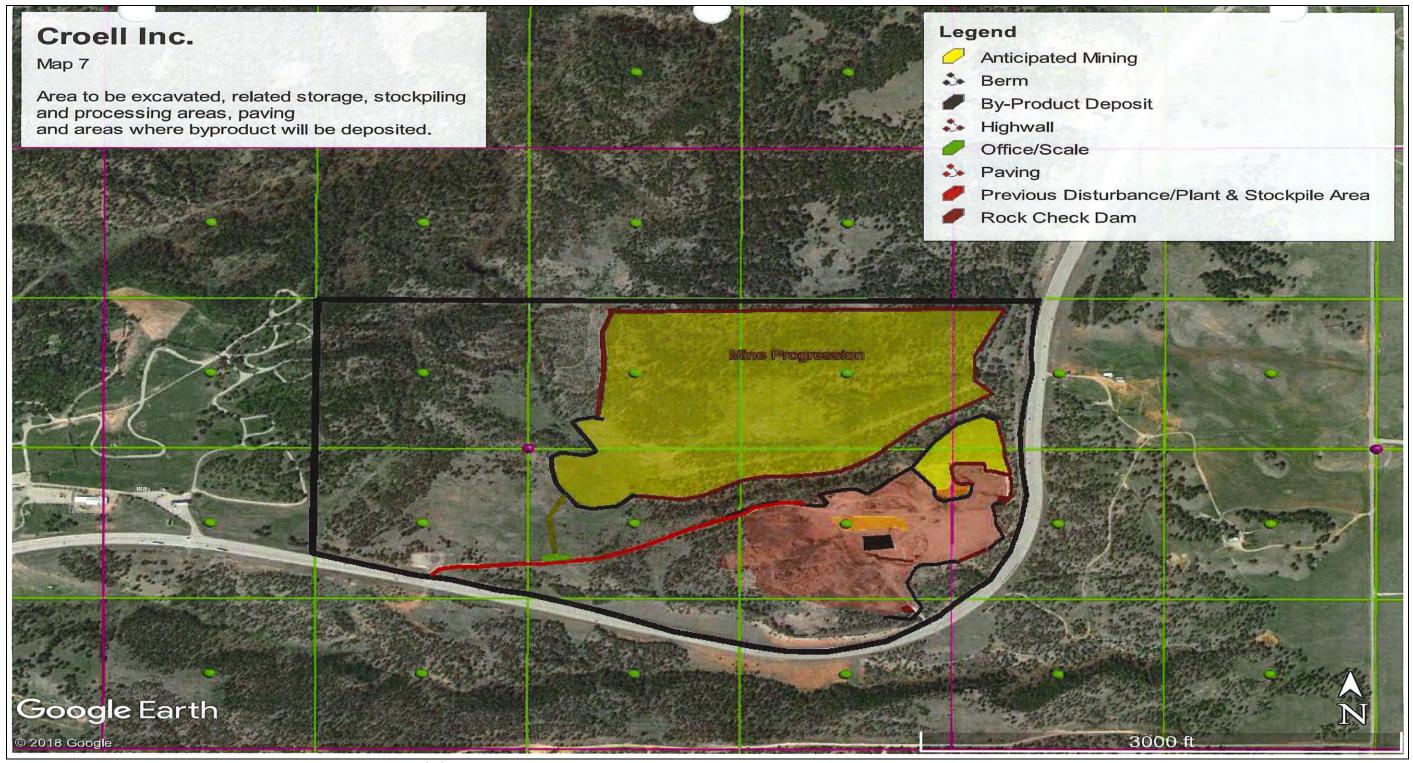
Location of Surface Water



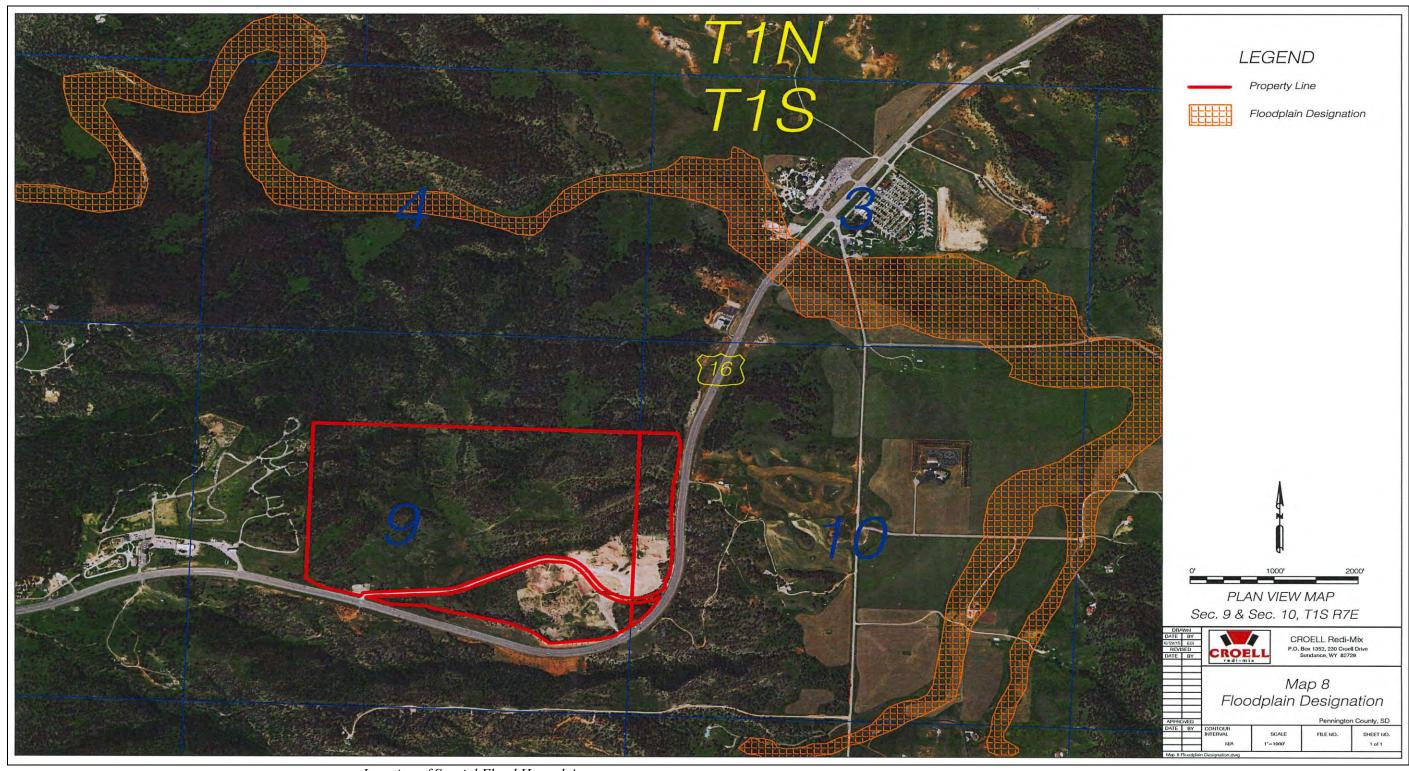
Drainage and Erosion Control Management



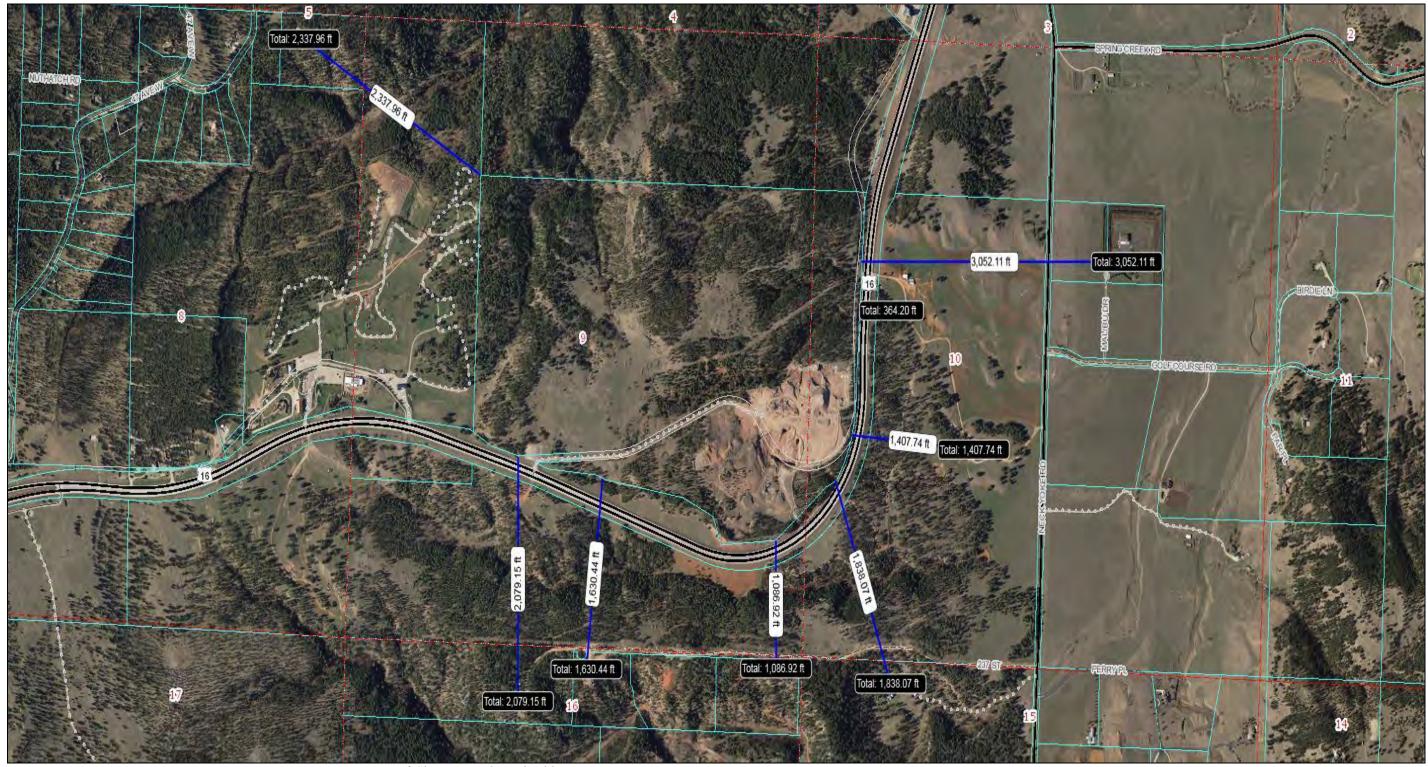
Contours and Location and Direction of Water Flow



Includes Berm Locations



Location of Special Flood Hazard Area



Location of Closest Residential Address Points

- 5. Operation Plan Soil disturbing activities will include logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer. The lifetime of the Perli Pit is anticipated to be an additional 25 years.
 - a. Date of commencement of the operation The applicant stated that mining activity began at the Perli Pit in the early 1970s.
 - i. Material was mined at this site for a highway project to move Highway 16 from its original location to the current location. The first mine license that was reported by SDDENR has a start date of December 6, 1982 and was issued to SDDOT.
 - ii. On October 24, 2018, Staff contacted the SDDOT to confirm the date of the commencement of mining activity at the Perli Pit. SDDOT records indicate the mine was active prior to 1966. A SDDOT memo and map was submitted to Staff showing the Perli Pit and "used areas" and future areas. The memo is dated July 25, 1966. A copy of the memo is attached to this Staff Report.
 - b. Topsoil and overburden will be removed with a loader, dozer, scraper, excavator or haul truck. Once limestone is exposed, a drill and blast contractor will drill and blast, if necessary. The limestone will be loaded and hauled to an onsite crushing plant where it will be crushed, washed (if necessary), screened, and sorted. The material will then be stockpiled for loading and hauling offsite.
 - c. Minnekota limestone will be surface mined at this site. The amount of material mined will be based on demand. Staff notes projected sales information and production records are exempt from disclosure pursuant to SDCL §§ 1-27-1.5(3) and 1-27-1.6. However, in an effort to be fully transparent, Croell, Inc. agreed to the release of projected sales information and anticipated tonnage of mined material. Previously redacted information concerning projected sales information and anticipated tonnage of mined material was disclosed and posted on the Planning Department website.
 - i. Projected sales and anticipated tonnage of mined material is estimated to be between 50,000 100,000 tons per year.

- d. The applicant indicated that there will be no more than two (2) trucks leaving the site per hour.
 - i. A TIS was completed by the applicant. The applicant and the SDDOT are working together to mitigate sight distance as identified in the TIS.
 - ii. Staff contacted the SDDOT on November 6, 2018 and confirmed that the applicant and SDDOT will mitigate any safety issues necessary.
- e. Operational measures implemented to comply with noise, dust, air contaminants and vibrations laws and ordinances:
 - i. Noise Noise testing utilizing a noise dosimeter. Compliance is required with *Title 30 of the Code of Federal Regulations Volume 1*, Chapter I, Part 62.
 - ii. Dust and air contaminants Best Management Practices (BMPs) to include earthen berms, paved entrances, water sprays, dust covers on conveyor transfer points and sweeping.
 - (a) SD605A319 and SD605A320 Air Quality Permits from SDDENR.
 - (b) SDR00B591 Industrial Storm Water Permit from SDDENR.
 - iii. Vibrations and blasting Performed by a Wyoming Certified Blasting contractor. The Office of Surface Mining Reclamation and Enforcement (OSMRE) issues blaster certificates. This certification program includes experience, training, and testing components. Wyoming has a reciprocal certification arrangement to meet the OSMRE program. South Dakota has no reciprocal certification program.
 - (a) Blasting contractor will utilize several portable seismographs to meet the requirements of § 320(G)(5).
 - iv. Groundwater and surface water Well depths are estimated at 300 feet or greater based upon the Water Well Drill Log of Victoria Perli located approximately 443 feet from the east edge of the permit boundary (page 18 of this Staff Report).
 - v. Surface water is located approximately 2,800 feet north of the permit boundary. The applicant does not intend to have any discharge from the site. BMPs will be implemented in accordance with the Storm Water Pollution Prevention Plan to prevent discharge from the site.

- vi. Estimated depth to groundwater approximately 160 feet in 1931 from SDDENR Well Completion Log Database (log of Victoria Perli). It is the shallowest static water level that could be verified through the SDDENR database within 1,500 feet of the Permit Limit.
 - (a) The applicant has stated that limestone excavations will not exceed 100 feet in depth.

0.5		NIOR GEOLOGICAL SURVEY	· *-
		Water Analysis	
Location Ponnir	igton County, 8 miles	Coll: At pump	kota
1 2 3	TORIB	Field No Office No	
Date collected A Discharge 8 GM Temp. (°F) 51 Collected by F. K Appearance: Slig Remarks: Higher	nigust 21, 1954 purp est,	Popth (ft.) 308 Cr. Dicmeter (in.) Upper 200' 6 Date drilled 1931;60'dpr' 30 W. B. F. Hinnalust from 2 Depth to water (it.) Sine Coner Hea. Victoria Parl Koystone Route, S.	2.00 to 300.
	components ppm epm	Physical characters and computed val	istica
Silica (SiO2)	9,6	Discolved colids (pm)	ide g
Aluminum (Al) Iron (Fe) 1/ Organese (Mn) 1/ Calcium (Ca) Magnesium (Mg) Sodium (Na) Potassium (K)	0.4 2.6 0.00 h8 2.395 17 1.393 5.1 0.222 3.2 0.002	Ros. on evap. at 180°C Eum Suspended colids (ppm) Hardness as CaCO ₃ (ppm) Calcium, magnesium Total Non-carbonate Cacific conductance (micromhos at 25°C) pH Calor Persont Na	206 208 150 4 265 7.6
Bicarbonate (NCO3) Carbonate (CO3) Sulfate (CO4)	Cations (epm) 4.097 227 0 0 0,000 11 0,220	e Reported: 160' in 1931 240' in 1939 b	
Chloride (C1)	2.0 0.05	Radiochemical dat	9
Fluoride (F) Nitrate (NO3) Phosphate (PO4)	0,2 0,011 0,0 0,00 0,0	Bota-Comma cetivity (micro- microcuries per liter) Redium (Red) (micro- microcuries per liter)	< 10
		Uranium (U)	. 5

Circ of Ton	mostly re' sandstone m/some lineatone had red shale m/small white red sandstone some fracture red sandstone w/layers of w (fairly hard) and some layer light brown fine sandstone (harder) 240-247 red shale middle marker 247-435 hard sandstone (darker) alt soft every 1 or 2:	Principles I innotes I ref 11 Hitte "Inc re ref che some If nor erunting in	igen in a significant of the sig
G 19	1' caves at 457 % 598' lost 600-780 softer (still hard layers) 780-1104 deadwood (much smoother) n		
	780-1104 deadwood (much smoother) n 1104-1105 honey combed (water) ver	ot fraction	
Correlation	780-1104 deadwood (much smoother) n 1104-1105 honey combed (water) ver		
Correlation	500-780 softer (still hard layers) 780-1104 deadwood (much smoother) n 1104-1105 honey combed (water) ver	ot fraction have been seen as the seen seen seen seen seen seen seen se	BBD TO

Bear County Well Log (1976)

		orm - 1621LD V1
	ELL COMPLETION REPORT	11- 02
Location NE 1/2 NE 1/2 Sec 16 Twp 1S Rg 7		
County Donnieston - North	Business Name:	
County Pennington North	Address: 13893 237th Street	D
Please mark well location with an "X"		SD 🖸 57702
	WELL LOG:	DEPTH
WE	FORMATION	FROM TO
	Fill dirt	0 3
	Minnekahta	3 22
	Opeche	22 135
Well Completion Date	Minnelusa	135
March 27, 2015 k31 Mile	Lost Circulation	150 161
Distance to nearest potential pollution source (septic tank, abandoned well, feed lot, etc.	Red Shale	715 720
120 ft. from Septic (identify source)	e)	720 748
PROPOSED USE:	See Remarks	
Domestic/Stock Municipal Business Test holes		L
Imgation Industrial Institutional Monitoring w	STATIC WATER LEVEL	391 FEET
Rotary - Air	If flowing: closed in pressure	PSI
, , , , , , , , , , , , , , , , , , , ,	GPM flow through	Inch pipe
CASING DATA: Steel Plastic Othe	Controlled by Valve Reducers Other	
If other describe	Reduced flow rate	GPM
PIPEWEIGHT DIAMETER FROM TO HOLE DIAMETER	Can well be completely shut in?	
15.5 LB/FT 5 1/2 IN +2 FT 795 FT 6 3/4		·····
LB/FT O.H IN 795 FT 810 FT 6 3/4 I	N I	
GROUTING DATA:	☐ ☐ 880 ft 30 gpm - 1 1/2	2 hr
Grout Type No. of Sacks Grout Weight From To	☐ Bailed 700 ft. 25 gpm - 1/2	
cement 70 15 Lb/gal 160 Ft 795	Pumping Level Relow Land Surface	
cement 35 15 Lb/gai 0 Ft 160	600 Ft. After 1/2 Hrs. pumped	20 дрм
Describe grouting procedure Pressure grouted through casing from 795 ft up to 160f4	500 Ft. After 1/2 Hrs. pumped	10 GPM
Lost circulation filled from top 0-160	If pump installed, pump rate:	GPM
SCREEN: Perforated pipe Manufactured	REMARKS	
Diameter Inches Length Feet	White limestone & dolomite with layers of	red shale 748'-780'
Material		
Slot Size Set From Feet to Feet	White Dolomite 780' - 880'	
Other information		
	This well was drilled under license # 33	31 and this
WAS A PACKER OR SEAL USED? Yes No	report is true and accurate.	and this
If so, what material? Describe packer(s) and location	Drilling firm: Taylor Drilling Co.	
	Signature of License Representative:	
DISINFECTION: Was well disinfected upon completion?	7 KT/	
Yes, How? Chlorine solution	Size to SWING TO THE TOTAL TO T	
Lab to which waterNo, Why No!? quality sample sent for analysis	Signature of Well Owner or Equitable Property Holde	er:
quemy somple sent for analysis		FACIL/ED
		ECEIVED
	Date:	L 2 0 2015
	W	ATER RIGHTS PROGRAM

Conway Well Log (2015)

Vict	oria	Perli	Farm	Well	Log	(1954))
------	------	-------	------	------	-----	--------	---

- vii. Topsoil and other material stockpiles Practices include temporary seeding of stock piles and backfilling of reject, overburden, or waste material.
- viii. Wetlands None present at the mine site.
- ix. Reclamation Plan one (1) acre of reclamation for every one (1) acre mined depending upon mine conditions, production, sales, and other operator's responsibilities. The Reclamation Plan is attached to this document.
- 6. Drainage and Erosion Control Permits
 - a. A Storm Water Pollution Prevention Plan was developed for the site.
 - b. An Industrial Storm Water Permit was issued by SDDENR on December 11, 2015.
- 7. Planning Director requested Surety or Bond
 - a. The Reclamation Plan indicates that an additional eight (8) acres of disturbance will occur to enlarge the quarry footprint in the first year and an additional three (3) acres in the second year of operation. One (1) acre will be reclaimed during that time.
 - b. A Surety or Bond will be requested by the Planning Director for reclamation of ten (10) acres.
 - i. The applicant must provide a proposed cost estimate of the reclamation of the ten (10) acres to the Planning Director in order to determine the surety or bond amount.
 - c. A Surety or Bond will be requested by the Planning Director for implementation of BMPs to mitigate storm water runoff.
 - i. The applicant must provide a proposed cost estimate of necessary BMPs to mitigate storm water runoff to the Planning Director in order to determine the surety or bond amount.

G. GENERAL REQUIREMENTS FOR MINING OPERATIONS

- 1. Hours of Operation Hours of operation will be 6 a.m. to 5 p.m., Monday through Saturday. The hours of operation will depend upon the construction season.
- 2. Dust Control Measures
 - a. Dust Suppression on the rock crushing plant.
 - b. Magwater.
 - c. Chemical Stabilizer.
 - d. Paving roads.
 - e. Berms.
 - f. Water sprays.

- g. Dust covers on conveyor transfer points.
- h. Sweeping.

3. Noise Control

- a. Noise testing will be performed using a noise dosimeter to verify that the mine is in compliance with all industry recommendations and Mine Safety and Health Administration (MSHA) regulations.
- b. MSHA regulations for miner Permissible Exposure Level time weighted average-8 hour (TWA₈) is 90 dBA. *Title 30* of the Code of Federal Regulations Volume 1, Chapter 1, Part 62.
 - i. TWA₈ The sound level which, if constant over 8 hours, would result in the same noise dose as is measured.
 - ii. Examples in that range include:
 Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); power mower (96 dB); motorcycle at 25 ft (90 dB); newspaper press (97 dB).

www. industrial noise control. com/comparative-noise-examples. htm

4. Lighting

- a. Temporary light plants will be used as deemed necessary by the operation. The lights shall be cast downward, per the permit conditions.
- b. The applicant indicated that the operation will cease at 5 p.m., so no mining, thus no temporary light plants, will be needed in the evening.

5. Vibration and Blasting

- a. The applicant stated that they will be using a drilling and blasting contractor for its blasting of the limestone. The contractor is Wyoming Certified (no comparable certification in South Dakota) and has obtained a Surface Blaster Certificate from the Wyoming Department of Environmental Quality.
 - i. OSMRE issues blaster certificates. This certification program includes experience, training, and testing components. Wyoming has a reciprocal certification arrangement to meet the OSMRE program. South Dakota has no reciprocal certification program.

6. Spill Prevention

a. The Storm Water Pollution Prevention Plan identifies potential site pollutants and mitigation measures (i.e.

secondary containment) to prevent discharge of those pollutants.

- 7. Dumping Prohibited
 - a. No junk material shall be stored on or disposed of at the site.
- 8. Screening and Berms (page 22 of this Staff Report)
 - a. Berms will be constructed along the north and south edge of the existing disturbance.
 - b. Berms will be constructed along the west end of the proposed mining progression.
 - c. There are existing tree stands that currently surround the property boundaries.





View A (May 2018)



View B (May 2018)



View C (May 2018)



View D (May 2018)

9. Road and Approaches

- a. There are three existing entrances to the site off of Highway 16.
 - i. Entrance 1 north entrance. It is a farm entrance and will not be used due to the steep hillside.
 - ii. Entrance 2 middle entrance. This entrance will not be used due to the limited sight distance both north and south. This will be used as an emergency exit only for the employees on site.
 - iii. Entrance 3 south entrance. This entrance will be the main entrance to the quarry. Entrance 3 is approximately 82 feet in width.



Entrances (May 2017)



Entrance 1



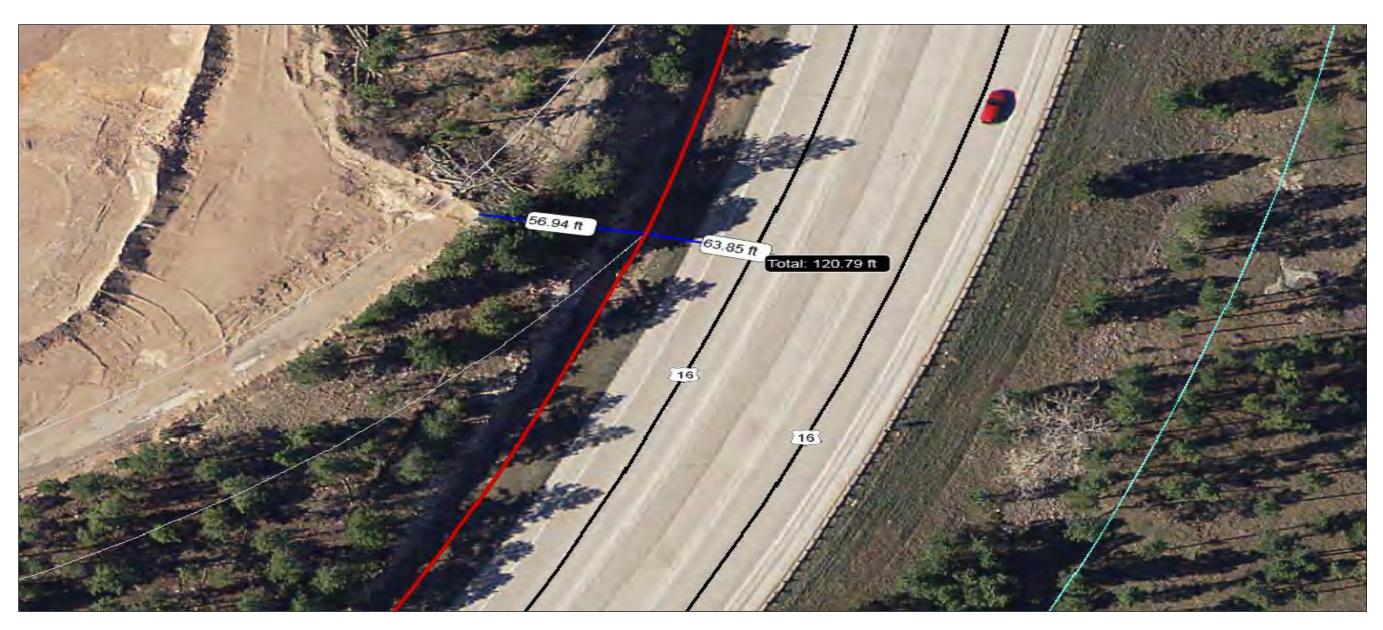
Entrance 2



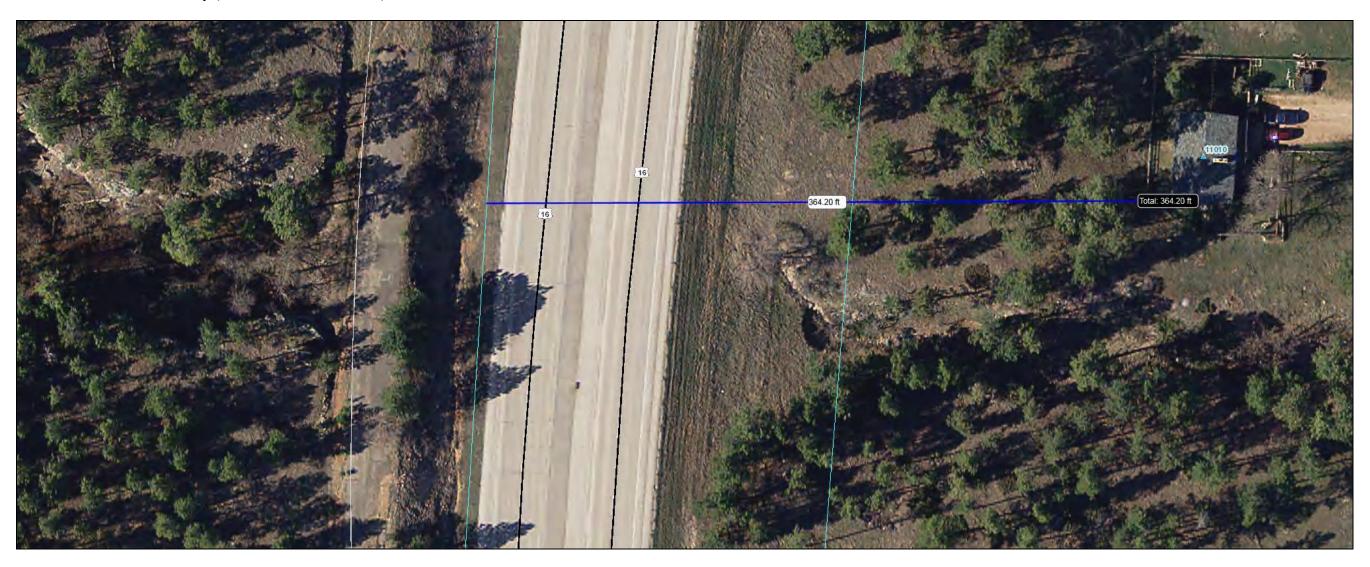
Entrance 3

H. ADDITIONAL REQUIREMENTS FOR MINING OPERATION

- 1. Setbacks
 - a. It appears from 2018 aerial photography that the *existing disturbances* are located no closer than 50 feet from the exterior property line along Highway 16.
 - i. The Section Line Right-of-Way between Sections 9 and 10 has been vacated (VS 17-02).
 - b. It appears from 2018 aerial photography that the *existing disturbances* are located no closer than 50 feet from the Highway 16 Right-of-Way and no closer than 100 feet from the Highway 16 centerline.



c. It appears from 2018 aerial photography that the closest existing dwelling is over 300 feet from the Permit Limit boundary (Victoria Perli Farmhouse).

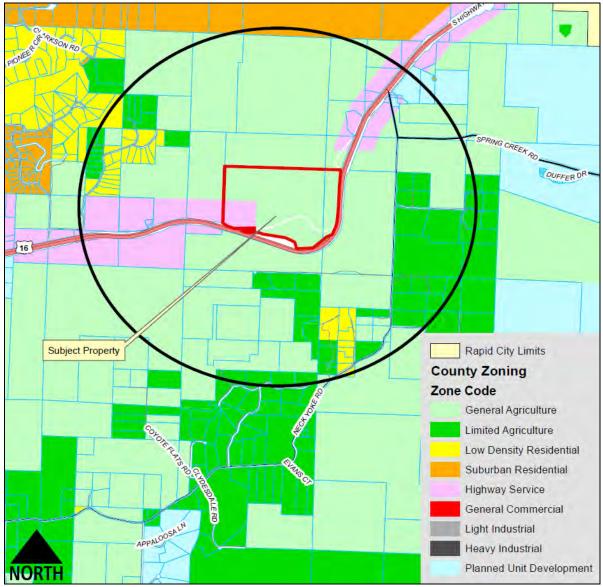


2. Groundwater Monitoring

- a. Mining activity has occurred at the site since the 1960s. The only baseline information available for neighboring wells is from the Victoria Perli Farm well in 1954 (well log information on page 28 of this Staff Report). Since baseline information was collected, significant development has occurred and continues to occur in the Highway 16 corridor from Rapid City to Rockerville.
 - i. Development in this corridor includes commercial businesses, tourist attractions, recreational vehicle parks, and single-family residences with onsite wastewater treatment systems.
 - ii. A number of subdivisions have been platted after 1973 (page 47 of this Staff Report).
- b. The applicant has obtained a Water Permit (#2745-2) authorizing the construction of a water diversion system and beneficial use of water for the Perli Pit.
 - i. On October 13, 2016, the South Dakota Water Management Board approved a Water Permit for an appropriation of 19.6 acre feet of water per year.
 - (a) The anticipated depth of the well is 1,150 feet.
 - ii. At the time of this Staff Report, a Notice of Completion of Works and Application of Water to Beneficial Use has not been submitted to SDDENR.
 - (a) The well has not yet been drilled.
- c. Three (3) wells are located within 1,500 feet of the mine site. The well completion logs indicate that they were constructed in 1954, 1976, and 2015. Well log information for these wells is located on page 28 of this Staff Report.

I. SURROUNDING ZONING AND LAND USES

- 1. Zoning Districts within one-mile.
 - a. General Agriculture.
 - b. Limited Agriculture.
 - c. Low Density Residential.
 - d. Suburban Residential.
 - e. Highway Service.
 - f. Planned Unit Development.

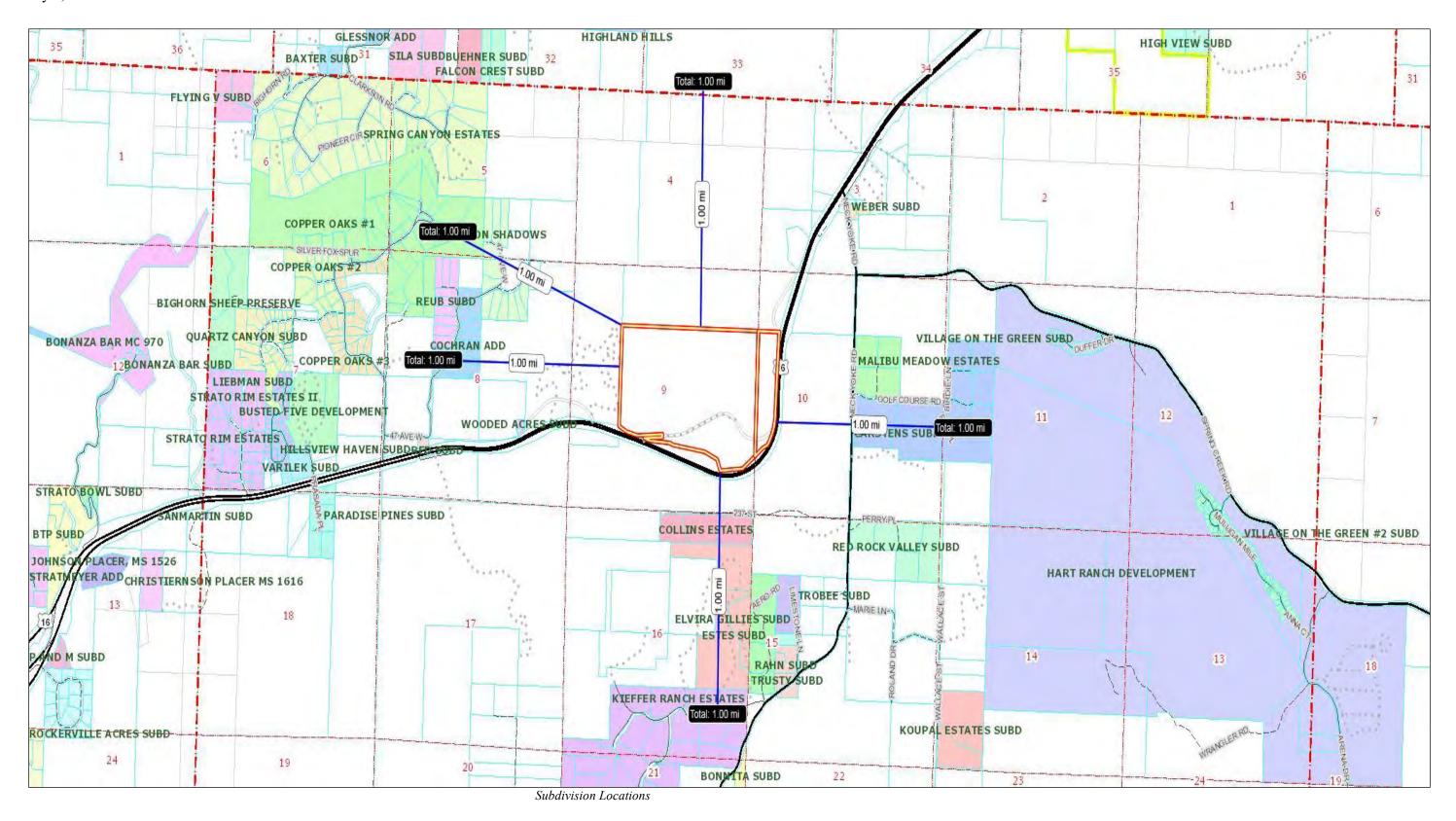


Surrounding Zoning Districts within One Mile

- 2. Land Uses within one-mile.
 - a. Campground/RV Park (Happy Holiday).
 - i. Conditional Use Permit / CU 73-07 Mobile Home Park.
 - ii. Planned Unit Development / PU 00-03 Existing Recreational Vehicle Park, Motel, Cabins, Convenience Store, and Mobile Home Park.
 - b. Campground/RV Park (American Buffalo).
 - i. Zoned Highway Service District Recreational Resort.
 - (a) Established in 1992 (via Building Permits).

- c. Tourist Attraction (Reptile Gardens).
 - i. Zoned Highway Service and General Agriculture District.
 - (a) Established at this location in 1965 www.reptilegardens.com/about-us/history.
- d. Tourist Attraction (Independence Hall).
 - i. Zoned Highway Service District.
 - (a) Recreation/Amusement established in 2013 (via Building Permits).
- e. Tourist Attraction (Bear Country).
 - i. Zoned Highway Service and General Agriculture District.
 - (a) Established at this location in 1972 https://www.bearcountryusa.com/about/.
- f. Agriculture.
 - i. Property to the north and south of the mine site is utilized for agricultural purposes (verified by tax classification).
- g. Residential.
 - i. Closest address point over 350 feet (see Map above).
 - (a) According to Department of Equalization ("DOE") records, the dwelling was constructed in 1965.
 - ii. See Subdivision information below.
 - iii. According to attached DOE Gravel Quarry Influence Report, there is no effect to the market value of the properties surrounding the Croell, Inc. gravel quarry.
- 3. Subdivisions within one-mile
 - a. Cochran Addition
 - i. Platted December 1973, July 1977, July 1979, and June 2013.
 - b. Estes Subdivision
 - i. Platted April 1977, August 1977, September 1981, and May 1998.
 - c. Copper Oaks #1 (Tract A and Lots 14-16 Only)
 - i. Platted July 1977.
 - d. Reub Subdivision
 - i. Platted October 1977.
 - e. Trobee Subdivision
 - i. Platted December 1977, December 1981, and June 1989.
 - f. Canyon Shadows
 - i. Platted December 1978, June 1985, February 1986 and November 2017.

- g. Wooded Acres Subdivision
 - i. Platted July 1990 and June 1991.
- h. Carstens Subdivision
 - i. Platted April 1992, December 1993, and December 2014.
- i. Malibu Meadow Subdivision
 - . Platted May 1994.
- j. Trusty Subdivision
 - i. Platted October 1994.
- k. Red Rock Valley Subdivision
 - i. September 1998.
- 1. Collins Estates
 - i. Platted February 2005.
- m. Rahn Subdivision
 - i. Platted July 2016.
- n. Elvira Gillies Subdivision
 - i. Platted November 2016.



- 4. Recent (~5 years) approved Land Use Requests along Highway 16 from Rapid City Limits to Rockerville.
 - a. Planned Unit Development / PU 16-01 and Planned Unit Development / PU 17-07 To allow a Resort Development which includes, but is not limited to: events (weddings, receptions, reunions, etc. for up to 300 people), Farmer's Market, pumpkin patch, corn maze, etc.
 - b. Conditional Use Permit / CU 15-25 To bring into compliance a Recreational Resort and to add an additional 45 Recreational Vehicle sites.
 - c. Building Permit COBP13-0280 Independence Hall (Founding Fathers Tourist Attraction).



Recent (~5 years) Approved Land Use Request Locations

J. SCENIC BYWAYS COMMITTEE

- 1. On June 5, 2007, the Board of Commissioners established a committee to identify and preserve natural features of designated roads throughout Pennington County.
 - a. South Highway 16 was on the list of "Potential Scenic Routes".
- 2. An Ordinance was developed (Proposed § 316 of the PCZO) to address a Scenic Route Designation.
- 3. On September 11, 2007, the Board of Commissioners made a motion to allow the committee to hold public meetings to obtain input regarding the proposed Ordinance.

- 4. Public meetings were held in October 2007 in Hill City, Wall, and the Johnson Siding area.
- 5. According to Staff, there was an overwhelming opposition from the public to the proposed Scenic Route Designation Ordinance.
- 6. In March 2008, the Board of Commissioners abandoned further action by this committee.
- 7. The Scenic Route Designation Ordinance was never adopted by the Board of Commissioners.

K. ANALYSIS

- 1. There has been mining at the Perli Pit since at least the mid-1960s.
- 2. The applicant is actively working with the SDDOT.
- 3. According to the Conclusions of Law for Water Permit Application No. 2745-2, signed by the Chairman of the South Dakota Water Management Board, "The proposed diversion can be developed without unlawful impairment of existing rights."
- 4. Requirements met for Mining Permit / MP 18-02 under § 320 of the PCZO are as follows:
 - a. Under § 205(C)(31) mining in a General Agriculture District is a Conditional Use subject to the requirements of § 320. As part of Pennington County's overhaul of mining regulations, § 205 was amended on or about March 28, 2018 and listed mining as a conditional use in a General Agriculture District.
 - i. The proposed area of disturbance is located within a General Agriculture Zoning District (maps located on pages 15 and 44).
 - b. Under § 320 an operator shall obtain a Mining Permit to extract sand, gravel, or rock.
 - c. § 320(E)(1) requires that a sign be posted, notices sent to all property owners (including contract for deed owners) within 0.5 mile, and notices sent to the Tribal Historical Preservation Officer for each tribe listed on the Black Hills National Forest Tribal/THPO current mailing list.
 - i. Staff verified that the Mining Permit sign was posted at the site on October 12, 2018.
 - ii. Staff verified 55 Certified Mailings (with return receipt) were mailed by the applicant.
 - iii. Due to publication error by the Pennington County Courant the Planning Commission Hearing date(s) was rescheduled.

- iv. Pennington County staff mailed notice of rescheduled Hearing date(s) on April 5, 2019. Staff verified 55 Certified Mailings (with return receipt) were mailed by the applicant.
- d. § 320(E)(2) requires that the Planning Commission hold a public hearing on the application and notice the hearing in the three (3) legally designated newspapers once a week for two (2) consecutive weeks prior to the hearing and, at least ten (10) days prior to the hearing. Notice was published as follows:
 - i. Rapid City Journal October 19, 2018, October 26, 2018, November 2, 2018.
 - ii. Pennington County Courant October 18, 2018 and November 1, 2018.
 - iii. Hill City Prevailer October 17, 2018, October 24, 2018, October 31, 2018.
- e. Notice of rescheduled Hearing date(s) was published in the three legally designated newspapers.
 - i. Notice of the rescheduled Hearing date(s) was published as follows:
 - (a) Rapid City Journal April 5, 2019, April 12, 2019, and April 19, 2019.
 - (b) Pennington County Courant April 4, 2019, April 11, 2019, and April 18, 2019.
 - (c) Hill City Prevailer April 3, 2019, April 10, 2019, and April 17, 2019.
- e. § 320(F)(3) requires that all mining operations comply with the South Dakota Pollution Control Act and Administrative Rules of South Dakota.
 - i. The applicant has obtained a Mine License (96-604) and Site Number (604010).
 - (a) A Notice of Intent to Mine was published in the Rapid City Journal on December 24, 2015.
 - ii. The applicant has obtained a General Permit for Storm Water Discharges Associated with Industrial Activities issued by SDDENR (SDR00B591).
 - iii. The applicant has obtained SDDENR General Permits to Operate Under the Air Quality Operating Permit Program and Surface Water Discharge System For Nonmetallic Mineral Processing Plants (SD605A319 and SD605A320).
 - iv. The applicant has developed a Storm Water Pollution Prevention Plan as required under § 320(F)(3).

- (a) The applicant has obtained all required local, State, and federal erosion control and runoff management permits.
- f. The Planning Director is requesting a surety and/or bond in the amount necessary to reclaim 10 acres of mined area.
 - i. The applicant must submit a cost estimate for review and approval by the Board of Commissioners prior to Board of Commissioner approval.
- g. The applicant has submitted proposed practices and operational measures to meet § 320(G) General Requirements for Mining Operations. (See § VII(G) of this Staff Report page 29)
- h. § 320(H)(1)(a) requires that the mining operation be located at least 50 feet from all exterior lot lines.
 - i. The closest disturbance is located approximately 56 feet from the property line (map on page 41).
- i. § 320(H)(1)(b) requires that the mining operation be located at least 100 feet from a public road centerline or 25 feet from the road right-of-way.
 - i. The closest disturbance is located approximately 120 feet from a public road centerline (map on page 41).
- j. § 320(H)(1)(c) requires that the mining operation be located at least 300 feet from any existing dwelling.
 - i. The property boundary of the subject property is located approximately 364 feet to the closest existing dwelling (former Victoria Perli Farmhouse map page 42).
- 5. November 13, 2018 Staff performed a site visit to the subject property. The applicant is utilizing existing stockpiles and is not currently excavating or blasting.
 - a. There is no equipment at the site with the exception for a front end loader, small storage container, and a propane tank.
- 6. The Planning Commission Hearing on this Mining Permit request is scheduled on May 8, 2019 at 3:00 p.m.
- 7. The Board of Commissioners Hearing(s) on this Mining Permit request is scheduled on May 10, 2019 at 9:00 a.m. and if necessary may be continued for further public comment and vote to May 11, 2019 at 9:00 a.m.
- 8. On January 7, 2019, the applicant submitted a bond letter in the amount of \$25,000 for 10 acres of disturbed mine land.



Stockpiles (November 13, 2018)

RECOMMENDATION (§ 320): Staff is recommending approval of Mining Permit / MP 18-02 under §§ 205(C)(31) and 320 effective on or about March 28, 2018 of the PCZO with the following thirty-five (35) conditions:

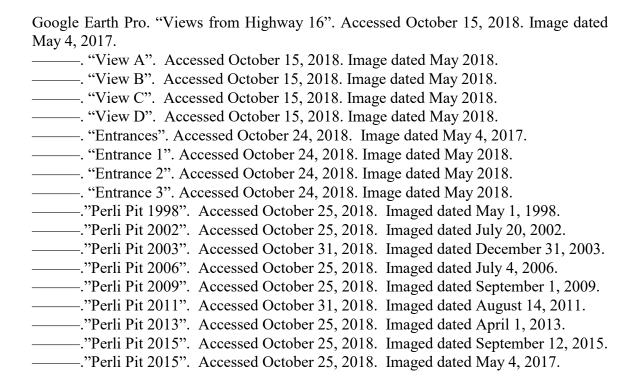
- 1. That the conditions of approval of the South Dakota Department of Environment and Natural Resources Mine License be continually met;
- 2. That the applicant submit a copy of the Mine License, issued by the South Dakota Department of Environment and Natural Resources, to the Planning Department and copies of any annual Mine License Reports by December 1st of each year;
- 3. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit(s) to Operate Under the Air Quality Operating Permit Program and Surface Water Discharge System For Nonmetallic Mineral Processing Plants in South Dakota be continually met;
- 4. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit for Storm Water Discharges Associated with Industrial Activities be continually met;

- 5. That any natural drainage ways and paths be continually maintained;
- 6. The requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed;
- 7. That self-contained toilets be maintained on-site: one (1) unit per 50 employees. The self-contained toilets must meet all State and County regulations. The method and schedule of disposal of the solid waste must be in compliance with State and local rules and regulations;
- 8. That Entrance 3 is utilized for all traffic in and out of the site and that Entrance 2 is only used in the event of emergency situations;
- 9. That mining operation disturbances and/or equipment are located no closer than 50 feet from the property line;
- 10. That a cost estimate for reclamation of 10 acres of disturbed mine land is submitted to the Planning Director prior to the hearing in front of the Board of Commissioners;
- 11. That a bond or surety is submitted in the amount of the reclamation cost estimate approved by the Board of Commissioners within 30 days of approval of this Mining Permit;
- 12. That a cost estimate for necessary BMPs to mitigate storm water runoff is submitted to the Planning Director in order to determine the surety or bond amount prior to the hearing in front of the Board of Commissioners;
- 13. That a bond or surety is submitted in the amount of the BMPs cost estimate approved by the Board of Commissioners within 30 days of approval of this Mining Permit;
- 14. That the site shall be reclaimed in accordance with the Reclamation Plan submitted on September 12, 2018;
- 15. That if there are any updates to the Reclamation Plan, they are submitted to the Planning Director within 30 days of the change;
- 16. That the mining operation be in compliance with all federal, state, and local regulations and if any significant enforcement actions are necessary to correct violations relating to the mining operation, the Planning Director shall recommend an inspection of the mining operation in accordance with § 320(J) of the PCZO;

- 17. That all potential pollutants (as listed in the Storm Water Pollution Prevention Plan) are handled, stored, and cleaned up in accordance with all local, state, and federal guidelines;
- 18. That a Spill Prevention, Control, and Countermeasure (SPCC) Plan be developed for the site and submitted within 30 days of approval of this Mining Permit;
- 19. That no junk material, vehicles, or debris is stored on the site at any given time;
- 20. That berms are constructed in accordance the Drainage and Erosion Control Management Map submitted by the applicant within 180 days of approval of this Mining Permit;
- 21. That the addresses be properly and continually posted at Entrance 3 so they are visible in both directions of the approach, in accordance with Pennington County's Ordinance #20;
- 22. That all exterior lights must use hoods and lens that cast light downward;
- 23. That an Emergency Response Plan be developed for the mining operation and reviewed by the Pennington County Fire Administrator within sixty (60) days;
- 24. That Emergency Contact information for the mining operation be kept updated with the Pennington County Emergency Services Communications Center;
- 25. That the location address and related information be updated and maintained in third-party mapping services for the mining operation;
- 26. That a Building Permit be obtained for any structure exceeding 144 square feet or permanently anchored to the ground, which includes the necessary site plans to be reviewed and approved by the Planning Director;
- 27. The applicant must make every effort practicable to minimize fugitive dust from leaving the site;
- 28. That the hours of the mining operation be from 6 a.m. to 5 p.m. Monday through Saturday;
- 29. That blasting at the site only occur Monday through Friday between 7 a.m. and 5 p.m. and that a reasonable effort is made to notify property owners in occupied dwellings within 1,500 feet of the Permit Limit and the Rockerville Volunteer Fire Department of the scheduled blasts;

- 30. That the applicant's blasting contractor be issued a blaster certificate by the Office of Surface Mining Reclamation and Enforcement or a reciprocating agency (i.e. Wyoming Department of Environmental Quality) and maintain certification at all times;
- 31. That blasting logs be submitted to the Planning Director at a minimum, on a yearly basis;
- 32. That noise testing is performed using a noise dosimeter to verify that the mine is in compliance with all industry recommendations and MSHA regulations and testing information be submitted to the Planning Director at a minimum, on a yearly basis;
- 33. That the applicant sign a Statement of Understanding within ten (10) business days of Mining Permit approval, which is available at the Planning Office;
- 34. That Mining Permit / MP 18-02 expires in (5) years from approval date unless an Application for Mining Permit Renewal is submitted within sixty days of the expiration date and at such time a Notice of Renewal will be completed in accordance with § 320(E)(1) of the PCZO; and
- 35. That Mining Permit / MP 18-02 may be reviewed in accordance with § 320(J) of the PCZO, or as directed by the Planning Commission and/or the Board of Commissioners to verify that all Conditions of Approval are being met.

VIII. REFERENCES



Industrial Noise Control Library. 2018. Comparative Examples of Noise Levels. Accessed October 24, 2018.

www.industrialnoisecontrol.com/comparative-noise-examples.htm

Mineral Resources, 30 C.F.R. § 62 (1999).

Rapid Map. City of Rapid City. 2018 Aerial Photography. Accessed October 31, 2018. Image dated 2018.



230 Croell Drive PO Box 1352 Sundance WY 82729 Phone: 307-283-2221

Fax: 307-283-1450

January 7 2019

Mr. PJ Conover
Pennington County Planning & Zoning
130 Kansas City Street, Ste 130
Rapid City SD 57701

RE: Reclamation Bond Perli Quarry MP 18-02 under 320

Dear Mr. Conover:

Croell Inc. hereby proposes a reclamation bond amount of \$ 25,000 for 10 acres of disturbed mine land. This reclamation bond estimate is based upon Pennington County Staff Recommendation item # 10, listed on page 51 of 60 in the Mining Permit documents. Croell Inc. feels this is adequate for reclamation bond for this location, and it closely resembles the Wyoming Limited Mining Operation bond amount of \$ 3,000 per acre for reclamation bond. See attached for Wyoming Limited Mine Operation Standards and information from South Dakota Department of Environment and Natural Resources.

If you have any questions or concerns, please feel free to contact me at the Sundance WY office. Thank you.

Sincerely,

CROELL INC.

Kyle Frisinger

Aggregate Manager



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead. Governor

Todd Parfitt, Director

General Performance Standards for Limited Mining Operations (LMO's)

- 1. Signs A sign shall be posted and maintained at the entrance of the operation that clearly shows the operator's name, address, telephone number, contact name and LMO identification number.
- 2. LMO Boundary It is recommended that the boundary of the LMO area be located and flagged on the ground prior to commencing operations. ALL areas to be affected must be within this boundary, (including exclusive-use access roads, parking areas, equipment staging areas, material stockpiles, etc.). The affected area, excluding access roads, shall not exceed fifteen (15) acres.
- 3. Topsoil All topsoil must be saved and protected for use in reclamation, even if the soil is very rocky. All topsoil stockpiles shall be identified with a sign. Topsoil must be salvaged before the land is disturbed by any other activity, including roads. A stripped buffer zone should be maintained between the pit and any topsoil stockpiles. Topsoil stockpiles shall be located where they will not be disturbed or contaminated and they shall be seeded to provide erosion protection. Topsoil cannot be sold or removed from the site.
- 4. Bond A bond must be posted to cover reclamation of the disturbed area at a rate of \$2000.00/acre or \$3000.00/acre for quarries. Roads used to access the operation must be included in the acreage total when calculating the bond. Bond release cannot occur until all affected lands are reclaimed and vegetation is well established. Generally, at least 2-3 full growing seasons are required.
- 5. Overburden handling No materials (including overburden, topsoil or mineral products) shall be pushed over escarpments or steep slopes or into drainages, streams, or wetlands.
- 6. Roads Roads shall be located on upland areas away from drainages and stream channels. Roads should be ditched to provide proper drainage off the road surface. Culverts shall be installed at all drainage crossings and sized appropriately. Roads used to access the operation are excluded from the disturbance acreage limitation, but must be bonded for reclamation.
- 7. Petroleum products It is recommended that petroleum products not be stored on-site, unless they are properly secured within secondary containment (plastic-lined berms, stocktanks, etc, large enough to contain the full volume of the primary container). Any petroleum contaminated soils must be disposed at a municipal landfill.
- 8. Trash No trash or waste shall be disposed in the mine area (including tires or wood waste). Materials classified as "clean fill" (sand, gravel, rock, brick or concrete with no protruding rebar) may only be buried in the pit with prior written approval from the landowner and the LQD. Such materials should be buried at least four feet deep.
- 9. Reclamation After operations have ceased or within 30 days after abandonment of the LMO, the operator shall notify the LQD and begin reclamation, unless the landowner advises LQD in writing that product will be further utilized and reclamation will be assumed by landowner. All lands shall be graded to 3:1 or flatter slopes and through drainage shall be provided. Pit floors and other compacted surfaces should be ripped to a depth of at least 8-12 inches prior to topsoil spreading.
- 10. Topsoil replacement Topsoil shall be spread evenly over all graded surfaces. Topsoil shall be scarified, disked or harrowed on the contour to control erosion and prepare a proper seedbed prior to seeding.
- 11. Seeding Seeding shall be done at the earliest appropriate time; fall planting after Oct. 15th and before the ground freezes; spring planting prior to April 15th when the ground is not frozen or covered with snow. The seed mix should consist of native, drought tolerant species. Lawn or pasture mixes, even "dryland pasture mix", are generally not suitable for Wyoming's arid climate. The operator should contact LQD for recommended seed mixes.
- 12. Weeds Weeds shall be controlled in all areas to prevent on-site infestations as well as dispersal off-site. The operator should contact the county weed & pest department for assistance.

LMO performance standards (7 2016).pdf



SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES

PROTECTING SOUTH DAKOTA'S TOMORROW...TODAY!

× Menu

SubMenu

Minerals and Mining Program

Mine Licenses



Who Needs a Mine License
What Activities are Exempt
What is the Procedure for Obtaining
a Mine License
Reclamation Bonding Requirements
Annual Report Requirements
What Laws Govern Mine License
Activities
Mine License Application and Other
Forms
Other Permits Required for Mining
Operations

Who Needs a Mine License

A mine license is required to mine sand, gravel, rock to be crushed and used in construction, pegmatite minerals; and limestone, iron ore, sand, gypsum, or shale used to make cement or lime; or dredging for commercial resale. Mining of all other minerals requires a mining permit.

For information on mine licenses for sand, gravel, rock to be crushed and used in construction, pegmatite minerals, and limestone, iron ore, sand, gypsum, or shale used to make cement or lime, please email Thomas Cline or Bret Graves, or contact them at (605) 773-4201.

What Activities are Exempt

Landowners that mine sand and gravel for their own personal use and do not sell it are exempt from mine licensing requirements.

What is the Procedure for Obtaining a Mine License

- Submit a mine license application;
- 2. Submit a certification of applicant form;
- 3. Publish a <u>notice of intent to mine</u> in a newspaper local to the mine at least 14 days prior to the commencement of mining;
- 4. At least 30 days prior to the commencement of mining, submit a copy of the notice of intent and a map of the mine site to the required government agencies; and
- 5. Submit a reclamation bond in the amount of \$500 per acre of disturbed land or a \$20,000 statewide reclamation surety.

The mine license will cover any number of sites. For additional sites, an operator only needs to publish a notice of intent, notify the four government agencies, and submit any additional reclamation surety. Units of state and local government are exempt from fee and bonding requirements.

Reclamation Bonding Requirements

Prior to the commencement of mining, an operator must submit a reclamation bond in the amount of \$500 per acre of affected land. In lieu of submitting a reclamation bond for each operation, an operator may submit a \$20,000 statewide reclamation surety to cover all operations throughout the state. Units of state and local government are exempt from bonding requirements.

Annual Report Requirements

The operator is required to file an annual report on the annual report date of the mine license set by the department. The department mails an annual report form for each licensed location to the operator about two months before the annual report date. The department also provides a map for each licensed location so that the operator can show the areas mined and reclaimed overall and since the last annual report date. The completed annual report contains the following information:

- Total acres mined under the license;
- 2. Acres mined under the license since the last annual report date;
- 3. Total acres reclaimed under the license;
- 4. Acres reclaimed under the license since the last annual report date; and
- 5. Tons removed under the license since the last annual report date.

An annual fee of \$100 is required for each privately operated mine site authorized under a mine license. To keep the process as simple as possible, a billing based on the number of mine sites authorized under your mine license for the previous year will be sent to you along with your annual mine license renewal material.

What Laws Govern Mine License Activity

The law that applies to Sand, Gravel, and Construction Aggregate Mining is (SDCL 45-6)

Mine License Application and Other Forms

To download mine license application and other forms, please go to the <u>mine license forms web page</u>. If you cannot download the forms, please e-mail your name and address to <u>Thomas Cline</u> or <u>Bret</u> Graves and the forms will be sent to you.

Other Permits Required

To learn more about other permits that may be required for mine license operations, please go to the one stop permitting page. Also, the federal Mine Safety and Health Administration (MSHA) has additional requirements for mining operations in South Dakota. Please contact their district field office at (605) 348-2076 or check the MSHA web page at MSHA.GOV for more information.

Top of page

Kristi Noem, Governor

Steven M. Pirner, P.E., Department Secretary
Vicki Murray, Executive Assistant
605.773.5559 - fax 605.773.6035
Email SD DENR

Division of Environmental Services

Air Quality
Drinking Water
Feedlot Permit
Ground Water Quality

Minerals & Mining Surface Water Quality Waste Management Water Rights

Division of Financial & Technical Assistance

Geological Survey
Petroleum Release Compensation Fund
Water & Waste Funding
Watershed Protection

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AGENDA ITEM #6

CONSTRUCTION PERMIT / CP 18-11 UNDER PCZO §

205(B)(17) effective April 26, 2017 and § 507(A) effective September 25, 2013: Croell, Inc. To continue the operation of the active Perli pit as a rock quarry. Planning Director to make a decision on the Construction Permit.

Item #6 Croell, Inc. May 8, 2019

STAFF REPORT

GENERAL INFORMATION:

REQUEST: <u>CONSTRUCTION PERMIT / CP 18-11</u>: To

continue the operation of the active Perli pit as a rock quarry for the Rapid City and surrounding area in accordance with Pennington County Zoning Ordinance ("PCZO") § 205(B)(17) effective April 26, 2017 and § 507(A) effective September 25,

2013.

APPLICANT: Croell, Inc.

APPLICANT ADDRESS: P.O. Box 1352, Sundance, WY 82709

P.O. Box 430, New Hampton, IA 50659

LEGAL DESCRIPTION: S1/2NE1/4; SE1/4NW1/4; That PT of NE1/4SW1/4

lying N of Hwy 16; That PT of SE1/4 lying N of Hwy 16 Including Abandoned Lot H1 of SE1/4, Section 9, T1S, R7E; and That PT of S1/2NW1/4 lying W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4NW1/4; That PT of SW1/4 lying N and W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4, Section 10, T1S, R7E, BHM, Pennington County, South

Dakota.

SITE LOCATION: 13840 S. Highway 16; approximately 0.4 mile from

the intersection of S. Highway 16 and Neck Yoke

Road.

TAX ID: 53734 / 53736

SIZE: 267.86 acres

EXISTING LAND USE: Gravel Mining

ZONING REFERENCE: PCZO §§ 205(B)(17) and 507(A)

CURRENT ZONING: General Agriculture District

Highway Service District

Item #6 Croell, Inc. May 8, 2019

SURROUNDING ZONING:

North General Agriculture District
South General Agriculture District
East General Agriculture District
West General Agriculture District
Highway Service District

PHYSICAL CHARACTERISTICS: Forested / Hills

UTILITIES: None

REPORT BY: Brittney Molitor

I. PROPOSED RECOMMENDATION

A. Staff will be recommending approval of Construction Permit / CP 18-11 under PCZO § 507(A) effective September 25, 2013.

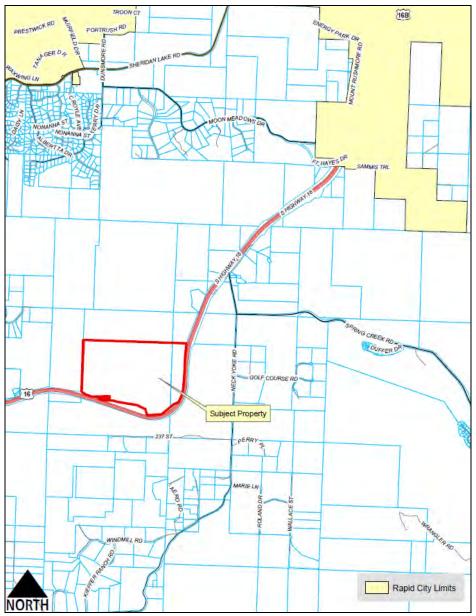
II. GENERAL DESCRIPTION

- A. To continue the operation of the active Perli pit as a rock quarry for the Rapid City and surrounding area.
 - 1. Soil disturbing activities will include logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping.
 - 2. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.
 - 3. Applicant stated that the estimated dates of operation are September 2018 to January 2043.

III. EXISTING CONDITIONS

- A. S1/2NE1/4; SE1/4NW1/4; THAT PT OF NE1/4SW1/4 LYING N OF HWY 16; THAT PT OF SE1/4 LYING N OF HWY 16 INCLUDING ABANDONED LOT H1 OF SE1/4 in Section 9.
 - 1. Is 241.32 acres.
 - a. General Agriculture District ~ 208.89 acres.
 - b. Highway Service District ~ 32.43 acres.

- B. THAT PT OF \$1/2NW1/4 LYING W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4NW1/4; THAT PT OF \$W1/4 LYING N AND W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4 in Section 10.
 - 1. Is 26.54 acres.
 - a. General Agriculture District.



Location of Mining / Construction Permit Request

IV. PROPERTY HISTORY

- A. 1966 Materials testing, haul and pit layouts of Perli Pit for a South Dakota Department of Transportation Project.
- B. 1973 Record of first Subdivision platted (Phase 1 of Cochran Addition) within one mile of existing mining operation.
- C. 1982 South Dakota Department of Environment and Natural Resources (SDDENR) began issuing Mine Licenses.
- D. 1982-1993 South Dakota Department of Transportation (SDDOT) mined sand and gravel at the Perli Pit.
- E. 1983-2011 Pennington County Highway Department mined sand and gravel at the Perli Pit.
- F. 1986-1999 C.R. Schultz Construction Company mined sand and gravel at the Perli Pit.
- G. 1993-1999 Aggregate Construction, Inc. mined sand and gravel at the Perli Pit.
- H. 1999-2005 Quinn Construction, Inc. mined sand and gravel at the Perli Pit.
- I. 2000 Conditional Use Permit / CU 00-36 issued to Border States Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- J. 2002-2006 Pete Lien and Sons, Inc. mined limestone at the Perli Pit. (Mine License indicates an end date of 2148)
- K. 2009-2016 Talley Construction mined sand and gravel at the Perli Pit. (Mine License indicates an end date of 2020)
- L. 2013 Conditional Use Permit / CU 13-06 issued to Bituminous Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- M. 2015 Croell Redi-Mix, Inc. submitted a request for a Construction Permit / CP 15-17 to continue mining at the Perli Pit.
- N. 2016 Construction Permit / CP 15-17 was denied by the Board of Commissioners.
- O. 2017 Vacation of Section Line Right-of-Way between Sections 9 and 10 approved by the Board of Commissioners.

V. REQUEST FOR COMMENT

- A. County Highway Department
 - 1. Highway Department has no comments since the subject property abuts a State Highway and drainage issues are addressed in the permit documents.
- B. County Environmental Planning Supervisor
 - 1. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit for Storm Water Discharges Associated with Industrial Activities be continually met.
 - 2. That the applicant continually maintains and adheres to the Storm Water Pollution Prevention Plan.
 - 3. That erosion control measures, such as seeding and mulching the disturbed area, shall be implemented immediately after the work is completed in the area, but in no case later than 14 days after the Mining Activity has stopped. All erosion control methods (mulch and seed) need to be certified noxious weed-free.
 - 4. That the requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed.
 - 5. There is no Special Flood Hazard Area on the subject property.
 - 6. The site shall be re-vegetated as outlined in the Reclamation Plan.
 - a. Staff Comment: Staff will address as Conditions of Approval.
- C. County Environmental Planner
 - 1. The applicant must provide self-contained toilets on-site: one (1) unit per 50 employees. The self-contained toilets must meet all State and County regulations, including setbacks. The method and schedule of disposal of the solid waste must be provided to the Planning Department in writing and be in compliance with State and local rules and regulations.
 - a. Staff Comment: Staff will address as Condition of Approval.
- D. County Natural Resources Director
 - 1. See Noxious Weed Management Plan.
 - a. Staff Comment: Previously signed by applicant.
- E. County 9-1-1
 - 1. No 911 related concerns.
- F. County Ordinance Enforcement
 - 1. Ordinance Enforcement has no objection.
- G. County Fire Administrator
 - 1. At a minimum, additional turning lanes need to be installed along with other modern day traffic safety devices according to South Dakota Department of Transportation and Manual of Uniform

- Traffic Devices specifications at that intersection to mitigate traffic issues.
- 2. Follow recommendations of the South Dakota Department of Transportation (SDDOT), Transportation Impact Study ("TIS").
- 3. The amount of water used at this mining location will be of concern. The Rockerville Volunteer Fire Department has drilled a well west of this location at Station One. This includes the installation of a large water storage unit to be used for fire suppression in the Rockerville Volunteer Fire Department Protection District. If the water tables were to drop due to a large amount of water being used at the Perli Pit, this new water system for fire suppression could be interrupted.
- 4. Applicable Mine Safety and Health Administration rules and regulations should be followed and enforced.
- 5. Site safety, emergency response plans, to include on site emergency response teams, should be shared with the Rockerville Volunteer Fire Department and the Rapid City Fire Department. This is to include all applicable Local Emergency Planning Commission Data, Material Safety Data Sheets, et-al.
- 6. Emergency Contact Information is to be kept updated with the Pennington County Emergency Services Communications Center.
 - a. Staff Comment: Staff will address the Emergency Response Plan, safety requirements, and emergency information as Conditions of Approval in MP 18-03.
- H. South Dakota Department of Transportation
 - 1. SDDOT will continue to work with Croell, Inc. to mitigate sight distance as identified in the TIS upon approval of Mining Permit.
 - 2. If the traffic characteristics of an access to a state highway changes, SDDOT requires the landowner to contact the department, or SDDOT will contact the landowner to determine if a new access permit and mitigations to the existing access are required to maintain appropriate highway safety,
 - http://sdlegislature.gov/rules/DisplayRule.aspx?Rule=70:09:03:03
 - 3. ARSD 70:09:03:03. Permittee to notify the department of changes in traffic characteristics. The permittee shall contact the department to determine if a new access permit and modifications to the access are required if: (1) The land use served by the access changes (2) The traffic volume using the access increases by at least 25%; or (3) The truck percentage of total vehicular volume using the access increases by at least 10%.
 - 4. The department may, without receiving notice from the permittee, initiate such a review and determination, with notice to the permittee.

- a. Staff Comments: A copy of the TIS's Conclusions and Recommendations is attached.
- I. Rapid City Community Planning and Development
 - 1. The City's Future Land Use Plan identifies the appropriate use of the property as "Agriculture". U.S. Highway 16 is identified as a principal arterial street on the City's Major Street Plan. Any use of the property must be designed to ensure that it does not impact U.S. Highway 16 functioning as a principal arterial street.

VI. CONSTRUCTION PERMIT / CP 18-11 REQUIREMENTS UNDER § 507(A) (Section 507(A) effective September 25, 2013)

A. GENERAL DESCRIPTION

1. The applicant will continue to operate the active Perli Quarry as a rock quarry. Soil disturbing activities will include logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer. Estimated project start date is September 2018 and will continue until January 2043.



B. REQUIREMENTS

- 1. Mining was a permitted use with a Construction Permit per § 205(B)(17) (Section 205 prior to amendment on or about March 28, 2018).
- 2. All land disturbance activities be performed in compliance with the Pennington County Storm Water Quality Manual.
- 3. For land disturbance greater than one (1) acre, a Storm Water Pollution Prevention Plan is developed for the site.
- 4. A General Permit for Storm Water Discharges is obtained from SDDENR.

C. ANALYSIS

- 1. The applicant has stated that berms will be constructed to minimize runoff from the site.
- 2. The applicant has stated that existing "pits" will be utilized as detention ponds to prevent storm water from leaving the site.
- 3. The applicant has prepared a Storm Water Pollution Prevention Plan and obtained an Industrial Storm Water Permit from SDDENR (SDR00B591).
- 4. The applicant has prepared a Reclamation Plan that will require a surety or bond that will cover reclamation of 10 acres of disturbance and implementation of storm water BMPs.
- 5. On January 7, 2019, the applicant submitted a bond letter in the amount of \$10,000 for implementation of Best Management Practices for storm water control.

RECOMMENDATION (§ 507(A)): Staff is recommending approval of Construction Permit / CP 18-11 under § 507(A) (effective September 25, 2013) of the PCZO with the following seven (7) conditions:

- 1. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit for Storm Water Discharges Associated with Industrial Activities be continually met;
- 2. That any natural drainage ways and paths be continually maintained;
- 3. The requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed;
- 4. That self-contained toilets be maintained on-site: one (1) unit per 50 employees. The self-contained toilets must meet all State and County regulations. The method and schedule of disposal of the solid waste must be in compliance with State and local rules and regulations;

Item #6 Croell, Inc. May 8, 2019

- 5. That the site shall be re-vegetated as required under § 507(A)(5)(c) and in accordance with the Reclamation Plan submitted by the applicant on September 12, 2018;
- 6. That the applicant sign a Statement of Understanding within ten (10) business days of Permit approval which is available at the Planning Office; and,
- 7. That this Construction Permit expires one (1) year from approval date, and may be reviewed on a complaint basis, or as directed by the Planning Commission and/or the Board of Commissioners to verify that all Conditions of Approval are being met.



230 Croell Drive PO Box 1352 Sundance WY 82729 Phone: 307-283-2221 Fax: 307-283-1450

January 7 2019

Mr. PJ Conover Pennington County Planning & Zoning 130 Kansas City Street, Ste 130 Rapid City SD 57701

RE: BMP (Best Management Practices) Bond Perli Quarry MP 18-02 under 320

Dear Mr. Conover:

Croell Inc. hereby proposes a BMP bond amount of \$ 10,000. This reclamation bond estimate is based upon Pennington County Staff Recommendation item # 12, listed on page 52 of 60 in the Mining Permit documents. Croell Inc. feels this is adequate for BMP's for Stormwater Control. The BMP's that we anticipate using are listed in Section 8 of the Mining Permit Documents. I have listed those Controls on page 2 of this letter. These controls are relatively inexpensive and typically do not require extensive labor or equipment for installation.

If you have any questions or concerns, please feel free to contact me at the Sundance WY office. Thank you.

Sincerely,

CROELL INC.

Kyle Frisinger

Aggregate Manager

9) Controls

- a) Description of control measures and timing of construction:
 - i) Temporary BMP's may include:
 - (1) Good housekeeping ongoing
 - (2) Spill Prevention and response ongoing
 - (3) Silt Fence as deemed necessary
 - (4) Surface roughening as deemed necessary
 - (5) Temporary seeding Spring and/or Fall of each year, as deemed necessary
 - (6) Berm and toe ditch for stockpiles ongoing
 - (7) Rock and sand earthen berms as deemed necessary
 - (8) Rock riprap for outlet protection as deemed necessary
 - (9) Check dams as deemed necessary
 - (10) Straw waddles as deemed necessary
 - (11) Preservation of Natural Vegetation as deemed necessary
 - (12) Magwater as deemed necessary
 - (13) Stormwater bars as deemed necessary
 - (14) Shed and enclosed storage containers as deemed necessary
 - (15) Secondary containment fuel storage areas
 - (16) Other devices or controls as deemed necessary
 - ii) Permanent BMP's may include:
 - (1) Good housekeeping ongoing
 - (2) Spill Prevention and response ongoing
 - (3) Permanent Mulching / Seeding to be completed after final grading of mined areas are completed. Done Spring and/or Fall.
 - (4) Erosion Control Blankets as deemed necessary
 - (5) French drains as deemed necessary
 - (6) Rock riprap for outlet protection as deemed necessary
 - (7) Sediment basin as deemed necessary
 - (8) Preservation of Natural Vegetation as deemed necessary
 - (9) Check dams as deemed necessary
 - (10) Reclamation
 - (11) Other devices or controls as deemed necessary

AGENDA ITEM #7

MINING PERMIT / MP 18-03 UNDER PCZO § 507(B) effective May

<u>1, 2001</u>:

Croell, Inc. To continue the operation of the active Perli pit as a rock quarry. *Planning Commission to make a decision on the Mining Permit.*

Item #7 Croell, Inc. May 8, 2019

STAFF REPORT

GENERAL INFORMATION:

REQUEST: MINING PERMIT / MP 18-03: To continue the

operation of the active Perli pit as a rock quarry for the Rapid City and surrounding area in accordance with Pennington County Zoning Ordinance ("PCZO") § 507(B) in effect May 1, 2001, and as written and in effect prior to the adoption § 320 of

the PCZO.

APPLICANT: Croell, Inc.

APPLICANT ADDRESS: P.O. Box 1352, Sundance, WY 82709

P.O. Box 430, New Hampton, IA 50659

LEGAL DESCRIPTION: S1/2NE1/4; SE1/4NW1/4; That PT of NE1/4SW1/4

lying N of Hwy 16; That PT of SE1/4 lying N of Hwy 16 Including Abandoned Lot H1 of SE1/4, Section 9, T1S, R7E; and That PT of S1/2NW1/4 lying W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4NW1/4; That PT of SW1/4 lying N and W of Hwy 16 Including the Abandoned Portion of Lot H1 of SW1/4, Section 10, T1S, R7E, BHM, Pennington County, South

Dakota.

SITE LOCATION: 13840 S. Highway 16; approximately 0.4 mile from

the intersection of S. Highway 16 and Neck Yoke

Road.

TAX ID: 53734 / 53736

SIZE: 267.86 acres

EXISTING LAND USE: Gravel Mining

ZONING REFERENCE: PCZO § 507(B)

CURRENT ZONING: General Agriculture District

Highway Service District

Item #7 Croell, Inc. May 8, 2019

SURROUNDING ZONING:

North General Agriculture District
South General Agriculture District
East General Agriculture District
West General Agriculture District
Highway Service District

PHYSICAL CHARACTERISTICS: Forested / Hills

UTILITIES: None

REPORT BY: Brittney Molitor

I. PROPOSED RECOMMENDATION

A. Staff will be recommending approval of Mining Permit / MP 18-03 under PCZO § 507(B) in effect May 1, 2001, and as written and in effect prior to the adoption § 320 of the PCZO.

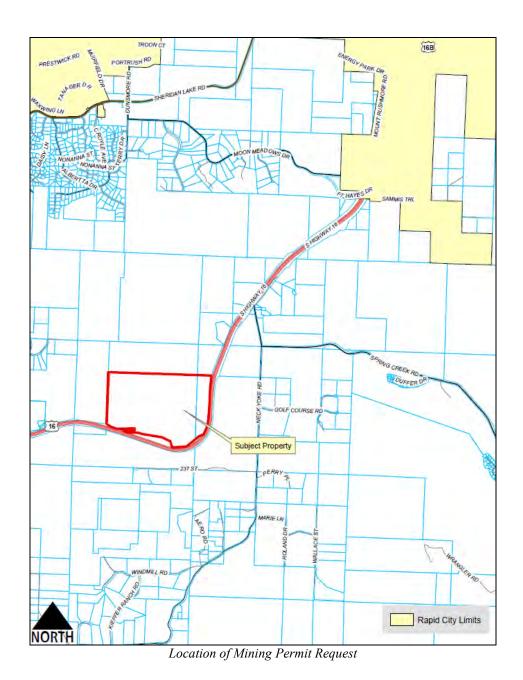
II. GENERAL DESCRIPTION

- A. To continue the operation of the active Perli pit as a rock quarry for the Rapid City and surrounding area.
 - 1. Soil disturbing activities will include logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping.
 - 2. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.
 - 3. Applicant stated that the estimated dates of operation are September 2018 to January 2043.

III. EXISTING CONDITIONS

- A. S1/2NE1/4; SE1/4NW1/4; THAT PT OF NE1/4SW1/4 LYING N OF HWY 16; THAT PT OF SE1/4 LYING N OF HWY 16 INCLUDING ABANDONED LOT H1 OF SE1/4 in Section 9.
 - 1. Is 241.32 acres.
 - a. General Agriculture District ~ 208.89 acres.
 - b. Highway Service District ~ 32.43 acres.

- B. THAT PT OF \$1/2NW1/4 LYING W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4NW1/4; THAT PT OF \$W1/4 LYING N AND W OF HWY 16 INCLUDING THE ABANDONED PORTION OF LOT H1 OF \$W1/4 in Section 10.
 - 1. Is 26.54 acres.
 - a. General Agriculture District.



IV. PROPERTY HISTORY

- A. 1966 Materials testing, haul and pit layouts of Perli Pit for a South Dakota Department of Transportation Project.
- B. 1973 Record of first Subdivision platted (Phase 1 of Cochran Addition) within one mile of existing mining operation.
- C. 1982 South Dakota Department of Environment and Natural Resources (SDDENR) began issuing Mine Licenses.
- D. 1982-1993 South Dakota Department of Transportation (SDDOT) mined sand and gravel at the Perli Pit.
- E. 1983-2011 Pennington County Highway Department mined sand and gravel at the Perli Pit.
- F. 1986-1999 C.R. Schultz Construction Company mined sand and gravel at the Perli Pit.
- G. 1993-1999 Aggregate Construction, Inc. mined sand and gravel at the Perli Pit.
- H. 1999-2005 Quinn Construction, Inc. mined sand and gravel at the Perli Pit.
- I. 2000 Conditional Use Permit / CU 00-36 issued to Border States Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- J. 2002-2006 Pete Lien and Sons, Inc. mined limestone at the Perli Pit. (Mine License indicates an end date of 2148)
- K. 2009-2016 Talley Construction mined sand and gravel at the Perli Pit. (Mine License indicates an end date of 2020)
- L. 2013 Conditional Use Permit / CU 13-06 issued to Bituminous Paving, Inc. for a temporary asphalt plant at the Perli Pit. (ended)
- M. 2015 Croell Redi-Mix, Inc. submitted a request for a Construction Permit / CP 15-17 to continue mining at the Perli Pit.
- N. 2016 Construction Permit / CP 15-17 was denied by the Board of Commissioners.
- O. 2017 Vacation of Section Line Right-of-Way between Sections 9 and 10 approved by the Board of Commissioners.

V. AERIAL PHOTOGRAPHY OF SITE (1998 – 2018)



Perli Pit 1998



Perli Pit 2002



Perli Pit 2003



Perli Pit 2008



Perli Pit 2009



Perli Pit 2011



Perli Pit 2013



Perli Pit 2016



Perli Pit 2017



Perli Pit 2018

VI. REQUEST FOR COMMENT

- A. County Highway Department
 - 1. Highway Department has no comments since the subject property abuts a State Highway and drainage issues are addressed in the permit documents.
- B. County Environmental Planning Supervisor
 - 1. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit for Storm Water Discharges Associated with Industrial Activities be continually met.
 - 2. That the applicant continually maintains and adheres to the Storm Water Pollution Prevention Plan.
 - 3. That erosion control measures, such as seeding and mulching the disturbed area, shall be implemented immediately after the work is completed in the area, but in no case later than 14 days after the Mining Activity has stopped. All erosion control methods (mulch and seed) need to be certified noxious weed-free.
 - 4. That the requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed.
 - 5. There is no Special Flood Hazard Area on the subject property.
 - 6. The site shall be re-vegetated as outlined in the Reclamation Plan.
 - a. Staff Comment: Staff will address as Conditions of Approval of CP 18-11.
- C. County Environmental Planner
 - 1. The applicant must provide self-contained toilets on-site: one (1) unit per 50 employees. The self-contained toilets must meet all State and County regulations, including setbacks. The method and schedule of disposal of the solid waste must be provided to the Planning Department in writing and be in compliance with State and local rules and regulations.
 - a. Staff Comment: Staff will address as Condition of Approval of CP 18-11.
- D. County Natural Resources Director
 - 1. See Noxious Weed Management Plan.
 - a. Staff Comment: Previously signed by applicant.
- E. County 9-1-1
 - 1. No 911 related concerns.
- F. County Ordinance Enforcement
 - 1. Ordinance Enforcement has no objection.
- G. County Fire Administrator
 - 1. At a minimum, additional turning lanes need to be installed along with other modern day traffic safety devices according to South Dakota Department of Transportation and Manual of Uniform

- Traffic Devices specifications at that intersection to mitigate traffic issues.
- 2. Follow recommendations of the South Dakota Department of Transportation (SDDOT), Transportation Impact Study ("TIS").
- 3. The amount of water used at this mining location will be of concern. The Rockerville Volunteer Fire Department has drilled a well west of this location at Station One. This includes the installation of a large water storage unit to be used for fire suppression in the Rockerville Volunteer Fire Department Protection District. If the water tables were to drop due to a large amount of water being used at the Perli Pit, this new water system for fire suppression could be interrupted.
- 4. Applicable Mine Safety and Health Administration rules and regulations should be followed and enforced.
- 5. Site safety, emergency response plans, to include on site emergency response teams, should be shared with the Rockerville Volunteer Fire Department and the Rapid City Fire Department. This is to include all applicable Local Emergency Planning Commission Data, Material Safety Data Sheets, et-al.
- 6. Emergency Contact Information is to be kept updated with the Pennington County Emergency Services Communications Center.
 - a. Staff Comment: Staff will address the Emergency Response Plan, safety requirements, and emergency information as Conditions of Approval.
- H. South Dakota Department of Transportation
 - 1. SDDOT will continue to work with Croell, Inc. to mitigate sight distance as identified in the TIS upon approval of Mining Permit.
 - 2. If the traffic characteristics of an access to a state highway changes, SDDOT requires the landowner to contact the department, or SDDOT will contact the landowner to determine if a new access permit and mitigations to the existing access are required to maintain appropriate highway safety,
 - http://sdlegislature.gov/rules/DisplayRule.aspx?Rule=70:09:03:03
 - 3. ARSD 70:09:03:03. Permittee to notify the department of changes in traffic characteristics. The permittee shall contact the department to determine if a new access permit and modifications to the access are required if: (1) The land use served by the access changes (2) The traffic volume using the access increases by at least 25%; or (3) The truck percentage of total vehicular volume using the access increases by at least 10%.
 - 4. The department may, without receiving notice from the permittee, initiate such a review and determination, with notice to the permittee.

- a. Staff Comments: A copy of the TIS's Conclusions and Recommendations is attached to this Staff Report.
- I. Rapid City Community Planning and Development
 - 1. The City's Future Land Use Plan identifies the appropriate use of the property as "Agriculture". U.S. Highway 16 is identified as a principal arterial street on the City's Major Street Plan. Any use of the property must be designed to ensure that it does not impact U.S. Highway 16 functioning as a principal arterial street.
- VII. MINING PERMIT / MP 18-03 REQUIREMENTS UNDER § 507(B) (Section 507(B) effective May 1, 2001, and as written and in effect prior to the adoption of § 320 of the PCZO)

A. REQUIREMENTS

- 1. No extraction of any mineral or substance exceeding 100 cubic yards from the earth shall be conducted without a Mining Permit issued by the Planning Commission.
- 2. All Mining Permits require an application and site plan. Information, including a transportation plan, location, amount, and type of material to be extracted shall be included in the site plan.
- 3. The application shall also include a written statement of the scope and duration of the mining activity and reclamation plan.

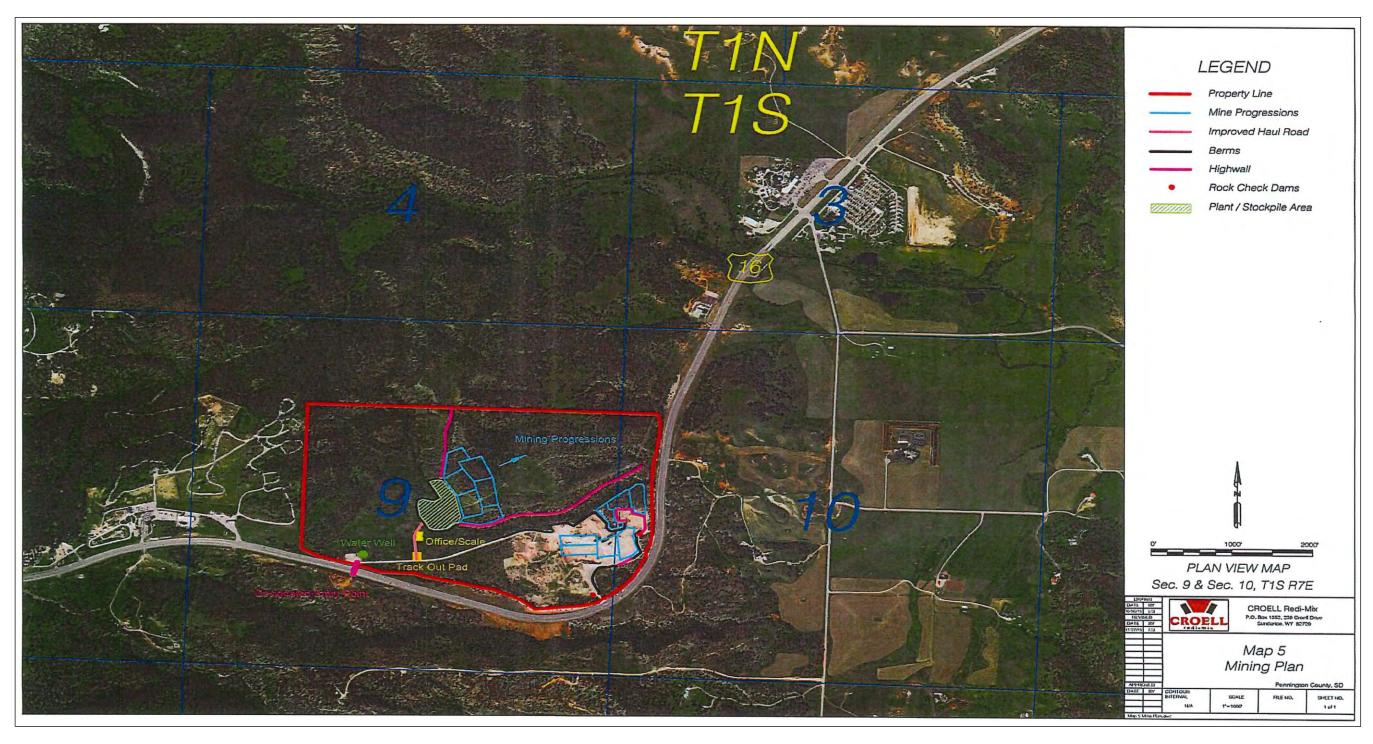
B. ANALYSIS

- 1. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.
 - a. Initial area of disturbance will be eight (8) acres, which will exceed the 100 cubic yards of material extracted.
- 2. The subject properties are zoned General Agriculture District and Highway Service District. Mining under § 507(B) was a permitted use with a Construction Permit in a General Agriculture District per § 205(B)(17) (Section 205 as in effect prior to amendment on or about March 28, 2018) of the PCZO.
- 3. Road and Approaches There are three existing entrances to the site off of Highway 16.
 - a. Entrance 1 north entrance. It is a farm entrance and will not be used due to the steep hillside.
 - b. Entrance 2 middle entrance. This entrance will not be used due to the limited sight distance both north and south. This will be used as an emergency exit only for the employees on site.
 - c. Entrance 3 south entrance. This entrance will be the main entrance to the quarry. Entrance 3 is approximately 82 feet in width.



Entrance Locations

- 4. A site plan, Storm Water Pollution Prevention Plan, and Reclamation Plan was submitted on September 12, 2018.
- 5. On January 7, 2019, the applicant submitted a bond letter in the amount of \$25,000 for 10 acres of disturbed mine land.



Site Plan

- 5. A written statement was submitted by Croell, Inc. on September 12, 2018.
 - a. "Croell Redi Mix is planning on operating the active Perli Quarry as a rock quarry for the Rapid City and surrounding area. Soil disturbing activities will include: logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer."
 - b. Duration of mining activity: September 2018 to January 2043.

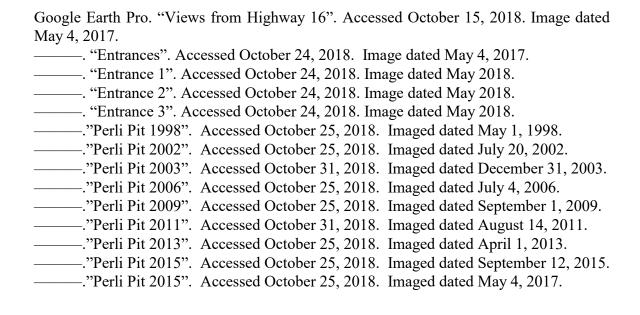
RECOMMENDATION (§ 507(B)): Staff is recommending approval of Mining Permit / MP 18-03 under § 507(B) effective May 1, 2001, and as written and in effect prior to the adoption § 320 of the PCZO with the following fifteen (15) conditions:

- 1. That the conditions of approval of the South Dakota Department of Environment and Natural Resources Mine License be continually met;
- 2. That the applicant submit a copy of the Mine License, issued by the South Dakota Department of Environment and Natural Resources, to the Planning Department and copies of any annual Mine License Reports by December 1st of each year;
- 3. That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit to Operate Under the Air Quality Operating Permit Program and Surface Water Discharge System For Nonmetallic Mineral Processing Plants in South Dakota be continually met;
- 4. That the Conditions of Approval of Construction Permit / CP 18-11 are continually met;
- 5. That Entrance 3 is utilized for all traffic in and out of the site and that Entrance 2 is only used in emergency situations;
- 6. That the site be reclaimed in accordance with the applicant's Reclamation Plan submitted on September 12, 2018;
- 7. That the addresses be properly and continually posted at Entrance 3 so they are visible in both directions of the approach, in accordance with Pennington County's Ordinance #20;

- 8. That Emergency Contact information for the mining operation be kept updated with the Pennington County Emergency Services Communications Center;
- 9. That the location address and related information be updated and maintained in third-party mapping services for the mining operation;
- 10. That an Emergency Response Plan be developed for the mining operation and reviewed by the Pennington County Fire Administrator within sixty (60) days;
- 11. That the hours of the mining operation be from 6 a.m. to 5 p.m. Monday through Saturday;
- 12. That the applicant submit surety and/or bond in the amount of the cost estimate submitted to and approved by the Planning Director to reclaim no less than ten (10) acres;
- 13. That if there is a proposed change in operation from this Mining Permit, that the change be submitted to the Planning Director within thirty (30) days and the Mining Permit reviewed and approved by the Planning Commission;
- 14. That the applicant sign a Statement of Understanding within ten (10) business days of Mining Permit approval, which is available at the Planning Office; and,
- 15. That this Mining Permit be reviewed in five (5) years from approval date, and may be reviewed on a complaint basis, or as directed by the Planning Commission and/or the Board of Commissioners to verify that all Conditions of Approval are being met.

Item #7 Croell, Inc. May 8, 2019

VIII. REFERENCES



Rapid Map. City of Rapid City. 2018 Aerial Photography. Accessed October 31, 2018. Image dated 2018.



230 Croell Drive PO Box 1352 Sundance WY 82729 Phone: 307-283-2221

Fax: 307-283-1450

January 7 2019

Mr. PJ Conover
Pennington County Planning & Zoning
130 Kansas City Street, Ste 130
Rapid City SD 57701

RE: Reclamation Bond Perli Quarry MP 18-02 under 320

Dear Mr. Conover:

Croell Inc. hereby proposes a reclamation bond amount of \$ 25,000 for 10 acres of disturbed mine land. This reclamation bond estimate is based upon Pennington County Staff Recommendation item # 10, listed on page 51 of 60 in the Mining Permit documents. Croell Inc. feels this is adequate for reclamation bond for this location, and it closely resembles the Wyoming Limited Mining Operation bond amount of \$ 3,000 per acre for reclamation bond. See attached for Wyoming Limited Mine Operation Standards and information from South Dakota Department of Environment and Natural Resources.

If you have any questions or concerns, please feel free to contact me at the Sundance WY office. Thank you.

Sincerely,

CROELL INC.

Kyle Frisinger

Aggregate Manager



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Matthew H. Mead. Governor

Todd Parfitt, Director

General Performance Standards for Limited Mining Operations (LMO's)

- 1. Signs A sign shall be posted and maintained at the entrance of the operation that clearly shows the operator's name, address, telephone number, contact name and LMO identification number.
- 2. LMO Boundary It is recommended that the boundary of the LMO area be located and flagged on the ground prior to commencing operations. ALL areas to be affected must be within this boundary, (including exclusive-use access roads, parking areas, equipment staging areas, material stockpiles, etc.). The affected area, excluding access roads, shall not exceed fifteen (15) acres.
- 3. Topsoil All topsoil must be saved and protected for use in reclamation, even if the soil is very rocky. All topsoil stockpiles shall be identified with a sign. Topsoil must be salvaged before the land is disturbed by any other activity, including roads. A stripped buffer zone should be maintained between the pit and any topsoil stockpiles. Topsoil stockpiles shall be located where they will not be disturbed or contaminated and they shall be seeded to provide erosion protection. Topsoil cannot be sold or removed from the site.
- 4. Bond A bond must be posted to cover reclamation of the disturbed area at a rate of \$2000.00/acre or \$3000.00/acre for quarries. Roads used to access the operation must be included in the acreage total when calculating the bond. Bond release cannot occur until all affected lands are reclaimed and vegetation is well established. Generally, at least 2-3 full growing seasons are required.
- 5. Overburden handling No materials (including overburden, topsoil or mineral products) shall be pushed over escarpments or steep slopes or into drainages, streams, or wetlands.
- 6. Roads Roads shall be located on upland areas away from drainages and stream channels. Roads should be ditched to provide proper drainage off the road surface. Culverts shall be installed at all drainage crossings and sized appropriately. Roads used to access the operation are excluded from the disturbance acreage limitation, but must be bonded for reclamation.
- 7. Petroleum products It is recommended that petroleum products not be stored on-site, unless they are properly secured within secondary containment (plastic-lined berms, stocktanks, etc, large enough to contain the full volume of the primary container). Any petroleum contaminated soils must be disposed at a municipal landfill.
- 8. Trash No trash or waste shall be disposed in the mine area (including tires or wood waste). Materials classified as "clean fill" (sand, gravel, rock, brick or concrete with no protruding rebar) may only be buried in the pit with prior written approval from the landowner and the LQD. Such materials should be buried at least four feet deep.
- 9. Reclamation After operations have ceased or within 30 days after abandonment of the LMO, the operator shall notify the LQD and begin reclamation, unless the landowner advises LQD in writing that product will be further utilized and reclamation will be assumed by landowner. All lands shall be graded to 3:1 or flatter slopes and through drainage shall be provided. Pit floors and other compacted surfaces should be ripped to a depth of at least 8-12 inches prior to topsoil spreading.
- 10. Topsoil replacement Topsoil shall be spread evenly over all graded surfaces. Topsoil shall be scarified, disked or harrowed on the contour to control erosion and prepare a proper seedbed prior to seeding.
- 11. Seeding Seeding shall be done at the earliest appropriate time; fall planting after Oct. 15th and before the ground freezes; spring planting prior to April 15th when the ground is not frozen or covered with snow. The seed mix should consist of native, drought tolerant species. Lawn or pasture mixes, even "dryland pasture mix", are generally not suitable for Wyoming's arid climate. The operator should contact LQD for recommended seed mixes.
- 12. Weeds Weeds shall be controlled in all areas to prevent on-site infestations as well as dispersal off-site. The operator should contact the county weed & pest department for assistance.

LMO performance standards (7 2016).pdf



SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES

PROTECTING SOUTH DAKOTA'S TOMORROW...TODAY!

× Menu

SubMenu

Minerals and Mining Program

Mine Licenses



Who Needs a Mine License
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a Mine License
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What Laws Govern Mine License
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Mine License Application and Other
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Operations

Who Needs a Mine License

A mine license is required to mine sand, gravel, rock to be crushed and used in construction, pegmatite minerals; and limestone, iron ore, sand, gypsum, or shale used to make cement or lime; or dredging for commercial resale. Mining of all other minerals requires a mining permit.

For information on mine licenses for sand, gravel, rock to be crushed and used in construction, pegmatite minerals, and limestone, iron ore, sand, gypsum, or shale used to make cement or lime, please email Thomas Cline or Bret Graves, or contact them at (605) 773-4201.

What Activities are Exempt

Landowners that mine sand and gravel for their own personal use and do not sell it are exempt from mine licensing requirements.

What is the Procedure for Obtaining a Mine License

- Submit a mine license application;
- 2. Submit a certification of applicant form;
- 3. Publish a <u>notice of intent to mine</u> in a newspaper local to the mine at least 14 days prior to the commencement of mining;
- 4. At least 30 days prior to the commencement of mining, submit a copy of the notice of intent and a map of the mine site to the required government agencies; and
- 5. Submit a reclamation bond in the amount of \$500 per acre of disturbed land or a \$20,000 statewide reclamation surety.

The mine license will cover any number of sites. For additional sites, an operator only needs to publish a notice of intent, notify the four government agencies, and submit any additional reclamation surety. Units of state and local government are exempt from fee and bonding requirements.

Reclamation Bonding Requirements

Prior to the commencement of mining, an operator must submit a reclamation bond in the amount of \$500 per acre of affected land. In lieu of submitting a reclamation bond for each operation, an operator may submit a \$20,000 statewide reclamation surety to cover all operations throughout the state. Units of state and local government are exempt from bonding requirements.

Annual Report Requirements

The operator is required to file an annual report on the annual report date of the mine license set by the department. The department mails an annual report form for each licensed location to the operator about two months before the annual report date. The department also provides a map for each licensed location so that the operator can show the areas mined and reclaimed overall and since the last annual report date. The completed annual report contains the following information:

- Total acres mined under the license;
- 2. Acres mined under the license since the last annual report date;
- 3. Total acres reclaimed under the license;
- 4. Acres reclaimed under the license since the last annual report date; and
- 5. Tons removed under the license since the last annual report date.

An annual fee of \$100 is required for each privately operated mine site authorized under a mine license. To keep the process as simple as possible, a billing based on the number of mine sites authorized under your mine license for the previous year will be sent to you along with your annual mine license renewal material.

What Laws Govern Mine License Activity

The law that applies to Sand, Gravel, and Construction Aggregate Mining is (SDCL 45-6)

Mine License Application and Other Forms

To download mine license application and other forms, please go to the <u>mine license forms web page</u>. If you cannot download the forms, please e-mail your name and address to <u>Thomas Cline</u> or <u>Bret</u> Graves and the forms will be sent to you.

Other Permits Required

To learn more about other permits that may be required for mine license operations, please go to the one stop permitting page. Also, the federal Mine Safety and Health Administration (MSHA) has additional requirements for mining operations in South Dakota. Please contact their district field office at (605) 348-2076 or check the MSHA web page at MSHA.GOV for more information.

Top of page

Kristi Noem, Governor

Steven M. Pirner, P.E., Department Secretary
Vicki Murray, Executive Assistant
605.773.5559 - fax 605.773.6035
Email SD DENR

Division of Environmental Services

Air Quality
Drinking Water
Feedlot Permit
Ground Water Quality

Minerals & Mining Surface Water Quality Waste Management Water Rights

Division of Financial & Technical Assistance

Geological Survey
Petroleum Release Compensation Fund
Water & Waste Funding
Watershed Protection

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Croell Inc

Perli Quarry Site Plan

Addendum to Map 1,2,3,4,5,6, & 8

Location of all structures within 300 feet of the permit limit

None

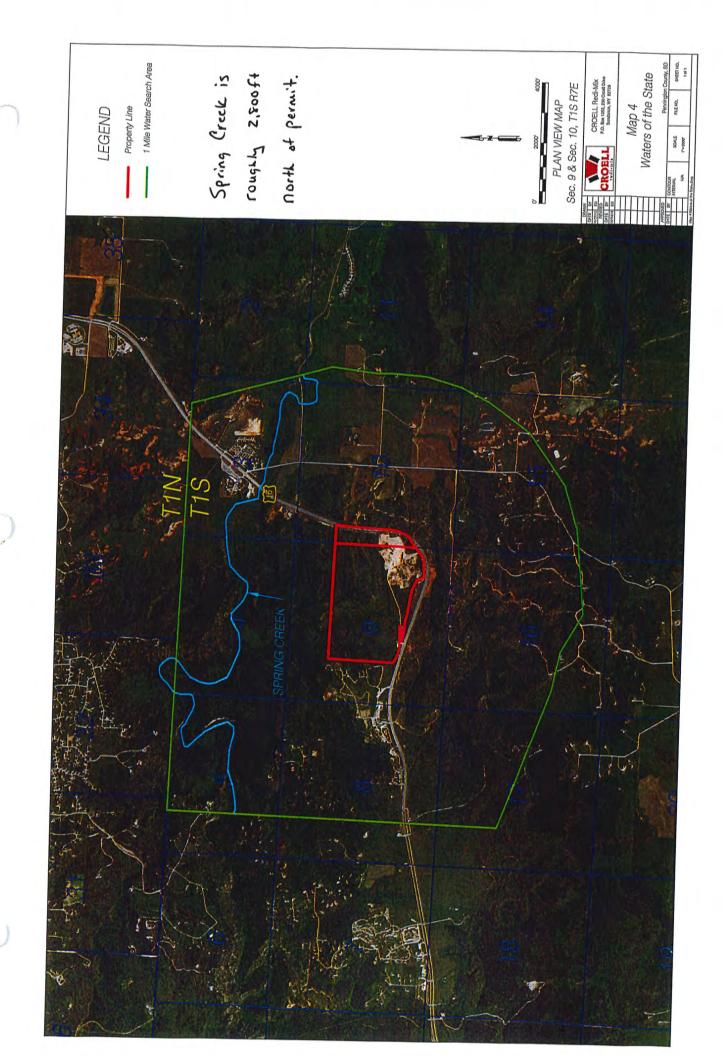
Location of proposed parking areas, signs, and fencing, and a description of the proposed fencing.

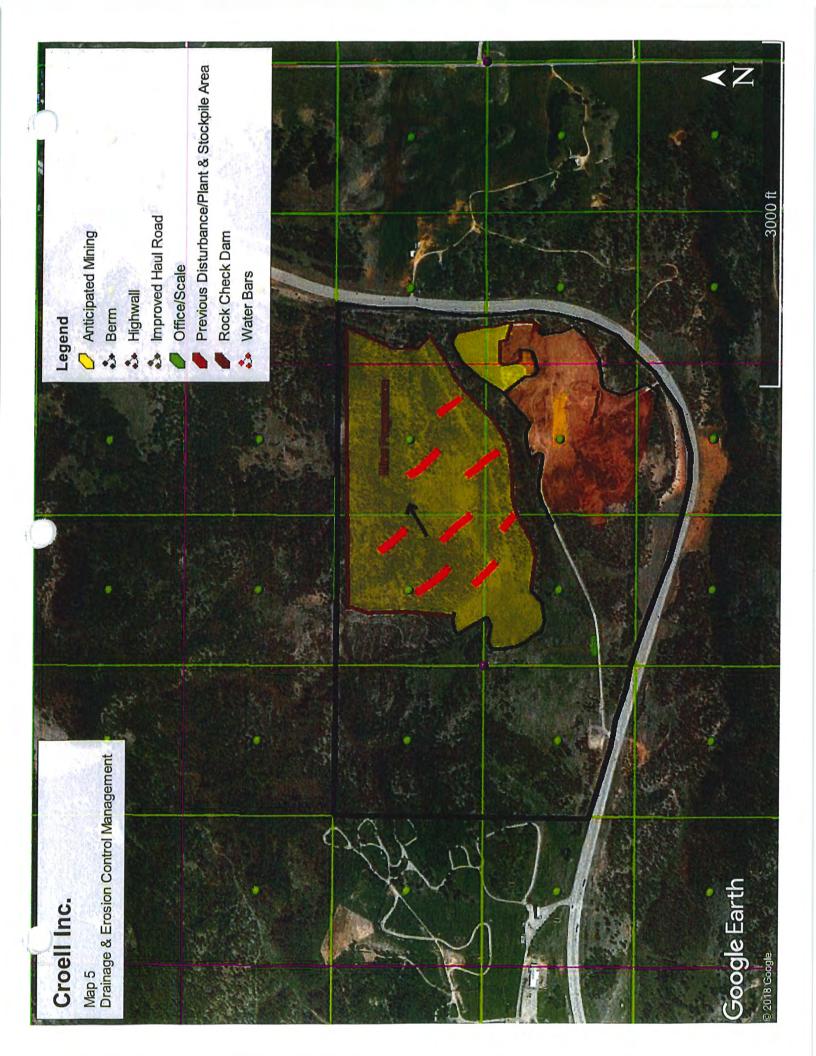
- Proposed Parking Areas will be located in "Previous Disturbance/Plant & Stockpile area" on Map 5.
- Quarry signs showing operator and phone number shall be located at the entrance of the quarry.
- No Trespassing signs will be placed at all entrance's of the property.
- Address sign shall be located at the entrance of the quarry.
- The property is fenced with typical 3-wire barbed wire typical of agricultural fencing.
- Any proposed fencing will match the existing fence already in place.

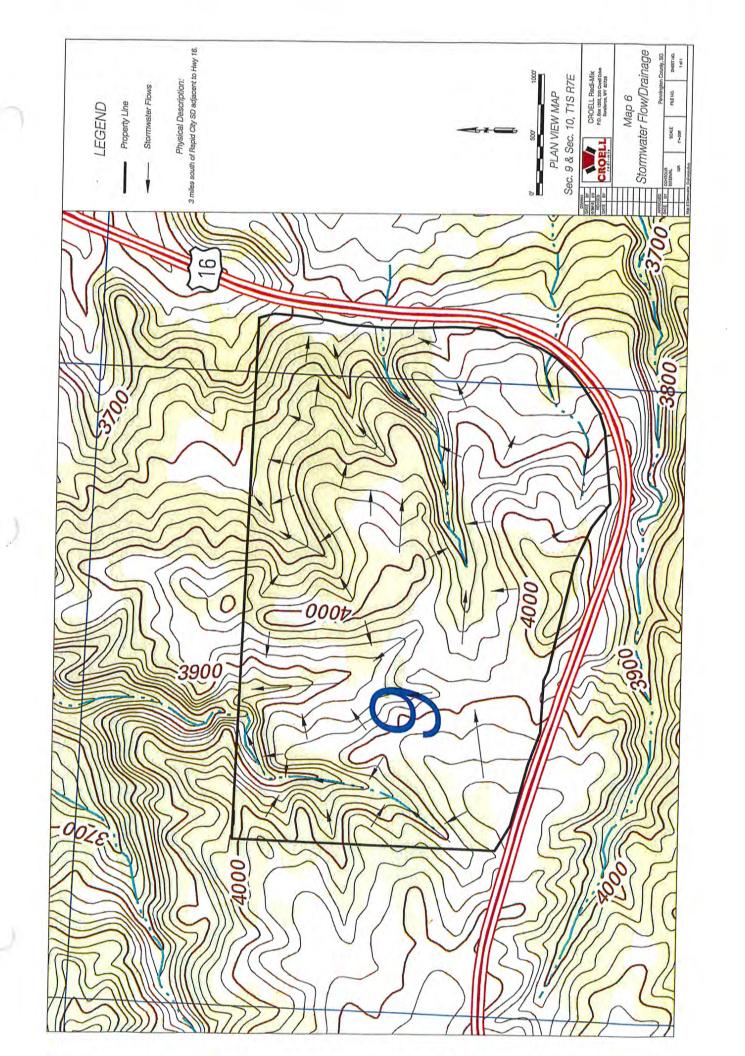


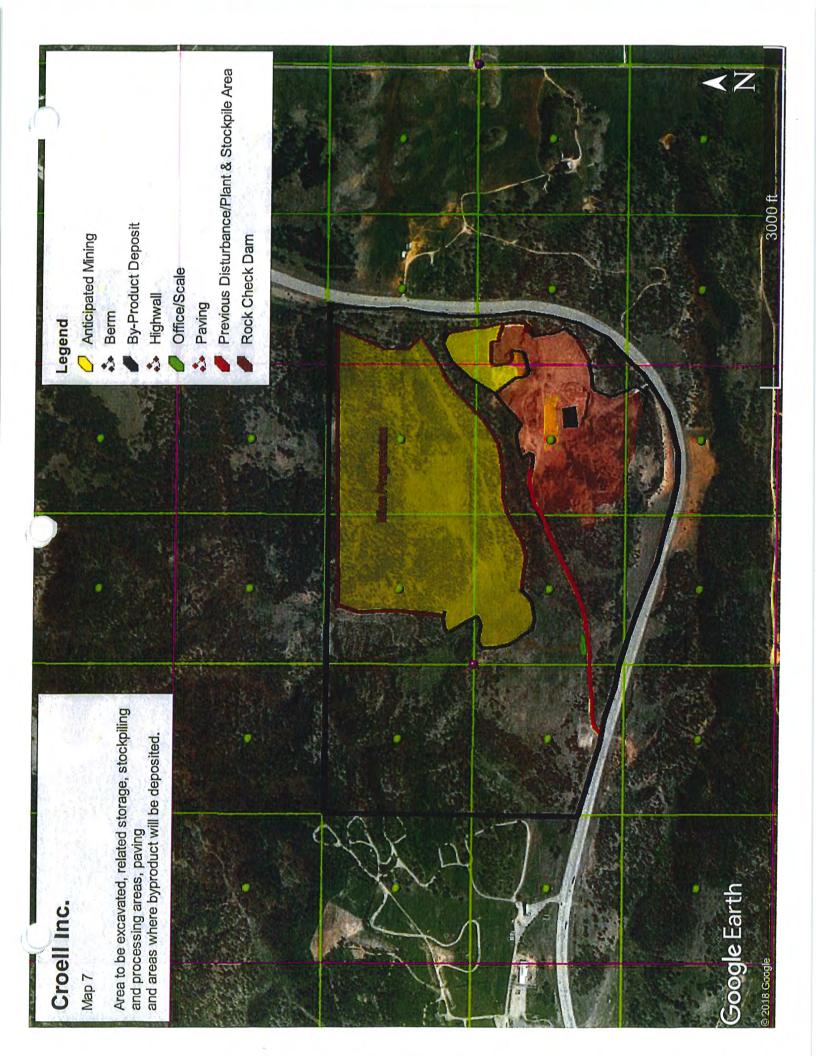














Croell Inc.

Operation Plan

Description of the proposed mining operation and methods and procedures used at the site

- Croell Inc is the current landowner of the Perli Quarry south of Rapid City SD. Croell Inc. has been operating the active Perli Quarry as a rock quarry for the Rapid City and surrounding area. Soil disturbing activities will include: logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer. We anticipate a life of mine of 25 years for this location based upon the ownership now.
- Topsoil and overburden removal will be done with a loader, dozer, scraper, excavator or haul truck. Once the limestone is exposed, we will use a drill & blast contractor to drill holes and load the explosives necessary for the blasting. Once blasted, the limestone will be loaded and hauled to a sand & gravel crushing plant where it will be crushed, screened and sorted into different products. These products will be placed in material stockpiles, where it will be loaded onto highway trucks for delivery to customers.

The Approximate date of the commencement of the operation.

- The property was initially excavated and mined during the early 1970's. The original highway grade for Hwy 16 was through the property and was moved to its current location during the 1970's highway project. It is my understanding that material was mined from the Perli quarry property for this project. The quarry was then operated by various construction firms and operators from the 1970's to the current time including:
 - Aggregate Construction
 - Pennington County
 - Pete Lien & Sons current SD-DENR mining license holder
 - Quinn Construction
 - Talley Construction current SD-DENR mining license holder
 - Croell Inc -- current SD-DENR mining license holder
- The quarry has been active both mining and furnishing material to the Rapid City area from the 1970's to the present. Current reporting to the South Dakota Department of Natural Resources indicate that over 797,000 tons of material has been mined from the property.

- The property was purchased by Croell Inc in the Fall of 2015 at public auction. The sole purpose in purchasing the property was to operate the site as a rock quarry. The entire parcel was purchased at the same time. Croell Inc. honored the existing lease of Talley Construction until the summer of 2016. Tally continued to mine and sell material until July 2016. Croell started mining at the location in the summer of 2017.
- The Perli Quarry currently has the following permits/plans on the property:
 - South Dakota DENR Mining License Talley Construction active since 2009
 - o South Dakota DENR Mining License Pete Lien & Sons Inc active since 2002
 - South Dakota DENR Mining License Croell Inc. active since Dec 2015
 - o Archaeological Study authorized by Croell Inc. completed Dec 2015
 - o Pennington County Building permit Croell Inc completed Dec 2015
 - Building later removed from property.
 - South Dakota DENR Stormwater permit completed Nov 2015
 - o Pennington County Noxious Weed Plan Croell Inc. completed Feb 2016
 - o Pennington County Construction Permit 15-17 completed Feb 2016
 - Later reversed by the South Dakota Supreme Court
 - South Dakota DENR Air Quality Permits for Portable Crushing units completed
 Feb 2016
 - Proven Reserves Study authored by Croell Inc. completed Feb 2016
 - South Dakota DENR Water Right Croell Inc completed Oct 2016
 - o DOT Abandonment of old Hwy 16 Croell Inc completed July 2017
 - o Pennington County Vacation of Section Line 17-02 completed Sept 2017

Type of mining, processing, and transportation equipment to be used.

• Croell Inc. will be mining the Minnekota limestone that is present in the Black Hills of South Dakota. This mining is surfacing mining. The processing will typically be sand & gravel rock-crushing plant that may or may not include a jaw crusher, impact crusher, cone crusher, screens, wash plants, conveyors, stackers, air seperators, generators, loader, dozers, skidsteers, haul trucks and other typical rock crushing equipment. The transportation equipment that will be used in the quarry will be quarry haul trucks. The quarry haul trucks will only be operated within the quarry and will not leave the property. Highway trucks will pick up the product at the material stockpiles and they will transport the material to our customers.

Transportation Plan

- There are three typical entrances to the Perli Rock quarry from Hwy 16. Entrance 1 is the most northern of the entrances. It is a farm entrance and will not be used for due to the steep hillside immediately on the Croell property. Entrance 2 is the middle entrance. It has been used in the past for an entrance/exit. It will not be used by Croell Inc for truck traffic due to the limited site distance both north and south. This will be used as an emergency exit only for the employee's on site. The entrance is currently blocked for truck traffic. Entrance 3 is located to the south and will be used as the main entrance to the quarry. Entrance 3 is approximately 82 feet in width. See Map 2 Structures & Utilities.
- Typical truck traffic on entrance 3 will not cross or use any private, Township or Pennington County roadway. The car and truck traffic will cross from Croell Inc owned property onto South Dakota Department of Transportation Hwy 16.
- Croell Inc continues to work with the South Dakota Department of Transportation on the entrance to Hwy 16. At this point in time, no improvements have been made to the Hwy 16 entrance. Croell has authorized a Traffic Study that was completed by Interstate Engineering and Croell has submitted that Traffic Study to the South Dakota Department of Transportation in Pierre SD.

REDACTED PER SDCL §1-27-1.5

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INFORMATION REDACTED PER SDCL §1-27-1.5

Operational Measures to comply with noise, dust, air contaminants, and vibrations laws, ordinances.

- The quarry operation will be generally located in the same location as previous contactors that have crushed on-site. To ensure noise compliance, Croell will be doing noise testing using its noise dosimeter to verify that it is in compliance with all industry recommendations and MSHA regulations.
- Croell Inc. shall use industry Best Management Practices in an effort to control and minimize fugitive dust, which may include landscaped earthen berms, paved entrance roadways, water sprays, dust covers on conveyor transfer points and sweeping. All crushing equipment shall have the appropriate South Dakota Department of Natural Resources Air Quality permit.
- Croell Inc. will be using a drilling & blasting contractor for its blasting of the limestone.
 Our contractor has extensive experience in his field and is Wyoming Certified. South
 Dakota does not have appropriate certification available. Croell's contractor will be
 using several portable seismographs placed on the quarry property to ensure it will
 meet the requirements of the Vibration and Blasting portion of Section 320.
- To ensure all ordinances are being followed:
 - Croell's Environmental Coordinator, will be responsible for ensuring compliance with all permits and ordinances assisting the Aggregate manager in its implementation, maintenance and revision(s).
 - o Croell's Aggregate Manager, will be designated as a qualified person for inspections of this site and he will also be responsible for all operations at this site.
 - On-site Supervisors shall conduct onsite reviews and inspections of the appropriate permits and ordinances. Comprehensive site compliance as well as inspection scope and frequency is developed in accordance with the Pennington County Stormwater Manual and applicable South Dakota Department of Environment and Natural Resources (DENR) Best Management Practices (BMP's), rules and regulations. Responsibilities will also include record keeping, and construction and maintenance of BMP's.

Operational Measures to prevent groundwater and surface water degradation.

- Groundwater depth is estimated at 300 ft. or greater based upon the Water Well Drill Log of Victoria Perli. This well is located approximately 430 ft. from the east edge of the permit boundary. Mining depth will not exceed 100 ft. in depth, so no groundwater will be encountered in the mining operation.
- The closest surface water is Spring Creek of South Dakota and is located 2,800 ft. (1/2 mile) north of the permit boundary. Croell will not allow any sediment or water to leave the permit boundary, unless it obtains a South Dakota Water Discharge Permit. In case

of the South Dakota Water Discharge permit, if a discharge occurs, Croell will test the discharge in order to verify it will meet the South Dakota permit requirements. At the present time, Croell does not have a South Dakota Water Discharge permit and does not intend to discharge water or sediment off of the permit boundary.

Measured or estimated depth to groundwater.

- Three(3) water well are within 1,500 ft. of the permit boundary.
 - O Victoria Perli water well located 431 ft. to the east of the permit boundary.
 - Water depth is 308 ft.
 - Tom Conway water well located 1,025 ft. to the south of the permit boundary.
 - Water depth is 391 ft.
 - Bear Country water well located 921 ft. to the west of the permit boundary.
 - Water depth is 1,105 ft.
- No excavation will be done to the water level.

Operational measures to stabilize topsoil and other material stockpiles.

All available topsoil shall be removed from the affected land prior to mining and segregated from the limestone and any overburden material present. If the topsoil is not directly placed back on to a backfill area within 30 days, Croell will temporary seed the topsoil stockpile in order to control any deterioration of the topsoil. Topsoil will be handled to comply with South Dakota Codified Laws 45-6-67(4).

All available overburden material will be backfilled into the mined-out pit areas; in addition, non-marketable reject or waste material may be present and will also be backfilled into the pit area. As soon as the pit development allows, Croell will initiate a direct backhaul or leveling of any potential overburden and reject material to the existing pit. At the time of final reclamation, Croell will backfill those materials in the exhausted pit area.

The post-mining highwall slopes will tie to undisturbed native lands with as little change in slope gradient as possible. The actual final slopes and configurations will approximate premining contours and will depend upon final pit configurations and the full extent of pit development. The pit floor will be generally follow the terrain to reflect pre-mine topography. The borders of the pit will provide some topographic diversity with the highwalls being knocked down to 4H:1V slopes.

For all topsoil stockpiles that are left un-disturbed for 30 days, Croell will seed a temporary seed mix for these stockpiles

Croell will seed a permanent seed mixture on reclaimed lands at the first available suitable seeding period in the spring or fall. In general, permanent seeding will not occur after May 15 in the spring and will occur from mid-September through October in the fall. Permanent seeding will not occur when the topsoil is too wet or too dry or frozen to accommodate normal agricultural equipment operation.

Operational measures to ensure no wetland is disturbed or written approval from the US Army Corp of Engineers or the South Dakota Department of Environmental and Natural Resources (SD DENR) for disturbance of wetland

No wetland will be disturbed during the mining operation. Croell personnel have surveyed the site and there is no wetland present at the location.

Reclamation Plan

See Attached.

Perli Quarry Reclamation Plan

A. Premining Land Use

Premining land use was as an existing rock quarry, wildlife habitat, and livestock grazing. The date of inception of this quarry is unknown, as South Dakota Department of Environment and Natural Resources records indicate disturbance as early as 1985. It is likely mining disturbance occurred on this property previous to South Dakota Dept of Environment & Natural Resources standards that were adopted in 1983. The property has been mined by various operators since its inception. Operators that have had mine licenses at this site include:

- Pennington County disturbance from 1985 thru 1989
- Aggregate Construction disturbance from 1994 thru 1998
- Quinn Construction disturbance from 2000 thru 2002
- Pete Lien & Sons Inc disturbance from 2002 thru 2006
 - Current Mine License holder
- Talley Construction disturbance from 2009 thru 2016
 - Current Mine License holder
- South Dakota Department of Transportation dates of disturbance unknown
- C. R. Schultz Construction dates of disturbance unknown

The property is located approximately 3 miles south of Rapid City adjacent to Hwy 16. See map RP-1, Perli Quarry General Location.

The current disturbance is approximately 33.5 acres. Pete Lien & Sons reporting (1/28/16) identified 26.0 acres of unreclaimed area. Talley Construction (3/30/16) identified 7.5 acres of unreclaimed property. See map RP-3, Perli Quarry Previous Disturbance.

Croell Redi-Mix purchased the property in November 2015. Croell then included this site under mine license 96-604 in January 2016, SD-DENR gave this location site number 604010.

B. Postmining Land Use

The postmining land use will be pasture land and wildlife use.

C. Backfilling and Contouring Practices

All available topsoil shall be removed from the affected land prior to mining and segregated from the limestone and any overburden material present. If the topsoil is not directly placed back on to a backfill area within 30 days, Croell will temporary seed the topsoil stockpile in order to control any deterioration of the topsoil. Topsoil will be handled to comply with South Dakota Codified Laws 45-6-67(4).

All available overburden material will be backfilled into the mined-out pit areas; in addition, non-marketable reject or waste material may be present and will also be backfilled into the pit area. As soon as the pit development allows, Croell will initiate a direct backhaul or leveling of any potential overburden and reject material to the existing pit. At the time of final reclamation, Croell will backfill those materials in the exhausted pit area.

The post mining highwall slopes will tie to undisturbed native lands with as little change in slope gradient as possible. The actual final slopes and configurations will approximate premining contours and will depend upon final pit configurations and the full extent of pit development. The pit floor will be generally follow the terrain to reflect premine topography. The borders of the pit will provide some topographic diversity with the highwalls being knocked down to 4H:1V slopes. If highwall reduction is deemed impractical, necessary fencing will be installed to protect the public.

Similarly, along the haul/access road corridors, Croell will blend the route into the adjacent native lands; small quantities of cut and fill may be necessary. Croell shall not be required to reclaim the remaining portion of the haul/access road which will remain open for use by the owners (Croell) and other authorized parties.

D. Revegetation Practices

Croell will normally not need to rip the replaced overburden or waste materials to reduce compaction and to assist in holding redistributed topsoil because of the unconsolidated and granular nature of the materials.

Croell will redistribute all salvaged topsoil. Topsoil is limited in the area with sampling indicating a depth of zero(0) to six(6) inches over most of the proposed mining areas above the limestone deposit. Croell will haul the topsoil with haul trucks, scrapers, and/or other heavy equipment and spread the topsoil with a motor patrol (blade). The topsoil will be replaced as soon as practical after any necessary backfilling or contouring is completed.

For all topsoil stockpiles that are left un-disturbed for 30 days, Croell will seed a temporary seed mix for these stockpiles. The temporary seed mix shall consist of the following seed blend:

Plant Species	Pounds Pure Live Seed Per Acre
Western wheatgrass	3.0 to 8.0
Slender wheatgrass	1.0 to 6.0
Streambank wheatgrass	1.0 to 5.0
Thickspike wheatgrass	1.0 to 6.0
Total	12.0 to 15.0

The Croell will redistribute topsoil when properly backfilled areas are available. The reclamation procedures will seek to employ direct haul of topsoil to backfilled pit areas as soon as the overall pit development allows.

Croell will redistribute topsoil only when topsoil moisture conditions are suitable for handling, minimizing compaction, etc. Croell will chisel plow and/or disk the redistributed topsoil to create a suitable seedbed.

Croell will seed a permanent seed mixture on reclaimed lands at the first available suitable seeding period in the spring or fall. In general, permanent seeding will not occur after May 15 in the spring and will occur from mid-September through October in the fall. Permanent seeding will not occur when the topsoil is too wet or too dry or frozen to accommodate normal agricultural equipment operation.

Normally, Croell or their contractor will use standard farming equipment to drill seed the Permanent Seed Mix listed below. If broadcast, the rates of application will be doubled.

Croell or their contractor will drill seed the following Permanent Seed Mix on all permanently reclaimed lands at the rate listed. Croell does not anticipate using a cover crop or mulch crop.

Plant Species	Pounds Pure Live Seed Per Acre
Western wheatgrass	4.0
Slender wheatgrass	4.0
Green needlegrass	2.0
Total	10.0

In some cases, topsoil may be redistributed when soil moisture conditions are not suitable for drilling the Permanent Seed Mix. Generally, Croell will mow the annual grain crop and drill the Permanent Seed Mix at the first suitable seeding period.

Croell will ensure that all seed used during permanent and temporary seeding operations is certified as weed-free. Croell may elect to change the seed mixes, due to availability and success & failure of previous applications.

Both the Temporary Seed Mix and Permanent Seed Mix were selected due to Croell's experience with these seed mixes in the Black Hills of South Dakota. The Temporary Seed Mix was used and approved at the Rogers Quarry at Sundance WY by the Wyoming Department of Environmental Quality. Croell has used a variance of the Permanent Seed Mix also at the Rogers Quarry at Sundance WY. The Seed Mixes were also sent to Pennington County Conservation District, in which Matt Ogden from the Rapid City office, commented that both mixes should suffice.

E. Protection of Newly Seeded Reclamation

Croell will protect newly seeded areas from domestic animal grazing by one of two methods.

1. Grazing Deferrals

Croell's primary method will involve grazing deferral. The domestic animal grazing will be excluded during the initial plant growth periods. Domestic animals will generally be excluded for the first two growing seasons for each unit of permanent reclamation. After these grazing exclusions for the first two growing seasons, Croell will review vegetation and determine whether additional grazing deferral is necessary.

2. Fencing

Alternatively, Croell may fence the re-vegetated areas for at least the first two growing seasons.

After these fencing/grazing deferrals for the first two growing seasons, Croell will review to determine whether additional grazing deferral is necessary.

F. Erosion, Siltation and Pollution Prevention

Croell will rely on the use of temporary vegetation, berms and ditches around disturbed areas and reclaiming lands through seeding as quickly as possible to control erosion and prevent pollution.

If it appears that unusual or unwarranted sediment deposition occurs at certain locations, Croell will take corrective actions such as culvert realignment, small v-ditches cut into topsoil, additional berms and/or other conveyance devices to redirect surface water flow. Croell will also consider the use of alternate sediment control methods.

G. Water Use in Reclamation

Croell does not plan any use of groundwater or surface water in reclamation activities. Croell does not anticipate any hydro mulch or hydro seeding practices and does not plan to irrigate any reclaimed lands.

H. Weed Control

The Croell will strive to prevent the spread and/or serious infestations of designated and prohibited noxious weeds within the reclaimed areas through the following practices:

- Disturb only the minimum amount of land necessary.
- Croell will use grazing controls, selective fencing and other practices to limit the use of reclaimed lands by domestic grazing animals.
- If weed infestations occur, the Croell will consult with the Pennington County Weed & Pest for suitable control practices. All applications of chemical herbicides will be made by licensed applicators.

I. Reclamation Timetable

The actual date for permanent reclamation will depend upon regional market sales, the rate of mining, and other reclamation responsibilities by current mine license holders (Talley Construction and Pete Lien & Sons Inc). See RP-4, Perli Quarry Current Mine License Disturbance and Attachment A. Croell does commit to initiating direct backfilling and completing reclamation as soon as possible. In 2016, Croell anticipates disturbance of 8.0 acres to enlarge the quarry footprint and create a stockpile area. In 2017, Croell anticipates an additional 3 acres being disturbed with 1 acre reclaimed of Croell disturbance. For the 5 year period of 2018 thru 2023, Croell anticipates reclaiming 1.0 acre for 1.0 acre disturbed. Each year from 2018 to 2023, disturbance and reclamation will not match concurrently. Each year mining and reclamation will vary depending on mine conditions, production, sales, and other operator's responsibilities. For every 5 year block of mining activity from 2023 through end of mine, Croell anticipates 1.0 acre of reclamation for every 1.0 acre mined.

At this time, Croell has not transferred liability for other operator's mining responsibility.

Additional reclamation during these years is dependent on other operator's responsibilities, along with reclaiming areas of the mine that are not being currently used. Mine progression will typically follow the sequence outlined in RP-2, Perli Quarry Anticipated Disturbance.

ATTACHMENT A - CURRENT MINE LICENSE OPERATORS

PERLI QUARRY

records obtained by SD-DENR Reporting

Aggregate		Pennington	Pete Lien	Quinn	Talley	Croell	Total
	Construction	County	& Sons	Construction	Construction	Inc.	
1983							
1984							
1985		8,000			-		8,000
1986		10,000				<u> </u>	10,000
1987		12,000					12,000
1988		14,000				······································	14,000
1989		20,000				······································	20,000
1990							20,000
1991							
1992						**************************************	
1993							
1994	25,000						25,000
1995	2,500					* · · · · · · · · · · · · · · · · · · ·	2,500
1996	2,000						2,000
1997	5,608						5,608
1998	4,000					· · · · · · · · · · · · · · · · · · ·	4,000
1999							-,000
2000				17,698			17,698
2001			-	97,849			97,849
2002			47,501	49,102			96,603
2003			27,781				27,781
2004			44,949			· · · · · · · · · · · · · · · · · · ·	44,949
2005			14,992				14,992
2006			49,705				49,705
2007			-				
2008							_
2009					21,345		21,345
2010					26,449		26,449
2011					28,291		28,291
2012					25,010		25,010
2013					34,402		34,402
2014					55,896		55,896
2015					64,221		64,221
2016					43,132		43,132
2017	20.400					45,998	45,998
	39,108	64,000	184,928	164,649	298,746	45,998	797,429



Mine License



mine construction aggregate, pegmatite minerals, or limestone, iron ore, sand, gypsum or The Department of Environment and Natural Resources renews Mine License 96-604 to shale used in the process of making cement or lime in accordance with SDCL 45-6 for:

CROELL INC PO BOX 1352 SUNDANCE WY 82729-1352 Secretary

Dept. of Environment and Natural Resources

This license expires December 4, 2018.

- Any authorization to operate under this license does not convey any property rights or any exclusive privilege.
- Prior to the commencement of any mining operation, the operator is required to publish a Notice of Intent to Mine and notify several
- The operator is required to maintain an adequate amount of reclamation surety in accordance with SDCL 45-6-71.
- The federal Mine Safety Health Administration (MSHA) has additional requirements for mining operations in South Dakota. Please contact their district field office at 605.348.2076 or check the MSHA web page at http//www.msha.gov/ for more information.



December 22, 2015

Rapid City Journal 507 Main Street Rapid City, SD 57701

RE: Notice of Intent to Mine

Attn. Classified Dept.

Please publish the enclosed Notice of Intent to Mine in the Rapid City Journal as soon as possible. I need the Notice published once(1). When complete, please send an Affidavit of Publication showing the dates published and a copy of the publication.

lease mail to:

Kyle Frisinger Croell Redi Mix P.O. Box 1352 Sundance WY 82729

If you have any questions or concerns, please feel free to contact me at the Sundance WY office at 307-283-2221. Thank you.

Sincerely,

CROELL REDI-MIX

Kyle Frisinger Aggregate Manager Northern Wyoming and South Dakota

NOTICE OF INTENT TO MINE

Notice is hereby given that a mining operation is to be conducted by Croell Redi-Mix P.O. Box 1352 Sundance WY 82729. Legal location of the mine is: S1/2NE1/4; SE1/4NW1/4; that portion of NE1/4SW1/4 Lying N of Hwy 16; that portion of SE1/4 lying N of Hwy 16 Section 9, T1S R7E. That portion of S1/2NW1/4 lying west of 16; that portion of SW1/4 lying N and W of Hwy 16 Section 10, T1S R7E Pennington County SD. General location of the mine: 3 miles south of Rapid City along Hwy 16. Material to be mined: Limestone.

The operation is to begin by January 1st, 2016 and will be completed to include final reclamation, by January 1st 2041. Proposed future use of the affected land: final reclamation will consist of regarding, replacing topsoil, and reseeding to allow the area to be returned to pasture land.

Additional information about the operation may be obtained from either Croell Redi-Mix at 307-283-2221 (phone) with the Environmental Coordinator or the South Dakota Department of Environment and Natural Resources, Minerals and Mining Program, Joe Foss Building, 523 East Capital Avenue, Pierre, SD 57501-3181, 605-773-4201

Affidavit of Publication

SPEED OF SOUTH DAKOLE

county of Pennington

Dec. 24
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NOTICE OF
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Notice is hereby given that a
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Box 1352 Surdance WY 82729. Le
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That portion of S1/2NW1/4 lying
West of 16; that portion of SW1/4 lyling N and West Hwy 16 Section 10,
TIS RYE Pennington County SD.
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The operation is to begin by Janoury 1st, 2016 and will be completed to include final reclaimation, by January, 1st 2041. Proposed future use of the affected
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operation may be obtained from

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(Published once at the total approximate cost it \$31.92).

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DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

January 12, 2016

Roger Croell Croell Redi-Mix, Inc. PO Box 1352 Sundance, WY 82729-1352

S604010

Dear Mr. Croell,

A new mine license for Croell Redi-Mix, Inc. has been issued with site number 604010, in accordance of SDCL 45-6. Your request has been granted for the proposed mine site located in S1/2 NE1/4, SE1/4 NW1/4, NE1/4 SW1/4, SE1/4 in Section 9 Township 001S, Range 07E and S1/2 NW1/4, SW1/4 in Section 10, Township 001S, Range 07E; Pennington County, South Dakota.

Even though the new license has been issued, before you begin mining, you will need to have a Notice of Intent to Mine published in a newspaper circulating in the general location of the mine. The notice, along with a map of the mine area, must also be sent to the following agencies: SD Department of Environment and Natural Resources, SD Department of Education and Cultural Affairs, SD Department of Game, Fish, & Parks, and the local conservation district.

A mine license does <u>NOT</u> convey any property rights or exclusive privilege. Permission must be obtained from the landowner before mining begins. Local governments may have additional requirements that need to be met, such as obtaining special use permits. You will need to contact the local governing authorities for their requirements.

If you have any questions, please feel free to contact the Minerals and Mining Program at (605) 773-4201. Thank you for your cooperation in this matter.

Sincerely.

Bret Graves

Minerals and Mining Program



December 22, 2015

South Dakota Department of Environment and Natural Resources Minerals and Mining Program Joe Foss Building 523 East Capital Avenue Pierre, SD 57501-3181

RE: Notice of Intent to Mine

As required by SDCL 45-6-69, I am required to notify you of our Notice to Intent to Mine. I am submitting a copy of the Notice, and also a copy of the rock quarry location. The site is an active rock quarry and has been mined by various operators since 1983. The site also has had numerous South Dakota Department of Environment and Natural Resources Mining licenses. Current Mine Licenses include Talley Construction and Pete Lien & Sons Inc.

Li you have any questions or concerns, please feel free to contact me at the Sundance WY office at 307-283-2221. Thank you.

Sincerely,

Kyle Frisinger

Aggregate Manager

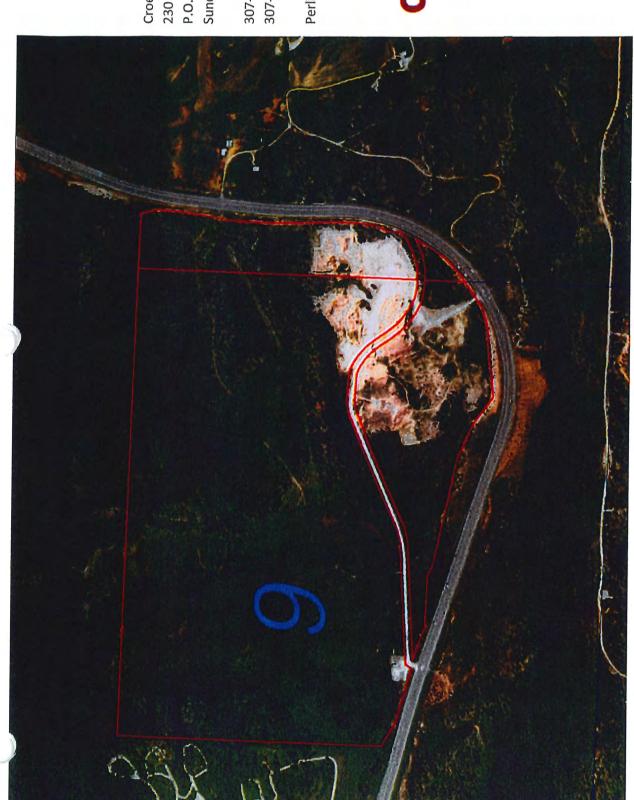
South Dakota and Northern Wyoming

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Croell Redi Mix 230 Croell Drive

P.O. Box 1352 Sundance WY 82729

307-283-2221 PH 307-283-1450 FAX

Perli Quarry





November 11, 2015

Mike Fosha State Archaeological Research Center P.O. Box 1257 Rapid City, SD 57709-1257

RE: Notice of Intent to Mine

As required by SDCL 45-6-69, I am required to notify you of our Notice to Intent to Mine. I am submitting a copy of the Notice, and also a copy of the rock quarry location. The site is an active rock quarry and has been mined by various operators since 1983. The site also has had numerous South Dakota Department of Environment and Natural Resources Mining licenses. Current Mine Licenses include Talley Construction and Pete Lien & Sons Inc.

I will need written correspondence of your findings. Please direct all correspondence myself at:

Kyle Frisinger Croell Redi-Mix P.O. Box 1352 Sundance WY 82729 307-283-2221 PH 307-283-1450 FAX

If you have any questions or concerns, please feel free to contact me at the Sundance WY office at 307-283-2221. Thank you.

Sincerely,

Kyle Frisinger

Aggregate Manager

South Dakota and Northern Wyoming

11/19/15 Response Received.



November 11, 2015

Stan Michaels
Energy and Minerals Coordinator
South Dakota Game, Fish & Parks
4130 Adventure Trail
Rapid City, SD 57702

RE: Notice of Intent to Mine

As required by SDCL 45-6-69, I am required to notify you of our Notice to Intent to Mine. I am submitting a copy of the Notice, and also a copy of the rock quarry location. The site is an active rock quarry and has been mined by various operators since 1983. The site also has had numerous South Dakota Department of Environment and Natural Resources Mining licenses. Current Mine Licenses include Talley Construction and Pete Lien & Sons Inc.

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Kyle Frisinger Croell Redi-Mix P.O. Box 1352 Sundance WY 82729 307-283-2221 PH 307-283-1450 FAX

If you have any questions or concerns, please feel free to contact me at the Sundance WY office at 307-283-2221. Thank you.

Sincerely,

Kyle Frisinger

Aggregate Manager

South Dakota and Northern Wyoming

nt via Electronic Mail. Orginal mailed.

No response received.



November 11, 2015

Pennington Conservation District 414 E Stumer Rd. Suite #300 Rapid City, SD 57701

RE: Notice of Intent to Mine

As required by SDCL 45-6-69, I am required to notify you of our Notice to Intent to Mine. I am submitting a copy of the Notice, and also a copy of the rock quarry location. The site is an active rock quarry and has been mined by various operators since 1983. The site also has had numerous South Dakota Department of Environment and Natural Resources Mining licenses. Current Mine Licenses include Talley Construction and Pete Lien & Sons Inc.

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If you have any questions or concerns; please feel free to contact me at the Sundance WY office at 307-283-2221. Thank you.

Sincerely,

Kyle Frisinger

Aggregate Manager

South Dakota and Northern Wyoming

No response Received.

July 25, 1966

Mr. Manley Houghton District Materials Engineer Rapid City, South Dakota

Re: VV 9360-8

Pennington County

F 017-1

Dear Sir;

Test results are reported herewith on nine samples of surfacing gravel.

Yours truly,

DEPARTMENT OF HIGHWAYSMATERIALS TESTING LABORATORY

Helmer E. Everson
Engineer of Tests

HEE:dg cc:Bunn Soils Frankforter WU Ph Date Time CC

South Dakota Department of Highways MATERIALS TESTING LABORATORY Pierre, S. Dak.

Test No. AVE. VV 9360-8

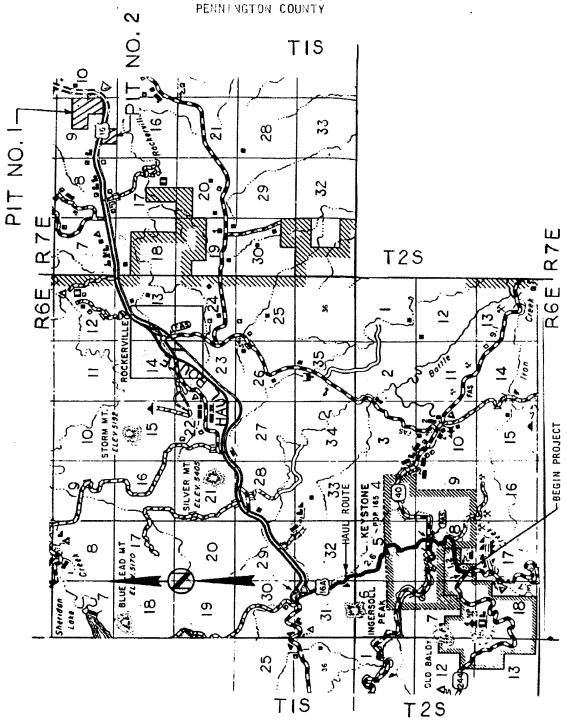
County Pannington

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Submitted by		orted
Report to	Preliminary Control No. 5220	19
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HAUL LAYOUT PIT NO. 1 - LIMESTONE S1/2 NE1/4 AND NE1/4 SE1/4 SEC. 9, TIS, R7E AND NW1/4 SW1/4 SEC. 10, TIS, R7E PENNINGTON COUNTY

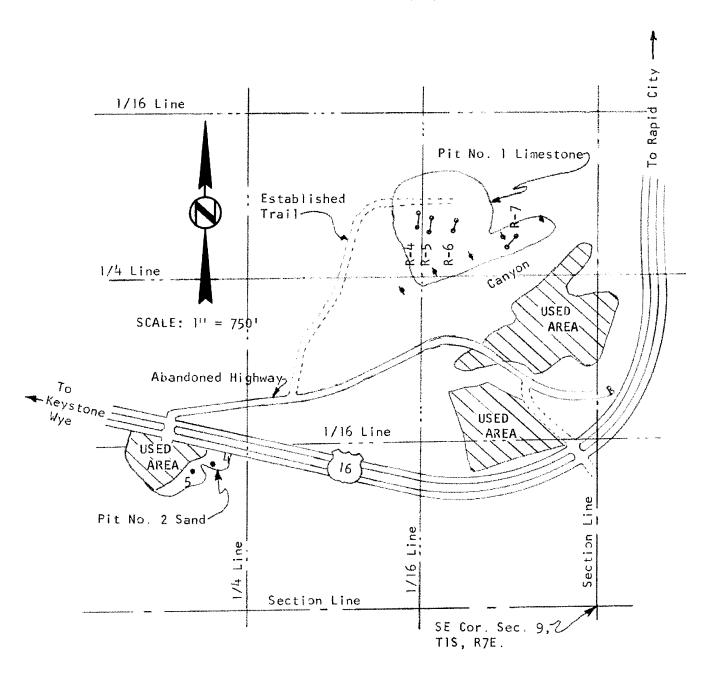
PIT NO. 2 - SAND SEL SWL SEC. 9, TIS, RTE PENNINGTON COUNTY



PIT LAYOUT

PIT NO. 1 - LIMESTONE $S_{\frac{1}{2}}^{\frac{1}{2}} NE_{\frac{1}{4}}^{\frac{1}{4}} AND NE_{\frac{1}{4}}^{\frac{1}{4}} SEC. 9, TIS, R7E$ AND $NW_{\frac{1}{4}}^{\frac{1}{4}} SW_{\frac{1}{4}}^{\frac{1}{4}} SEC. 10, TIS, R7E$ PENNINGTON COUNTY

PIT NO. 2 - SAND SE¹/₄ SW¹/₄ SEC. 9, TIS, R7E PENNINGTON COUNTY



records obtained by SD-DENR Reporting

	Aggregate	Pennington	Pete Lien	Quinn	Talley	Croell	Total
	Construction	County	& Sons	Construction	Construction	Inc.	
1983							-
1984		-					
1985		8,000					8,000
1986		10,000					10,000
1987		12,000					12,000
1988		14,000				-	14,000
1989		20,000					20,000
1990							-
1991							-
1992							_
1993							-
1994	25,000						25,000
1995	2,500						2,500
1996	2,000						2,000
1997	5,608						5,608
1998	4,000						4,000
1999	-						-
2000	-			17,698			17,698
2001			-	97,849			97,849
2002			47,501	49,102			96,603
2003			27,781				27,781
2004			44,949				44,949
2005			14,992				14,992
2006			49,705				49,705
2007			-				
2008							
2009					21,345		21,345
2010					26,449		26,449
2011					28,291		28,291
2012					25,010		25,010
2013					34,402		34,402
2014					55,896		55,896
2015					64,221		64,221
2016					43,132		43,132
2017						45,998	45,998
-	39,108	64,000	184,928	164,649	298,746	45,998	797,429



2050 West Main Street, Sulte #1 Rapid City, SD 57702-2493 Telephone: 605-394-2229

Fax: 605-394-5317

December 11, 2015

Kristi Chamley Croell Redi-Mix, Inc. PO Box 1352 Sundance, WY 82729

Dear Ms. Chamley:

Thank you for submitting your Notice of Intent for the General Permit for Stormwater Discharges Associated with Industrial Activity. This letter grants you coverage under this permit for the site listed below in Pennington County, SD. You must maintain your site in compliance with the permit conditions. Your facility Permit No. is SDR00B591. Please refer to this number in future correspondence.

Facility Information

Kyle Frisinger—Contact Person Perli Quarry Sec. 9, T1S, R7E 43.975561, 103.280797 Rapid City, SD

Operator Information

Croell Redi-Mix, Inc. PO Box 1352 Sundance, WY 82729

Please check to be certain the above facility is the same as listed in the Notice of Intent.

A Stormwater Pollution Prevention Plan must be developed and implemented for this facility in accordance with Section 4.0 of the permit. Guidance materials are available from the department for assistance in developing the plan.

Thank you for preserving the natural resources of South Dakota. If you have any questions or need any guidance, please contact me at (605) 394-2229.

Sincerely,

Jessie L. Allard

Engineer I

Surface Water Quality Program

Jessie.Allard@state.sd.us



PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

February 10, 2016

Kristi Chamley Croell Redi-Mix Inc Po Box 1352 Sundance, WY 82729

RE: Coverage Under General Permit - Permit SDG05A320

Dear Ms. Chamley:

The Department of Environment and Natural Resources has reviewed your Notice of Intent. The department has determined that your operation can be covered by one of the general permits for nonmetallic mineral processing plants in South Dakota. The enclosed permit lists all the conditions required under an air quality Title V operating permit and a surface water discharge permit in South Dakota.

This facility has provided the following information in its Notice of Intent:

Source: 2008 Nordberg Impactor Rock Crusher, Model NP1315

Serial #: 20660145

Pollution Control Equipment: 3 Spry Bars

Maximum Operating Rate: 315 tons/hour

Coverage under this permit:

Effective Date: February 10, 2016

Expiration Date: May 17, 2017



PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

February 10, 2016

Kristi Chamley Croell Redi-Mix Inc Po Box 1352 Sundance, WY 82729

RE: Coverage Under General Permit - Permit SDG05A319

Dear Ms. Chamley:

The Department of Environment and Natural Resources has reviewed your Notice of Intent. The department has determined that your operation can be covered by one of the general permits for nonmetallic mineral processing plants in South Dakota. The enclosed permit lists all the conditions required under an air quality Title V operating permit and a surface water discharge permit in South Dakota.

This facility has provided the following information in its Notice of Intent:

Source: 2088 Nordberg Impactor Rock Crusher, Model NP1415

Serial #: 20670118

Pollution Control Equipment: 3 spray bars

Maximum Operating Rate: 560 tons/hour

Coverage under this permit:

Effective Date: February 10, 2016

Expiration Date: May 17, 2017





PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 26, 2017

Kristi Chamley Croell Inc. PO Box 1352 Sundance, WY 82729

RE: Coverage Under General Permit - Permit SDG05A319

Dear Ms. Chamley:

The Department of Environment and Natural Resources has reviewed your Notice of Intent. The department has determined that your operation can be covered by one of the general permits for nonmetallic mineral processing plants in South Dakota. The enclosed permit lists all the conditions required under an air quality Title V operating permit and a surface water discharge permit in South Dakota.

This facility has provided the following information in its Notice of Intent:

Source: 2007 Nordberg Impactor Rock Crusher, Model NP1415

Serial #: 20670118

Pollution Control Equipment: 3 spray bars

Maximum Operating Rate: 560 tons/hour

Coverage under this permit:

Effective Date: May 26, 2017

Expiration Date: May 18, 2022

For those facilities that are portable sources, you are required to submit the Information requested on the Source Relocation Form either by mall or telephone at least 10 days prior to operating at a new site. A copy of the Source Relocation Form Is attached to the general permit.

The department will conduct inspections to ensure that your facility remains in compliance with the general permit. The department must be notified of any changes to the operation or equipment listed above. If you have any questions concerning this permit please contact out office at (605) 773-4201.

Sincerely,

Michael G. Erlckson

Environmental Senior Scientist Minerals & Mining Program

Enclosure





PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 26, 2017

Kristi Chamley Croell Inc PO Box 1352 Sundance, WY 82729

RE: Coverage Under General Permit - Permit SDG05A320

Dear Ms. Chamley:

The Department of Environment and Natural Resources has reviewed your Notice of Intent. The department has determined that your operation can be covered by one of the general permits for nonmetallic mineral processing plants in South Dakota. The enclosed permit lists all the conditions required under an air quality Title V operating permit and a surface water discharge permit in South Dakota.

This facility has provided the following information in its Notice of Intent:

Source: 2007 Nordberg Impactor Rock Crusher, Model NP1315

Serial #: 20660145

Pollution Control Equipment: 3 Spry Bars

Maximum Operating Rate: 315 tons/hour

Coverage under this permit:

Effective Date: May 26, 2017

Expiration Date: May 18, 2022

For those facilities that are portable sources, you are required to submit the information requested on the Source Relocation Form either by mail or telephone at least 10 days prior to operating at a new site. A copy of the Source Relocation Form is attached to the general permit.

The department will conduct inspections to ensure that your facility remains in compliance with the general permit. The department must be notified of any changes to the operation or equipment listed above. If you have any questions concerning this permit please contact out office at (605) 773-4201.

Sincerely,

Michael G. Erickson

Environmental Senior Scientist Minerals & Mining Program

Enclosure



JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182

vog.ba.meb

DEC 1 5 2016

Croell Redi Mix Kyle Frisinger PO Box 1352 Sundance WY 82729

Dear Mr. Frisinger:

Enclosed is Water Permit No. 2745-2 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet ? Common Water Right Questions? is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer

Water Rights Program (605) 773-3352

enclosures

Mining Permit Site Plan / Stormwater Water Pollution Prevention Plan Croell Inc., Inc.

ATTACHMENT 2



Perli Quarry 13842 South Highway 16 Rapid City, SD 57702

Date 08/14/2018

Amendment Date	Amended By	Description

1) Project / Site Information

a) Owner:

Croell Inc.

230 Croell Drive P.O. Box 1352

Sundance WY 82729 307-283-2221 phone 307-283-1450 fax

b) Site Name:

Perli Quarry

c) Site Address:

13842 South Highway 16 Rapid City, SD 57702

d) Site Legal Description: S1/2NE1/4; SE1/4NW1/4; that portion of NE1/4SW1/4 Lying N of Hwy

16; that portion of SE1/4 lying N of Hwy 16 Section 9, T1S R7E

Pennington County SD

That portion of S1/2NW1/4 lying west of 16; that portion of SW1/4 lying

N and W of Hwy 16 Section 10, T1S R7E Pennington County SD

2) Identification of Potential sources of pollution that may affect Storm water discharges

- a) Clearing and grubbing activities
- b) Grading and site excavation operations
- c) Vehicle tracking
- d) Mining operations
- e) Material inventory rock, sand, and gravel stockpiles
- f) Consumable items including fuel, lubricants, oil, and greases
- g) Mining equipment and vehicles

Potential site pollutants:

- a) Motor oil / hydraulic fluids stored in barrels and/or tanks maximum storage 250 gallons.
 - i) Will be stored inside enclosed containers and/or stored outside within a secondary confinement.
- b) Unleaded gasoline stored inside portable fuel tank maximum storage 500 gallons.
 - i) Will be stored outside, inside a secondary confinement.
- c) Diesel fuel stored inside portable fuel tank maximum storage 5000 gallons.
 - i) Will be stored outside, inside a secondary confinement.
- d) Rock, Sand, and Gravel Stockpiles stored outside maximum storage varies
- e) Garbage and refuse stored inside commercial garbage container maximum storage 10 cf
 - i) Will be stored outside and will be emptied regularly on commercial garbage schedule.
- f) Equipment and vehicles stored outside equipment will vary depending on mining activity
 - i) Will be stored outside.

- g) Lubricants / greases stored in original packing maximum storage 50 gallons
 - i) Will be stored inside enclosed containers.

3) Stormwater Water Pollution Prevention Plan (SWPPP) Administrator

- a) Kristi Chamley, Environmental Coordinator, is responsible for developing the SWPPP and assisting the facility manager in its implementation, maintenance and revision(s).
- b) Kyle Frisinger, Aggregate Manager, is designated as a qualified person for inspections of this site as he is familiar with the requirements of this SWPPP as well as this specific site.
- c) On-site Supervisors shall conduct onsite reviews of the pollution control structures and procedures described within this SWPPP. Comprehensive site compliance as well as inspection scope and frequency is developed in accordance with the Pennington County Stormwater Manual and applicable South Dakota Department of Environment and Natural Resources (DENR) Best Management Practices (BMP's), rules and regulations. Responsibilities will also include record keeping, and construction and maintenance of BMP's.

4) Nature and Function of Construction Activity

- a) Croell Inc. is operating the active Perli Quarry as a rock quarry for the Rapid City and surrounding area. Soil disturbing activities will include: logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.
- b) Estimated Project Start: September 2018
- c) Estimated Project End: January 2043

5) Description of intended sequence of major construction activities:

- a) Year 1 (06/01/18) install temporary BMP's, as deemed necessary
- b) Year 1 (10/01/18) begin logging operation for mining cell #1, as deemed necessary.
- c) Year 1 (10/01/18) begin mining cell #1 clearing and grubbing operations.
- d) Year 1 (10/01/18) mobilize rock crushing plant in previously disturbed area. Start drilling and blasting of mining cell #1.
- e) Year 1 (10/15/18) start operation of rock crushing plant.
- f) Year 1 (03/01/19) drill water well on SW section of the property.
- g) Ongoing establish temporary and permanent stabilization BMP's to control soil erosion from disturbed and previously disturbed areas.
- h) Year 2 Items a, b, c, e, f, g as described above, with exception of logging, drilling and blasting and mining would commence in Mining Cell #2.
- i) Year 3-25 Logging, drilling and blasting, and mining would parallel pertinent mining cells depending on availability of stone and sales volume.

- 6) Location information of storm water discharges associated with industrial activity other at site:
 - a) None
- 7) Location of areas where final stabilization has occurred and no further construction will be done:
 - a) None
- 8) <u>Identification of areas where final stabilization has occurred and no further construction will be</u> done.
 - a) None
- 9) <u>Controls</u>
 - a) Description of control measures and timing of construction:
 - i) Temporary BMP's may include:
 - (1) Good housekeeping ongoing
 - (2) Spill Prevention and response ongoing
 - (3) Silt Fence as deemed necessary
 - (4) Surface roughening as deemed necessary
 - (5) Temporary seeding Spring and/or Fall of each year, as deemed necessary
 - (6) Berm and toe ditch for stockpiles ongoing
 - (7) Rock and sand earthen berms as deemed necessary
 - (8) Rock riprap for outlet protection -- as deemed necessary
 - (9) Check dams as deemed necessary
 - (10) Straw waddles as deemed necessary
 - (11) Preservation of Natural Vegetation as deemed necessary
 - (12) Magwater as deemed necessary
 - (13) Stormwater bars as deemed necessary
 - (14) Shed and enclosed storage containers as deemed necessary
 - (15) Secondary containment fuel storage areas
 - (16) Other devices or controls as deemed necessary
 - ii) Permanent BMP's may include:
 - (1) Good housekeeping ongoing
 - (2) Spill Prevention and response ongoing
 - (3) Permanent Mulching / Seeding to be completed after final grading of mined areas are completed. Done Spring and/or Fall.
 - (4) Erosion Control Blankets as deemed necessary
 - (5) French drains as deemed necessary
 - (6) Rock riprap for outlet protection as deemed necessary
 - (7) Sediment basin as deemed necessary
 - (8) Preservation of Natural Vegetation as deemed necessary
 - (9) Check dams as deemed necessary
 - (10) Reclamation
 - (11) Other devices or controls as deemed necessary

iii) Responsible for implementing controls

- (1) Temporary BMP's On-site Supervisor
- (2) Permanent BMP's On-site Supervisor, Aggregate Manager and/or Environmental Coordinator

b) Description of all interim and permanent stabilization practices

- i) Interim stabilization practices will be constructed throughout the year depending on the need. Most of the interim practices will be constructed in Spring through Fall, due weather at the site. Inspection of installed BMP's will be conducted daily, unless no activity at the site. If no activity at the site, the inspection schedule will be weekly. Interim practices may include any or all of the items in Section 7.a.i.
- ii) Permanent stabilization practices will be developed and installed once mining of areas are completed, and final seeding has been completed. Permanent stabilization may include any or all of the items in Section 7.a.ii.

c) Record Keeping

- i) Site Evaluation will be completed between January 1 and June 30 within 24 hours of a precipitation event and/or snow melt. Another Site Evaluation will be completed between July 1st and December 31st within 24 hours of a precipitation event and/or snow melt. Periodic Inspections will be completed daily by the Plant Supervisor. In the event that the site is not operational (temporary shutdown), the site will be inspected weekly.
- ii) All Site Inspections, Periodic Inspections, incident reporting (discharges or spills), and other information regarding Storm Water discharges will be kept on-site.

d) Construction of Major grading activity.

- Logging, clearing and grubbing, topsoil and overburden removal will begin in the fall of 2018. Anticipated disturbance will be 2.0 acres per year, depending on sales volume.
 Mining will be year around with additional disturbance being 2 to 3 acres per year.
 Stabilization measures will constructed per Section 7.a.i and 7.a.ii.
- e) Description of Structural practices used to divert flows from exposed areas.
 - i) For all topsoil and overburden stockpiles, we will utilize earthen berms, toe ditches and temporary seeding to reduce any flow from the stockpiles. Any disturbed areas where there is a potential for stormwater runoff, we will utilize silt fence, straw waddles, earthen berms, stormwater bars and preservation of natural vegetation to reduce runoff. Schedule of structural practices will be ongoing throughout the year, depending on activity and stormwater events.

f) Description of post-construction stormwater management controls.

- i) At this time, no post construction stormwater controls will be implemented besides final reclamation.
- g) Description of measures to prevent discharge of solid material to waters of the state.
 - i) The closest water of the state will be Spring Creek of South Dakota approximately one half mile to the north. Measures to prevent solid materials from leaving site may include silt fence, stormwater bars, straw waddles, earthen berms, preservation of natural vegetation and other controls indicated in Section 7.a.
- h) Description of measures to minimize off site tracking.

i) Traffic will typically leave the site through the west entrance / exit. This is an established roadway and entry onto Hwy 16. From the previously disturbed area, traffic will follow a gravel roadway for 500 feet, then onto an asphalt-paved roadway for 1,600 ft. Traffic will cross a cattle guard, will be used to reduce the amount of tracking by knocking off any sediment prior to leaving the property. The use of magwater as a control may be used on gravel haul roads and in and around the plant to reduce the amount of sediment leaving the site. Additional controls may include chemical stabilizers, paving of haul roads and parking areas, and track out controls such as paving and cattle guards.

i) Description of measures to reduce dust.

- i) Dust Suppression will be used on the rock crushing plant, per SD-DENR Air Quality permit regulations. Additional controls may include magwater, chemical stabilizer, and/or paving on roads within the site. Controls used for storage piles control will include minimize stockpiles with the potential for dust emission, watering stockpiles, and dust suppression during mining. Concurrent mining and reclamation will reduce the potential for dust emissions from the property.
- j) Description of waste or construction materials to be stored on-site.
 - i) There will be no waste stored on-site. Any material produced on-site that is not suitable for sale will be used as fill for temporary and final reclamation. The material produced will be an uncontaminated by-product of the crushing operation. All commercial waste will be collected by a commercial garbage service and emptied on their schedule. There will be no construction materials stored on-site.
- k) Description of controls from sources other than construction (e.g. concrete or asphalt plants)
 - i) There will be no asphalt plants or concrete plants planned for this location. If this site is suitable for an asphalt or concrete plant, that operation will be responsible for their pertinent air quality and stormwater permits and regulations.

10) Non Stormwater Discharge:

- a) Identification and listing of prevention measures for allowable non-stormwater discharges
 - i) At this time, there is no plan for any non-stormwater discharges from the site.

11) Documentation of Permit edibility related to Endangered Species

a) The site is currently being used as an active rock quarry. The site has been in operation for over 30 years as a commercial rock quarry by various operations. The remainder of the site is rangeland, some areas heavily wooded. The rangeland has been used previously as cattle pasture. There is no known endangered species on the property. Prior to disturbance, an onsite evaluation utilizing company personnel will be conducted to research any endangered species. Pertinent company personnel will be trained on endangered species for Pennington County, per South Dakota Game, Fish, and Parks Publication, "State and Federally Listed Threatened, Endangered, and Candidate Species Documented in South Dakota by County. Updated on 8/10/15". If an endangered species is encountered on-site, Croell will notify South Dakota Game, Fish, and Parks of relevant findings. See Attachment 4.

12) Documentation of Permit Eligibility related to Total Maximum Daily Loads (TMDSL's).

a) Spring Creek of South Dakota is the nearest water of the state, located approximately 0.5 mile to the north of the project site. Spring Creek from Sheridan Lake to Hwy 79 does not have any restrictions due to TMDL. Spring Creek from its tributaries in Section 5 T2S R3E to Sheridan Lake has been classified by South Dakota Department of Environment and Natural Resources as requiring a TMDL. The classified section of Spring Creek will be unaffected by the Project site, as it is upstream. Information reviewed is from "The 2014 South Dakota Integrated Report for Surface Water Assessment 2014". See Attachment 3.

13) Inspections

- a) Description of routine inspections
 - i) On-site supervisor will conduct Periodic daily inspections during typical hours of operations (M-F). In the event of temporary closure, the inspection schedule will be weekly during typical daily hours of operations. The periodic inspection will include both disturbed and undisturbed areas of the site. The periodic inspection will be documented and made available on-site. The inspection will contain both issues and any corrections made. The inspection will assure the proper operation of stormwater control measures in place.
 - ii) The Regional Manager and/or Environmental Coordinator will conduct semi-annual Site inspections of all stormwater control issues, corrections, and methods in place. These inspections will take place with 1 inspection between January and June 30th, and the other inspection taking place between July 1st and December 31. The semi-annual inspection will take place within 24 hours of a rain event or snow melt off. The semi-annual inspection will be documented and stored on-site.

b) Description of inspection frequency:

- i) On-site supervisor will conduct daily inspections during typical hours of operations (M-F). In the event of temporary closure, the inspection schedule will be weekly during typical daily operations.
- ii) The Aggregate Manager and/or Environmental Coordinator will conduct semi-annual inspections of all stormwater control issues, corrections, and methods in place.

c) Indication of qualified personnel performing inspections:

- i) On-site supervisor will have numerous years of mining experience conducting typical daily operations and will be trained of the regulations pertaining to the site. Typical mining supervisors will have 5 + years of experience of mining operations.
- ii) Current Aggregate Manager has over 20 years of managing numerous operations in South Dakota and Wyoming. Current Aggregate Manager has experience in all mining, water, and air quality permits and regulations in South Dakota.
- iii) Current Environmental Coordinator has over 5 years of experience with environmental regulations in Wyoming and South Dakota. The Environmental Coordinator has experience in all mining, water, and air quality permits and regulations in South Dakota.

14) Signature, Plan Review and Availability of Plans:

a) A sign will be posted at the site entrance indicating Notice of Intent, site operator, phone number, and location of SWPPP and Site Plan.

15) Responsible person's signature:

a) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:	My	Kyle Frisinger	Date: F/3./05	
	' /			
Title	Aggregate	Monager		,

Attachment 3

MINING PERMIT INFORMATION 507B

1) Transportation Plan

- a. There are three typical entrances to the Perli Rock quarry from Hwy 16. Entrance 1 is the most northern of the entrances. It is a farm entrance and will not be used for due to the steep hillside immediately on the Croell property. Entrance 2 is the middle entrance. It has been used in the past for an entrance/exit. It will not be used by Croell Inc for truck traffic due to the limited site distance both north and south. This will be used as an emergency exit only for the employee's on site. The entrance is currently blocked for truck traffic. Entrance 3 is located to the south and will be used as the main entrance to the quarry. Entrance 3 is approximately 82 feet in width. See Map 2 Structures & Utilities.
- b. Typical truck traffic on entrance 3 will not cross or use any private, Township or Pennington County roadway. The car and truck traffic will cross from Croell Inc owned property onto South Dakota Department of Transportation Hwy 16.
- c. Croell Inc continues to work with the South Dakota Department of Transportation on the entrance to Hwy 16. At this point in time, no improvements have been made to the Hwy 16 entrance. Croell has authorized a Traffic Study that was completed by Interstate Engineering and Croell has submitted that Traffic Study to the South Dakota Department of Transportation in Pierre SD.

REDACTED PER SDCL §1-27-1.5

3) Duration of the Mining Activity.

a. Croell anticipates a life of mine of 25 years for this location based upon the ownership now.

4) Reclamation to be done at conclusion of mining

a. Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family residential similarly to the surrounding area.

5) History of the Perli Quarry

a. The property was initially excavated and mined during the early 1970's. The original highway grade for Hwy 16 was through the property and was moved to its current

location during the 1970's highway project. It is my understanding that material was mined from the Perli quarry property for this project. The quarry was then operated by various construction firms and operators from the 1970's to the current time including:

- 1. Aggregate Construction
- 2. Pennington County
- 3. Pete Lien & Sons current SD-DENR mining license holder
- 4. Quinn Construction
- 5. Talley Construction current SD-DENR mining license holder
- 6. Croell Inc current SD-DENR mining license holder
- b. The quarry has been active both mining and furnishing material to the Rapid City area from the 1970's to the present. Current reporting to the South Dakota Department of Natural Resources indicate that over 797,000 tons of material has been mined from the property.
- c. The property was purchased by Croell Inc in the Fall of 2015 at public auction. The sole purpose in purchasing the property was to operate the site as a rock quarry. The entire parcel was purchased at the same time. Croell Inc. honored the existing lease of Talley Construction until the summer of 2016. Tally continued to mine and sell material until July 2016. Croell started mining at the location in the summer of 2017.

6) Excavation Activities

a. There were active excavation activities from 2009 to the present time from various construction firms including Croell Inc. The site has been active mining and selling material from 1985 to the present time. The earliest date of record of SD-DENR reporting is 1985 due to the creation of the State Department in 1983.

7) Area to be excavated intent:

- a. The Perli Quarry currently has the following permits on the property:
 - i. South Dakota DENR Mining License Talley Construction active since 2009
 - ii. South Dakota DENR Mining License Pete Lien & Sons Inc active since 2002
 - iii. South Dakota DENR Mining License Croell Inc. active since Dec 2015
 - iv. Archaeological Study authorized by Croell Inc. completed Dec 2015
 - v. Pennington County Building permit Croell Inc completed Dec 2015
 - 1. Building later removed from property.
 - vi. South Dakota DENR Stormwater permit completed Nov 2015
 - vii. Pennington County Noxious Weed Plan Croell Inc. completed Feb 2016
 - viii. Pennington County Construction Permit 15-17 completed Feb 2016
 - 1. Later reversed by the South Dakota Supreme Court
 - ix. South Dakota DENR Air Quality Permits for Portable Crushing units completed Feb 2016
 - x. Proven Reserves Study authored by Croell Inc. completed Feb 2016
 - xi. South Dakota DENR Water Right Croell Inc completed Oct 2016
 - xii. DOT Abandonment of old Hwy 16 Croell Inc completed July 2017

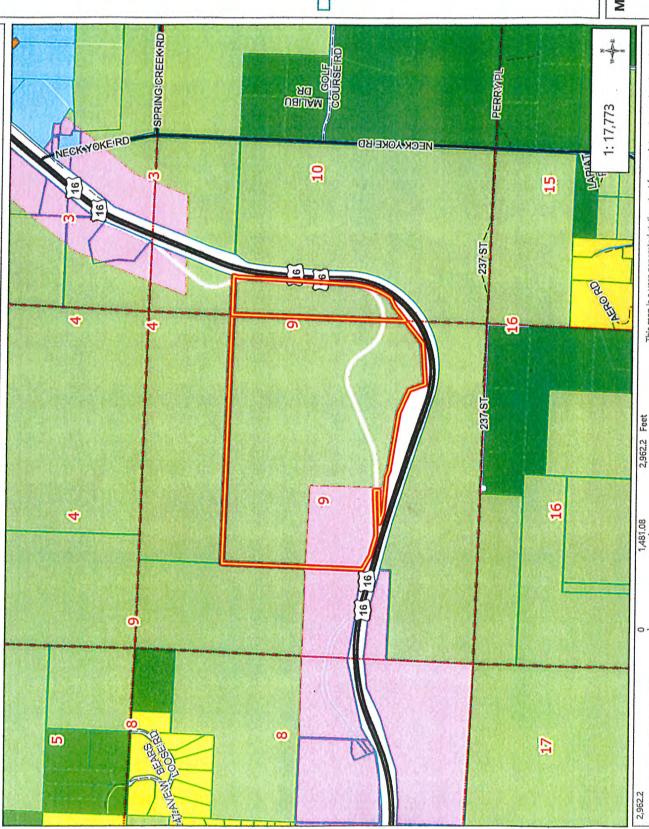
- 8) Continued operations will not have an adverse effect on neighborhood.
 - a. Croell will continue to work with all Pennington County agencies, South Dakota State Agencies and South Dakota Department of Transportation in order to keep this site as a safe and in compliance. The site has an extensive history of activity and has had little or no complaints until the recently neighborhood activity of 2015. Croell has been inspected while on-site in 2017 by both Pennington County and the South Dakota DENR Air Quality Division and neither departments found any concerns. The site is actively zoned Limited Agriculture and Commercial which similar to zoning in the immediate vicinity. See Zoning Map.
 - Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family Residence similar to the surrounding area.

- 8) Continued operations will not have an adverse effect on neighborhood.
 - a. Croell will continue to work with all Pennington County agencies, South Dakota State Agencies and South Dakota Department of Transportation in order to keep this site as a safe and in compliance. The site has an extensive history of activity and has had little or no complaints until the recently neighborhood activity of 2015. Croell has been inspected while on-site in 2017 by both Pennington County and the South Dakota DENR Air Quality Division and neither departments found any concerns. The site is actively zoned General Agriculture and Commercial which similar to zoning in the immediate vicinity. See Zoning Map.
 - Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family Residence similar to the surrounding area.



-RapidMap

Rapid City - Pennington County CIS



Legena

- Interstate
- SD highway US highway
- County highway
- Main road

Minor arterial

- Ramp
- Paved road
- Unpaved road
- Unimproved road
- Airport Runway Not yet coded
- Section Lines 0-25k
- Tax Parcels
 - Lot Lines
- Lot Line

County Zoning Districts Parcel Line

- General Agriculture
- General Commercial
 - Heavy Industrial
- Highway Services
- Limited Agriculture

' z 4', . . .

- Law Density Residentia
- Planned Unit Development Light Industrial
 - Suburban Residential
 - NOCODE

Map Notes:

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate,

NAD_1983_2011_StatePlane_South_Dakota_South_FIPS_4002_Ft_US © Rapid City-Pennington County GIS Division

current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION

Construction Permit Site Plan / Stormwater Water Pollution Prevention Plan Croell Redi-Mix, Inc.

ATTACHMENT 2



Perli Quarry 13839 South Highway 16 Rapid City, SD 57702

Date 10/02/18

Amendment Date	Amended By	Description	
		-	

1) Project / Site Information

a) Owner: Croell Redi Mix

230 Croell Drive P.O. Box 1352

Sundance WY 82729 307-283-2221 phone 307-283-1450 fax

b) Site Name:

Perli Quarry

c) Site Address:

13842 South Highway 16 Rapid City, SD 57702

d) Site Legal Description: S1/2NE1/4; SE1/4NW1/4; that portion of NE1/4SW1/4 Lying N of Hwy

16; that portion of SE1/4 lying N of Hwy 16 Section 9, T1S R7E

Pennington County SD

That portion of S1/2NW1/4 lying west of 16; that portion of SW1/4 lying

N and W of Hwy 16 Section 10, T1S R7E Pennington County SD

2) <u>Identification of Potential sources of pollution that may affect Storm water discharges</u>

- a) Clearing and grubbing activities
- b) Grading and site excavation operations
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Potential site pollutants:

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- b) Unleaded gasoline stored inside portable fuel tank maximum storage 500 gallons.
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- e) Garbage and refuse stored inside commercial garbage container maximum storage 10 cf
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- a) Kristi Chamley, Environmental Coordinator, is responsible for developing the SWPPP and assisting the facility manager in its implementation, maintenance and revision(s).
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- b) Estimated Project Start: Fall 2018
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5) Description of intended sequence of major construction activities:

- a) Year 1 (09/01/18) install temporary BMP's, as deemed necessary
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- d) Year 1 (10/01/18) mobilize rock crushing plant in previously disturbed area. Start drilling and blasting of mining cell #1.
- f) Year 1 (10/15/18) start operation of rock crushing plant.
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i) Traffic will typically leave the site through the west entrance / exit. This is an established roadway and entry onto Hwy 16. From the previously disturbed area, traffic will follow a gravel roadway for 500 feet, then onto an asphalt paved roadway for 1,600 ft. Traffic will cross a cattle guard, will be used to reduce the amount of tracking by knocking off any sediment prior to leaving the property. The use of magwater as a control may be used on gravel haul roads and in and around the plant to reduce the amount of sediment leaving the site. Additional controls may include chemical stabilizers, paving of haul roads and parking areas, and track out controls such as paving and cattle guards.

i) <u>Description of measures to reduce dust.</u>

i) Dust Suppression will be used on the rock crushing plant, per SD-DENR Air Quality permit regulations. Additional controls may include magwater, chemical stabilizer, and/or paving on roads within the site. Controls used for storage piles control will include minimize stockpiles with the potential for dust emission, watering stockpiles, and dust suppression during mining. Concurrent mining and reclamation will reduce the potential for dust emissions from the property.

j) <u>Description of waste or construction materials to be stored on-site.</u>

i) There will be no waste stored on-site. Any material produced on-site that is not suitable for sale will be used as fill for temporary and final reclamation. The material produced will be an uncontaminated by-product of the crushing operation. All commercial waste will be collected by a commercial garbage service and emptied on their schedule. There will be no construction materials stored on-site.

k) <u>Description of controls from sources other than construction (e.g. concrete or asphalt plants)</u>

i) There will be no asphalt plants or concrete plants planned for this location. If this site is suitable for an asphalt or concrete plant, that operation will be responsible for their pertinent air quality and stormwater permits and regulations.

10) Non Stormwater Discharge:

- a) Identification and listing of prevention measures for allowable non-stormwater discharges
 - i) At this time, there is no plan for any non-stormwater discharges from the site.

11) Documentation of Permit edibility related to Endangered Species

a) The site is currently being used as an active rock quarry. The site has been in operation for over 30 years as a commercial rock quarry by various operations. The remainder of the site is rangeland, some areas heavily wooded. The rangeland has been used previously as cattle pasture. There is no known endangered species on the property. Prior to disturbance, an onsite evaluation utilizing company personnel will be conducted to research any endangered species. Pertinent company personnel will be trained on endangered species for Pennington County, per South Dakota Game, Fish, and Parks Publication, "State and Federally Listed Threatened, Endangered, and Candidate Species Documented in South Dakota by County. Updated on 8/10/15". If an endangered species is encountered on-site, Croell will notify South Dakota Game, Fish, and Parks of relevant findings. See Attachment 4.

12) Documentation of Permit Eligibility related to Total Maximum Daily Loads (TMDSL's).

a) Spring Creek of South Dakota is the nearest water of the state, located approximately 0.5 mile to the north of the project site. Spring Creek from Sheridan Lake to Hwy 79 does not have any restrictions due to TMDL. Spring Creek from its tributaries in Section 5 T2S R3E to Sheridan Lake has been classified by South Dakota Department of Environment and Natural Resources as requiring a TMDL. The classified section of Spring Creek will be unaffected by the Project site, as it is upstream. Information reviewed is from "The 2014 South Dakota Integrated Report for Surface Water Assessment 2014". See Attachment 3.

13) Inspections

- a) Description of routine inspections
 - i) On-site supervisor will conduct Periodic daily inspections during typical hours of operations (M-F). In the event of temporary closure, the inspection schedule will be weekly during typical daily hours of operations. The periodic inspection will include both disturbed and undisturbed areas of the site. The periodic inspection will be documented and made available on-site. The inspection will contain both issues and any corrections made. The inspection will assure the proper operation of stormwater control measures in place.
 - ii) The Regional Manager and/or Environmental Coordinator will conduct semi-annual Site inspections of all stormwater control issues, corrections, and methods in place. These inspections will take place with 1 inspection between January and June 30th, and the other inspection taking place between July 1st and December 31. The semi-annual inspection will take place within 24 hours of a rain event or snow melt off. The semi-annual inspection will be documented and stored on-site.

b) Description of inspection frequency:

- On-site supervisor will conduct daily inspections during typical hours of operations (M-F). In the event of temporary closure, the inspection schedule will be weekly during typical daily operations.
- ii) The Aggregate Manager and/or Environmental Coordinator will conduct semi-annual inspections of all stormwater control issues, corrections, and methods in place.

c) Indication of qualified personnel performing inspections:

- i) On-site supervisor will have numerous years of mining experience conducting typical daily operations and will be trained of the regulations pertaining to the site. Typical mining supervisors will have 5 + years of experience of mining operations.
- ii) Current Aggregate Manager has over 20 years of managing numerous operations in South Dakota and Wyoming. Current Aggregate Manager has experience in all mining, water, and air quality permits and regulations in South Dakota.
- iii) Current Environmental Coordinator has over 5 years of experience with environmental regulations in Wyoming and South Dakota. The Environmental Coordinator has experience in all mining, water, and air quality permits and regulations in South Dakota.

14) Signature, Plan Review and Availability of Plans:

a) A sign will be posted at the site entrance indicating Notice of Intent, site operator, phone number, and location of SWPPP and Site Plan.

15) Responsible person's signature:

a) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signatur	re: 1/1/5/	Kyle frisinger	Date: / 6/2/18	
Title	Asgresate	Monager	· · · · · · · · · · · · · · · · · · ·	

Date Nonconforming use First Established.

15) History of the Perli Quarry

- a) The property was initially excavated and mined during the early 1970's. The original highway grade for Hwy 16 was through the property and was moved to its current location during the 1970's highway project. It is my understanding that material was mined from the Perli quarry property for this project. The quarry was then operated by various construction firms and operators from the 1970's to the current time including:
 - (1) Aggregate Construction
 - (2) Pennington County
 - (3) Pete Lien & Sons current SD-DENR mining license holder
 - (4) Quinn Construction
 - (5) Talley Construction current SD-DENR mining license holder
 - (6) Croell Inc current SD-DENR mining license holder
- b) The quarry has been active both mining and furnishing material to the Rapid City area from the 1970's to the present. Current reporting to the South Dakota Department of Natural Resources indicate that over 797,000 tons of material has been mined from the property.
- c) The property was purchased by Croell Inc in the Fall of 2015 at public auction. The sole purpose in purchasing the property was to operate the site as a rock quarry. The entire parcel was purchased at the same time. Croell Inc. honored the existing lease of Talley Construction until the summer of 2016. Tally continued to mine and sell material until July 2016. Croell started mining at the location in the summer of 2017.

Excavation Activities

d) There were active excavation activities from 2009 to the present time from various construction firms including Croell Inc. The site has been active mining and selling material from 1985 to the present time. The earliest date of record of SD-DENR reporting is 1985 due to the creation of the State Department in 1983.

Area to be excavated intent:

- e) The Perli Quarry currently has the following permits on the property:
 - i) South Dakota DENR Mining License Talley Construction active since 2009
 - ii) South Dakota DENR Mining License Pete Lien & Sons Inc active since 2002
 - iii) South Dakota DENR Mining License Croell Inc. active since Dec 2015
 - iv) Archaeological Study authorized by Croell Inc. completed Dec 2015
 - v) Pennington County Building permit Croell Inc completed Dec 2015
 - (1) Building later removed from property.
 - vi) South Dakota DENR Stormwater permit completed Nov 2015
 - vii) Pennington County Noxious Weed Plan Croell Inc. completed Feb 2016
 - viii) Pennington County Construction Permit 15-17 completed Feb 2016
 - (1) Later reversed by the South Dakota Supreme Court
 - ix) South Dakota DENR Air Quality Permits for Portable Crushing units completed Feb 2016
 - x) Proven Reserves Study authored by Croell Inc. completed Feb 2016
 - xi) South Dakota DENR Water Right Croell Inc completed Oct 2016

xii) DOT Abandonment of old Hwy 16 – Croell Inc – completed July 2017 xiii) Pennington County Vacation of Section Line 17-02 – completed Sept 2017

Continued operations will not have an adverse effect on neighborhood.

- f) Croell will continue to work with all Pennington County agencies, South Dakota State Agencies and South Dakota Department of Transportation in order to keep this site as a safe and in compliance. The site has an extensive history of activity and has had little or no complaints until the recently neighborhood activity of 2015. Croell has been inspected while on-site in 2017 by both Pennington County and the South Dakota DENR Air Quality Division and neither departments found any concerns. The site is actively zoned Limited Agriculture and Commercial which similar to zoning in the immediate vicinity. See Zoning Map.
- g) Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family Residence similar to the surrounding area.

16) Responsible person's signature:

a) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:

Date: 10-11-18

Title Mangel Mangel

xii) DOT Abandonment of old Hwy 16 – Croell Inc – completed July 2017 xiii) Pennington County Vacation of Section Line 17-02 – completed Sept 2017

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- g) Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family Residence similar to the surrounding area.

16) Responsible person's signature:

a) "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:

Date: 10/16/18

Title Kok Frisinger

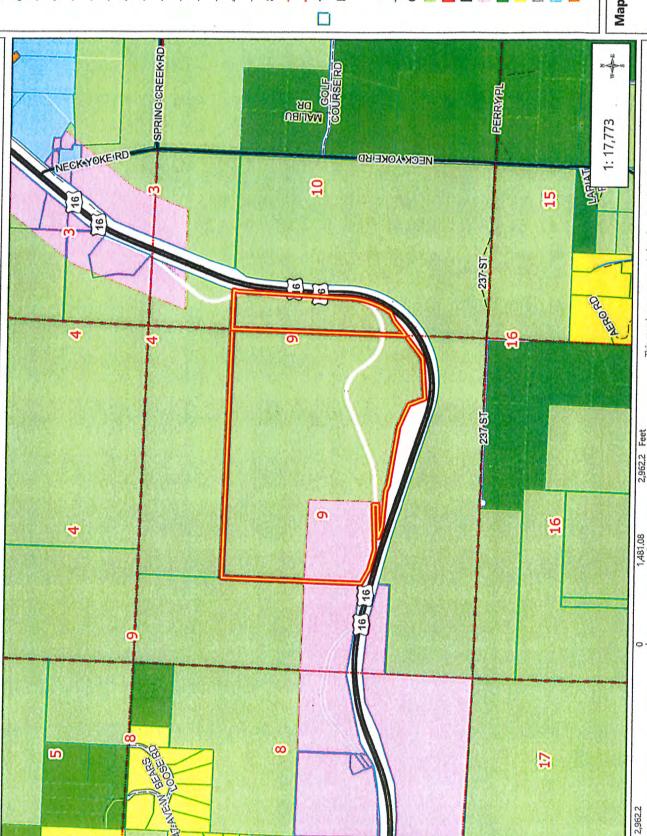
Assregate Monage



	Aggregate	Pennington	Pete Lien	Quinn	Talley	Croell	Total
	Construction	County	& Sons	Construction	Construction	Inc.	
1983							-
1984							-
1985		8,000					8,000
1986		10,000					10,000
1987		12,000					12,000
1988		14,000					14,000
1989		20,000					20,000
1990							_
1991							-
1992							-
1993							<u> </u>
1994	25,000						25,000
1995	2,500		***				2,500
1996	2,000						2,000
1997	5,608						5,608
1998	4,000						4,000
1999	-						· · · · · · · · · · · · · · · · · · ·
2000	-			17,698			17,698
2001			-	97,849			97,849
2002			47,501	49,102			96,603
2003			27,781				27,781
2004			44,949				44,949
2005			14,992				14,992
2006			49,705				49,705
2007			-				-
2008							-
2009					21,345		21,345
2010					26,449		26,449
2011					28,291		28,291
2012					25,010		25,010
2013					34,402		34,402
2014					55,896		55,896
2015					64,221		64,221
2016					43,132		43,132
2017						45,998	45,998
	39,108	64,000	184,928	164,649	298,746	45,998	797,429

-RapidMap

Rapid City - Pennington County GIS



Legend

- US highway Interstate
- County highway SD highway
- Main road
- Minor arterial Collector
- Paved road
- Unimproved road Unpaved road
- Airport Runway
- Not yet coded
- Section Lines 0-25k
- Tax Parcels
- Lot Lines
- - Lot Line
- Parcel Line

County Zoning Districts

- General Agriculture
- General Commercial
 - Heavy Industrial
- Highway Services
- Law Density Residential Limited Agriculture
 - Light Industrial
- Planned Unit Development Suburban Residential NOCODE

Map Notes:

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION

NAD_1983_2011_StatePlane_South_Dakota_South_FIPS_4002_Ft_US © Rapid City-Pennington County GIS Division



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

DEC 1 5 2016

Croell Redi Mix Kyle Frisinger PO Box 1352 Sundance WY 82729

Dear Mr: Frisinger:

Enclosed is Water Permit No. 2745-2 authorizing construction of the water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, Notice of Completion of Works and Application of Water to Beneficial Use, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet ?Common Water Right Questions? is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Jeanne Goodman, Chief Engineer

Water Rights Program

(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF WATER PERMIT APPLICATION NO. 2745-2, CROELL REDI MIX

FINDINGS
OF FACT, CONCLUSIONS OF LAW
AND FINAL DECISION

This matter came before the South Dakota Water Management Board for hearing on July 7, 2016. Board members Chad Comes, Tim Bjork, Rodney Freeman, Peggy Dixon, Leo Holzbauer, and Jim Hutmacher were present at the hearing and heard the evidence presented. Croell Redi Mix (hereinafter referred to as Croell) was represented by Thomas E. Brady and Steven T. Iverson. Intervenors Duane Abata, Pat Hall, Don Burger, and Barret Wendt were represented by Michael M. Hickey and Kelsey Blair Parker. Ann F. Mines Bailey represented the DENR Water Rights Program and its Chief Engineer (DENR).

The Board, having considered the testimony and exhibits presented and all records and documents on file and having entered its oral decision and rulings on the parties' submissions, now enters the following:

FINDINGS OF FACT

1. On January 27, 2016, DENR received Water Permit Application No. 2745-2 on behalf of Croell seeking the appropriation of water for the commercial use in a limestone crushing plant and also for some domestic use. The application proposes the construction of one well to be completed into the Deadwood Aquifer and located in NE4SW4 Section 9, T1S-R7E in

Pennington County with a diversion rate of 0.33 cubic feet of water per second (cfs) for a rate of 19.6 acre-feet per year.

- 2. DENR witness, Ken Buhler, a natural resources engineer, reviewed the permit application, analyzed the hydrology of the Deadwood Aquifer, and reviewed the information obtained from observation wells completed into the Deadwood Aquifer, as well as current water right/permit files and well completion reports for the Aquifer.
- 3. On February 2, 2016, Mr. Buhler issued a report to the Chief Engineer. Mr. Buhler concluded that there is a reasonable probability unappropriated water is available in the Deadwood Aquifer to satisfy Croell's appropriation, estimated average annual recharge of the aquifer exceeds estimated annual withdrawals, and there is a reasonable probability that Croell's application would not adversely impact existing water rights or domestic use wells.
- 4. On March 24, 2016, Chief Engineer recommended approval of Croell's Application due to the availability of unappropriated water in the Deadwood aquifer, the proposed diversion can be developed without unlawful impairment of existing water rights, Croell's proposed uses are beneficial uses, and it is in the public interest, with the following qualifications:
 - 1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control its withdrawals so there is not a reduction of needed water supplies

in adequate domestic wells or in adequate wells having prior water rights.

- 2. The well authorized by Permit No. 2745-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
- 3. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Deadwood Aquifer.
- 4. Water Permit No. 2745-2 authorizes a total annual diversion of 19.6 acre feet of water.
- Notice of the application and hearing was timely advertised in the Rapid City Journal on April 1, 2016.
- 6. DENR received a timely petition in opposition to the application on behalf of Duane Abata, Don Burger, Pat Hall, and Barret Wendt.
- 7. The matter was initially scheduled to be heard by the Water Management Board on May 4, 2016; however, an automatic delay was requested by intervenors.
- 8. Water Permit Application No. 2745-2 is a new water permit application which requires a determination pursuant to SDCL § 46-2A-9 that there is a reasonable probability unappropriated water is available for the proposed use, whether the use would impair existing rights, whether the use

would be a beneficial use, and whether the proposed use is in the public interest.

- 9. In considering water availability this Board must examine whether the quantity of the average water withdrawn annually from the groundwater source would exceed the quantity of the average estimated annual recharge of water to the groundwater source if this permit was granted.
- 10. The Deadwood Aquifer is a bedrock aquifer. It covers the majority of western South Dakota, with the exception of the central Black Hills, and extends into surrounding states. It is comprised of sandstone, siltstone, shale and some limestone. In Pennington County alone, it underlies approximately 1.4 million acres and contains in storage an estimated 14.9 million acre-feet of recoverable water. The Deadwood Aquifer is under confined conditions at this location. In the area of the proposed well site, the Aquifer is an estimated 245 feet thick and has an estimated 420 feet of artesian head pressure.
- 11. Recharge to the Deadwood Aquifer in this area occurs primarily through precipitation falling directly on the outcrop. As part of the Black Hills Hydrology Study, annual recharge to the Deadwood Aquifer was estimated to be approximately 14,500 acre-feet a year.
- 12. Mr. Buhler testified that well withdrawals from the Deadwood Aquifer in the Black Hills area amount to approximately 2,160 acre-feet per year.

- 13. Additionally, DENR monitors five observation wells which are completed into the Deadwood Aquifer. One of the observation wells, PE-84A, is located approximately 2.7 miles from the proposed well site. The observation well data demonstrated that climatic conditions dominate the water levels in the Deadwood Aquifer and mask the results of pumping. Over the period of record, recharge has exceeded withdrawal.
- 14. Mr. Buhler concluded that there is a reasonable probability that unappropriated water is available from the Deadwood Aquifer for the proposed appropriation of 19.6 acre feet per year.
- 15. Mr. Buhler also examined whether there would be an unlawful impairment to existing water rights in the Deadwood Aquifer.
- 16. In the Black Hills area, there are 35 existing water rights in the Deadwood Aquifer. The nearest existing water right to the proposed well site is Water Right No. 1450-2, held by Bear Country USA and located approximately 1,742 feet from the proposed well site.
- 17. Using the data acquired from the well driller involved in the construction of the well for Water Right No. 1450-2, Bear Country USA, Mr. Buhler was able to determine the transmissivity rate for this area of the aquifer. Mr. Buhler opined that there would be approximately 75 feet of drawdown at the proposed well site. Given that there is over 300 feet of artesian head pressure, Mr. Buhler opined there would not be an unlawful impairment to this existing water right.

- 18. Additionally, there are approximately 30 to 34 domestic wells within a two and a half mile radius of the well site on file with DENR. The closest domestic well is located approximately three-quarters of a mile from the proposed well site. Mr. Buhler testified that there is no likelihood that these domestic wells would be adversely impacted.
- Kyle Frisinger also testified before the Board. Mr. Frisinger is
 Croell's aggregate manager for South Dakota and northern Wyoming.
- 20. Mr. Frisinger testified that Croell purchased this property which had been the site of a rock quarry for a number of years. He further testified that Croell was seeking an appropriation of water to be used for controlling dust on haul roads and used in water spray bars in the crushing plant.

 Additionally, Mr. Frisinger testified that the property is also used for livestock and a portion of the appropriation was intended for the watering of livestock as there is no current water source on the property.
- 21. Don Burger also provided testimony to the Board. Mr. Burger is one of the individuals who petitioned in opposition to the Croell application.
- 22. Mr. Burger testified regarding the amount of water requested as he believes that the amount applied for is far greater than what is needed for the purpose of watering livestock. Mr. Burger also testified regarding his concerns as to the quality of the water in that area. Mr. Burger testified that his research revealed that there are high levels of radon and radium in several wells completed into the Deadwood Aquifer and located in this general area. Mr. Burger is concerned that there is an opportunity for the other

aquifers to be contaminated if this well is drilled. Finally, Mr. Burger testified that he is concerned that the runoff from this well site would drain into Spring Creek and eventually contaminate Rapid City's water supply.

- 23. The Board also received testimony from Dr. Arden Davis.

 Dr. Davis is a retired college professor with a bachelor's degree in geology, and a master's and Ph.D. in geological engineering.
- 24. Dr. Davis testified that the Deadwood Aquifer is not a very productive aquifer. He opined that in this area the aquifer is approximately 80 feet thick and variable in its permeability. Dr. Davis testified that he believes recharge to this area is approximately 17 acre-feet per year. Dr. Davis additionally testified that he believes that the proposed well could produce detrimental effects on nearby wells. Finally, Dr. Davis testified as to the presence of radium and radon in the Deadwood Aquifer. Dr. Davis concluded that an aquifer pump test is necessary to best determine the effects of the proposed appropriation on the Aquifer. He further concluded that a plan to deal with the radium and radon from the Aquifer should also be in place.
- 25. The Board finds Mr. Buhler to be a credible expert witness and that these proposed Findings of Fact are supported by the evidence presented including Mr. Buhler's testimony and the reports and exhibits which he prepared and/or relied upon.
- 26. Intervenors have not submitted sufficient evidence through expert opinions, testimony or evidence that would support a determination

that there is a reasonable probability that there is not unappropriated water available in this Aquifer.

- 27. The Board finds that there is a reasonable probability that there is unappropriated water available for the applicant's proposed use.
- 28. The Board further finds that granting this application would not result in withdrawals from the Aquifer exceeding recharge to the Aquifer.
- 29. The Board further finds that the proposed uses of the water for industrial and domestic purposes constitute beneficial use.
- 30. The Board further finds that placing the water to these beneficial uses is in the public interest.
- 31. Any finding of fact more properly designated as a conclusion of law shall be treated as such.

Based on the foregoing Findings of Fact, the Board makes the following Conclusions of Law:

CONCLUSIONS OF LAW

- 1. The Board has jurisdiction over the subject matter and parties to this matter. The present application falls within the Board's responsibility over water appropriation and regulation in Title 46.
- 2. Publication was properly made and the Notice of Hearing was properly issued pursuant to SDCL 46-2A-4.
- 3. The Chief Engineer recommended granting this application. This recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).

- 4. The applicant is required to satisfy each of the factors set forth in SDCL 46-2A-9.
- 5. SDCL 46-2A-9 provides that a permit to appropriate water may be issued "only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest." Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.
- 6. The first factor for consideration under SDCL 46-2A-9 is whether there is water available for the appropriation. Determination of water availability includes consideration of the criteria in SDCL 46-6-3.1 pertaining to recharge/withdrawal: whether "according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."
- 7. There is a reasonable probability that there is unappropriated water available to fulfill the amount requested by the application.
- 8. The Board further concludes that it is not probable that withdrawals from the Aquifer would exceed recharge to the Aquifer in violation of SDCL 46-6-3.1 if this application is granted.

- 9. The second requirement of SDCL § 46-2A-9 is that the proposed water use may not unlawfully impair existing water rights. The proposed diversion can be developed without unlawful impairment of existing rights.
- 10. The third element in SDCL § 46-2A-9 is whether the use of water would be a beneficial use: one that is reasonable and useful and beneficial to the appropriator and also consistent with the interest of the public in the best utilization of water supplies under SDCL § 46-1-6(3). The proposed uses (industrial and domestic) are beneficial uses.
- 11. The fourth requirement of SDCL § 46-2A-9 concerns the public interest. The proposed use of the water must be "consistent with the interests of the public of this state in the best utilization of water supplies." SDCL § 46-1-6(3). The Board finds that appropriating water for industrial and domestic use is in the public interest.
- 12. Any conclusion of law more properly designated as a finding of fact shall be treated as such.

FINAL DECISION

Based on the foregoing Findings of Fact and Conclusions of Law, the Board enters its determination that Water Permit Application No. 2745-2 is granted with the following qualifications:

1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.

- 2. The new well authorized by Permit No. 2745-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
- The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Deadwood Aquifer.
- 4. Water Permit No. 2745-2 authorizes a total annual diversion of 19.6 acre-feet of water.

Dated this 12 day of October 2016.

Jim Hutmacher, Chairman

BY THE BOARD:

South Dakota Water Management Board

pld_MN Croell Redi Mix 2745-2 - FFCL and Final Decision (cm)

STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF WATER
PERMIT APPLICATION
NO. 2745-2, CROELL REDI MIX

WATER MANAGEMENT BOARD'S RULINGS ON PARTIES' SUBMISSIONS

Pursuant to the direction of the Water Management Board, counsel for the Applicant, Croell Redi-Mix, Inc., submitted Proposed Findings of Fact and Conclusions of Law and Final Decision in the above-captioned matter.

Subsequently, Ann Mines-Bailey, counsel for the Department of Environment and Natural Resources, Water Rights Program (DENR) submitted DENR's Proposed Findings of Fact and Conclusions of Law and Final Decision and DENR's Objections to Croell Redi-Mix Inc.'s Proposed Findings of Fact and Conclusions of Law. Additionally, Michael M. Hickey, counsel for Petitioners Duane Abata, Don Burger, Pat Hall and Barrett Wendt submitted Petitioners' Proposed Findings of Fact, Conclusions of Law, and Final Decision. Thereafter, counsel for Applicant, Croell Redi-Mix, Inc., submitted Croell Redi-Mix, Inc.'s Objections to Petitioners' Proposed Findings of Fact, Conclusions of Law, and Final Decision. The Board, upon review of the submissions received, the administrative record, and having orally entered its decision, enters the following rulings:

A. DENR's proposed Findings of Fact Nos. 1, 3-5, 7-22, and 24-29 are accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision.

- B. DENR's proposed Finding of Fact No. 2 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision. As it is consistent with Applicant's proposed Finding of Fact No. 5 and as Applicant's proposed Finding of Fact No. 5 more completely reflects the administrative record, Applicant's proposed Finding of Fact No. 5 is included in the attached proposed Findings of Fact and Conclusions of Law, with the qualifications renumbered to accurately reflect the recommendation of the Chief Engineer.
- C. DENR's proposed Finding of Fact No. 6 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified as follows to more accurately reflect the record: replace "SDCL § 43-2A-9" with "SDCL § 46-2A-9".
- D. DENR's proposed Finding of Fact No. 23 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, as modified as follows to more accurately reflect the record: add "expert" between "credible" and "witness".
- E. Applicant's Proposed Findings of Fact Nos. 1-3, 6-10, 12, 13, 15, 16 and 21 are accepted by the Board to the extent that they are consistent with DENR's proposed Findings of Fact as amended above and as reflected in the attached proposed Findings of Fact and Conclusions of Law.
- F. Applicant's Proposed Finding of Fact No. 4 is accepted by the Board as consistent with and supported by the administrative record and the Board's

oral decision. This proposed Finding of Fact is number 3 in the attached proposed Findings of Fact and Conclusions of Law.

- G. Applicant's Proposed Finding of Fact No. 5 is accepted by the Board as consistent with and supported by the administrative record and the Board's oral decision, with the qualifications renumbered to accurately reflect the recommendation of the Chief Engineer. This proposed Finding of Fact is number 4 in the attached proposed Findings of Fact and Conclusions of Law.
- H. The last sentence of Applicant's Proposed Finding of Fact No. 9 is adopted by the Board as proposed Finding of Fact No. 14.
- I. Applicant's Proposed Finding of Fact No. 11 is rejected as this proposed Finding is not a complete statement of Mr. Buhler's testimony on this issue.
- J. Applicant's Proposed Finding of Fact No. 14 is rejected by the Board as petitioner's name is Don Burger.
- K. Applicant's Proposed Finding No. 17 is rejected as it allows an inference that DENR Engineer Ken Buhler works for Applicant Croell Redi-Mix.
- L. Applicant's Proposed Findings of Fact No. 18 is rejected by the Board as it is not a complete or fully accurate statement of the record.
- M. Applicant's Proposed Finding of Fact No. 19 is rejected by the Board as "agricultural use" is not a use considered by the Board. The Board considered domestic use including the watering of livestock, which is addressed in the attached Findings of Fact and Conclusions of Law.

- N. Applicant's Proposed Finding of Fact No. 20 is rejected by the Board as the record does not support the statement that the Board has previously made the specific finding articulated.
- O. DENR's Proposed Conclusions of Law are accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision and the Findings of Fact adopted by the Board in the above rulings, with the following addition: in DENR's proposed Conclusion of Law No. 1, insert "the subject matter and parties to" between "over" and "this matter."
- P. Applicant's Proposed Conclusions of Law are accepted by the Board to the extent they are consistent with DENR's Proposed Conclusions of Law.
- Q. DENR's proposed Final Decision and Order is accepted by the Board as consistent with and supported by the administrative record, the Board's oral decision, and the Findings of Fact and Conclusions of Law adopted by the Board in the above rulings.
- R. Applicant's Proposed Final Decision is accepted by the Board to the extent consistent with the Proposed Final Decision of DENR.
- S. DENR's objections to Applicant's proposed Findings of Fact are sustained for the reasons provided in DENR's Objections to Croell Redi-Mix's Proposed Findings of Fact and Conclusions of Law.
- T. Petitioners' Proposed Findings of Fact and Conclusions of Law are rejected by the Board to the extent they are inconsistent with these rulings and with the Board's adopted Findings of Fact, Conclusions of Law and Final Decision. The Board's Findings of Fact, Conclusions of Law, and Final

Decision are consistent with and supported by the administrative record and are a reasonable interpretation and application of the applicable provisions of South Dakota law.

U. As Petitioners' proposed Findings of Fact and Conclusions of Law are rejected by the Board, Applicant's objections to Petitioners' Proposed Findings of Fact, Conclusions of Law and Final Decision are similarly rejected.

The Board's attorney is directed to prepare Findings of Fact, Conclusions of Law and Final Decision consistent with the above rulings to be executed by the Board's designee without further notice of hearing

Dated this 12 day of October 2016.

BY THE BOARD:

Jim Humacher, Chairman

South Dakota Water Management Board

pld_MN Croell Redi Mix 2745-2 - Rulings (cm)

#230 P.004/009

RECEIVED

OCT - 5 2016

WATER RIGHTS
PROGRAM

STATE OF SOUTH DAKOTA SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF THE APPLICATION)	CROELL REDI-MIX, INC.'S
OF CROELL REDI-MIX, INC.)	OBJECTIONS TO PETITIONERS'
APPLICATION NO. 2745-2)	PROPOSED FINDINGS OF FACT,
)	CONCLUSIONS OF LAW, AND
)	FINAL DECISION

COMES NOW, Croell Redi-Mix, Inc. ("Croell"), and submits the following objections to Duane Abata, Don Burger, Pat Hall, and Barrett Wendt's ("Petitioners") proposed findings of fact and conclusions of law in this matter.

Croell objects to Proposed Finding No. 4: Whether Croell may continue the existing quarry operations at the Perli Quarry or whether Croell has a Construction Permit or Mining Permit from Pennington County are matters still under dispute and currently being litigated in the Seventh Circuit. See Croell Redi-Mix, Inc. v. Pennington County Board of Commissioners, et al, 51CIV16-000654, Seventh Judicial Circuit. Pursuant to SDCL § 46-2A-8, Croell has five years to complete construction of its well and an additional four years to put the water to beneficial use. Croell's proposed beneficial uses listed domestic use (watering livestock) and industrial use (for the quarry). Croell intends to use or lease the subject real estate for cattle grazing. Therefore, Croell has an immediate use for the water.

Croell objects to Proposed Finding No. 8: Petitioners' proposed findings are simply not supported by the record. The Board determined that the Deadwood Aquifer has sufficient unappropriated water to satisfy Croell's proposed uses, that there will not be any unlawful impairment of existing water rights, and Croell's proposed uses are in the public interest.

Croell objects to Proposed Findings Nos. 11 and 12: SDCL § 46-6-3.1 requires the Board to examine the discharge and recharge of a "groundwater source" and does not limit the Board or its employees from analyzing groundwater sources as a whole. In addition, the highly qualified and knowledgeable Department of Environment and Natural Resources' ("DENR") expert, Ken Buhler, presented credible information to the Board regarding the Deadwood Aquifer overall and then presented credible information with regard to the small, more regional area in order to provide the Board with the best information available given the geologic and hydrologic variation within the Deadwood Aquifer.

Croell objects to Proposed Finding No. 14: Croell's proposed use of the water is not only for quarry purposes, but also, Croell's application stated domestic use (watering livestock).

Croell objects to Proposed Findings Nos. 15 through 18: Although Croell may not yet have cattle on the subject property, which would require water to be hauled to the property, pursuant to <u>SDCL</u> § 46-2A-8, Croell has five years to complete construction of its well and an additional four years to put the water to beneficial use, to include water for cattle.

Croell objects to Proposed Finding No. 19: Croell supplied adequate, substantial and credible information to DENR regarding Croell's estimated annual water use, consistent with SDCL § 46-6-3.1 which considers annual withdrawal and annual recharge, not daily withdrawals.

Croell objects to Proposed Finding No. 24: DENR's expert Ken Buhler did in fact present information with regard to the small, more regional area in order to provide the Board with the best information available given the geologic and hydrologic variation within Deadwood Aquifer, in addition to information regarding the Deadwood Aquifer overall.

Croell objects to Proposed Finding No. 25: Petitioners attempt to portray Croell's proposed withdrawal as exceeding the production of the Deadwood Aquifer which is simply erroneous, contrary to other evidence and expert opinions, and given the known production levels of the nearby Bear Country well which is approximately 1,700 feet from Croell's proposed well site.

Croell objects to Proposed Findings Nos. 27 through 33: Petitioners unreasonably rely on a variability argument and a narrow recharge area that is not logical given the other and undisputed evidence of this record. DENR's Expert, Mr. Buhler, testified that he analyzed the Bear Country well (1,700 feet from Croell's proposed well site) and also Observation Well PE-84A (2.7 miles away from Croell's proposed well site) to determine that Croell's proposed appropriation would not result in an unlawful impairment of existing rights or exceed the aquifers annual recharge. Petitioners' expert, Dr. Arden Davis, all but disregarded the Bear County well and Observation Well PE-84A and relied instead on a transmissivity study conducted near Jewel Cave, approximately 30 miles from Croell's proposed well site, to attempt to determine that Croell's proposed appropriation may result in unlawful impairment. Dr. Davis' speculations and conclusions are not supported by the record or by the best information in the record that is available to the Board.

Croell objects to Proposed Findings Nos. 34 through 37: Croell is not proposing to use water from the Deadwood Aquifer for drinking purposes. Any argument regarding alleged contaminants as they relate to drinking water is not relevant to this application. Petitioner Burger testified that his housing development uses the very same water from the Deadwood Aquifer and he drinks the water. Not only is there no merit to such proposed findings, but such are not relevant to this proceeding.

Croell objects to Proposed Conclusions Nos. 9 through 14: The record before the Board, including the best available information, demonstrates that Croell met its burden to show that there is a reasonable probability that there is unappropriated water in the Deadwood Aquifer and that Croell's proposed appropriation will not unlawfully impair existing water rights. Even Petitioners' expert, Dr. Davis, conceded that any drawdown of the Deadwood Aquifer would be to artesian pressure, which is not protected by South Dakota law.

Based on the Board's decision at the July 7, 2016, Croell requests the Board to adopt Croell's Proposed Findings of Fact and Conclusions of Law and to GRANT Application No. 2745-2.

Dated this 5th day of October, 2016.

LYNN, JACKSON, SHULTZ-& LEBRUN, P.C.

Thomas E. Brady

Attorney for Croell Redi-Mix, Inc.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 5th day of October, 2016, a true and correct copy of Croell Redi-Mix, Inc.'s Objections to Petitioners' Proposed Findings of Fact, Conclusions of Law, and Final Decision was served in the following manner upon the following persons, by placing the same in the service indicated, postage prepaid as applicable, addressed as follows:

Ann F. Mines Bailey Assistant Attorney General 1302 East Highway 14, Suite 1 Pierre, SD 57501 ann.mines@state.sd.us

U.S. Mail [x] Hand Delivery Facsimile []

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Jeanne Goodman Chief Engineer Water Rights Program Foss Building 523 East Capitol Pierre, SD 57501	[x] U.S. Mail [] Hand Delivery [x] Facsimile [] Overnight Del [] Odyssey File & [] Email	ivery
Rodney Freeman Hearing Chair Water Management Board P.O. Box 176 Huron, SD 57350	[x] U.S. Mail [] Hand Delivery [] Facsimile [] Overnight Deli [] Odyssey File & [] Email	very
Chad Comes Water Management Board 116 W. Center Madison, SD 57042	 [x] U.S. Mail [] Hand Delivery [] Facsimile [] Overnight Delivery [] Odyssey File & Email 	
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By:

STATE OF SOUTH DAKOTA BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF THE APPLICATION OF CROELL REDI- MIX, APPLICATION No. 2745-2

Petitioners' Proposed Findings of Fact, Conclusions of Law, and Final Decision

The above-entitled matter came on for hearing before the South Dakota Department of Environment & Natural Resources, Water Management Board, on July 7, 2016, in Pierre, South Dakota. The Applicant, Croell Redi-Mix, appeared through its counsel, Thomas Brady and Steven Iverson. Ann Mines-Bailey appeared on behalf of the Department of Environment & Natural Resources. Michael Hickey and Kelsey Parker appeared on behalf of Petitioners Duane Abata, Don Burger, Pat Hall, and Barrett Wendt.

The Water Management Board having heard the testimony of the witnesses and the evidence introduced and having considered the arguments of the parties, and having hereinbefore made and announced its oral Decision which is incorporated herein by this reference, now hereby makes and enters the following:

FINDINGS OF FACT

- The Decision is incorporated herein by reference. In the event of conflict between the Decision and these findings, the Decision controls.
- Croell Redi-Mix ("Applicant") filed a Water Permit Application No. 2745-2
 to appropriate 19.6 acre-feet of water annually from the Deadwood Aquifer.
 The location of the site is approximately three miles outside of Rapid City

on US Highway 16 (NE1/4SW1/4, Section 9, T1S, R7E, Pennington County, South Dakota.)

- 3. Croell proposes using a well that would be approximately 1,150 feet deep, with a maximum diversion rate of .33 cubic feet per second (150 gallons per minute).
- 4. According to Croell, the primary purpose of the Water Permit is for dust control on a proposed quarry. However, Applicant has not obtained a construction permit or mining permit to operate a quarry on the proposed site from Pennington County.
- 5. Ken Buhler, a staff engineer with the Water Rights Program at DENR, reviewed the characteristics of the aquifer, and determined that water was available for appropriation and that there would be no potential unlawful impairment to the existing rights in the area. Mr. Buhler summarized his findings in a report submitted to the Chief Engineer.
- 6. Based on Mr. Buhler's report, the Chief Engineer filed a recommendation approving the application with certain qualifications.
- 7. The recommendation was opposed by Duane Abata, Don Burger, Pat Hall and Barrett Wendt ("Petitioners"). Petitioners filed a petition opposing the Application on April 8, 2016.
- 8. Petitioners opposed the permit because there is not a sufficient amount of unappropriated water available in the Deadwood Aquifer to satisfy Applicant's proposed use, there would be an unlawful impairment of existing water rights, and the proposed use is not in the public interest.

- 9. On July 7, 2016, a hearing was held before the South Dakota Water Management Board.
- 10. At the hearing, Mr. Buhler testified that the annual recharge to the Deadwood Aquifer in the Black Hills is approximately 14,500 acre-feet a year. The estimated well withdrawal is approximately 2,160 acre-feet a year.
- 11. However, Mr. Buhler testified that it would be highly unlikely that water that is being recharged north of Deadwood would have any affect on the site proposed in the application.
- 12. When making his recommendation, Mr. Buhler looked at the impact of the permit on the entire Deadwood Aquifer and did not isolate the impact on the local area.
- 13. Mr. Buhler did not discuss or analyze the public interest.
- 14. Applicant called Kyle Frisinger ("Mr. Frisinger"), an aggregate manager in South Dakota and northern Wyoming. Mr. Frisinger manages sand and gravel pits and rock quarries in South Dakota and in northern Wyoming.
- 15. Mr. Frisinger testified that the water would be used for rock crushers, dust control on haul roads, and for reclamation purposes.
- 16. Mr. Frisinger alleged the water would also be used to water cows on the property. However, Mr. Frisinger informed the Board that Applicant did not currently have any cattle, nor did they have any idea of how many cattle they may have or how much land was available for cattle to run.

- 17. Mr. Frisinger guessed the amount of water Applicant would need for the site by reviewing the DENR website and by contacting the owner of Bear County USA, who has an existing well on their property.
- 18. Mr. Frisinger guessed that he would need 5.5 million gallons of water for industrial use and .9 million gallons of water for agricultural purposes per year.
- 19. Applicant did not indicate how many hours a day the quarry would operate, or how much water they would need each day.
- 20. After reviewing the application and analyzing relevant data, Arden Davis, Ph.D. ("Dr. Davis"), prepared and submitted a report opposing the Water Permit Application. Dr. Davis appeared at the hearing and testified about his findings and recommendations.
- 21. Dr. Davis has a bachelor's degree in geology from the University of Minnesota and a Master's and Ph.D. in geological engineering from the South Dakota School of Mines. Dr. Davis taught for thirty years at the South Dakota School of Mines and Technology, teaching ground water, geological engineering, and engineering design.
- 22. In his experience, Dr. Davis has extensively studied the hydrological properties of aquifers in the Black Hills area.
- 23. Specifically, Dr. Davis has analyzed water supply, water quality, well drilling, and log wells. Dr. Davis has published various papers and journals on the same subjects.

- 24. Dr. Davis' analysis and recommendation focused on the locality of the proposed well, compared to Mr. Buhler who focused primarily on the Deadwood Aquifer as a whole.
- 25. In Dr. Davis' testimony, he explained that the Deadwood Aquifer is the least productive of aquifers in the area (compared to the Madison or the Minnelusa). The median production is about 15 gallons per minute, one-tenth of the production requested by the Applicant.
- 26. The Deadwood Aquifer spans from North of Deadwood, South Dakota, to Nebraska. It covers areas in North Dakota, Montana and most of western South Dakota (except in the central Black Hills where it has been eroded away). Just in Pennington County, the aquifer underlies approximately 1.4 million acres.
- 27. Importantly, Dr. Davis explained that the permeability and the transmissivity of the Deadwood Aquifer vary greatly from location to location. Therefore, the productivity of a well can vary greatly from location to location. One well may produce 150 gallons of water per minute, but a nearby well may only produce 10 gallons of water per minute.
- 28. The variability of the permeability and the transmissivity of the aquifer should be considered when predicting the long-term effects of pumping water over an extended period of time.
- 29. Dr. Davis disputed Mr. Buhler's conclusion that the estimated recharge rate of the Deadwood Aquifer would indicate that there is unappropriated water available.

- 30. Mr. Buhler analyzed the entire Black Hills recharge rate compared to Dr. Davis who focused on the recharge rate which would actually affect the proposed well site. Dr. Davis explained that the Deadwood Aquifer's recharge area near the quarry is very narrow. Conservatively, the recharge rate in the locality of the quarry would only be 17 acre-feet per year.
- 31. Applicant's request for 19.6 acre-feet per year would exceed the recharge rate in the locality (17 acre-feet per year). Therefore, there would not be enough unappropriated water sufficient to supply Applicant's proposed usage.
- 32. Further, there are approximately 30 existing wells in the nearby vicinity of the proposed well site. Applicant's proposed use would unlawfully impair the existing rights of other neighboring wells.
- 33. Dr. Davis applied the Theis Equation, a mathematical model to determine transient flow of water, and concluded that the proposed water permit would have a detrimental effect on nearby wells.
- 34. Finally, Dr. Davis had serious concerns about excessive amounts of radon and radium in the water. Neighborhoods in southwest Rapid City have to blend their water to get the concentration down on radium to a level that meets drinking water standards. This testimony establishes an adverse impact on surrounding users of water and would not be in the public interest.
- 35. The US Geological Survey's information from the Black Hills Hydrology.

 Study shows a mean concentration of about 1,970 picocuries per liter for the Deadwood Aquifer, but the US EPA recommends 4 picocuries per liter

as the action level for radon gas in homes. Nearby, in a Deadwood Aquifer well, there was 222 radon concentration of 6,600 picocuries per liter.

- 36. There is a high likelihood that Deadwood Aquifer wells in the proposed site contain radon and radium. Dr. Davis recommended that a plan should be implemented to prevent accidental releases from the site.
- 37. Given the recharge rate, the potential effects to existing wells, and the radon and radium concerns, Dr. Davis recommended that a pumping test be done to define the Deadwood Aquifer's properties at the proposed site.

Based upon the forgoing Findings of Fact, the Water Board hereby makes and enters the following:

CONCLUSIONS OF LAW

- 1. That the Department of Environment and Natural Resources Water Board has jurisdiction over the subject matter and parties to this matter.
- 2. To the extent that any Finding of Fact is improperly designated as such, then the same should be considered as a Conclusion of Law. Likewise, to the extent any Conclusion of Law is improperly designated as such, then it should be considered as a Finding of Fact.
- 3. An applicant may apply for a permit to appropriate water. SDCL § 46-2A-1.
- 4. Within 60 days of receipt of a completed application, the chief engineer must recommend approving, denying, or deferring the application. "The

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recommendation shall include any terms, conditions, restrictions, qualifications, quantifications, or limitations on perpetuity which are consistent with this chapter, necessary to protect the public interest and related to matters within the jurisdiction of the chief engineer or the board." SDCL § 46-2A-2.

- 5. Any person who opposes the recommendation must file a petition with the chief engineer and the applicant. SDCL § 46-2A-23.
- 6. The Board conducted a hearing on this application for appropriation of water under the authority of SDCL Ch. 46-2 and Ch. 46-2A.
- 7. The Applicant had the burden of proof to establish all of the requirements necessary to obtain a permit under the provisions of SDCL § 46-2A-9.
- 8. SDCL § 46-2A-9 provides,

A permit to appropriate water may be issued only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest.

- 9. The Applicant did not meet its burden.
- 10. The Applicant has not established that there is a reasonable probability that there is unappropriated water available for the Applicant's use.
 - 11. The Applicant has not established that the proposed diversion can be developed without unlawful impairment of existing rights.

- 12. The Applicant has not established that the water use would be beneficial, or in the public interest.
- 13. There is not enough unappropriated water available for Applicant's proposed use in Application No. 2745-2. The proposed use would unlawfully impair existing rights of other permit holders and is not in the public interest.
- 14. Application No. 2745-2 (Croell Redi Mix, Inc.) is **DENIED**.

LET A FINAL DECISION BE ENTERED ACCORDINGLY.

FINAL DECISION

Application No. 2745-2 is hereby **DENIED** as the Applicant has failed to establish that there is a reasonable probability that unappropriated water is available, the proposed use can be developed without unlawful impairment of existing rights, and the proposed use is in the public interest.

Dated this day of	, 2016.	
	SOUTH DAKOTA DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES, THE WATER MANAGEMENT BOARD	
	BY:	

Dated this 30th day of September, 2016.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS, L.L.P.

BY:

MICHAEL M. HICKEY

KELSEY B. PARKER

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ATTORNEYS FOR PETITIONERS

CERTIFICATE OF SERVICE

I certify that, on September 30, 2016, I served copies of this document upon each of the listed people by the following means:

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STATE OF SOUTH DAKOTA

SOUTH DAKOTA WATER MANAGEMENT BOARD

IN THE MATTER OF WATER	
PERMIT APPLICATION	DENR'S PROPOSED FINDINGS
NO. 2745-2, CROELL REDI MIX) OF FACT, CONCLUSIONS OF LAW
) AND FINAL DECISION

This matter came before the South Dakota Water Management Board for hearing on July 7, 2016. Board members Chad Comes, Tim Bjork, Rodney Freeman, Peggy Dixon, Leo Holzbauer, and Jim Hutmacher were present at the hearing and heard the evidence presented. Croell Redi Mix (hereinafter referred to as Croell) was represented by Thomas E. Brady and Steven T. Iverson. Intervenors Duane Abata, Pat Hall, Don Burger, and Barret Wendt were represented by Michael M. Hickey and Kelsey Blair Parker. Ann F. Mines Bailey represented the DENR Water Rights Program and its Chief Engineer (DENR).

The Board, having considered the testimony and exhibits presented and all records and documents on file and having entered its oral decision and rulings on the parties' submissions, now enters the following:

FINDINGS OF FACT

1. On January 27, 2016, DENR received Water Permit Application No. 2745-2 on behalf of Croell seeking the appropriation of water for the commercial use in a limestone crushing plant and also for some domestic use. The application proposes the construction of one well to be completed into the Deadwood Aquifer and located in NE¼SW¼ Section 9, T1S-R7E in

Pennington County with a diversion rate of 0.33 cubic feet of water per second (cfs) for a rate of 19.6 acre-feet per year.

- 2. The Chief Engineer recommended approval of the application subject to the permit including four specified qualifications.
- 3. Notice of the application and hearing was timely advertised in the Rapid City Journal on April 1, 2016.
- 4. DENR received a timely petition in opposition to the application on behalf of Duane Abata, Don Burger, Pat Hall, and Barret Wendt.
- 5. The matter was initially scheduled to be heard by the Water Management Board on May 4, 2016; however, an automatic delay was requested by intervenors.
- 6. Water Permit Application No. 2745-2 is a new water permit application which requires a determination pursuant to SDCL § 43-2A-9 that there is a reasonable probability unappropriated water is available for the proposed use, whether the use would impair existing rights, whether the use would be a beneficial use, and whether the proposed use is in the public interest.
- 7. In considering water availability this Board must examine whether the quantity of the average water withdrawn annually from the groundwater source would exceed the quantity of the average estimated annual recharge of water to the groundwater source if this permit was granted.

- 8. The Deadwood Aquifer is a bedrock aquifer. It covers the majority of western South Dakota, with the exception of the central Black Hills, and extends into surrounding states. It is comprised of sandstone, siltstone, shale and some limestone. In Pennington County alone, it underlies approximately 1.4 million acres and contains in storage an estimated 14.9 million acre-feet of recoverable water. The Deadwood Aquifer is under confined conditions at this location. In the area of the proposed well site, the Aquifer is an estimated 245 feet thick and has an estimated 420 feet of artesian head pressure.
- 9. Recharge to the Deadwood Aquifer in this area occurs primarily through precipitation falling directly on the outcrop. As part of the Black Hills Hydrology Study, annual recharge to the Deadwood Aquifer was estimated to be approximately 14,500 acre-feet a year.
- 10. DENR witness, Ken Buhler, a natural resources engineer, reviewed the permit application, analyzed the hydrology of the Deadwood Aquifer, and reviewed the information obtained from observation wells completed into the Deadwood Aquifer, as well as current water right/permit files and well completion reports for the Aquifer.
- 11. Mr. Buhler testified that well withdrawals from the Deadwood Aquifer in the Black Hills area amounts to approximately 2,160 acre-feet per year.
- 12. Additionally, DENR monitors five observation wells which are completed into the Deadwood Aquifer. One of the observation wells, PE-84A,

is located approximately 2.7 miles from the proposed well site. The observation well data demonstrated that climatic conditions dominate the water levels in the Deadwood Aquifer and mask the results of pumping. Over the period of record, recharge has exceeded withdrawal.

- 13. Mr. Buhler also examined whether there would be an unlawful impairment to existing water rights in the Deadwood Aquifer.
- 14. In the Black Hills area, there are 35 existing water rights in the Deadwood Aquifer. The nearest existing water right to the proposed well site is Water Right No. 1450-2, held by Bear Country USA and located approximately 1,742 feet from the proposed well site.
- 15. Using the data acquired from the well driller involved in the construction of the well that Water Right No. 1450-2, Bear Country USA, Mr. Buhler was able to determine the transmissivity rate for this area of the aquifer. Mr. Buhler opined that there would be approximately 75 feet of drawdown at the proposed well site. Given that there is over 300 feet of artesian head pressure, Mr. Buhler opined there would not be an unlawful impairment to this existing water right.
- 16. Additionally there are approximately 30 to 34 domestic wells within a two and a half mile radius of the well site on file with DENR. The closest domestic well is located approximately three-quarters of a mile from the proposed well site. Mr. Buhler testified that there is no likelihood that these domestic wells would be adversely impacted.

- 17. Kyle Frisinger also testified before the Board. Mr. Frisinger is Croell's aggregate manager for South Dakota and northern Wyoming.
- 18. Mr. Frisinger testified that Croell purchased this property which had been the site of a rock quarry for a number of years. He further testified that Croell was seeking an appropriation of water to be used for controlling dust on haul roads and water spray bars in the crushing plant. Additionally, Mr. Frisinger testified that the property is also used for livestock and a portion of the appropriation was intended for the watering of livestock as there is no current water source on the property.
- 19. Don Burger also provided testimony to the Board. Mr. Burger is one of the individuals who petitioned in opposition to the Croell application.
- 20. Mr. Burger testified regarding the amount of water requested as he believes that the amount applied for is far greater than what is needed for the purpose of watering livestock. Mr. Burger also testified regarding his concerns as to the quality of the water in that area. Mr. Burger testified that his research revealed that there are high levels of radon and radium in several wells completed into the Deadwood Aquifer and located in this general area. Mr. Burger is concerned that there is an opportunity for the other aquifers to be contaminated if this well is drilled. Finally, Mr. Burger testified that he is concerned that the runoff from this well site would drain into Spring Creek and eventually contaminate Rapid City's water supply.

- 21. The Board also received testimony from Dr. Arden Davis.

 Dr. Davis is a retired college professor with a bachelor's degree in geology, and a master's and Ph.D. in geological engineering.
- 22. Dr. Davis testified that the Deadwood Aquifer is not a very productive aquifer. He opined that in this area the aquifer is approximately 80 feet thick and variable in its permeability. Dr. Davis testified that he believes recharge to this area is approximately 17 acre-feet per year. Dr. Davis additionally testified that he believes that the proposed well could produce detrimental effects on nearby wells. Finally, Dr. Davis testified as to the presence of radium and radon in the Deadwood Aquifer. Dr. Davis concluded that an aquifer pump test is necessary to best determine the effects of the proposed appropriation on the Aquifer. He further concluded that a plan to deal with the radium and radon from the Aquifer should also be in place.
- 23. The Board finds Mr. Buhler to be a credible witness and that these proposed Findings of Fact are supported by the evidence presented including Mr. Buhler's testimony and the reports and exhibits which he prepared and/or relied upon.
- 24. Intervenors have not submitted sufficient evidence through expert opinions, testimony or evidence that would support a determination that there is a reasonable probability that there is not unappropriated water available in this Aquifer.

- 25. The Board finds that there is a reasonable probability that there is unappropriated water available for the applicant's proposed use.
- 26. The Board further finds that granting this application would not result in withdrawals from the Aquifer exceeding recharge to the Aquifer.
- 27. The Board further finds that the proposed uses of the water for industrial and domestic purposes constitute beneficial use.
- 28. The Board further finds that placing the water to these beneficial uses is in the public interest.
- 29. Any finding of fact more properly designated as a conclusion of law shall be treated as such.

Based on the foregoing Findings of Fact, the Board makes the following Conclusions of Law:

CONCLUSIONS OF LAW

- 1. The Board has jurisdiction over this matter. The present application falls within the Board's responsibility over water appropriation and regulation in Title 46.
- 2. Publication was properly made and the Notice of Hearing was properly issued pursuant to SDCL 46-2A-4.
- 3. The Chief Engineer recommended granting this application. This recommendation is not, however, binding on the Board. SDCL 46-2A-4(8).
- 4. The applicant is required to satisfy each of the factors set forth in SDCL 46-2A-9.

- 5. SDCL 46-2A-9 provides that a permit to appropriate water may be issued "only if there is reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest." Each of these factors must be met and the permit must be denied if the applicant does not meet its burden of proof on any one of them.
- 6. The first factor for consideration under SDCL 46-2A-9 is whether there is water available for the appropriation. Determination of water availability includes consideration of the criteria in SDCL 46-6-3.1 pertaining to recharge/withdrawal: whether "according to the best information reasonably available, it is probable that the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source."
- 7. There is a reasonable probability that there is unappropriated water available to fulfill the amount requested by the application.
- 8. The Board further concludes that it is not probable that withdrawals from the Aquifer would exceed recharge to the Aquifer in violation of SDCL 46-6-3.1 if this application is granted.
- 9. The second requirement of SDCL § 46-2A-9 is that the proposed water use may not unlawfully impair existing water rights. The proposed diversion can be developed without unlawful impairment of existing rights.

- 10. The third element in SDCL § 46-2A-9 is whether the use of water would be a beneficial use: one that is reasonable and useful and beneficial to the appropriator and also consistent with the interest of the public in the best utilization of water supplies under SDCL § 46-1-6(3). The proposed uses (industrial and domestic) are beneficial uses.
- 11. The fourth requirement of SDCL § 46-2A-9 concerns the public interest. The proposed use of the water must be "consistent with the interests of the public of this state in the best utilization of water supplies." SDCL § 46-1-6(3). The Board finds that appropriating water for industrial and domestic use is in the public interest.
- 12. Any conclusion of law more properly designated as a finding of fact shall be treated as such.

FINAL DECISION

Based on the foregoing Findings of Fact and Conclusions of Law, the Board enters its determination that Water Permit Application No. 2745-2 is granted with the following qualifications:

- 1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- 2. The new well authorized by Permit No. 2745-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.

- 3. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Deadwood Aquifer.
- 4. Water Permit No. 2745-2 authorizes a total annual diversion of 19.6 acre-feet of water.

Dated this	day of	October,	2016.
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BY THE BOARD:

Jim Hutmacher, Chairman South Dakota Water Management Board

Groundwater Conditions in the Deadwood Aquifer near the Perli Quarry, Pennington County, South Dakota

Arden D. Davis, Ph.D., P.E. 1014 Milwaukee Street Rapid City, South Dakota 57701

June 30, 2016

Introduction

This report was prepared in regard to concerns of Dr. Duane Abata and other homeowners near the Perli Quarry, located in the SE ¼ of section 9, T. 1 S., R. 7 E, Pennington County, South Dakota (Figures 1 and 2). Croell Redi-Mix, Inc., has requested approval of a permit for expansion of the quarry near U.S. Highway 16, about 3½ miles east-northeast of Rockerville. The quarry is at an outcrop of the Minnekahta Limestone, a formation that is approximately 40 feet thick. Associated with the expansion of the quarry operations is Water Permit Application No.2745-2 for a well in the Deadwood aquifer that would pump a maximum of 0.33 cubic feet per second of groundwater, up to 19.6 acre-feet annually.

Deadwood Aquifer

The Deadwood aquifer underlies much of western South Dakota except where it has been removed by erosion in the central Black Hills. Its recharge area is exposed at outcrops of the Deadwood Formation on the flanks of the Black Hills, including a narrow band in the area near the Stratosphere Bowl, west of the quarry (Figure 3). The aquifer, at the site of

the Perli Quarry, appears to be under artesian conditions, based on information from the U.S. Geological Survey. The potentiometric surface of the Deadwood aquifer is at approximately 3500 to 3600 feet above sea level (Strobel et al., 2000), while the top of the Deadwood Formation (Carter and Redden, 1999) is approximately 3200 feet above sea level, indicating that the water levels in wells would stand above the top of the aquifer in this area. From this information, it appears that the head in the Deadwood aquifer is about 300 to 400 feet above the top of the Deadwood Formation. Based on a potentiometric map by Strobel et al. (2000), groundwater flow is generally eastward in the area. The total thickness of the Deadwood Formation is about 215 to 245 feet in the Rockerville area (Rahn, 1987), but the aquifer is contained mainly in the upper 80 feet of permeable sandstone, whereas the lower part of the formation is predominantly low-permeability shale, dolomite, and conglomerate (Lester and Rahn, 2001).

The Deadwood aquifer is not as productive as the Madison or Minnelusa aquifers in the Black Hills (Driscoll et al., 2002; Carter et al., 2002), but some wells have been drilled in the Deadwood where more abundant supplies from other formations are not available. Yields from wells in the Deadwood aquifer typically vary from about 10 to 40 gallons per minute in the Black Hills, with a median production of about 15 gallons per minute (Driscoll et al., 2002).

The recharge rate to sedimentary aquifers in this part of the Black Hills is about 1 to 2 inches per year (Driscoll et al., 2002). Flow in the Deadwood aquifer in this area generally is eastward, so the Deadwood Formation's outcrop immediately west of the area should be considered here. As shown on Figure 3, the outcrop of the Deadwood Formation, where recharge would occur, is exposed in a very narrow band. It appears that this

outcrop typically is about 300 feet wide. In the band of outcrop extending for three miles in a north-south direction, west of the quarry, about 100 acres of recharge area would be exposed. A recharge rate of 2 inches per year (1/6 foot per year) would result in about 17 acre-feet of groundwater that is recharged locally. According to SDCL 46-6-3.1, "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." Thus, it appears that the requested appropriation of 19.6 acre-feet per year of groundwater would exceed this local recharge, especially when existing Deadwood wells in the area are considered.

Few estimates of aquifer properties are known for the Deadwood. The only pumping test for which information is available in the Black Hills was conducted and analyzed by Valder (2006), who determined a transmissivity (T) of about 70 ft²/day and a storage coefficient (S) of about 0.001.

On the basis of aquifer properties and projected pumping rates, predictions can be made about likely drawdowns from proposed pumping of the Deadwood aquifer at the Perli Quarry. The Theis equation (Theis, 1935) is widely used for calculating drawdown. It has the following form:

$$s = (Q / 4 \pi T) W(u)$$

where s = drawdown, Q is the pumping rate, T is transmissivity, and W(u) is the well function of u. The dimensionless parameter, u, is expressed as:

$$u = (r^2 S / 4 T t)$$

where r is the distance from the pumped well to the point of interest, S is storage coefficient, T is transmissivity, and t is time. Standard values for W(u) vs. u can be found in groundwater textbooks by authors such as Freeze and Cherry (1979).

The aquifer properties for the Deadwood aquifer can be used with the Theis equation to predict drawdown at various distances from the Perli Quarry. A transmissivity of 70 ft²/day, a storage coefficient value of 0.001, a pumping rate of 0.33 ft³/sec (equivalent to about 150 gallons per minute), and a pumping time of 30 days would result in a calculated drawdown of more than 500 feet at the pumped well. This indicates that the drawdown could be great enough to dewater the aquifer at the quarry, because the head in the Deadwood aquifer is about 300 to 400 feet above the top of the aquifer, raising concerns about potential effects on existing water wells nearby.

It is important to note that the aquifer properties of the Deadwood aquifer are variable and could be less than the values used in the calculations above. Because of geologic variability, it is reasonable that the values of transmissivity and storage coefficient for a groundwater reservoir such as the Deadwood aquifer could vary by one order of magnitude or more. This should be considered in predicting effects from long-term pumping of the Deadwood aquifer. For example, if the transmissivity is 10 ft²/day and the storage coefficient is 0.0002, with a pumping rate of 12.2 gallons per minute (equivalent to 19.6 acre-feet per year), the calculated drawdown at the pumped well would be about 385 feet at a time of twenty years. This also would result in a calculated drawdown of about 150 feet at an observation point 530 feet from the well. At a distance of about 1900 feet from the well, the predicted drawdown would be 100 feet. At a distance of about 7000 feet

from the well, the calculated drawdown would be more than 50 feet. Drawdown contours from these calculations are shown on Figure 4.

Because of uncertainties about the hydraulic properties of the Deadwood aquifer, and because Deadwood wells typically are not capable of yielding 100 gallons per minute or more, it is recommended that a pumping test be conducted before withdrawals of the proposed scale are permitted.

Radium and Radon in Groundwater of the Deadwood Aquifer

Radium and radon concentrations in the Deadwood aquifer are a health concern. Rounds (1991) documented a ²²⁶Ra concentration of 66 pCi/L in groundwater from the Deadwood aquifer at Countryside Estates, near Sheridan Lake Road north of the Perli Quarry. In a U.S. Geological Survey publication, Williamson and Carter (2001) reported a mean concentration for ²²⁶Ra of 6.0 pCi/L in the Deadwood aquifer. The public drinking-water limit for combined ²²⁶Ra and ²²⁸Ra is 5 pCi/L. A daughter product of radioactive decay of radium is radon, which is a concern because of air quality. Rounds (1991) found a ²²²Rn concentration of 6600 pCi/L in a Deadwood well near Lead in the northern Black Hills. Williamson and Carter (2001) determined a mean concentration for ²²²Rn of 1,971 pCi/L in the Deadwood aquifer. The U.S. Environmental Protection Agency has recommended 4 pCi/L as the action level for radon gas in homes (U.S. Environmental Protection Agency, 2013).

If pumped water from a Deadwood well is stored in a surface-water reservoir at the quarry site, it appears that radium and radon could be a problem because of the likelihood that the water would contain these contaminants in high concentrations, and because of the potential for accidental releases of water from the site. It is recommended that a plan

should be formulated to deal with radium and radon from pumped water at the site.

Conclusions

Proposed groundwater withdrawals from a well in the Deadwood aquifer at the Perli Quarry could dewater the aquifer at the proposed site and could cause drawdowns of 50 feet or more at a distance of more than one mile from the quarry, potentially affecting nearby homeowners. It also appears that the requested appropriation of 19.6 acre-feet per year of groundwater could exceed the local recharge rate to the Deadwood aquifer, potentially causing long-term problems for owners of Deadwood wells in the area. It is recommended that a pumping test be conducted before withdrawals of the proposed scale are attempted.

Radium concentrations in groundwater of the Deadwood aquifer are a concern that should be addressed, particularly if the pumped water is stored in an exposed reservoir at the quarry site, where releases to the environment could occur. A plan should be formulated to deal with radium and radon in groundwater from the well.

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Bangs, McCullen, Butler, Foye & Simmons, L.L.P.
Reply to Rapid City Office

SICUX FALLS OFFICE 6340 S. Western Avenue Suite 160 P.O. Box 88208 Sioux Falls, SD 57109-8208 (605) 339.6800 FAX (605) 339.6801

Writer's e-mail address: mhickey@bangsmccullen.com

April 8, 2016

Sent by U.S. Mail and Facsimile

Ms. Jeanne Goodman, Chief Engineer
Department of Environment and National Resources
Water Rights Program
Foss Building
523 East Capitol
Pierre, SD 57501-3182

Re: In the Matter of the Application of Croell Redi-Mix Application No. 2745-2

Dear Ms. Goodman:

Please find enclosed the original Petition Opposing Water Application No. 2745-2 and Requesting Continuance of Hearing in the above-referenced matter. A copy of this document has been sent to Attorneys Brady and Pluimer, and to the Applicant, which is intended as service by U.S. Mail.

If you have any questions or comments, please advise. Thank you.

Sincerely,

BANG, McCULLEN, BUTLER, FOYE & SIMMONS, L.L.P.

Michael M. Hickey

MMH:bah Enclosure

cc;

Clients
Eric Gronlund
Richard Pluimer
Thomas Brady
Croell Redi-Mix



STATE OF SOUTH DAKOTA

BEFORE THE WATER MANAGEMENT BOARD

IN THE MATTER OF THE APPLICATION OF CROELL REDI MIX, APPLICATION NO. 2745-2

Petition Opposing Water
Application No. 2745-2 and
Requesting Continuance of Hearing

Comes now Duane Abata, Don Burger, Pat Hall, and Barrett Wendt ("Petitioners"), by and through their attorneys, Michael M. Hickey and Kelsey B. Parker of Bangs, McCullen, Butler, Foye & Simmons, L.L.P., and respectfully submit the following to the Water Management Board:

- 1. Petitioners are neighboring landowners currently utilizing the Deadwood Aquifer for their water needs.
- 2. On or about January 27, 2016, Croell Redi-Mix, applied for a water permit with the State of South Dakota.
- 3. The point of diversion is: NE1/4SW1/4 Section 9 T1S R7E.
- 4. The water permit would be for the construction of new water well primarily used for industrial use.
- 5. The well would produce water for a limestone crushing plant.
- On April 1, 2016, the Chief Engineer recommended approval of Water Application No. 2745-2.
- 7. In the notice published in the newspaper, Croell Redi-Mix indicated that it would appropriate 19.6 acre feet of water annually at a maximum diversion rate of 0.33 cubic feet of water per second from one well to be completed into the Deadwood Aquifer.
- 8. The proposed permit is not in the public interest and would result in an unlawful impairment of existing rights.

9. Upon information and belief, there is not a sufficient amount of unappropriated water available in the Deadwood Aquifer for Croell Redi-Mix's proposed industrial use.

WHEREFORE, Petitioners respectfully OPPOSE the approval of Water Application No. 2745-2 and request that the hearing tentatively set for May 4-5, 2016 be continued in order to allow Petitioners additional time to prepare to present evidence and testimony in opposition to the application and otherwise prepare for the hearing in this matter.

Dated this 8th day of April, 2016.

BANGS, McCULLEN, BUTLER, FOYE & SIMMONS, L.L.P.

BY:

MICHAEL M. HICKEY

KELSEY B. PARKER

333 West Boulevard, Ste. 400, P.O. Box 2670

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mhickey@bangsmccullen.com

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ATTORNEYS FOR PETITIONERS

CERTIFICATE OF SERVICE

The undersigned hereby certifies that he served a copy of this legal document upon the persons herein next designated, all on the date below shown, by facsimile and by depositing copies thereof in the United States mail at Rapid City, South Dakota, postage prepaid, in envelopes addressed to said addressees, to wit:

Jeanne Goodman, Chief Engineer WATER RIGHTS PROGRAM Foss Building 523 East Capitol Pierre, SD 57501 Facsimile: (605) 773-4068

Eric Gronlund
WATER RIGHTS PROGRAM
Foss Building
523 East Capitol
Pierre, SD 57501
Facsimile: (605) 773-4068

Richard Pluimer and Thomas Brady
BRADY PLUIMER, P.C.
135 E. Colorado Blvd
Spearfish, SD 57783
Attorney for Croell Redi-Mix

Fascimile: (605) 722-9001

and by depositing a copy thereof in the United States mail at Rapid City. South Dakota, postage prepaid, in an envelope addressed to said addressee, to wit:

CROELL REDI-MIX c/o Kyle Frisinger P.O. Box 1352 Sundance, WY 82729

which is the last address of the addressee known to the subscriber.

Dated this 8th day of April, 2016.

MICHAEL M. HICKEY

Page 3 of 3



DEPARTMENT of ENVIRONMENT and NATURAL RESOURCES

JOE FOSS BUILDING 523 EAST CAPITOL PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT APPLICATION NO. 2745-2, Croell Redi Mix

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 2745-2, Croell Redi Mix, c/o Kyle Frisinger, Aggregate Manager, PO Box 1352, Sundance WY 82729.

The Chief Engineer is recommending APPROVAL of Application No. 2745-2 because 1) there is reasonable probability that there is unappropriated water available for the applicant's proposed use, 2) the proposed diversion can be developed without unlawful impairment of existing rights, 3) the proposed use is a beneficial use, 4) it is in the public interest with the following qualifications:

- 1. The well approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- 2. The well authorized by Permit No. 2745-2 shall be constructed by a licensed well driller and construction shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
- 3. The Permit holder shall report to the Chief Engineer annually the amount of water withdrawn from the Deadwood Aquifer.
- 4. Water Permit No. 2745-2 authorizes a total annual diversion of 19.6 acre feet of water.

See report on application for additional information.

Jeanne Goodman, Chief Engineer

March 24, 2016

REPORT TO THE CHIEF ENGINNER ON WATER PERMIT APPLICATION NO. 2745-2 CROELL REDI MIX FEBRUARY 2, 2016

Water Permit Application No. 2745-2 proposes to appropriate up to 19.6 acre-feet annually from the Deadwood aquifer. This application proposes to divert water from one well at a maximum diversion rate of 0.33 cubic feet of water per second (cfs). Water is to be used for industrial use in a limestone crushing plant operation and for domestic use, including livestock watering. The proposed well is to be located in the NE¼ SW¼ Sec. 9, T1S-R7E, and is expected to be approximately 1150 feet deep. If approved, this permit will authorize water use in portions of the S½ NE¼, SE¼ NW¼, that portion of the NE¼ SW¼ lying north of Highway 16, and that portion of the SE¼ lying north of US Highway 16 in Sec.9, T1S-R7E; and that portion of S½ NW¼ lying west of US Highway 16, and the portion of the SW¼ lying north and west of Highway 16 in Sec.10, T1S-R7E.

AQUIFER: DEADWOOD FORMATION

GEOLOGY AND AQUIFER CHARCTERISTICS:

The Deadwood aquifer occurs within the porous and permeable portions of the Deadwood Formation. The Early Ordovician and Late Cambrian aged Deadwood Formation consists of sandstone, siltstone, shale and shaley limestone, as much as 450 feet thick at the outcrops around the Black Hills and as much as 600 feet thick in northern South Dakota (Gries, 1981). The Deadwood aquifer is a regional aquifer that underlies most of western South Dakota and extends into North Dakota, Montana, Wyoming and Nebraska (Downey, 1986). The aquifer underlies an estimated 1,492,480 acres of Pennington County alone and contains an estimated 14,924,800 acre-feet of recoverable water in storage within that county (Hedges and others, 1985). In the area of this proposed well, the maximum thickness of the formation is estimated to be 245 feet (Lester and Rahn, 2001). In general, the Deadwood Formation dips from west to east on the east flank of the Black Hills. The regional dip of the sedimentary beds, including the Deadwood Formation, is 8-10 degrees east in this area. However, locally the attitude of the beds may be affected by folding. In this area, the Englewood Limestone disconformably overlies the Deadwood Formation which unconformably overlies the Precambrian. The upper contact of the Deadwood Formation occurs at ground surface, at an elevation of approximately 4,400 feet above mean sea level elevation (fmsl). approximately two and one half miles west of this proposed well site (Lester and Rahn, 2001), and the top of the formation is estimated to be approximately 3,180 fmsl (880 feet below grade) at this proposed well site (Carter and Redden, 1999).

Except for a narrow area at or near the outcrop, the Deadwood aquifer is generally under confined conditions. At the well site proposed by this application, the Deadwood aquifer is under confined conditions and the potentiometric surface of the aquifer is expected to be approximately 3,600 fmsl (460 feet below grade). In this area, groundwater flows from west to east with a gradient of 200 to 300 feet per mile (Strobel and others, 1999). Wells completed into the Deadwood aquifer rarely yield more than 50 gallons per minute, however, exceptions include wells supplying Water Right No.1450-2, Bear Country (Bear Country well); Water Right No. 2056-2, Countryside Homeowners

(Countryside well); and Water Right No. 2295-2, Colonial Pine Hills Sanitary District (Colonial Pine Hills well).

SDCL 46-2A-9

Pursuant to SDCL 46-2A-9, a permit to appropriate water may be issued only if there is a reasonable probability that there is unappropriated water available for the applicant's proposed use, that the proposed diversion can be developed without unlawful impairment of existing rights and that the proposed use is a beneficial use and in the public interest. This report will address the availability of unappropriated water from the aquifer and the potential for impairment of existing rights.

WATER AVAILABILITY:

Water Permit Application No. 2745-2 proposes to appropriate water for industrial use in a limestone crushing plant operation and for domestic use, including livestock watering. The applicant proposes to place a maximum of 19.6 acre-feet of water to beneficial use annually. The probability of unappropriated water available from an aquifer can be evaluated by considering SDCL 46-6-3.1, which requires "No application to appropriate groundwater may be approved if, according to the best information reasonably available, it is probable the quantity of water withdrawn annually from a groundwater source will exceed the quantity of the average estimated annual recharge of water to the groundwater source." If the source of the water is older or lower than the Greenhorn Formation and a water distribution system has applied for a permit, the Board need not consider the recharge/withdrawal issue. Here, although the Deadwood aquifer is older than the Greenhorn Formation, a water distribution system is not involved, therefore withdrawal/recharge issue must be considered.

Recharge versus Discharge:

Recharge to the Deadwood aquifer in the Black Hills Area, which occurs through direct infiltration of precipitation at the outcrop area and to a minor extent streamflow losses, has been estimated to be 14,500 acre-feet per year (Driscoll and Carter, 2001). In this area, recharge is from precipitation on the outcrop, groundwater inflow from surrounding areas, and possibly streamflow losses along Spring Creek.

Discharge from the Deadwood aquifer occurs through well withdrawals, groundwater outflow and spring discharge. Relatively few wells have been completed into the Deadwood aquifer and the water use from the aquifer is fairly low. Although individual domestic use wells are completed into the Deadwood aquifer, the water use by these wells is not significant to a hydrologic budget for the aquifer. Development of the Deadwood aquifer has generally been limited to a fairly narrow band in or near the outcrop area due to the fact that most of the aquifer is overlain by productive aquifers. There are 35 water rights/permits appropriating water from the Deadwood aquifer in South Dakota (see Table 1). The locations of these water rights/permits are shown in Figure 1.

The withdrawals associated with water rights/permits shown in Table 1 are limited only by instantaneous diversion rates. The total diversion rate authorized by the appropriations shown in Table 1 is 4.974 cfs (Water Rights, 2016b). Historically, water use by non-irrigation appropriations has been less than 60% of full time pumping at the permitted maximum authorized diversion rate.

Assuming the total diversion rate authorized is pumped 60 percent of the time, annual withdrawals from appropriative rights would equal approximately 2,160 acre-feet.

A simple comparison between estimated average annual recharge (14,500 ac-ft/yr) and estimated annual withdrawals (2,160 ac-ft/yr) indicates that unappropriated water is available from the Deadwood aquifer to supply the 19.6 ac-ft/yr appropriation proposed by this application.

Table 1. Water Rights/Permits appropriating water from the Deadwood aquifer in South Dakota (Water Rights, 2016b)

PERMIT	NAME	PRIORITY	STATUS	USE	CFS
NO		DATE			
1174-1	WHARF RESOURCES (USA) INC	01/01/1900	LC	COM/MUN	0.67
608-2	UNITED NATIONAL BANK	05/19/1960	LC	СОМ	0.02
1450-2	BEAR COUNTRY USA INC	09/24/1976	LC	DOM	0.2
1705-2	S CANYON COUNTRY ESTATES	02/29/1980	LC	SHD	0.27
1819-2	STRATO-RIM ESTATES INC	06/10/1982	LC	SHD	0.5
1864-2	HIGH MEADOWS WATER INC	01/12/1984	LC	SHD	0.06
1899-2	OLD HOME CAMPGROUND	10/05/1984	PE	COM	0.03
522A-2	JEWEL CAVE NAT'L MONUMENT	03/20/1985	LC	COM	0.04
1933-2	RUTH SAUNDERS	05/22/1985	PE	COM	0.02
1989-2	RUSHMORE CAVE	08/18/1986	LC	СОМ	0.055
1406A-1	TERRY VALLEY TROJAN WATER PROJECT	07/29/1987.	LC	SHD	0.178
2045-2	WHISPERING PINES WATER	11/06/1987	rc	SHD	0.08
2056-2	COUNTRYSIDE HOMEOWNERS	05/20/1988	LC	SHD	0.3
1458-1	LEAD COUNTRY CLUB	02/09/1989	LC	IRR	0.18
1525-1	SPEARFISH CANYON RESORTS LLC	06/27/1991	LC	COM	0.038
1532-1	SHRINE OF THE NATIVITY	12/02/1991	PE	INS	0.02
1551-1	TRAILSHEAD LODGE INC	06/03/1992	LC	COM	0.033
1560-1	RICHARD D SLEEP	09/14/1992	LC	СОМ	0.078
2253-2	HIGHMEADOWS RANCHETTES	09/17/1992	LC	SHD	0.044
2288-2	BLACK HILLS RESORTS INC	07/02/1993	LC	COM	0.03
2295-2	COLONIAL PINE HILLS SANITARY DISTRICT	10/08/1993	LC	SHD	0.289
1596-1	RADIO TOWER HOMEOWNER'S	01/03/1994	LC	SHD	0.09
2305-2	SPRING CANYON WATER CO	02/25/1994	LC	SHD	0.044
1605-1	WOODLAND HILLS COMM ASSOC	08/15/1994	LC	RWS	0.197
1608-1	SPEARFISH CANYON RESORTS LLC	09/08/1994	LC	COM	0.34
1623-1	OAK MOUNTAIN COUNTRY ESTATES	06/26/1995	LC	SHD	0.035
2384-2	JOE THEBERGE	03/14/1997	PE	COM/IRR	0.12
2389-2	SITTING BULL CRYSTAL CAVE	06/16/1997	LC	COM	0.022
2424-2	S CANYON COUNTRY ESTATES	05/27/1999	PE	SHD	0.29
1725-1	ASPEN VIEW SUBDIVISION	05/25/2000	LC	SHID	0.02
2449-2	OAKS WATER USERS ASSOC	09/22/2000	PE	SHD	0.39
2507-2	HANI SHAFAI	05/28/2003	LC	SHD	0.067
2600-2	GARY KLUTHE	08/18/2006	LC	SHD	0.044
2628-2	BRANDON POWLES	02/26/2008	PE	SHD	0.08
1900-1	CITY OF DEADWOOD	10/30/2008	LC	MUN	0.1

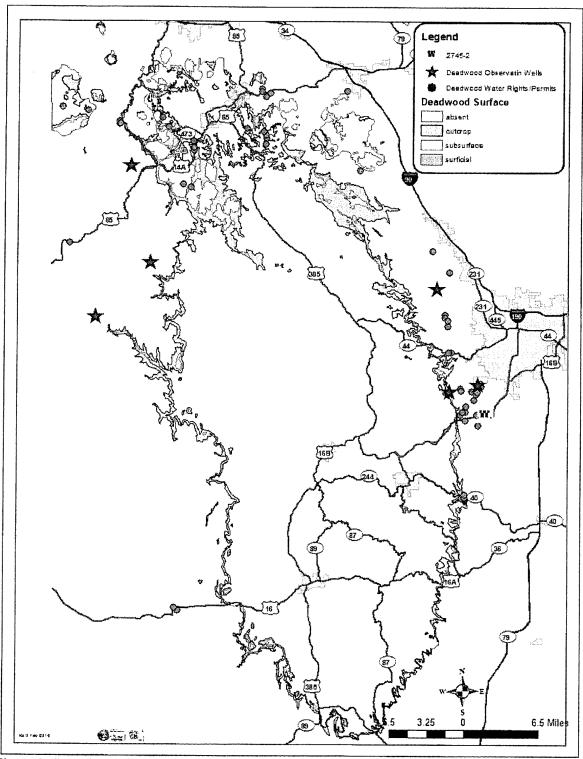


Figure 1. Locations of water rights/permits appropriating water from the Deadwood aquifer in South Dakota and DENR-Water Rights' Observation wells completed into the Deadwood aquifer (modified from Williamson and others, 2000), (Water Rights, 2016b).

Observation well data:

The Water Rights Program monitors five observation wells completed into the Deadwood Aquifer in the Black Hills (Water Rights, 2016a). The nearest of these wells is located approximately 2.7 miles north of this proposed well site. The hydrograph of the observation well is shown in Figure 2. The hydrograph shows that the water levels have fluctuated about 65 feet in response to climatic conditions over the period of record.

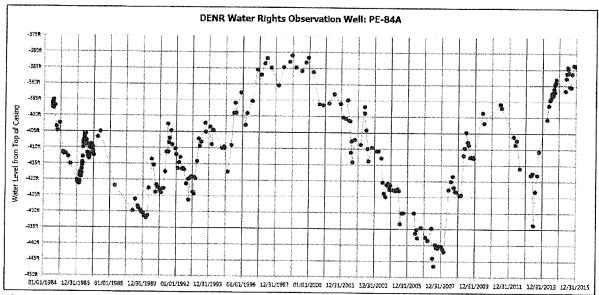


Figure 2. Hydrograph of a Deadwood aquifer observation well located approximately 2.7 miles north of the well site proposed by Water Permit Application No.2745-2. (Water Rights, 2016a)

Data from observation wells indicates the potentiometric surface of the Deadwood aquifer fluctuates seasonally in response to recharge events, with the highest water level occurring in late spring-early summer and the lowest water level occurring in late winter-early spring. The water levels are generally higher in "wet" years and are generally lower in "dry" years. Observation well data suggest that at the existing level of development, natural influences dominate the water levels of the aquifer, and the effects of pumping are not obvious. The observation well data indicates that water is available for this appropriation.

EXISTING WATER RIGHTS:

There are 129 Water Well Completion Reports on file with the DENR-Water Rights Program for wells located within approximately two and one-half miles of the well site proposed by this application. Thirty four of these wells appear to be completed into the Deadwood aquifer (Water Rights, 2016c). Wells supplied by aquifers either statigraphically above or below the Deadwood aquifer are not expected to be affected by withdrawals from the Deadwood because leakage between aquifers is expected to be minimal. The preponderance of appropriations from the Deadwood aquifer are from an area immediately north and west of this proposed well site (see Figures 1 and 3). All of the water rights/permits shown in Figure 3 are diverting from wells completed in confined portions of the Deadwood aquifer.

The nearest well supplying a Deadwood aquifer appropriation is the well that supplies Water Right No. 1450-2, Bear Country USA, Inc. (Bear Country well). Application No. 2745-2 reports the Bear Country well is located 1,742 feet west of the well site proposed by the application. Although the water right is licensed for 0.20 cfs, the Bear Country well reportedly is capable of producing in excess of 160 gpm (Kim Taylor, personal communication. 12 February 2016). The top of the Deadwood Formation was reported to be 780 feet below grade, and the static water level of the well was reported at 420 feet below grade in March 1976. Currently, the well pump is set 660 feet below grade (i.e. 120 feet above the top of the Deadwood aquifer). The specific capacity of the Bear Country well has been estimated to be approximately two gallons per minute per foot of drawdown, (Kim Taylor, Taylor Drilling, personal communication. 12 February 2016).

Water Permit Application No. 2745-2 proposes to divert up to 19.6 acre-feet of water annually at a maximum rate of 0.33 cfs (approximately 150 gallons per minute (gpm)). At the proposed instantaneous diversion rate of 150 gpm, water could be diverted 116.6 minutes per day on average. A rate of 19.6 acre-feet annually (17,500 gallons per day) is equivalent to a continuous discharge of about 12 gpm. Considering the substantial artesian head pressure at the Bear Country well, and the distance to other wells supplying Deadwood water rights/permits, the equivalent of 12 gpm pumped continuously is not expected to adversely impact existing water rights or adequate domestic wells. (Domestic use wells can pump up to 18 gpm without a Water Right).

The nearest domestic use well on file with the DENR-Water Rights Program (Gary Mallams well) is located approximately three fourths of a mile west of the well site proposed by this application. The top of the Deadwood Formation in the Mallams well is estimated to be 740 feet below grade based on the completion report filed for the well, and the static water level of the well was reported to be 400 feet below grade (Water Rights, 2016c). The Deadwood aquifer is under confined conditions with over 300 feet of artesian head pressure in this area. Drawdown caused by individual well withdrawals from artesian aquifers can extend over a fairly large area. However, well interference is not expected to be measurable due to the distance between wells and the low pumping rate. Furthermore, ARSD 74:02:04:20(7) states that for a domestic well to be considered "adversely impacted", the well's pump intake must be set at least 20 feet below the top of the aquifer, and the water level of the aquifer must have declined to a level that the pump will no longer deliver sufficient water for the well owner's needs. This rule, in keeping with SDCL 46-6-6.1, provides protection to domestic wells without the necessity of requiring maintenance of artesian head pressure in the domestic use well.

Considering the aquifer characteristics that can be inferred from the nearby Bear Country well, it can be predicted that the drawdown that would result from a withdrawal of 12 gpm will be minimal.

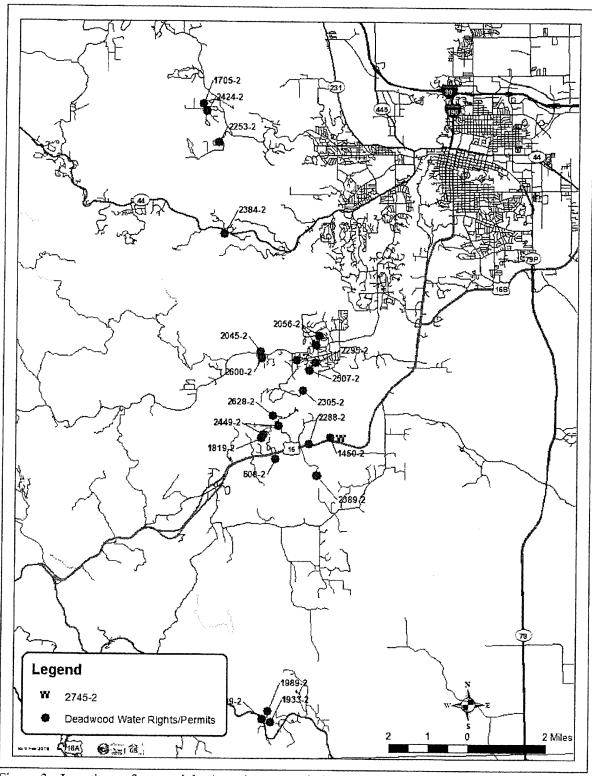


Figure 3. Locations of water rights/permits appropriating water from the Deadwood aquifer in the vicinity of the well site proposed by Water Permit Application No. 2745-2 (Water Rights, 2016b).

CONCLUSIONS:

- 1. This application proposes to appropriate a maximum of 19.6 acre-feet annually from the Deadwood aquifer.
- 2. This application proposes to divert water from a single well at a maximum diversion rate of 0.33 cfs.
- 3. Withdrawals at the maximum diversion rate would average less than two hours per day to achieve an annual diversion rate of 19.6 acre-feet annually.
- 4. An annual diversion rate of 19.6 acre-feet annually is equivalent to a continuous diversion of about 12 gpm.
- 5. The Deadwood aquifer is a significant aquifer on a regional scale. There is a reasonable probability unappropriated water is available to satisfy this appropriation.
- 6. The Deadwood aquifer is under confined conditions in this area, and there is an estimated 420 feet of artesian pressure in the aquifer at this proposed well site.
- 7. There is a reasonable probability that this appropriation would not adversely impact existing water rights or domestic use wells.

Ken Buhler

DENR-Water Rights Program

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From: Bartlett, Stacy [mailto:Stacy.Bartlett@state.sd.us]

Sent: Friday, January 15, 2016 7:25 AM

To: Molitor Brittney <bri>drittneym@pennco.org>; 'kyle.frisinger@croell.com' <kyle.frisinger@croell.com>;

Conover PJ <pj.conover@pennco.org>

Cc: Carlson, Mike <Mike.Carlson@state.sd.us>; Seaman, Todd (DOT) <Todd.Seaman@state.sd.us>

Subject: RE: Construction Permit for a Mining Operation in a General Agriculture District (DUE:

December 14, 2015)

All,

Attached is a map depicting crash history on US16 in the vicinity of Perli Quarry for the last 3 years. Also included is a breakdown of the crash types – all crashes and one without deer hits;

Crash Types:

Deer hits – 34
Run Off Road – 15
Rear End – 5
Angle w/o Intersection – 3
Overturn On Road – 2
Sideswipe – 1
Others – 6

Road conditions during non-deer hits:

Dry – 16 Ice/Frost/Snow/Slush – 12 Wet – 4

Please feel free to contact me with any questions or if you need additional information.

Thanks, Stacy 01/17/2013 - 11/14/2015

1300175, 1300755, 1301512, 1303619, 1304343, 1305328, 1306815, 1308037, 1308324, 1308398, 1308399, 1308767, 1310477, 1310487, 1311063, 13120175, 1310487, 1311063, 13120175, 1310487, 1310487, 1311063, 13120108, 1312567, 1312477, 1310487, 1311063, 13120108, 1312567, 1312477, 1312487, 1311063, 13120108, 1312567, 1312487, 1312487, 1311063, 13120108, 1312567, 1312487, 1312487, 1311063, 1312567, 1312487, 131487, 1312487, 1312487, 1312487, 1312487, 1312487, 1312487 Accident Numbers:

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Overturn off rd	0	2	0	2	
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TRAFFIC IMPACT ANALYSIS FOR THE CROELL QUARRY

Prepared By:



Prepared for:

Croell Redi-Mix

August 2016
Revised October 2016
Revised January 2017

CONCLUSIONS / RECOMMENDATIONS

The existing Croell Quarry located approximately 3.5 miles south of the Catron Blvd / US 16 intersection is proposing future expansion. Access to the quarry will not be altered (two approaches to the quarry currently exist with the east approach being used primarily for emergency and farm access).

Based on a minimum time gap of 14.3 seconds, at least 1,370 feet of intersection sight distance is necessary at the approach. A field sight distance assessment shows adequate sight distance is provided to the east, while approximately 910 feet is provided to the west due to the presence of a hill between the quarry approach and the Bear Country USA approach. This sight distance assessment was performed for a passenger vehicle eye height (3.5 feet). While using a truck eye height of 7.5 feet would likely increase this distance, it is unlikely adequate sight distance would be provided.

Intersection turning movement counts were collected on June 15, 2016 at the US 16 / west approach intersection. Based on information provided by the quarry, the truck traffic will be redistributed such that the strong majority of the truck traffic will be travelling to/from the east (towards Rapid City). Using redistributed traffic volumes and applying a growth factor of 1.481 provided by the SDDOT, operational analyses suggest US 16 will operate satisfactorily under projected design-year traffic volumes. While the quarry approach is projected to operate at LOS F, it is anticipated this will not have a significant impact on the operation of US 16.

According to crash data provided by the SDDOT, 36 crashes were reported on US 16 along the project frontage between January 2011 and December 2015. Two of these crashes occurred within the influence area of the quarry approach intersection with US 16 (both of which were animal crashes). None of the reported crashes involved heavy vehicles typically associated with a quarry. The calculated weighted crash rate for this section of US 16 is greater than the critical crash rate suggesting safety is may be a significant concern at this location.

22 of the 36 reported crashes were animal crashes. If animal crashes were removed from the calculation of the crash rate, the average crash rate is lower than the calculated critical rate. This suggests roadway design elements (geometric design, sight distance, etc.) do not appear to have an impact on safety on this section of US 16 as animal crashes are not attributed to highway design elements. No safety mitigation is recommended at this time; however, this section of US 16 should be monitored to determine whether future mitigation is necessary. Best management practices (BMP's) for mitigating wild animal crashes include wildlife fencing, wildlife overpasses/underpasses, flashers, olfactory repellents, and audio signals. No reported crashes on this section of US 16 involved heavy vehicles, therefore it is unlikely crashes within the influence area of the quarry approach can be attributed to the presence of the quarry approach.

Based on auxiliary turn-lane warrants provided in the <u>SDDOT Road Design Manual</u>, neither a westbound right-turn lane nor an eastbound left-turn lane will be warranted at the US 16 / west approach intersection due to 2036 design hour volumes. An eastbound left-turn lane may be considered at this location as the design peak hour volumes plot in the hatched area of Figure 15-1. Based on several factors including the limited crash history at this location, the presence of two eastbound lanes on US 16, and the low left-turn vehicular volume which will be reduced to zero based on a redistribution of truck traffic entering the quarry (all trucks will enter the quarry from Rapid City according to the quarry), it is not recommended a left-turn lane be installed at this location.

Advance warning signage informing drivers of the presence of the approach may be considered at this location. With the limited sight distance at this location, it is believed advance warning signage would provide a significant safety benefit at this location. In order to avoid the potential of drivers ignoring the sign due to its constant presence, it is recommended a flashing beacon be installed on top of the signs which activates only with the presence of a large truck at the quarry approach to indicate the increased potential of a large truck entering the highway. These signs should be placed a minimum of the stopping sight distance from the quarry approach (approximately 650 feet for a 65 mph speed limit).

A median acceleration lane (MAL) to provide trucks turning onto US 16 an opportunity to accelerate to highway speed without creating an obstacle for vehicles travelling on US 16. SDDOT does not have design guidance regarding when it is appropriate to install a MAL. A cursory literature review only provides attributes of locations where an MAL is appropriate. These include (1) Limited gaps are available in the major-road traffic stream; (2) Turning traffic must merge with high-speed traffic; (3) There is significant history of rear-end or sideswipe accidents; (4) Intersection sight distance is inadequate; (5) There are high volumes of trucks entering the divided highway.

For the location of the quarry approach, items (1), (2), and (4) apply, however items (3) and (5) do not apply. It is believed the limited safety and operational benefits do not justify the cost of constructing the MAL. Therefore, it is not recommended an MAL be installed at this location.

It is believed no restrictions or prohibitions of truck traffic are necessary due to the low volume of trucks using this approach as this would create an unnecessary impediment to quarry operations.

Blaster Certificates Page 1 of 2



You are here: Home > Resources > Blasting > Blaster Certificates

For More Information: **Ken Eltschlager** Mining/Explosives Engineer keltschlager@osmre.gov (412) 937-2169 (724) 263-8143 cell

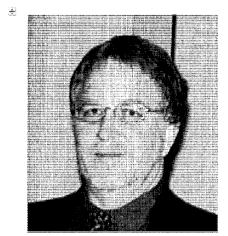
Contact OSMRE

OSMRE Blaster Certificates

OSMRE issues blaster certificates for blasting on Federal surface coal mine permits. The certification program includes experience, training, and testing components similar to many of the states. But where a state program may focus on the specific blasting applications within its boundary, the OSMRE program requires very diverse experience that covers all potential blasting applications and products across the nation. Therefore, the Federal certificate is a good surface mining credential for blasters anywhere in the United States.

OSM BLASTER CERTIFICATE

IDENTIFICATION CARD



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OSMRE Blaster Certificate Card

The certification of blasters is an important regulatory function. Highly-trained and skilled blasters are crucial to ensure safe, efficient and compliant blasts in coal mining operations. Properly trained blasters can design and conduct blasts that use the best technology currently available, while meeting the regulatory performance standards of SMCRA. Highly-competent and successful blasters also maintain a responsible relationship with surrounding residents, thereby reducing the number of complaints. The states and OSMRE are responsible for certifying blaster competence based upon the right mix of experience, training and testing. An OSMRE blaster certificate authorizes the blaster to conduct blasting operations in any Federal Program State or on Indian lands under Federal jurisdiction. Furthermore a blaster may seek certificates from other Regulatory Authorities (states) through reciprocal certification arrangements.

Apply Here Training Experience	Testing Reciprocity	
	Contacts for OSMRE Blaster Certificates	
Location	C	ontact
Appalachian Region	Ken Eltschlager, (412) 937-2169 OSMRE Blaster Certificate Coordinator	
Mid-Continent Region	Chris Kiser, (618) 463-6463 ext. 5120	
Western Region	Jeremy Spangler, (303) 293-5022	
Knoxville Field Office	Mark Wampler, (865) 545-4103 x134	

Albuquerque Area Office Casper Field Office Olympia Area Office Alfreda Cornfield, (505) 761-8988 Gene Robinson, (307) 261-6540 Glenn Waugh, (360) 753-9538

Page Last Modified/Reviewed: 10/4/18

Office of Surface Mining Reclamation and Enforcement, 1849 C Street NW, Washington, DC 20240 (202) 208-2565 | TTY: (202) 208-2694 | Email: getinfo@osmre.gov



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You are here: Home > Resources > Blasting > Blaster Certificate Training

For More Information: **Ken Eltschlager** Mining/Explosives Engineer keltschlager@osmre.gov (412) 937-2169 (724) 263-8143 cell

Contact OSMRE

Blaster Certificate Training and Experience

Blaster Certificate Training

The applicant for certification must have received on-the-job training, completed a training course, and obtained satisfactory evidence of having completed classroom training. The training should include diverse mix of blasting products, blast design, field experiences, blast monitoring and regulatory issues, some of these are listed in Table 1 below.

Table 1. Potential on-the-job Training Activities

Blast site management

Different explosives products

On-the-Job Training Activities List Adverse affects control (seismol

Adverse affects control (seismology, acoustics, fumes)

Blasting seismograph use

Calculations
Flyrock control
Record keeping
Regulations
Public Relations
Software use

Importance of spatial relations Blast record completion Crew training

Crew training
Handle misfires
Safety procedures
Preblast surveys

ic 1. I otential on-the job xturning redivitie

Different initiation systems Blast design Site preparation Borehole loading Geology evaluation Blast plan development Blast area determination Inventory tracking Blast hole drilling Recognizing unique conditions Explosives storage

On-The-Job Training (experience)

Explosive transportation

Success of the applicant is strongly dependent on the level and quality of on-the-job training provided by another certified blaster, i.e. the mentor. Without this valuable guidance the applicant will not adequately learn the technical nuances and safety protocols of the trade. An apprentice that obtains a wide variety of experiences in many geologic conditions has the best chance of passing the examination.

Classroom Training and Duration

The blaster must have adequate classroom training along with the hands-on experience. Classroom training should cover the technical aspects of blasting operations and State and Federal laws governing the storage, transportation and use of explosives, including the topics specified in Table 2 below. In order to cover all the subjects listed in Table 2, sufficient time should be given to present the course material and to allow the students to have enough time to practice solving problems. Considering the wide range of topics to be covered, a minimum 32-hour classroom training session over the course of many weeks is recommended. The OSMRE Blaster's Training Modules are available to help applicants prepare for formal training and testing.

30 CFR 850.13 Subject	7	Fechnical		Regulatory
1(i) Explosives – selection of type to be used	3			
1(ii) Explosives – determination of the properties which will produce desired results at an acceptable level of risk	3			
1(iii) Explosives - handling, transportation, and storage			2	
2(i) Blast designs - geologic and topographic considerations	5			
2(ii) Blast designs - design of a blast hole, with critical dimensions	8			
2(iii) Blast designs - pattern design, field layout, and timing of blast holes	6			
2(iv) Blast designs – field applications	8			

3 Loading blastholes, including priming and boostering	5	
4 Initiation systems and blasting machines	6	
5 Blasting vibrations, airblast, and flyrock	3	
5(i) Blasting vibrations, airblast, and flyrock monitoring techniques	3	
5(ii) Blasting vibrations, airblast, and flyrock - methods to control adverse affects	7	
6 Secondary blasting applications	1	
7 Current Federal and State rules applicable to the use of explosives		3
8 Blast records		7
9 Schedules		2
10 Preblasting surveys		1
10(i) Preblasting surveys – availability		1
10(ii) Preblasting surveys – coverage		1
10(iii) Preblasting surveys – use of in blast design	2	
11 Blast-plan requirements		5
12 Certification and training		1
13 Signs, warning signals, and site control		4
14. Unpredictable hazard including Lightening, Stray currents, Radio waves and Misfires	3	
Total	63	27
Percent	70	30

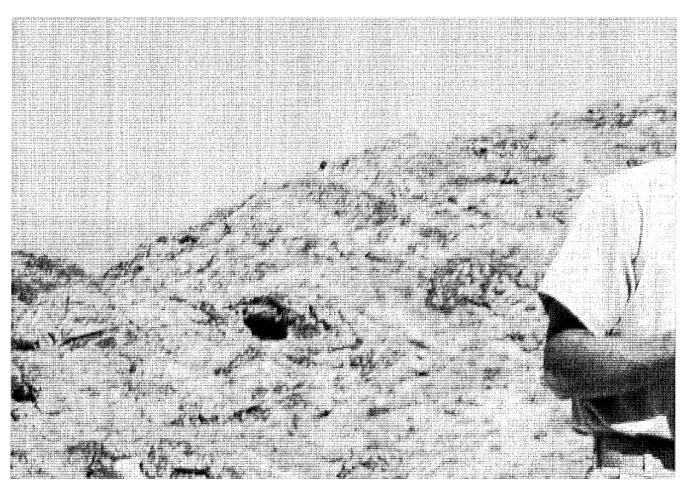
Available Classroom Training Classes

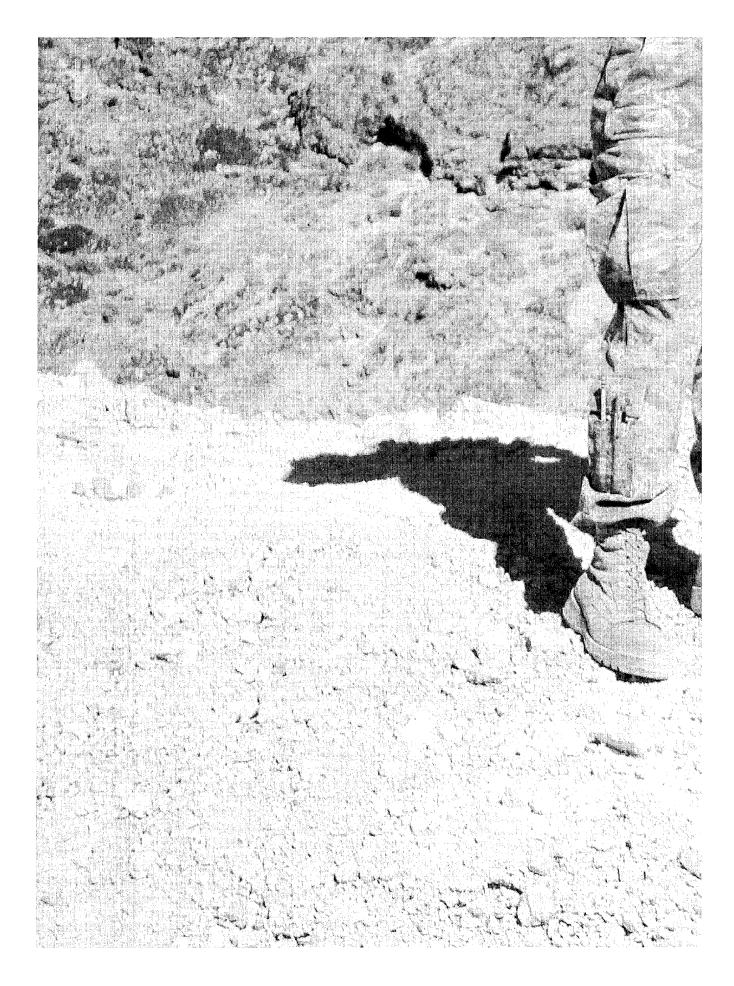
Training classes are available from explosive suppliers, universities, professional organizations, consultants and states. Blasting apprentices should select training that enhances their technical skills and provides the information necessary to pass the examination. The fundamental training programs are available with individual vendors, explosives manufacturers or blasting service providers.

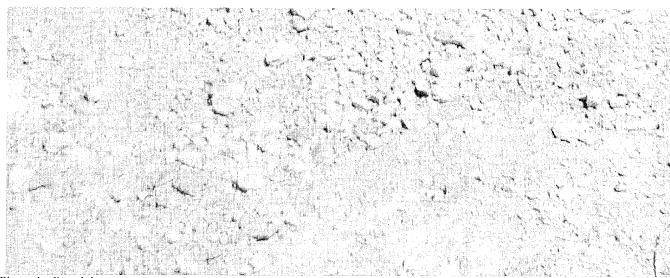
Scholastic training opportunities include:

- Fleming College in Ontario, Canada offers a Blasting Techniques certificate
 Missouri University of Science and Technology in Rolla, Missouri offers degrees in Explosives Engineering

Blaster Experience







Blasters loading a hole

The applicant must demonstrate that the appropriate level of experience was obtained within the 3 years prior to certificate application. OSMRE will accept as equivalent all experience gained in activities (see Table 1 above) which reasonably approximate the environment, procedures, blast size, and hazards of surface coal mining. This experience must be obtained by working with explosives or within activities associated with explosives use either inside or outside the coal industry. The necessary amount of experience depends on the type of certificate application.

- Issuance worked for 2 years in any capacities as listed in Table 1 (above).
 Reissuance or renewal worked for 1 year in any capacities as listed in Table 1 (above).

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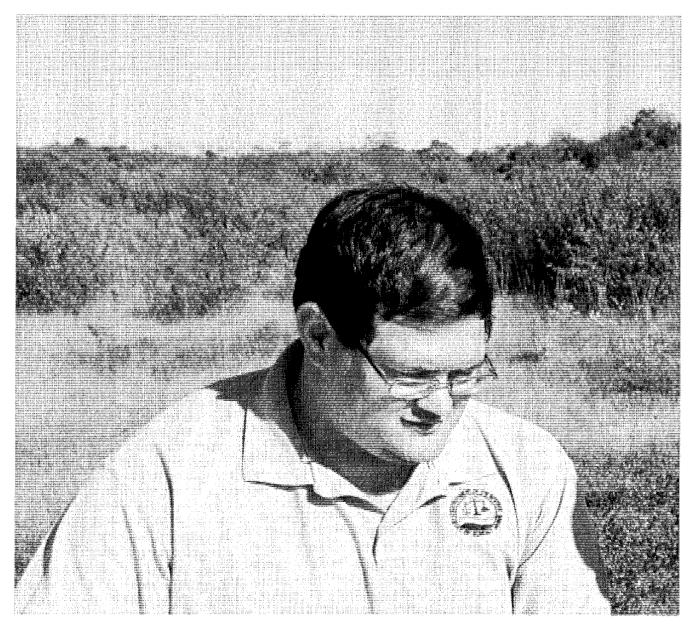
You are here: Home > Resources > Blasting > Blaster Certificate Reciprocity

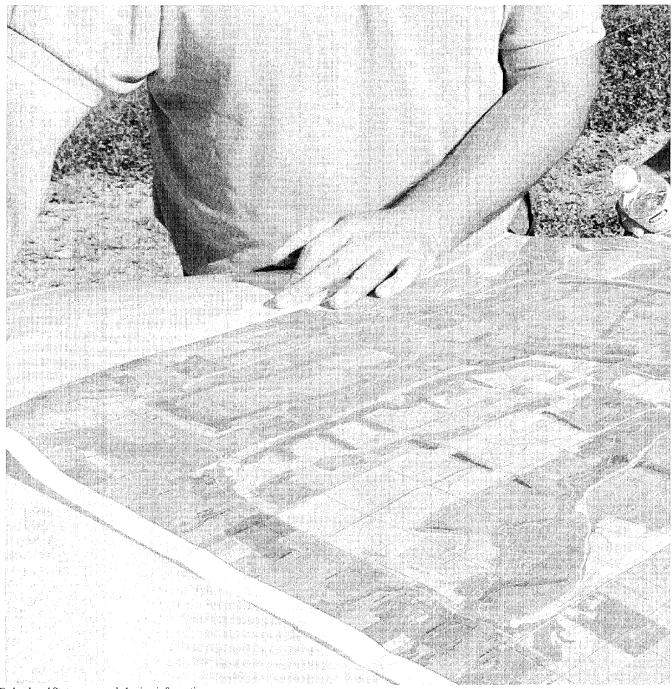
For More Information: **Ken Eltschlager** Mining/Explosives Engineer keltschlager@osmre.gov (412) 937-2169 (724) 263-8143 cell

Contact OSMRE

Blaster Certificate Reciprocity

Reciprocity applicants will complete the necessary items in the OSMRE-74 application. Applicants do not need to meet the age, experience, knowledge, competence, training or examination requirements as required to receive an issued certificate. These requirements are satisfied once the application is deemed complete and certification in an OSMRE approved state regulatory program is verified. The applicant must then obtain a photograph at the nearest OSMRE office and present two forms of identification.





Federal and State personnel sharing information

As reciprocity certifications increase, so too does the need for reliable, up-to-date information on the status of a blaster's certificate. Currently, if an application is received for reciprocity, OSMRE must contact the state to verify certification. Then the state must manually search the certification files for the current status of blasters. OSMRE is currently developing a tracking system to facilitate certificate reviews and performance history queries. Furthermore, a blaster certificate tracking system will help identify irresponsible blasters from repeating poor performance in the OSMRE Regions and states.

OSMRE certificates issued through reciprocity require continued certification (i.e., renewed, in good standing, etc.) in the original issuing jurisdiction. If the original issuing jurisdiction suspends or revokes a certificate, OSMRE must suspend the reciprocal certificate until the original certificate is reinstated. When OSMRE revokes or suspends a reciprocal certificate, the state with original certificate will be notified about the action of any necessary action. Both OSMRE and the states depend upon the assistance of each other to carry out this part of their program and to ensure that blasters with poor performance histories are either retrained or restrained from blasting at coal mines.

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Foreword

The attached Standard Operating Procedure is the internal policy of the Land Quality Division of the Wyoming Department of Environmental Quality covering the topic of testing to certify blasters and issuance of blaster certificates. Staff shall make no significant deviations from this policy without the prior approval of the District Supervisor and the Administrator.

Signed this	day of,	2000
		Richard A. Chancellor
		Administrator
		Land Quality Division

COAL STANDARD OPERATING PROCEDURE NO. 6.1

Land Quality Division

SUBJECT: Procedures for Testing to Certify Blasters and Issuance of Blaster's Certificates

I. Introduction

A. LQD and the State Inspector of Mines will work together to certify blasters at surface coal mines in Wyoming.

II. Training and Testing

- A. LQD will set up training programs for people asking to become certified blasters, and review and approve comparable training programs.
- B. Testing for blaster certification will be done by LQD's Blasting Engineer following an initial 24 hours of training.

CSOP 6.1 RC/HC/3-00

III. Qualifications

A. To qualify for certification, an individual must provide the LQD with notarized verification of at least two years of blasting experience. At least one of those years of experience must include shot design, loading of holes, and tying in shots. At least six months of this experience must be hands-on experience on the pattern before a blaster can be eligible to become certified.

IV. <u>Certification Procedures</u>

- A. The Blasting Engineer will grade the tests and provide the Support Group Secretary with a list of those present passing the test.
- B. The Support Group Secretary will make out certificates for those individuals passing the test and forward the certificates to the Administrator of LQD and the Director of DEQ for their signatures.
- C. After the Administrator and Director sign the certificates, they are forwarded to the State Inspector of Mines for his signature.
- D. The State Inspector of Mines will forward the completed certificates to the Blasting Engineer.
- E. The Blasting Engineer will send the certificates to the individuals and/or the companies they work for.
- F. The Blasting Engineer will notify in writing, those individuals who failed the test.

V Certification Renewal

Upon application to LQD and submittal of verification of training, certificates will be renewed if the blaster has completed at least 24 hours of LQD approved blasting related training in the five year period prior to expiration of the certificate (this does not include the initial 24 hour training session).

VI. Records Management

The Blasting Engineer will forward copies of all certificates and correspondence to the Support Group Secretary who will maintain all the files and records associated with Blaster's Certification for surface coal mining.



U.S. DEPARTMENT OF THE INTERIOR OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT (OSMRE)



APPLICATION FOR AN OSM BLASTER CERTIFICATE

OSMRE Form 74

GENERAL INSTRUCTIONS

- Furnish all requested information. Information provided on this application will strongly influence OSMRE's decision to grant an OSMRE blaster certificate.
- Use additional sheets if more space is needed to complete any
 of the items. Indicate at the top of each additional sheet your
 full name, social security number, and item number. Insert the
 sheet between the pages of this application.
- 3. Be sure to include with your application all other forms required (for example, see the statement required under Item 16 of "" Education and Training").
- Any experience which you want counted as on-the-job training must be accompanied by a statement describing the training and signed by the supervisor.

INSTRUCTIONS TO SPECIFIC ITEMS

ITEMS 1 THRU 12. Self-Explanatory.

ITEM 13. Type of Certificate You Are Applying For.

- Check "Issue" if this is an application for your first certificate.
- Check "Renewal" if this application is for a certification that is being renewed; one that was issued approximately three years ago.
- Check "Reissue" if this application is for a certification that follows a prior certification (Not a renewal) that was issued six years ago.
- Check "Replacement" if your original certificate has been lost and you are applying for a replacement.
- Check "Reciprocity" if you are a certified blaster holding a current blaster certificate under an OSM approved State program.

ITEM 14. Examination Date.

Contact the nearest OSMRE Field Office for dates.

ITEM 15. Employment History and Blasting Experience.

List the last six years of work experience, starting with your most recent job in blasting and work back in time (month and year). Include additional pages, if needed. If there was a break in employment with one company, treat each period of employment as a separate job. Include the company name and address. List your immediate supervisor and his/her work telephone number, if known. If you do not know his/her work number, give the phone number of the company where your supervisor may be located. Show your full title and provide a full description of your work.

ITEM 16. Education and Training.

- Section A Complete the educational background information.
- Section B List the type of formal classroom and on-the-job blasting related training you have received.
- Section C Describe any other training that you have had, such as, training in mining equipment operations, mining methods, other related equipment operations, etc.

Include training vouchers, certificates, or other proof of satisfactory completion of training courses and seminars listed in Items 16B and 16C.

ITEM 17. Blaster Certification History.

- Section A List any blaster licenses/certifications that you currently possess along with the number and status .
- Section B Describe any instance where disciplinary action has been taken against your license or certification. This includes but is not limited to letters, suspensions, revocations, etc...

 Describe the circumstances and the outcome of each case.

 Include any civil or criminal charges that may have arisen out of these actions and the resolution to those charges.
- Section C. Provide your most recent valid Letter of Clearance from the Bureau of Alcohol, Tobacco Firearms and Explosives (ATF)

ITEM 18. Affirmation.

Date and sign in ink.

INCLUDE CHECK OR MONEY ORDER MADE PAYABLE TO: OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT (OSMRE)

TYPE OR PRINT ALL INFORMATION IN INK.

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF SURFACE MINING

APPLICATION FOR AN OSMRE BLASTER CERTIFICATE

OMB No. 1029-0083 Expires: 4/30/2021

Please Read Instructions Before Completing									
1. Name (last, first, middle initial)							DO NOT WRITE IN THIS BLOCK (for OSMRE use only)		
2. Mailir	ng Address (Street, Route, P	.O. Box)					Date Application Received		
3. City			State		Zip		Application Complete		
21 23.5					·F				
							☐ Yes ☐ No		
4. Home Telephone Number (include area code)			5. Offic	ce Telephone Numb	er (include area code)		Amount Fee Received		
							\$		
6. Date of Birth (month, day, year)			7. Social Security Number (Voluntary, will help prevent misidentification)				Examination Date		
8. Sex			9. Colo	r of Hair			Examination Rating		
						ĺ	v		
	Male Fema	ıle							
10. Heig	ht		11. Wei	ight	12. Color of Eyes		Certificate Number and Date Issued		
	feet in	ches		pounds					
13. TYF	E OF CERTIFICATE (FEE	IS SHOWN I	N PAREN	NTHESES)	<u> </u>				
Chec	k Certification Type	Complete S	ections	Cost					
Box	Issue	All		\$122.00					
	Re-issue	All		\$122.00					
	Renewal	1-13, 15, 17	7, 18	\$61.00					
	Reciprocity	All		\$61.00					
	Replacement	1-13, 18	***	\$28.00					
Re-Examination 1-13, 18 \$61.00									
14. If thi	is application is for an ISSU	E or REISSUI	E certificat	tion, indicate date a	nd location, if known, of exam	ination you	wish to take.		
Date: Location:									
		PRIV	ACY AC	T/PAPERWORK R	EDUCTION ACT STATEME	ENT			
The Office of Surface Mining Reclamation and Enforcement (OSMRE) is authorized to ensure and certify that all blasting operations are conducted by trained and competent persons under sections $515(b)(15\chi D)$ and 719 of the Surface Mining Control and Reclamation Act of 1977. The information you put on this form is necessary to see how well your education and work skills qualify you for the position of certified blaster. You will not be considered for certification if you do not answer these questions. Response to this request is required to obtain a benefit. You are not required to respond to this collection of information unless it displays a currently valid OMB control number.									
been usee employer	d to keep records since 1943 s, schools, or from any othe	3 when Execut r source you p	ive Order rovide on	9397 asked agencie this form, but only	s to do so. OSMRÉ may also	use your S ation colle	irth date and name. The SSN has SN to make requests about you from cted by using your SSN will be used		
Informati	ion we have about you may	also be given t	o Federal,	State, and local age	ncies for checking on violation	ns or for ot	her lawful purposes.		
data, and		the form. Dire	ect comme	nts regarding the b	urden estimate or any other asp		ructions, gathering and maintaining form to the Information Collection		

A. Company's Name and Address	RIENCE (BEGIN WITH CURRENT OR MOST RECENT JOB)
Company 5 Traine and Futuress	Dates Employed (Mo. & Yr.)
	From: To:
	Blasting Experience
	From: To:
	Supervisor's Name
	Supervisor's Telephone Number
	Superior Superior Comment
	Your Title
Description of Your Blasting Duties	
escription of Total Blasting Duties	
. Company's Name and Address	
Company's Name and Adutess	Dates Employed (Mo. & Yr.)
	From: To.
	From: To:
	Fioni. 10.
	Blasting Experience
	Blasting Experience
	Blasting Experience From: To:
	Blasting Experience
	Blasting Experience From: To: Supervisor's Name
	Blasting Experience From: To:
	Blasting Experience From: To: Supervisor's Name
	Blasting Experience From: To: Supervisor's Name
	Blasting Experience From: To: Supervisor's Name Supervisor's Telephone Number
	Blasting Experience From: To: Supervisor's Name Supervisor's Telephone Number
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C. Company's Name and Address	Dates Employed (Mo. & Yr.)
	From: To:
	Blasting Experience
	From: To:
	Supervisor's Name
	Supervisor's Telephone Number
	Your Title
Description of Your Blasting Duties	
D. Company's Name and Address	Dates Employed (Mo. & Yr.)
	From: To:
	District Property
	Blasting Experience
	From: To: Supervisor's Name
	Supervisor's Telephone Number
	Your Title
Description of Your Blasting Duties	
	-
(INCLUDE ADDITIONAL PAGES IF NEEDED)	

A. Level of Education Completed: Enter the highest level of education completed Enter the school information where the highest level of education of School Name B. Blaster training in the storage, transportation and use of explosic continuing education received during the last 6 years and attach professional prof	City ves (attach proof of conformation of completion. ss (Mo. & Yr.)	(for examined:		Bachelors Degree, etc.) State Suance, list the 24 hours of Total Hours of Training
Enter the school information where the highest level of education of School Name B. Blaster training in the storage, transportation and use of explosic continuing education received during the last 6 years and attach process of the storage of th	City ves (attach proof of corof of completion. ss (Mo. & Yr.)	ompletion). Note: If yo		State suance, list the 24 hours of Total Hours
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Cur A. List all Licenses and Certificates that you currently poss Certificate/ License Name State Num				
Cur A. List all Licenses and Certificates that you currently poss Certificate/ License Name State Num				W80
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A. List all Licenses and Certificates that you currently poss Certificate/ License Name State Num	ΓER CERTIFICATI	ION HISTORY		
A. List all Licenses and Certificates that you currently poss Certificate/ License Name State Num	_			
Certificate/ License Name State Num	ent Licenses or Cer			
	ess and provide a co	opy of each.		
3. Has your blaster certificate or license ever been revoked	ber Issue D	Date Expiration	on Date	Status
3. Has your blaster certificate or license ever been revoked				
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3. Has your blaster certificate or license ever been revoked				
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your blaster certificate or license?	or suspended, or me	as discipilitary action	III EVEL DECH LAKEH AZ	gainst you mivorying
No.				
\equiv				
Yes. Describe:				

18. AFFIRMATION

I affirm that all the information provided by me in this application is true and correct to the best of my knowledge and belief and is provided in good faith. I authorize the Office of Surface Mining Reclamation and Enforcement to check with the organizations and individuals I have identified in this application in order to verify the information I have provided.

Date

Signature (Sign in ink)

Mail completed application and fees to the closest address indicated below.

Office of Surface Mining Reclamation and Enforcement 710 Locust St. 2nd Floor Knoxville, Tennessee 37902

Office of Surface Mining Reclamation and Enforcement 501 Belle Street, Suite 216 Alton, Illinois 62002

Office of Surface Mining Reclamation and Enforcement Dick Cheney Federal Building POB 11018, 150 East "B" Street Casper, WY 82601-7032 Office of Surface Mining Reclamation and Enforcement Evergreen Plaza Building, Suite 703 711 Capitol Way Olympia, Washington 98501

Office of Surface Mining Reclamation and Enforcement Albuquerque Area Office 100 Sun Avenue, NE Suite 330 Albuquerque, NM 87109

Compliance Guide to MSHA's Occupational Noise Exposure Standard



INTRODUCTION - HOW TO USE THIS PUBLICATION

This document is presented in a question and answer format with the questions asked from the perspective of the mine operator.

Who should use this publication?

This publication is intended to be a useful guide for all mine operators, miners, and representatives of miners at coal and metal/nonmetal mines, underground and surface mines, and small and large mines.

What is the purpose of this guide?

This compliance guide provides a summary of the key requirements of the Mine Safety and Health Administration's (MSHA) revised occupational noise exposure standard and information to help you understand and comply with the standard. It particularly should benefit small mine operators who may be unfamiliar with hearing conservation programs.

How can I find what I need quickly?

The Table of Contents can be used to locate topics of interest. Technical terms are defined in Appendix B - Glossary of Terms.

If I follow the guidance in this document, will I be in compliance with the requirements of the new noise standards?

Yes, to the extent that the requirements are discussed here. In addition, MSHA personnel are available to assist you in these efforts and will provide specific guidance upon request. If interested, please contact your local MSHA office listed in Appendix A - Sources of Assistance.

THE PROBLEM

Why has MSHA promulgated a revised noise standard?

Noise is one of the most pervasive health hazards in mining. The National Institute for Occupational Safety and Health (NIOSH) has identified occupational noise-induced hearing loss as one of the ten leading work-related diseases and injuries. MSHA estimated that 13% of the mining population of the United States (about 37,000) would develop material hearing impairment during their working lifetime under the previous noise standards.

Prolonged exposure to hazardous sound levels over a period of years can cause permanent, irreversible damage to hearing. Hearing loss may occur rapidly under prolonged exposure to high sound levels, or gradually when levels are lower and exposures less frequent. An individual may not notice hearing impairment until after substantial hearing loss occurs. In addition to adversely affecting the quality of life, hearing impairment can jeopardize the safety and

productivity of affected miners as well as those around them.

SCOPE OF THE RULE

What mine operators will have to comply with the new noise standard?

The revised rule applies to all mine operators, both coal and metal and nonmetal, underground and surface operations.

EFFECTIVE DATE

When will the new noise standard become effective?

The final rule will become effective on September 13, 2000, one year from the date it was published. By that time, you must have evaluated each miner's noise exposure, enrolled affected miners in a hearing conservation program, provided affected miners with appropriate hearing protection, and implemented required engineering and administrative controls.

Although affected miners must be enrolled in the hearing conservation program by the effective date of the rule, you will have an additional six months to conduct the baseline audiogram (12 months if mobile test vans are used to conduct the testing).

Upon its effective date, the new rule will replace MSHA's existing coal mine noise standards (30 CFR 70.500 - 70.511 and 71.800 - 805), and existing metal and nonmetal mine noise standards (30 CFR 56.5050 and 57.5050).

KEY REQUIREMENTS OF THE RULE

The following pages address the main requirements of the new standard.

EXPOSURE LEVELS

What is the noise exposure "Action Level"?

The "action level" is defined as an 8-hour time-weighted average (TWA₈) sound level of 85 dBA integrating all sound levels from 80 dBA to at least 130 dBA.

What must I do if a miner's exposure equals or exceeds the Action Level?

Section 62.120 requires that if a miner's noise exposure equals or exceeds the "action level" during any work shift, you are required to enroll the miner in a "hearing conservation program" (HCP) that complies with Section 62.150.

This is a *new requirement* for both coal mine operators and metal and nonmetal mine operators. MSHA believes that enrolling miners in an effective HCP at this exposure level will significantly reduce the occurrence and progression of noise-induced hearing loss among miners.

This "action level" is identical to that used by OSHA in its hearing conservation amendment, and results in uniform enforcement levels in both general industry and the mining industry.

What is the "Permissible Exposure Level"?

The "Permissible Exposure Level" (PEL) is defined as an 8-hour time-weighted average (TWA₈) sound level of 90 dBA integrating all sound levels from at least 90 dBA to at least 140 dBA.

Is there a maximum exposure level?

Yes, you must assure that no miner is exposed at any time to sound levels exceeding 115 dBA, even if the miner is wearing hearing protectors.

What must I do if a miner's exposure exceeds the Permissible Exposure Level?

If a miner's noise exposure exceeds the "permissible exposure level" (PEL) during any workshift, Section 62.130 requires you to enroll the miner in an HCP that complies with Section 62.150, and use all feasible engineering and administrative controls to reduce the miner's noise exposure to the PEL. You must also ensure the use of operator provided hearing protection. In addition, you must post administrative controls on the mine bulletin board and provide a copy to the affected miners.

What is the "Dual Hearing Protection Level"?

The "dual hearing protection level" is defined as a TWA₈ of 105 dBA integrating all sound levels from 90 dBA to at least 140 dBA.

What must I do if a miner's exposure exceeds the Dual Hearing Protection Level?

If a miner's noise exposure exceeds the "dual hearing protection level" during any work shift, Section 62.140 requires you to provide and ensure the concurrent use of both plug type and muff type hearing protectors, in addition to the actions required for noise exposures which exceed the PEL.

ENGINEERING AND ADMINISTRATIVE CONTROLS

What are my responsibilities for installing engineering noise controls and implementing administrative noise controls?

Section 62.130 of the rule requires all mine operators to use all feasible engineering and administrative noise controls to reduce miners' noise exposures within the PEL without adjustment for the use of hearing protectors. Until now, this requirement has applied only to metal and nonmetal mines.

You can choose either engineering controls or administrative controls, or a combination of both, as long as the controls you choose reduce the miner's noise exposures to the PEL. If a single control method fails to reduce exposure to the PEL, you must use both feasible engineering and administrative controls as necessary to reduce exposure to the PEL. When administrative controls are used, you must post the procedures for the controls and provide a copy to the affected miners.

What if the feasible engineering and administrative controls do not adequately reduce the noise exposure to miners?

If a miner's noise exposure exceeds the PEL despite the use of all feasible engineering and administrative controls, <u>Section 62.130</u> requires you to:

- continue to use the controls to maintain the miner's exposure as low as feasible;
- · provide and require the use of hearing protectors;
- · enroll the miner in a hearing conservation program; and
- post procedures for administrative controls on the mine bulletin board and provide a copy to the affected miners.

Although hearing protectors must be provided and used if the engineering and administrative controls fail to reduce the miner's noise exposure to the PEL, they are not accepted in lieu of such controls.

How will MSHA determine if a citation is warranted when evaluating whether I have implemented all feasible controls?

Because the objective of Section 62.130(a) is to reduce noise exposure to the PEL, once you comply with the requirements of this section by (1) using all feasible engineering and administrative controls to reduce the miners' noise exposures; (2) by enrolling the affected miners in a HCP; (3) by providing and requiring miners to use personal hearing protectors; and (4) posting procedures for administrative controls on the mine bulletin board and providing a copy to the affected miners, you will be in compliance with this section and no citation will be issued under paragraph (a) even though a miner's noise exposure may continue to exceed the PEL.

On the other hand, if MSHA determines that you failed to install all feasible controls or you failed to implement any of the requirements under paragraph (a), you will be out of compliance and appropriate citations will be issued.

As stated before, if a miner's noise exposure exceeds the PEL despite the use of all feasible engineering and administrative controls, the rule requires you to (1) continue to use the controls to maintain the miner's exposure as low as feasible; (2) provide and require the use of hearing protectors; and (3) enroll the miner in a hearing conservation program.

MSHA expects that few operators will have difficulty reducing noise levels to the PEL using feasible controls. There are a few instances, however, where we recognize that noise levels cannot currently be reduced to the PEL using feasible controls. In those situations, MSHA will continue to work with operators and equipment manufacturers to develop controls which provide the best protection for miners.

How will MSHA determine if engineering and administrative controls are feasible?

Both technological and economic feasibility will be considered by MSHA in determining if a particular noise control is feasible. Under MSHA's prior noise standards for metal and nonmetal mines, the Mine Safety and Health Review Commission (Commission) ruled that a control is considered feasible when it:

- reduces exposure;
- · is technologically achievable; and
- · is economically achievable.

Consistent with Commission case law, MSHA considers three factors in determining whether engineering controls are feasible at a particular mine: (1) the nature and extent of the exposure; (2) the demonstrated effectiveness of available technology; and (3) whether the committed resources are wholly out of proportion to the expected results. A violation under the final standard would entail MSHA determining that a miner has been overexposed, that controls are feasible, and that you failed to install and maintain such controls.

The Commission further ruled that a control need not reduce exposure below the PEL in order to be feasible, as long as there is a significant reduction (generally 3 dBA or more). Sometimes, however, a single control may achieve less than 3 dBA reduction and still be considered feasible if its use, in combination with other controls, achieves 3 dBA or more reduction. Additionally, a control may be considered feasible if it achieves 3 dBA or more of reduction in a particular frequency band, but not 3 dBA over all frequency ranges. Such reduction may complement the hearing protectors being worn, since most hearing protectors do not decrease noise evenly over all frequency bands.

MSHA believes that feasible engineering and administrative noise controls exist for most types of mining equipment. MSHA staff are available to assist mine operators in both identifying noise problems and determining the controls that have been successful in reducing noise. Appendix A contains a list of MSHA offices and phone numbers throughout the country that may be contacted for assistance.

NOISE EXPOSURE ASSESSMENT

What are my responsibilities for determining miners' noise exposure?

<u>Section 62.110</u> requires you to establish a system of monitoring that evaluates each miner's noise exposure sufficiently to determine continuing compliance with the rule. The rule specifies how a miner's noise dose is to be determined, but otherwise it is performance-oriented and neither the sampling equipment nor intervals of monitoring are specified.

Whatever method you choose, it must be able to accurately:

- determine if miners' noise exposures equal or exceed the action level (85 dBA), or exceeds the PEL (90 dBA) or dual hearing protection level (105 dBA);
- determine the effectiveness of the engineering and administrative controls used;
- · identify areas of the mine where the use of hearing protectors is required; and
- ensure that audiometric test providers are provided the necessary information to properly evaluate miners' audiograms.

How do I determine a miner's noise dose?

Section 62.110 requires that a miner's noise dose:

be made without adjustment for the use of any hearing protection;

- integrate all sound levels over the appropriate range (80 to at least 130 dBA for action level and 90 to at least 140 dBA for permissible exposure level and dual hearing protection level);
- reflect the miner's full work shift;
- use a 90-dB criterion level and a 5-dB exchange rate; and
- use the A-weighting and slow response instrument settings.

The final rule does not allow a mine operator to consider the effect of hearing protection when determining a miner's noise dose.

What type of instruments would I use to determine a miner's noise exposure?

Sound level meters and personal noise dosimeters are the most common instruments used to assess noise exposure. MSHA believes that most mine operators will use personal noise dosimeters because they are easy to use, they calculate the miner's exposure based on noise measurements the dosimeter collects during the period worn, and many models actually contain multiple dosimeters so the AL, PEL, and DHPL are determined simultaneously.

MSHA sampling and compliance determinations will be primarily based on full-shift samples collected using personal noise dosimeters. Other sampling methods can be effective even though sampling with a dosimeter is the easiest and most accurate sampling method.

The *sound level meter* (SLM) contains a microphone, an amplifier, frequency response networks, and some type of indicating meter. The SLM indicates the sound level pressure in decibels (dB) by measuring sound pressure then amplifying and scaling it. To determine compliance with regulations, you should use the "A" scale because it most closely approaches the way our ears receive and perceive sound pressures. Sound level meter readings are commonly used to help identify the source of a miner's noise exposure and for noise surveys of the workplace.

A *noise dosimeter* measures personal exposures to noise and is the instrument MSHA uses to determine compliance. It consists of a microphone (placed in the miner's hearing zone) and a case containing the microprocessor controlled monitor. The dosimeter continuously monitors, integrates, and records the sound energy to which a miner is exposed during the shift. It uses this information to calculate the daily noise dose. Most dosimeters also keep track of the highest decibel level recorded and indicate if there has been exposure above 115 dBA (the maximum allowable exposure to non-impact noise under MSHA regulations). Most dosimeters can also function as a sound level meter.

If you want to conduct your own noise monitoring, equipment may be either purchased, rented, or borrowed. Sound level meters currently cost about \$500 to \$1,000, while personal noise dosimeters currently range in price from about \$750 to \$1,500. Smaller companies may find it more economical to rent equipment than to purchase it. Names of equipment suppliers can be found in the Yellow Pages under headings such as: "Safety Equipment," "Industrial Hygiene," or "Engineers-Acoustical." You may also find names and addresses of equipment suppliers on the Internet by searching for such terms as "noise dosimeter manufacturers."

How will MSHA evaluate my noise monitoring efforts?

MSHA intends to evaluate the effectiveness of your method of assessing miners' noise exposure by how well they achieve the above goals. You may not need to evaluate each miner's noise exposure individually, provided that the established monitoring system serves to detect each miner's exposure equaling or exceeding the action level (85 dBA), or exceeding the PEL (90 dBA) or dual hearing protection level (105 dBA). Depending upon the circumstances, monitoring areas of the mine or representative job tasks may provide you with sufficient information to determine compliance. You also could use the results of MSHA sampling, information from equipment manufacturers on the sound levels produced by their equipment, or information from insurance carriers to determine compliance with the rule. MSHA sampling results may be obtained by contacting the local district office.

Can miners and their representatives observe my noise monitoring?

Section 62.110(c) requires you to give affected miners and their representatives the opportunity to observe required monitoring, and to give them prior notice of the date and time that such monitoring is to be conducted. The standard does not require you to pay miners or their representatives for the time taken to observe such monitoring.

Am I required to notify a miner if his or her noise exposure equals or exceeds allowable levels?

Section 62.110(d) requires you to notify a miner, in writing, within 15 calendar days of determining that his or her noise exposure equals or exceeds the action level, exceeds the permissible exposure level or exceeds the dual hearing protection level. The notification is required unless you have notified the miner of an exposure at that level within the prior 12 months.

The notification must include the level of noise to which the miner was exposed to and the corrective action being taken. Additionally, you must maintain a copy of the notification, or a list on which the relevant information is recorded, for the duration of the affected miner's exposure at or above the action level and for at least 6 months thereafter.

The exposure notification can be based on monitoring conducted by you, insurance carriers, consultants, mining associations, state agencies, or by monitoring conducted by MSHA inspectors. You must assure, however, that the miner's noise dose was appropriately determined following the minimum requirements specified in the rule.

Based on your noise monitoring system, if no miner's noise exposure equals or exceeds the action level, or exceeds the permissible exposure level, dual hearing protection level or maximum allowable level, then you do not need to establish a hearing conservation program. Each of these requirements are specifically described elsewhere in this guide.

HEARING CONSERVATION PROGRAM (HCP)

What must I include in my Hearing Conservation Program?

Section 62.150 specifies that a hearing conservation program (HCP), established to comply with this rule, must include:

- a system of monitoring (Section 62.110);
- the provision and use of hearing protectors (Section 62.160);

- audiometric testing (Section 62.170 175);
- training (Section 62.180); and
- · recordkeeping (Section 62.190).

You are required to establish an HCP meeting the above provisions when a miner's noise exposure equals or exceeds the action level.

How are Personal Hearing Protectors addressed under a HCP?

<u>Section 62.160</u> requires you to provide hearing protectors to any miner whose noise exposure equals or exceeds the action level. You must also train the miner on subjects including but not limited to, types of hearing protectors, the value of wearing hearing protection and of audiometric tests. You must also provide the miner a choice of hearing protectors, including at least two muff type and two plug type hearing protectors.

The hearing protectors that you provide must be in good condition, fitted, and maintained in accordance with the manufacturer's instructions. The hearing protectors provided, along with any replacements, at no cost to the miner. If a miner's noise exposure exceeds the dual hearing protector level, you must provide both a muff type and plug type protector.

Although you are required to offer hearing protectors to any miner whose noise exposure equals or exceeds the action level, the standard does not require that a miner wear hearing protection unless:

- the miner's noise exposure equals or exceeds the action level and the miner has incurred a standard threshold shift in his or her hearing;
- the miner's exposure equals or exceeds the action level and it will be longer than 6 months before he or she can receive a baseline audiogram; or
- the miner's exposure exceeds the PEL (90 dBA) or dual hearing protection level (105dBA).

Although you should consider a hearing protector's noise reduction rating in choosing the selection of hearing protectors to offer to a miner, MSHA believes a more important consideration is the comfort and fit of the protector.

Do I have to offer audiometric (hearing) testing to miners enrolled in a HCP?

Audiometric testing must be offered to each miner enrolled in the HCP; however, miners are not required to take the test.

<u>Section 62.170</u> requires that audiometric tests be provided at no cost to the miner. Additionally, it requires that the tests be conducted by a physician, an audiologist, or a qualified technician under the direction or supervision of a physician or an audiologist. There are also specific requirements for conducting baseline audiograms, annual audiograms, and revised baseline audiograms for miners enrolled in a hearing conservation program.

The requirements for audiometric testing under Sections 62.170 through 62.175 are similar, although less detailed, than those under OSHA's hearing conservation amendment. Mine operators who have established audiometric testing programs consistent with OSHA requirements will not need to make any changes to comply with this new rule.

Are there any other requirements related to audiometric testing?

Yes, there are provisions for establishing baseline audiograms, subsequent annual audiograms, and revised baseline audiograms which are discussed below.

Section 62.170(a) requires you to establish a baseline audiogram for each miner enrolled in an HCP. The baseline audiogram will be used to evaluate changes in a miner's hearing sensitivity when compared with subsequent annual audiograms. You may use the results of a miner's existing audiogram as the baseline audiogram if it meets the testing requirements in Section 62.171.

The baseline audiogram must be provided within 6 months of enrolling a miner in an HCP, or 12 months if a mobile test van is used. You must notify the miner to avoid high levels of noise for at least 14 hours immediately before the baseline audiogram, and not expose the miner to workplace noise during that 14-hour period. You may substitute the use of hearing protectors for this quiet period. MSHA recommends that you strive to keep miners' noise exposures to below the action level of 85 dBA during the quiet period.

The rule also allows you to establish a new or revised baseline audiogram if the miner has been away from the mine for more than 6 consecutive months.

<u>Section 62.170(b)</u> requires that after the baseline audiogram has been established, you must continue to offer subsequent audiograms at intervals not exceeding 12 months for as long as the miner remains in the HCP. These annual audiograms must also be provided at no cost to the miner.

Section 62.170(c) requires that an annual audiogram be regarded as a revised baseline audiogram when a physician or audiologist determines that:

- there was a significant improvement in the miner's hearing threshold as compared to the baseline audiogram; or
- a standard threshold shift revealed by the audiogram is permanent.

Are audiometric test procedures spelled out in the new noise standard?

Yes. Section 62.171 contains minimum specifications for conducting audiometric tests. It requires that audiometric testing be conducted in accordance with scientifically validated procedures, and that they be pure tone, air conduction, hearing threshold examinations, with test frequencies at 500, 1000, 2000, 3000, 4000, and 6000 hertz. Each ear must be tested separately.

Audiometric tests conducted in accordance with current OSHA requirements also comply with MSHA's rule.

This section also requires you to compile and maintain an audiometric test record for each miner tested which must include:

- · name and job classification of the miner tested;
- · a copy of all of the miner's audiograms conducted under this part;
- evidence that the audiograms were conducted in accordance with Section 62.171(a);

- any exposure determination for the miner conducted in accordance with <u>Section 62.110</u>;
 and
- the results of any follow-up examinations.

You are required to keep a copy of the above test records for the duration of the affected miner's employment, plus at least 6 months, and make the records available for inspection by an authorized representative of the Secretaries of Labor and Health and Human Services.

Who evaluates audiograms conducted under the provisions of this standard to determine if a hearing loss has occurred?

<u>Section 62.172</u> requires that you have a physician, audiologist, or a qualified technician who is under the direction or supervision of a physician or audiologist, determine if:

- · the audiogram is valid;
- · a standard threshold shift occurred; or
- · a reportable hearing loss occurred.

How soon must I obtain the results of audiograms and what actions must I take?

<u>Section 62.172</u> requires that you must obtain the results of any required audiogram and the interpretation of the results from the person evaluating the audiogram within 30 calendar days of the testing. If the audiogram is determined to be invalid, a retest must be offered within 30 days of receiving the determination.

If an annual audiogram demonstrates that the miner has incurred either a standard threshold shift or reportable hearing loss, you offer one retest within 30 calendar days of receiving the results, and may use the results of the retest as the annual audiogram.

In determining whether a standard threshold shift or reportable hearing loss has occurred, allowance may be made for the contribution of aging (presbycusia) to the change in hearing level by adjusting the baseline, the revised baseline or the annual audiogram. Section 62.172(c)(1) lists the procedures to follow in making such an adjustment. If used, the adjustment for aging must be applied consistently to all audiometric test records - baseline, revised baseline, and annual audiograms. See page 13 for the age adjustment from Part 62.

What must I do if an audiogram cannot be obtained due to a miner having possible medical problems affecting one or more ears?

Section 62.173 requires you to refer a miner for a clinical audiological evaluation or an otological examination (which checks for diseases of the ear), as appropriate, when a valid audiogram cannot be obtained due to a suspected medical pathology of the ear which the physician or audiologist believes was caused or aggravated by the miner's occupational exposure to noise or the wearing of hearing protectors. This follow-up evaluation must be at no cost to the miner.

If the physician or audiologist concludes that a valid audiogram cannot be obtained due to a medical pathology of the ear which is unrelated to the miner's occupational exposure to noise or the wearing of hearing protectors, you must instruct the physician or audiologist to inform the miner of the need for an otological examination. You are not responsible for the cost of such otological examination.

Table 62-3.--Age Correction Value in Decibels for Males (Selected Frequencies)

Table 62-4.--Age Correction Value in Decibels for Females (Selected Frequencies)

Ago (1000m)	k	Hz				Hz	
Age (years) -	2	3	4	Age (years)		3	
20 or less	3	4	5	20 or less 4		3	3
21	3	4	5	214		4	3
22	3	4	5	224		4	4
23	3	4	6	23 5		4	4
24	3	5	6	24 5		4	4
25	3	5	7	25 5		4	4
26	4	5	7	26 5	;	5	4
27	4 (6	7	27 5	;	5	5
28	4 (6	8	28 5	,	5	5
29	4	6	8	29 5	,	5	5
30	4 6	ŝ	9	306	,	5	5
31	4	7	9	31 6	6	3	5
32	5 7	1	0	326	6	3	6
33	5 7	1	0	33 6	(6	6
34	5 8	1	1	346	6	ò	6
35	5 8	1	1	356	-		7
36	5 9	1	2	36 7	7	7	7
37	6 9	1:	2	37 7	7	,	7
38	6 9	1:	3	38 7	7		7
9				39 7			8
10	6 10	1	4	40 7	8		8
¥1				418	8		8
42	7 11	16	ŝ	42 8	g		9
13	7 12	16	3	438	g		9
44	7 12	17	7	448	g		9
45	7 13	18	3	45 8	-		•
46	8 13	19	9	469			-
47	8 14	19	9	479			
48				489			
49						1	
50				5010			
51				51			
52				5210			
53	10 18	25	5	5310			
54				5411			
55				5511			
66				5611			

AL CONTROL OF STREET					
57 11 21	29	57,	11	15	15
58 12 22	31	58	12	15	16
59 12 22	32	59	12	16	16
60 or more	33	60 or more	. 12	16	17

Am I required to take corrective actions when an audiogram indicates a standard threshold shift?

Section 62.174 addresses follow-up corrective action when a miner is found to have incurred a standard threshold shift in hearing sensitivity. A standard threshold shift is a change in hearing sensitivity for the worse relative to the miner's baseline audiogram, or revised baseline audiogram, of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.

Unless a physician or audiologist determines that the standard threshold shift is neither work-related nor aggravated by occupational noise exposure, you must take the following action within 30 calendar days of receiving evidence or confirmation of a standard threshold shift:

- retrain the miner in accordance with Section 62.180 of the final rule;
- provide the miner with the opportunity to select a new or different hearing protector from among those offered by the mine operator in accordance with <u>Section 62.160</u> of this part; and
- review the effectiveness of any engineering and administrative controls to identify and correct any deficiencies.

What are my requirements for notifying and reporting the results of audiometric testing to the affected miners?

<u>Section 62.175</u> provides notification and reporting requirements pertaining to the required audiometric testing.

Within 10 working days of receiving the results of any required audiogram or follow-up evaluation, you must notify a miner in writing of the following:

- the results and interpretation of the audiometric test, including any finding of a standard threshold shift or reportable hearing loss; and
- the need and reasons for any further testing or evaluation, if applicable.

A reportable hearing loss is a change in hearing sensitivity for the worse, relative to the miner's baseline audiogram, or revised baseline audiogram, of an average of 25 dB or more at 2000, 3000, and 4000 Hz in either ear.

You must report to MSHA any reportable hearing loss, unless a physician or audiologist has determined that the loss is neither work-related nor aggravated by occupational noise exposure. Reportable hearing losses are considered by MSHA as a noise-induced hearing loss under part 50, and are to be reported to MSHA on Form 7000-1. This is in addition to the current reporting requirements of Part 50.

What are the training requirements for miners enrolled in Hearing Conservation Programs?

<u>Section 62.180</u> requires that you provide a miner with specific, noise-related training within 30 days of enrollment in an HCP. The training must be repeated at least every 12 months for as long as the miner's noise exposure continues to equal or exceed the action level.

The training must include instruction that addresses the following:

- effects of noise on hearing;
- · purpose and value of wearing hearing protectors;
- various types of hearing protectors offered by the mine operator and the care, fitting, and use of each type;
- · advantages and disadvantages of the hearing protectors offered;
- · general requirements of MSHA's noise rule;
- · mine operator's and miner's respective tasks in maintaining mine noise controls; and
- purpose and value of audiometric testing and a summary of the procedures.

You are required to certify the date and type of training given each miner, and maintain the miner's most recent certification for as long as the miner is enrolled in the HCP and for at least 6 months thereafter.

What are my recordkeeping requirements under the new noise standard?

<u>Section 62.190</u> addresses access to records that mine operators are required to maintain. Under <u>Section 62.110(e)</u>, noise exposure assessment; <u>Section 62.171(c)</u>, audiometric test procedures; <u>Section 62.175(b)</u>, notification of results and reporting requirements; and <u>Section 62.180(b)</u>, training.

The following table shows the individuals and records that you must provide access to, and at what cost.

Recordkeeping Requirements Table

Requestor	Record	Cost
Miner, or with the miner's written consent, the miner's designee	All required records that the mine operator must maintain for that individual miner	1st copy at no cost, additional copies at reasonable cost
Representative of miners	Training certifications, and any notices of exposure determinations for the miners whom he or she represents	1st copy at no cost, additional copies at reasonable cost
Former miner	His or her own exposure records	1st copy at no cost, additional copies at reasonable cost
Authorized representatives of the Secretary of Labor and Health and Human Services	All required records	Allow government to make copy

The rule also addresses what records are to be maintained by successor operators and how long those records are to be kept.



COMPARITIVE EXAMPLES OF NOISE LEVELS

loise Source	Decibel Level	Decibel Effect
Jet take-off (at 25 meters) Recommended product: Outdoor Noise Barriers	150	Eardrum rupture
Aircraft carrier deck	140	
Military jet aircraft take-off from aircraft carrier with afterburner at 50 ft (130 dB).	130	
Thunderclap, chain saw. Oxygen torch (121 dB).	120	Painful. 32 times as loud as 70 dB.
Steel mill, auto horn at 1 meter. Turbo-fan aircraft at takeoff power at 200 ft (118 dB). Riveting machine (110 dB); live rock music (108 - 114 dB).	110	Average human pain threshold. 16 times as loud as 70 dB.
tet take-off (at 305 meters), use of outboard motor, power lawn mower, motorcycle, farm tractor, jackhammer, garbage truck. Boeing 707 or DC-8 aircraft at one nautical nile (6080 ft) before landing (106 dB); jet flyover at 1000 feet (103 dB); Bell J-2A nelicopter at 100 ft (100 dB).	100	8 times as loud as 70 dB. Serious damage possible in 8 hr exposure.
Boeing 737 or DC-9 aircraft at one nautical mile (6080 ft) before landing (97 dB); bower mower (96 dB); motorcycle at 25 ft (90 dB). Newspaper press (97 dB).	90	4 times as loud as 70 dB. Likely damage in 8 hour exposure.
Garbage disposal, dishwasher, average factory, freight train (at 15 meters). Car wash at 20 ft (89 dB); propeller plane flyover at 1000 ft (88 dB); diesel truck 40 mph at 50 ft (84 dB); diesel train at 45 mph at 100 ft (83 dB). Food blender (88 dB); milling machine (85 dB); garbage disposal (80 dB).	80	2 times as loud as 70 dB. Possible damage in 8 hou exposure.

Noise Source	Decibel Level	Decibel Effect
Passenger car at 65 mph at 25 ft (77 dB); freeway at 50 ft from pavement edge 10 a.m. (76 dB). Living room music (76 dB); radio or TV-audio, vacuum cleaner (70 dB).	70	Arbitrary base of comparison. Upper 70s are annoyingly loud to some people.
Conversation in restaurant, office, background music, Air conditioning unit at 100 feet.	60	Half as loud as 70 dB. Fairly quiet.
Quiet suburb, conversation at home. Large electrical transformers at 100 feet.	50	One-fourth as loud as 70 dB.
Library, bird calls (44 dB); lowest limit of urban ambient sound	40	One-eighth as loud as 70 dB.
Quiet rural area.	30	One-sixteenth as loud as 70 dB. Very Quiet.
Whisper, rustling leaves	20	
Breathing	10	Barely audible

http://www.industrialnoisecontrol.com/comparative-noise-examples.htm

REGULATIONS FOR AGGREGATE MINE OPERATIONS	REGULATION	PERMIT / LICENSE REQ'D	INSPECTION / MONITORING / TESTING REQ'D	1ST REGULATOR	2ND REGULATOR	PLANS MAINTAINED
AIR		-1				
Dust	Clean Air Act (CAA)	YES	YES	SD DENR	EPA	
	ARSD 74:36 (South Dakota)	YES	YES	SD DENR		Fugitive Dust Control Plan
	Natural Event Action Plan (NEAP)	YES	YES	SD DENR		Emissions Inventory
Airborne Contaminate Exposure on Site	Federal Mine Health Safety Act	YES	YES	MSHA		Respiratory Protection Plan
WATER						
Wells / Diversions /Dams	SD Water Laws (Water Rights)	YES	YES	SD State Engineer		
OSWTS	PCZO §204(J)	YES	YES	Pennington County		
	ARSD 74:53:01	YES	YES	SD DENR		
	SDCL 34A-2	YES	YES	SD DENR		
	SDWA - Part C (Class V Injections Wells)	YES	YES	EPA		
Crossings and Wetlands	Water Pollution Control Act (§ 404)	YES	YES	USACE		
Floodplain	Flood Damage Prevention Ordinance	YES	YES	Pennington County	FEMA	
	National Flood Insurance Act	Community Req'd Permit		FEMA		
	Flood Disaster Protection Act	Community Req'd Permit		FEMA		
Storm Water Discharge	Clean Water Act (CWA)	YES	YES	SD DENR	EPA	Storm Water Pollution Prevention Plan (SWPPP)
						Spill Prevention Control and Countermeasure Plan (SPCC)
	PCZO §507(A)	YES	YES	Pennington County	SD DENR / EPA	
Surface Water Discharge	Clean Water Act (CWA) - NPDES	YES	YES	SD DENR	EPA	
	ARSD 74:52	YES	YES	SD DENR	EPA	
LAND						
Disturbance	PCZO §320 and §507	YES	YES	Pennington County	SD DENR	Operation Plan, Site Plan
	SDCL 45-6	YES	YES	SD DENR		Annual Mine License Report
Reclamation	PCZO §320 and §507	YES	YES	Pennington County	SD DENR	Reclamation Plan
	SDCL 45-6					
Bond / Surety	PCZO §320 and §507	YES	YES	Pennington County	SD DENR	
	SDCL 45-6	YES	YES	SD DENR / EPA		
ocation	PCZO §205, §212, §320	YES	YES	Pennington County		
etback	PCZO §320	YES	YES	Pennington County		
Roads	Approach Permits	YES	YES	Applicable Highway Authority		
SAFETY						
Blasting - Site	SDCL 34:36	YES	YES	SD Depart of Public Safety	ATF / MSHA	
	Organized Crime Control Act of 1970	YES	YES	SD Depart of Public Safety	ATF / MSHA	
Blasting - Personnel	Safe Explosives Act of 2002	YES	YES	ATF		
	Organized Crime Control Act of 1970	YES	YES	ATF		
	27 Code of Federal Regulations Part 555	YES	YES	ATF		
Blasting - Notification	PCZO § 320					Conditions of Approval of Mining Permit, if applicable
Employee / Site	Mine Act (30 CFR)	YES	YES	MSHA		
Signage / Fencing / Berms	Mine Act (30 CFR)	YES	YES	MSHA		
Voise	Mine Act (30 CFR)	YES	YES	MSHA		

ARSD = Administrative Rules of South Dakota ATF = Alcohol Tobacco and Firearms EPA = Enviornmental Protection Agency FEMA = Federal Emergency Management Agency
MSHA = Mine Health Safety Act
NPDES = Nat'l Pollutan Discharge Elimination System
PCZO = Pennington County Zoning Ordinance

SD DENR = South Dakota Department of Enviornment and Natural Resources SDCL = South Dakota Codified Law USACE = United States Army Corps of Engineers

Gravel Quarry Influence

ON RESIDENTIAL PROPERTY

Identify the Problem: Is there an external factor (economic obsolescence) affecting the value of properties near actively mined gravel quarries? Are the sales ratios of properties near mined areas higher than other properties, indicating property sales below market value?

Method: A sales ratio analysis of the last 2 years (2017-2018) was utilized to establish a mean and median sales ratio for neighborhoods surrounding the Croell Inc gravel quarry. Sales utilized are arm's length open market transactions of both improved and unimproved properties.

The sales ratio = current market value (Dept. of Equalization assessed value) divided by sale price.

• County wide median sales ratio for 2018 assessment year was approximately 96%.

Data: Residential property sales from the assessment years of 2017 and 2018 were utilized from the following areas:

- Wilderness Canyon area
- Busted Five area
- Neck Yoke Rd
- Kinsgwood/Hidden Valley (Pete Lien & Sons Inc Quarry)

These include sales of both improved and unimproved parcels. Data provided by the Dept. of Equalization.

Analysis

The Wilderness Canyon area for this purpose is defined as the neighborhood north of Hwy 16 accessed from Wilderness Canyon Road spanning east to west from Bears Loose Rd to Quartz Canyon Rd. This neighborhood encompasses an area 1.38mi. to 2.72mi. west northwest of the Croell Inc gravel quarry. There were 13 open market sales utilized for the sales ratio analysis. Properties in the table are arrange by proximity to the quarry, beginning with the closest.

Wilderness Ca	nyon				
Tax ID	Year Sold	Assessed Value	Sale Price	Sale Ratio	
8260	2018	355000	400000	0.8875	*Improved
8260	2018	71800	75000	0.957333333	*Bare Land
67581/67580	2018	575600	442500	1.30079096	**Multiple Parcels
67579	2018	72200	103000	0.700970874	*Bare Land
67708-67710	2018	208400	193000	1.079792746	**Multiple Parcels
47434	2018	67100	75000	0.894666667	*Bare Land
47431	2017	47431	91500	0.518371585	*Bare Land
50256	2018	578800	587000	0.986030664	*Improved
39856	2017	270200	295900	0.913146333	*Improved
39848	2017	314000	349900	0.897399257	*Improved
63018	2018	488300	452000	1.080309735	*Improved
42100	2017	286800	337500	0.849777778	*Improved
46560	2018	298600	254000	1.175590551	*Improved
			Mean	0.941667729	
			Median	0.913146333	

The Busted Five area for this purpose is defined as the neighborhood north of Hwy 16 accessed from Busted Five Ct. This neighborhood encompasses an area 2.47mi. to 2.84mi. west of the Croell Inc gravel quarry. There were 8 open market sales utilized for the sales ratio analysis. Properties in the table are arrange by proximity to the quarry, beginning with the closest.

Busted	Five				
Tax ID	Year Sold	Assessed Value	Sale Price	Sale Ratio	
49819	2018	123500	145000	0.851724138	*Assuming land and BL
49826	2017	139000	158500	0.876971609	*Improved
49821	2017	138000	150000	0.92	*Improved
49822	2017	145100	165000	0.879393939	*Improved
49786	2018	135300	160000	0.845625	*Improved
49788	2018	172400	175000	0.985142857	*Improved
49792	2018	160300	193500	0.828423773	*Improved
49793	2018	143500	137000	1.047445255	*Improved
			Mean	0.904340821	
			Median	0.878182774	

The Neck Yoke Road area for this purpose is defined as the neighborhood located south of Hwy 16 encompassing all roads that stem from Neck Yoke Rd with a southern boundary of Coyote Flats Rd/Clydesdale Rd. This neighborhood encompasses an area from 0.42mi. to 2.04mi. south of the Croell Inc gravel quarry. There were 14 open market sales utilized for the sales ratio analysis. Properties in the table are arrange by proximity to the quarry, beginning with the closest.

Neck Yo	ke Area				<u></u>
Tax ID	Year Sold	Assessed Value	Sale Price	Sale Ratio	
51156	2018	1302600	1150000	1.132695652	*Improved
13167	2017	465800	529000	0.880529301	*Improved
13169	2017	209300	270000	0.775185185	*Improved
67312	2018	60100	49000	1.226530612	*Bare Land
67315	2018	109900	100000	1.099	*Improved
2213	2018	248500	305000	0.814754098	*Improved
57927	2017	517500	540000	0.958333333	*Improved
53338	2017	661900	635000	1.042362205	*Improved
67382	2017	120300	162500	0.740307692	*Bare Land
67382	2018	653600	613414	1.065512036	*Improved
67380	2018	120300	130000	0.925384615	*Bare Land
67381	2017	86100	89000	0.96741573	*Bare Land
13199	2018	715300	750000	0.953733333	*Improved
13183	2017	602100	640000	0.94078125	*Improved
			Mean	0.965894646	
			Median	0.956033333	

The Kingswood and Hidden Valley area for this purpose is defined as the neighborhood located west of Sturgis Rd accessed from Pine Hills Dr and Hidden Valley Rd. This neighborhood encompasses an area spanning from .48mi to 1.47mi west of the Pete Lien & Sons Inc gravel quarry and concrete plant. This area is used as unit of comparison as it is in close proximity to an area that has been or will be utilized as a mined gravel quarry. Unlike the neighborhoods surrounding the Croell Inc quarry, this neighborhood sits at an elevation closer to that of the quarry and without mountain peaks and valleys between. There were 8 open market sales used for the sales ratio analysis.

Kingswoo	od/Hidden	Valley			
Tax ID	Year Sold	Assessed Value	Sale Price	Sale Ratio	
67674- 67671	2018	108700	54900	1.97996357	*Bare Land **Multiple Parcels
67653- 67650	2017	74000	95500	0.77486911	*Bare Land **Multiple Parcels **Major Phys
3733	2017	206300	249900	0.825530212	*Improved
3744	2017	348900	372000	0.937903226	*Improved
3766	2018	275000	217100	1.266697374	*Improved
56242	2017	200000	164300	1.217285453	*Improved
56243	2017	300000	286300	1.047851904	*Improved
14780	2017	75000	52200	1.436781609	*Improved
			Mean	1.185860307	
			Median	1.132568679	

Conclusion

There is no effect to the market value of the properties surrounding the Croell Inc gravel quarry. If a negative influence were present, the mean and/or median sales ratio for a given area would be greater than 1.0, indicating an assessed value above the sales price. This is not the case in each of the three areas surrounding the quarry, as well as within each area when considering distance from the quarry. These three areas have a median level of assessment ranging from 0.878 to 0.956, all of which fall below the county wide median assessment ratio of 0.96 for the 2018 assessment year.

Within Pennington County there is an area with a documented influence that can likely be attributed to a gravel quarry and concrete plant. This area, Kingswood/Hidden Valley, is given as an example and will be reviewed for the 2019 assessment.

It is this appraisers (Scott Dressler) opinion that the sales is the Wilderness Canyon, Busted Five, and Neck Yoke areas do not see any negative affect in value from the Croell Inc gravel quarry for multiple reasons. This includes the location of these neighborhoods as they offer easy access to Rapid City but provide a more natural wilderness setting, both of which are often considered as desirable features. Another factor to note is the distance from the quarry both in linear miles and feet of elevation. Each of the areas examined have a significant gain in elevation with mountain peaks and valleys in between. This would likely limit the amount of both sound and potential debris travel emanating from the quarry.

From: Ervin Jeri

Sent: Monday, November 05, 2018 8:21 AM

To: Conover PJ; Molitor Brittney; Bolstad Cassie

Subject: FW: WEBFORM: Planning and Zoning - Contact Us

----Original Message----

From: NoReply

Sent: Sunday, November 04, 2018 8:34 PM

To: plz <plz@pennco.org>

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Barrett Wendt

Your e-mail address: barrett.wendt@gmail.com

Your phone number: 6055932109

Message: Planning Commission -

I am writing to request that you vote NO on the Croell mining permit request for the old Perli pit.

Unfortunately I will not be at the meeting on the 14th as I will be out of town so I will submit my comments here.

Nothing has changed since the last time Croell submitted this request; the expansion of this mine is bad for Rapid City, bad for tourism, bad for the neighbors and businesses next to this location and very bad for traffic on this section of highway 16 which is already one of the worst sections of highway in the state for accidents and deaths.

A heavy industrial mining operation is not how we want to welcome the 1 million+ visitors that travel this route into the Black Hills annually.

Thank you for your consideration.	

Barrett Wendt

Please vote NO on this permit request.

Karen Wendt

From:	Ervin Jeri
Sent:	Monday, November 05, 2018 8:21 AM
То:	Conover PJ; Molitor Brittney; Bolstad Cassie
Subject:	FW: WEBFORM: Planning and Zoning - Contact Us
Original Message	
From: NoReply	
	nber 04, 2018 8:42 PM
To: plz <plz@pennco Subject: WEBFORM:</plz@pennco 	Planning and Zoning - Contact Us
The following inform	ation was submitted from a web form on the Pennington County website.
DO NOT click reply.	To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.
>>>>>>>	>>>>>
Submitted Information	on:
Your name: Karen We	endt
Your e-mail address:	karenjwendt@yahoo.com
Your phone number:	6059399007
Message: I am writing 16.	g you to request that you vote no on the Croell permit request for the old Perli pit off of highway
	s safety. I was nearly run off the road, with all three kids in the car, last year when one of the was pulling out from the mine. When the truck pulled out it blocked all 4 lanes of traffic.
l reported this incider	nt to the State Highway Patrol.
This is a horrible locat	tion for a large mining operation and not what we need for our city. Please vote no on this request.
Thank you	

From: Ervin Jeri

Sent: Tuesday, November 06, 2018 12:39 PM

To: Molitor Brittney

Subject: FW: WEBFORM: Board Of Commissioners - Contact Us

----Original Message-

From: NoReply

Sent: Tuesday, November 6, 2018 11:17 AM

To: Martin Joan <joan.martin@pennco.org>; Hennies Holli <hollih@pennco.org>

Subject: WEBFORM: Board Of Commissioners - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>>>>>>

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number:

Who would you like to send your message to? All 5 Commissioners

Message: Hello Commissioners. Don't know about you all but I feel like we are return to 2015. The Croell mining permit, Croell mining expansion and commercial operation needs to be denied again with prejudice (i.e. permanently). They will continue to waste time and money of the people and of Pennington County. Nothing has changed since 2015 when they first applied for a mining permit and never received one — as proven by the SD Supreme Court.

Safety: There are still valid concerns around operational safety at that location with egress/ingress onto Hwy 16 and the size of trucks crossing the highway into heavy traffic. Those that drive the Hwy 16 corridor daily know how awful traffic can be, especially in the summers with RV, motorcycles and other tourists. Mixing in the volume of gravel trucks is just not safe. There has been shown proof of these hazards in previous meetings, please review these notes and presentations.

Scale: The existing pit in that location is only a quarter of what

From: Ervin Jeri

Sent: Tuesday, November 06, 2018 11:54 AM
To: Conover PJ; Molitor Brittney; Bolstad Cassie

Subject: FW: WEBFORM: Planning and Zoning - Contact Us

----Original Message----

From: NoReply

Sent: Tuesday, November 06, 2018 11:28 AM

To: plz <plz@pennco.org>

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>>>

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number:

Message: Feel like we are return to 2015. The Croell mining permit, Croell mining expansion and commercial operation needs to be denied again with prejudice (i.e. permanently). They will continue to waste time and money of the people and of Pennington County. Nothing has changed since 2015 when they first applied for a mining permit and never received one – as proven by the SD Supreme Court.

Safety: There are still valid concerns around operational safety at that location with egress/ingress onto Hwy 16 and the size of trucks crossing the highway into heavy traffic. Those that drive the Hwy 16 corridor daily know how awful traffic can be, especially in the summers with RV, motorcycles and other tourists. Mixing in the volume of gravel trucks is just not safe. There has been shown proof of these hazards in previous meetings, please review these notes and presentations.

Scale: The existing pit in that location is only a quarter of what Croell intends. Croell also has their eye on the pu

From: Ervin Jeri

Sent: Tuesday, November 06, 2018 11:55 AM **To:** Conover PJ; Molitor Brittney; Bolstad Cassie

Subject: FW: WEBFORM: Planning and Zoning - Contact Us

----Original Message-----

From: NoReply

Sent: Tuesday, November 06, 2018 11:29 AM

To: plz <plz@pennco.org>

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number:

Message: cont'd... Scale: The existing pit in that location is only a quarter of what Croell intends. Croell also has their eye on the purchase of additional acreage would make the gravel pit in that operation one of the largest in this area. This size of commercial operation on the main corridor to the beautiful Black Hills, Custer State Park, Mt Rushmore and Crazy Horse is bad for business – the business of Pennington county and the State of SD – being tourism is so critical to our state and counties.

Zoning: Croell is proposing a large, commercial operation – see their state water permit description of commercial use – on currently zone agriculture land. Ag mining is not applicable to the size of operation Croell is wanting. At best the land should be re-zoned to heavy industrial for the size of operation. Of course heavy industrial zoning does not fit in that area at all; ag, low residential or highway service would be the only options for zoning for the current land location.

From:

Ervin Jeri

Sent: To: Tuesday, November 06, 2018 11:55 AM Conover PJ; Molitor Brittney; Bolstad Cassie

Subject:

FW: WEBFORM: Planning and Zoning - Contact Us

----Original Message----

From: NoReply

Sent: Tuesday, November 06, 2018 11:30 AM

To: plz <plz@pennco.org>

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number:

Message: cont'd... Water: Water is a huge concern for us westerns, it's deep, it's not always safe to drink and expensive to source. Croell's operation has the potential to drastically change water sources in this location for the thousands of homes in the area. There is also concern about ground water contamination of nearby spring creek and source water. Allow this operation will further open the county to lawsuits when the water sources get contaminated. It is not worth the risk. Flint Michigan comes to mind.

Urge a dismissal of the Croell permit with prejudice as this IA company has no care for the Black Hills or Pennington County residents, they simple are working their business, which is their right, but the large scale, industrial operation in this location does not make good sense for Pennington County.

From: NoReply

Sent: Monday, January 14, 2019 10:32 AM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>>>>>

Submitted Information:

Your name: Bruce Ellison

Your e-mail address: Belli4law@aol.com

Your phone number: (605) 348-1117

Message: Please schedule hearing on Croell permit for 3 pm to allow greater participation

Thank tou

From:	NoReply
Sent:	Monday, January 14, 2019 9:03 AM
To:	plz
Subject:	WEBFORM: Planning and Zoning - Contact Us
The following information	was submitted from a web form on the Pennington County website.
DO NOT click reply. To re	eply, copy and paste the e-mail address below into the "To" field of an outgoing message.
>>>>>>>>>	>>
Submitted Information:	
Your name: Reptile Garde	ns / Virginia Garrigan
Your e-mail address: virg-	g@reptilegardens.com
Your phone number: 605-	342-5873
Message: To: Pennington	County Planning Commission,
	or the SPECIAL MEETING to discuss the Croell Construction and Mining Permit Application, if uling it at 3:00pm or later so those that work and want to attend can do so. It would be very
Thank you for your consid	leration on this topic
Virginia Garrigan	

From: NoReply

Sent: Monday, January 14, 2019 9:02 AM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>>

Submitted Information:

Your name: Tom Lang

Your e-mail address: tom-l@reptilegardens.com

Your phone number: 605-342-5873

Message: I understand you are planning to set a special meeting date to discuss the Croell mining permit application in todays' meeting. I would like to request a late afternoon time for that meeting so those of us who are very interested may attend and also be able to work our regular jobs that day, 3pm or later would be nice. Thank you.

Conover PJ

From: Hennies Holli

Sent: Monday, January 14, 2019 8:34 AM

To: Ervin Jeri; Conover PJ

Subject: FW: WEBFORM: Board Of Commissioners - Contact Us

----Original Message----

From: NoReply

Sent: Saturday, January 12, 2019 12:56 PM

To: Martin Joan <joan.martin@pennco.org>; Hennies Holli <hollih@pennco.org>

Subject: WEBFORM: Board Of Commissioners - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number: 6055924247

Who would you like to send your message to? All 5 Commissioners

Message: Regarding upcoming meeting agenda item "21. MOTION TO SCHEDULE SPECIAL PLANNING COMMISSION MEETING(S) REGARDING CROELL, INC.'S APPLICATIONS FOR MINING AND CONSTRUCTION PERMITS.". As you are all aware there is much interest in this decision from hundreds of residents, local businesses (Founding fathers, Bear Country, Reptile Gardens, Bed/Breakfast, etc) and other state organizations (Tourism, Travel, Mayors office, etc). Would request the special meeting time be setup so that people with full time jobs are able to attend more easily. Some time later afternoon or early evening. Regardless of the time there will be a full room again, and again, and again, but if this issue must be discussed again, and again, and again, then at least make it accessible to those that need to be there and represent Pennington county residents.

From: NoReply

Sent: Monday, January 14, 2019 8:19 AM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Carol Hayse

Your e-mail address: carolhaysie@gmail.com

Your phone number: 773-490-4637

Message: Please stop rescheduling Crowell Pit hearings! You are clearly trying to diminish public input by doing that.

Also, schedule them so that working people can attend! That would be after 3 or 4 PM.

From: NoReply

Sent: Monday, January 14, 2019 8:14 AM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>>

Submitted Information:

Your name: Naidine Adams

Your e-mail address: naidine@aol.com

Your phone number: 605-863-5377

Message: Please, if possible, schedule the special meeting to discuss the Croell permit for and afternoon (after 3 at least) so that concerned people who want to attend are more likely to be able to.

Thank you

From: NoReply

Sent: Monday, January 14, 2019 7:56 AM

To: pla

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>>

Submitted Information:

Your name: Bill Gust

Your e-mail address: bgust46@msn.com

Your phone number: 6053433024

Message: Please schedule the item 21 SPECIAL MEETING on the Croell Construction and Mining Permit Application to

3pm or later. Thank you....

From: NoReply

Sent: Monday, January 14, 2019 6:50 AM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Gloria & amp; Jim Williams

Your e-mail address: dakota6883@gmail.com

Your phone number:

Message: We request that the special meeting concerning the Croell

mining permit be scheduled in the late afternoon so that

more working people can attend.

Thank you for your consideration.

From:	NoReply
Sent:	Monday, January 14, 2019 6:31 AM
To:	plz
Subject:	WEBFORM: Planning and Zoning - Contact Us
The following inform	nation was submitted from a web form on the Pennington County website.
DO NOT click reply.	To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.
>>>>>>>>	»»»»»
Submitted Informat	ion:
Your name: Dana Da	arger
Your e-mail address	: ddarger@regionalhealth.org
Your phone number	: 605-209-5581
	ally request that the Planning Committee Special Meeting to address the Croell Construction and heduled after 3:00 pm in order to allow me to attend.
Thanks	
Dana	

From: NoReply

Sent: Sunday, January 13, 2019 10:32 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: Sheri Tonner

Your e-mail address: sherit22@yahoo.com

Your phone number: 334-477-3005

Message: I am writing to request that the SPECIAL MEETING to discuss the Croell Construction and Mining Permit Application be scheduled in the late afternoon, at 3 pm or later so that those that work a regular work day can attend.

v/r,

Sheri Tonner

From: NoReply

Sent: Sunday, January 13, 2019 9:57 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Diana Barrett

Your e-mail address: silvercat551@yahoo.com

Your phone number: 6052156863

Message: I realize that most of the city meetings are held in the morning, but this meeting concerns the citizens that live and travel along this stretch of road. We would like to attend the meeting concerning this open pit mining, but many of us work and will not be able to attend the morning meeting. Would it be reasonable to hold a meeting about this issue during a time when people will have a chance to voice their concerns? We should have a right to voice our concerns about this issue. Hopefully you will find time for us.

From: NoReply

Sent: Sunday, January 13, 2019 9:02 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: James albert

Your e-mail address: albert7485@msn.com

Your phone number: (605)545-4926

Message: Why can't you make these meetings later in the day so the working class(tax payers) attend them so you can here our voices. This is about the Creol minning. Seems that you folks already made your minds up and we don't matter.

KOJohnson

From: NoReply Sent: Sunday, January 13, 2019 8:35 PM To: Subject: WEBFORM: Planning and Zoning - Contact Us The following information was submitted from a web form on the Pennington County website. DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message. Submitted Information: Your name: Kathy Oulman Johnson Your e-mail address: koulman@hotmail.com Your phone number: 6052093595 Message: I am disappointed that meetings regarding the Croell Mining operation on Highway 16 are scheduled at times that make it inconvenient or nearly impossible for working people to attend. Please schedule these meetings late in the afternoon so that the people who will be affected the most by mining operations are able to attend. Thank you

From: NoReply

Sent: Sunday, January 13, 2019 8:04 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>

Submitted Information:

Your name: Kathryn Hart

Your e-mail address: hart@rap.midco.net

Your phone number: 6053909700

Message: Please schedule the special meeting for late afternoon so that vmore vconcerned folks can attend...a broad community input is for the best government...thank you!

Conover PJ

From: NoReply

Sent: Sunday, January 13, 2019 7:40 PM

To: Ordinance Enforcement; Conover PJ; Bolstad Cassie

Subject: WEBFORM: Planning and Zoning - Ordinance Enforcement Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>

Submitted Information:

Your name: Carissa Meyer

Your e-mail address: calmanza1@gmail.com

Your phone number: 6053817565

Message: Sorry forgot to mention that the special meeting I would like to attend was about the croell pit. Anytime after 3pm and any day of the week.

Thanks!

From: NoReply

Sent: Sunday, January 13, 2019 7:38 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Carissa Meyer

Your e-mail address: calmanza1@gmail.com

Your phone number: 6053817565

Message: Hi I am wondering if you could make the special meeting after 3pm, on any day. I would like to attend.

Thanks!

From: NoReply

Sent: Sunday, January 13, 2019 6:08 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: Trevor Wendt

Your e-mail address: twendt@pcikc.com

Your phone number: 6055924247

Message: Regarding upcoming meeting agenda item "21. MOTION TO SCHEDULE SPECIAL PLANNING COMMISSION MEETING(S) REGARDING CROELL, INC.'S APPLICATIONS FOR MINING AND CONSTRUCTION PERMITS.". As you are all aware there is much interest in this decision from hundreds of residents, local businesses (Founding fathers, Bear Country, Reptile Gardens, Bed/Breakfast, etc) and other state organizations (Tourism, Travel, Mayors office, etc). Would request the special meeting time be setup so that people with full time jobs are able to attend more easily. Some time later afternoon or early evening. Regardless of the time there will be a full room again, and again, and again, but if this issue must be discussed again, and again, and again, then at least make it accessible to those that need to be there and represent Pennington county residents. Thank You.

From:

NoReply

Sent:

Sunday, January 13, 2019 6:02 PM

To:

plz

Subject:

WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: Jean Katus

Your e-mail address: jean44ka@gmail.com

Your phone number: 6057166411

Message: Please schedule these public meetings at a time when those who work regular hours can attend. It would be better to hold them after 3:00 out of consideration for working folks. Thank you. Jean Katus

From: NoReply

Sent: Sunday, January 13, 2019 4:44 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: James 5 Walder

Your e-mail address: Jwalder@enetis.net

Your phone number: 6053423033

Message: Sirs, it would be greatly appreciated, in the interest of fairness and the democratic process, if you would schedule the special meeting on the Croell mining aplication for a time 1500 or after, to allow those of us who work to be able to attend. Thank you.

James and Charlotte Walder

23606 Wilderness Canyon Rd.

R.C, SD 57702

From: NoReply

Sent: Sunday, January 13, 2019 4:32 PM

To: pla

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Paula Long Fox

Your e-mail address: Pmlfplf@gmail.com

Your phone number: 6053432784

Message: Please schedule any special meetings after 3:00 in an effort to include citizens that

Work.

Thank you for considering this request.

From: NoReply

Sent: Sunday, January 13, 2019 4:03 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

Submitted Information:

Your name: Jerry Hiebert

Your e-mail address: jerryhiebert@gmail.com

Your phone number: 6053999851

Message: Please set time time for the Croell meeting late in the afternoon so people who work can attend. Thanks

From: NoReply

Sent: Sunday, January 13, 2019 3:51 PM

To: plz

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: Barbara Wiggin

Your e-mail address: gbwiggin@gmail.Com

Your phone number: 703-309-8640

Message: Please schedule the Special Meeting to discuss the Croell Construction and Mining Permit Application for late afternoon so that my husband and I can attend. We were at the County offices last Wednesday and were disappointed at the last-minute cancellation, but are eager to attend the next scheduled meeting. Thank You.

From:	NoReply
Sent:	Sunday, January 13, 2019 3:40 PM
To:	plz
Subject:	WEBFORM: Planning and Zoning - Contact Us
The following informa	tion was submitted from a web form on the Pennington County website.
DO NOT click reply.	To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.
>>>>>>>>	>>>>
Submitted Information	n:
Your name: Lilias Jardi	ing
Your e-mail address: li	iliasjarding@gmail.com
Your phone number: 6	505-787-2872
Message: Greetings	
This is a request to sch There are many people	nedule all hearings on mining issues in the late afternoon, so those of us who work 9 - 5 can attend e who are concerned about these issues in the County, and they deserve an opportunity to speak.
Thank you	
Lilias Jarding	

From:	NoReply
Sent:	Sunday, January 13, 2019 3:20 PM
To: Subject:	plz
Subject.	WEBFORM: Planning and Zoning - Contact Us
The following information	on was submitted from a web form on the Pennington County website.
DO NOT click reply. To	reply, copy and paste the e-mail address below into the "To" field of an outgoing message.
>>>>>>>>>>	·>>>
Submitted Information:	
Your name: Duane Abata	a a
Your e-mail address: dua	ane,abata@gmail.com
Your phone number: 60!	5-431-5996
Message: RE: Planning C	commission Meeting tomorrow 01-14-19
Dear Planning Commission	oners:
	or the 01-14-19 meeting (tomorrow at 9 am) deals with scheduling the SPECIAL MEETING to ruction and Mining Permit Application.
I may not be able to atte at 10 am and again at 12	end as this meeting of 01-14-19 as it conflicts with my normal work schedule. I am teaching clas noon.
	nat this SPECIAL MEETING be scheduled after 3 pm if it is scheduled on a regular work day so s of Pennington County can attend this important meeting.
Thank you for considerin	g this request.
Regards,	
	I .
	· · · · · · · · · · · · · · · · · · ·

Duane Abata

From: NoReply

Sent: Tuesday, January 15, 2019 3:14 AM

To: pl:

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>

Submitted Information:

Your name: Pam Fritz

Your e-mail address: pamwfritz@gmail.com

Your phone number: 6053906864

Message: Please schedule meetings so most working citizens can attend— after 3 pm!

Nancy Hilding
President
Prairie Hills Audubon Society
P.O. Box 788
Black Hawk, SD 57718
May 6th, 2019

Pennington County Planning Commission 130 Kansas City Street, Rapid City, SD.

Dear Commissioners,

Prairie Hills Audubon Society supports Black Hills Concerned Citizens in their opposition to the application from Croell for a sand/gravel/aggregate mine permit ("Perli Pit") from the County.

We join them in concerns about the:

- 1. Impacts to traffic on highway 16,
- 2. Impacts on scenery,
- 3. Impacts on nearby land values,
- 4. Impacts on water quality and quantity,
- 5. Impacts on air quality and
- 6. Impacts to quiet from noise of operations.

We also are concerned about any impacts to archaeological or cultural resources and that adequate consultation with tribes happens and their concerns seriously considered. We are concerned about protection of potentially impacted wildlife/fish and any rare plants or rare plant communities on the property.

We believe that the state and local permitting/licensing processes (laws, regulation and ordinances) remain in adequate to protect the environment and adjacent property owners. Thanks,

Nancy Hilding President

Prairie Hills Audubon Society

Hanny Held

MP18-01 Redacted Information

To be placed with Application - Prior to Section 1 $\,$

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	99-97/1023 DATE 9 12 18

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CHECK NUMBER 214174 14413 | Pennington County Planning Dept

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Trans Record	Re	ference	Date	Description	Gross	Amount	Discount	Ref	tainage	Previous	Balance	Net Amount
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2010 Kenwood Ave PO Box 430 New Hampton, IA 506590430



DATE 09/05/18

AMOUNT \$2,500.00

Two thousand five hundred and xx / 100 Dollars

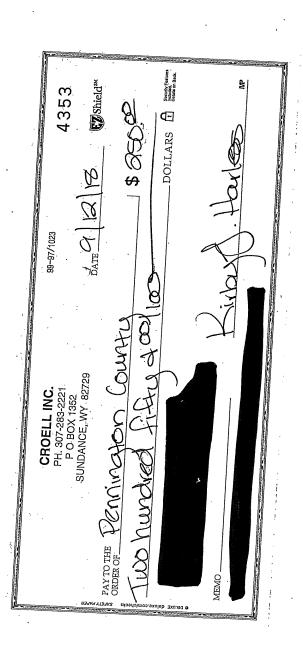
90 day expiration

PAY TO THE **ORDER** OF

Pennington County Planning Dept 130 Kansas City Street Rapid City SD 57701



AUTHORIZED SIGNATURE



ż

Attachment 3

MINING PERMIT INFORMATION 507B

1) Transportation Plan

- a. There are three typical entrances to the Perli Rock quarry from Hwy 16. Entrance 1 is the most northern of the entrances. It is a farm entrance and will not be used for due to the steep hillside immediately on the Croell property. Entrance 2 is the middle entrance. It has been used in the past for an entrance/exit. It will not be used by Croell Inc for truck traffic due to the limited site distance both north and south. This will be used as an emergency exit only for the employee's on site. The entrance is currently blocked for truck traffic. Entrance 3 is located to the south and will be used as the main entrance to the quarry. Entrance 3 is approximately 82 feet in width. See Map 2 Structures & Utilities.
- b. Typical truck traffic on entrance 3 will not cross or use any private, Township or Pennington County roadway. The car and truck traffic will cross from Croell Inc owned property onto South Dakota Department of Transportation Hwy 16.
- c. Croell Inc continues to work with the South Dakota Department of Transportation on the entrance to Hwy 16. At this point in time, no improvements have been made to the Hwy 16 entrance. Croell has authorized a Traffic Study that was completed by Interstate Engineering and Croell has submitted that Traffic Study to the South Dakota Department of Transportation in Pierre SD.

2) Material to be Excavated

a. Preliminary estimates used for the Perli Quarry are based upon 100,000 tons of sales per year. Depending on the product shipped, additional mining may be needed beyond 100,000 tons per year. The type of material shipped will be a crushed limestone product, such as riprap, base course gravel, concrete stone, 3/8" chipping stone and fines. Products shipped be used in road construction, asphalt, concrete, commercial and residential sales.

3) Duration of the Mining Activity.

 a. Croell anticipates a life of mine of 25 years for this location based upon the ownership now.

4) Reclamation to be done at conclusion of mining

a. Once mining is completed, it is anticipated that the property will be developed into Commercial or Single Family residential similarly to the surrounding area.

5) History of the Perli Quarry

 The property was initially excavated and mined during the early 1970's. The original highway grade for Hwy 16 was through the property and was moved to its current



TWO HUNDRED FIFTY AND XX / 100

To the order of

CROELL REDI-MIX INC PO BOX 1352 SUNDANCE, WY 82729

Date

5/30/2017

Amount

\$250.00

VOID AFTER 180 DAYS

ALL PAYMENT INQUIRIES SHOULD BE DIRECTED TO THE DEPARTMENT THAT MADE THE PURCHASE

051712

Check Date:

05/30/2017

Check Amount: 250.00

Vendor No: 58565

Vendor Name: CROELL REDI-MIX INC

Vendor Acct No:

Invoice Number

Date **REFUND**

05/30/2017

Description

Amount

250.00

17) Amount of Material to be Extracted from the Mine

a) Sales will depend on local construction projects and the general overall economy of the local and state area. During the first 2 years of mining activity, sales will estimate to be between 50,000 to 100,000 tons per year. Upon year 3 of mining activity, sales could be assumed to be greater than 100,000 tons per year, but not typically exceeding 150,000 tons per year.

18) Type of Material to be Extracted from the Mine.

a) The quarry will be mining Minnekata limestone that will be used for construction aggregate. The limestone being mined is also known as sand & gravel, rock, gravel, and stone. Topsoil, overburden and shale will also be encountered and disturbed within the mine boundaries, but will not be typically sold, and these materials will be used for reclamation within the property boundaries.

19) Scope of Mining Activity.

a) Croell Redi Mix is planning on operating the active Perli Quarry as a rock quarry for the Rapid City and surrounding area. Soil disturbing activities will include: logging, clearing and grubbing, installing erosion and sediment controls, grading, excavation necessary for mining, utilities, construction of roads, and preparation for final seeding, mulching, and landscaping. Mining activities will include drilling/blasting, excavation, hauling, crushing and/or washing aggregates, stockpiling, loading and hauling finished product to the customer.

20) Duration of Mining Activity

a) Mining activity will start in April 2016. Activity will include year around mining related activities as outlined in 19a. Life of Mine is expected to be 25 years, with mining ceasing at or around 2041.

21) Reclamation to be done at conclusion of Mining

a) See Attachment D – Perli Quarry Reclamation Plan



Is the	s, enter Document Number or date of hearing: الراباع المحتودة على المحتودة
10 0110	property platted? NO X *YES *If yes, the most current plat # is:
Is the	Permit Limit within National Forest Service lands? NO <u>Y</u> YES
Soil Con for Mini ag	RIPTION OF MINING OPERATION: disturbing activities will include: logging, cleaning, grubbing, installing erosion; sediment strols, grading, excavation necessary for mining, utilities, construction of roads, and preparation final seeding, mulering, and landscaping. Ing Activities will include: drilling; blasting, excavation, hauling, crushing and for washing gregates, stockpining, looking and hauling finished product to the customer. IPATED CUBIC YARDS OF MATERIAL TO BE EXCAVATED PER YEAR:
	50,000 cy's
(Check)	Agency Comments (as they pertain to SD Mine License)
(Check)	Tregative Possitionia in the control of the control
V	Complete Site Plan (see attached list of requirements)
/	Complete Operation Plan (see attached list of requirements)
nd I und oplicati	acknowledge review of and compliance with the provisions in § 320 of the Pennington County Zoning Ordinance derstand that I am responsible for payment of any required fees and penalties any violation associated with this
<u>B</u> r Signatu	ion request. I also acknowledge that I am authorizing the Planning Department Staff and designees to enter I inspect the property associated with this application request. Output Output Date September 2016.

NOTARY SEAL

Transportation Plan

- There are three typical entrances to the Perli Rock quarry from Hwy 16. Entrance 1 is the most northern of the entrances. It is a farm entrance and will not be used for due to the steep hillside immediately on the Croell property. Entrance 2 is the middle entrance. It has been used in the past for an entrance/exit. It will not be used by Croell Inc for truck traffic due to the limited site distance both north and south. This will be used as an emergency exit only for the employee's on site. The entrance is currently blocked for truck traffic. Entrance 3 is located to the south and will be used as the main entrance to the quarry. Entrance 3 is approximately 82 feet in width. See Map 2 Structures & Utilities.
- Typical truck traffic on entrance 3 will not cross or use any private, Township or Pennington County roadway. The car and truck traffic will cross from Croell Inc owned property onto South Dakota Department of Transportation Hwy 16.
- Croell Inc continues to work with the South Dakota Department of Transportation on the entrance to Hwy 16. At this point in time, no improvements have been made to the Hwy 16 entrance. Croell has authorized a Traffic Study that was completed by Interstate Engineering and Croell has submitted that Traffic Study to the South Dakota Department of Transportation in Pierre SD.

Estimated type and amount of materials to be extracted.

• Preliminary estimates used for the Perli Quarry are based upon 100,000 tons of sales per year. Depending on the product shipped, additional mining may be needed beyond 100,000 tons per year. The type of material shipped will be a crushed limestone product, such as riprap, base course gravel, concrete stone, 3/8" chipping stone and fines. Products shipped be used in road construction, asphalt, concrete, commercial and residential sales.

Estimated number of truckloads per day, and estimated weight of material per truckload.

Typical PERLI

	100,000 Sales	Tons / Truck	Truckloads / Month	Working Da y s/Mo	Truck / Day	Hours of Operation	Truck/ Hour
Jan	6,000	32	188	20	9	9	1.0
Feb	5,000	32	156	21	7	9	0.8
Mar	9,000	32	281	22	13	9	1.4
Apr	10,000	32	313	21	15	9	1.7
Ma y	10,000	32	313	. 22	14	9	1.6
Jun	11,000	32	344	22	16	9	1.7
Jul	11,000	32	344	21	16	9	1.8
Aug	11,000	32	344	23	15	9	1.7
Sep	9,000	32	281	22	13	9	1.4
Oct	8,000	32	250	21	12	9	1.3
Nov	5,000	32	156	21	7	9	0.8
Dec	5,000	32	156	21	7	9	0.8
	100,000			257			

5 DAY/WK

Average number of truck loads per day - estimated between 7 $\,$ and 16 trucks per day

Average Ton per Truck = 32

Tons









November 19, 2015



Kyle Frisinger Croell Redi-Mix P.O. Box 1352 Sundance, WY 82729

SDCL 45-6C Determination
Project: Notice of intent to mine limestone
Location: Portions of Sections 9 & 10/T1S/T7E

County: Pennington

Dear Kyle:

We have completed a review of your Notice of Intent to Mine Limestone. The Archaeological Research Center makes the following determination in accordance with SDCL 45-6-69:

There will be no effect on known cultural resources. There are no significant sites known to be in the project area. However, cultural sites in the form of rock shelters have been identified in similar settings near the project area. For this reason, a cultural resources survey is recommended before mining and reclamation can proceed from a cultural resources perspective of the SDCL 45-6-69 review.

The area identified under the notice of intent to operate a gravel mine has been partially surveyed for cultural resources. No known cultural resources are located within the project area. The area consists of bluffs and valleys common to the eastern portion of the Black Hills at a location considered to have high potential for containing significant cultural resources. Significant cultural resources have been identified in similar settings near the project area. For this reason, a cultural resources survey is recommended with the results sent to me for review.

If you have any questions or require further information, please let me know. Thank you for your concern in preserving South Dakota's cultural heritage.

Sincerely,

Michael R. Fosha

Assistant State Archaeologist

cc: Thomas Cline, Jr., Exploration and Mining Program, DENR

A Cultural Resources Inventory Survey of Creoll Redi-Mix, Inc.'s Perli Quarry Expansion Project in Pennington County, South Dakota

Prepared for

Croell Redi-Mix, Inc. P.O. Box 1352 Sundance, Wyoming

December 2015

Prepared by

Jeff Buechler Dakota Research Services

A Cultural Resources Inventory Survey of Creoll Redi-Mix, Inc.'s Perli Quarry Expansion Project in Pennington County, South Dakota

Prepared for the

Croell Redi-Mix, Inc. P.O. Box 1352 Sundance, Wyoming

Prepared by

Jeff Buechler

Dakota Research Services 13110 Michelle Drive Rapid City, South Dakota Project Number 15-33

December 2015

A Cultural Resources Inventory Survey of Creoll Redi-Mix, Inc.'s Perli Quarry Expansion Project in Pennington County, South Dakota

Abstract

This report summarizes the activities, results, and recommendations derived from a cultural resources inventory survey of Croell Redi-Mix, Inc.'s Perli Quarry expansion project in the Reptile Gardens/Bear Country vicinity of Pennington County, South Dakota. The expansion area encompasses approximately 280 acres with approximately 44.90 acres of this total currently being quarried. The physical remains of two extant segments of Old Highway 16 (39PN2124) were identified within the expansion project area. The extant segments of this linear feature are not expected to be impacted by proposed expansion activities and do not possess significance engineering or design elements. Therefore, a determination of No Historic Properties Affected is recommended for the proposed Perli Quarry expansion undertaking.

Introduction and Project Background

This report summarizes the activities, results, and recommendations derived from a cultural resources inventory survey of Croell Redi-Mix, Inc.'s (Croell) Perli Quarry expansion project (CPQ) in the Reptile Gardens/Bear Country vicinity of Pennington County, South Dakota (Figure 1). This cultural resources research was conducted in accordance with an agreement between Dakota Research Services and Croell. The South Dakota Department of the Environment and Natural Resources (DENR), Mineral and Mining Program is the lead agency administering this expansion request.

The objective of the cultural resources inventory survey was to identify, record, and assess the National Register of Historic Places significance of prehistoric and historic cultural properties within the proposed construction activity area of potential effects. Cultural resources are defined as any building, structure, object, site, district, data, or other material property significant in history, architecture, archaeology, or culture. Cultural properties are

considered a unique, non-renewable expression of human behavior. Interpretation of these behaviors concentrates on material or physical remains. "Significance" is evaluated in terms of National Register of Historic Places eligibility criteria defined by Federal regulation (36 CFR 60).

The background records search research and field inventory research was conducted by the author as weather permitted in early December, 2015. Mr. Kyle Frisinger of Croell authorized this research and provided maps and information regarding the boundaries of the project area. Mr. Mike Fosha of the South Dakota Archaeological Research Center also provided information regarding the project area. Their cooperation is gratefully acknowledged.

Environmental Parameters of the CPQ Project Area

The Croell Perli Quarry expansion project area is situated at the northeastern margin of the Black Hills of South Dakota. The Black Hills are an isolated uplift that rises above the surrounding plains

DESCRIPTION OF MINING OPERATION:		
See attached.		
×'x		
	Attach additional docu	mentation as necess
ANTICIPATED CUBIC YARDS OF MATERIAL TO BE EXCAVATED PER YEAR:	50,000 64's	
CUBIC YARDS OF MATERIAL EXCAVATED TO DATE FROM PARCEL:	797,429 Tons	+
e following documents are required for submittal of this Application**: Check (V)	398,715 Cy's	ィナ
Site Plan with Disturbance Boundary		
✓ Date Nonconforming Use First Established (supporting document)	ntation – i.e. Date of Issuance	of Mine License)
ereby acknowledge review of and compliance with the provisions in linance and I understand that I am responsible for payment of any responsible for payment	9320 of the Penningto equired fees and penal 仏/ひとしい	on County Zoning
gnature of Property Owner Date		
ubscribed and sworn to before me at Rapid City, South Dakota this 225	day of June	2018
otary Public: Kirby . Harless		
ly Commission Expires: OCHODER 28, 2018		
COUNTY OF STATE OF WYOMING My Commission Expires October 28, 2019		

NOTARY SEAL

Updated Crash Info SDDOT

To be placed in Section 10 - Traffic Information

Molitor Brittney

From:

Bartlett, Stacy <Stacy.Bartlett@state.sd.us>

Sent:

Monday, November 19, 2018 5:44 AM

To:

Molitor Brittney

Subject:

RE: Mining Permit / MP18-02 - Croell Inc

CAUTION: This email is from an outside source. Use caution before opening attachments, clicking links or providing confidential information.

Good morning Brittney,

3 crashes have occurred on US16 in the vicinity of Croell Quarry since I last gave you crash information. None of these crashes occurred at the entrance to the Croell Quarry or involve trucks;

01/01/2013-11/01/2018 Crashes:

Crash Types:

Deer hits -3435Run Off Road -1516Rear End -56Angle w/o Intersection -3Overturn On Road -2Sideswipe -1Others -6

Road conditions during non-deer hits:

Dry – 16-17 Ice/Frost/Snow/Slush – 12-13 Wet – 4

Please let me know if you have any questions,

Stacy

From: Molitor Brittney <bri>Sent: Tuesday, October 30, 2018 11:27 AM
To: Bartlett, Stacy <Stacy.Bartlett@state.sd.us>

Subject: RE: [EXT] Mining Permit / MP18-02 - Croell Inc

Stacy-

Do you have updated numbers?

Brittney

From: Bartlett, Stacy [mailto:Stacy.Bartlett@state.sd.us]

Sent: Friday, January 15, 2016 7:25 AM

To: Molitor Brittney < brittneym@pennco.org >; 'kyle.frisinger@croell.com' < kyle.frisinger@croell.com >; Conover PJ

<pj.conover@pennco.org>

Cc: Carlson, Mike < Mike.Carlson@state.sd.us >; Seaman, Todd (DOT) < Todd.Seaman@state.sd.us >

Subject: RE: Construction Permit for a Mining Operation in a General Agriculture District (DUE: December 14, 2015)

All,

Attached is a map depicting crash history on US16 in the vicinity of Perli Quarry for the last 3 years. Also included is a breakdown of the crash types – all crashes and one without deer hits;

Crash Types:

Deer hits – 34
Run Off Road – 15
Rear End – 5
Angle w/o Intersection – 3
Overturn On Road – 2
Sideswipe – 1
Others – 6

Road conditions during non-deer hits:

Dry – 16 Ice/Frost/Snow/Slush – 12 Wet – 4

Please feel free to contact me with any questions or if you need additional information.

Thanks, Stacy

From: Bartlett, Stacy

Sent: Friday, January 08, 2016 10:09 AM **To:** Molitor Brittney (<u>brittneym@pennco.org</u>) **Cc:** Carlson, Mike; <u>kyle.frisinger@croell.com</u>

Subject: FW: Construction Permit for a Mining Operation in a General Agriculture District (DUE: December 14, 2015)

Brittney,

Current operations at Perli Quarry are within traffic safety requirements. If traffic volumes were to increase in the future to a level that would potentially cause traffic concerns, those matters will be addressed with Croell Redi-Mix, Inc. to maintain appropriate highway safety.

Thank you for the opportunity for DOT comment. Please feel free to contact me with any questions.

Stacy

From: Molitor Brittney [mailto:brittneym@pennco.org]

Sent: Tuesday, January 05, 2016 5:41 PM **To:** Gorton Denny; Bartlett, Stacy; Wiege, Steve

Subject: Construction Permit for a Mining Operation in a General Agriculture District (DUE: December 14, 2015)

This request will be heard again at the February 8th, 2016 Planning Commission meeting. Could you please make any comments necessary by January 29th, 2016?

Thank you, Brittney

From: Molitor Brittney

Sent: Monday, December 07, 2015 1:15 PM

To: Tschetter Wesley; Doreff TJ; Molitor Brittney; King Michael; 'Wiege, Steve'; Gorton Denny; Guffey Scott; Rausch

Kelsey; Fisher Vicki

Subject: Construction Permit for a Mining Operation in a General Agriculture District (DUE: December 14, 2015)

Please find the attached Construction Permit routing and respond with any comments.

Thank you,

Brittney Molitor, MAS, CFM

Water Protection Coordinator Pennington County Planning Department 130 Kansas City St. Suite 200 Rapid City, SD 57701 Office: (605) 394-2186, Ext 1408

brittneym@pennco.org

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Public Comment Perli Production

To be placed in Section 15 - Public Comments



1993



25 000

	Travis /	
-	25,000	-
	2,500	
	2,000	

	150						
	Croell Projected # of Trucks/Day 1 truck per every 1.6 minutes	Tons per Truck	Tons per 8 Hour Day	Tons per 40 hour Week	Projected Tons per Year	Multiple Times Previoius 33 Year Average	
Note -	Summarized data	is from C	ENR annu	al reports f	or Perli pit		
			the territories where he had been been a second to be the second of the	ons/Yr for last	Control of the Contro	19,517	Ave 7.5 TP
					Total Tons	644,077	
2014		55,896	0			55,896	Manager (M. C.
2013		34,402	0			34,402	
2012		25,010	0			25,010	
2011		28,291	0			28,291	
2010		26,449	0			26,449	
2009		21,344	0			21,344	
2008			0			0	
2007	0	-	0	-		0	4
2006	0		49,705	·		49,705	
2005	0		14,992			14,992	
2004	0	-	44,949	-		44,949	
2003	0		27,781	42,102		27,781	
2002	0		47,501	49,102	0	96,603	
2001	0		0	97,849	0	97,849	
1999 2000			0	17,698	0	17,698	
1998				-	0	0	
1997					4,000	4,000	
1996					5,608	5,608	
1995					2,000	2,000	
1994					2,500	2,500	
1993	The second series of the second				25,000	25,000	

Can you please print and give copies to other members? Also can you submit it to PJ? Thank you.

Pj, this was sent to me and I was asked to forward it to you.

Done Perli Pit Production History.xlsx



Annual Froduction Companison	Annual	Production	Comparison	
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Water

Traffic

	illuur i rouus	an i roddonon companson		Water	Haine		
Year	Pennington County	Talley	Pete Lien	Quinn	Aggregate Constr	Annual Total	
1982						0	
1983						0	
1984	8,000					8,000	
1985	10,000					10,000	
1986	12,000					12,000	
1987	14,000					14,000	
1988	20,000					20,000	
1989	0					0	
1990	0					0	
1991	0					0	
1992	0					0	
1993					25,000	25,000	
1994					2,500	2,500	
1995					2,000	2,000	
1996					5,608	5,608	
1997					4,000	4,000	
1998					0	0	
1999				T	0	0	
2000			0	17,698	0	17,698	
2001	0		0	97,849	0	97,849	
2002	0		47,501	49,102	0	96,603	
2003	0		27,781			27,781	
2004	0		44,949			44,949	
2005	0		14,992	1		14,992	
2006	0		49,705	-		49,705	
2007	0		0			0	
2008			0			0	
2009		21,344	0			21,344	
2010		26,449	0			26,449	
2011		28,291	0	1		28,291	
2012		25,010	0			25,010	1-1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0
2013		34,402	0	1		34,402	-
2014		55,896	0			55,896	
					Total Tons	644,077	
			Average To	ns/Yr for last	The state of the s	19,517	Ave 7.5 TPL
ote -	Summarized data	is from E	THE R. P. LEWIS CO., LANSING MICH. 49-14039-1-120-1-1-120-1-1-120-1-1-120-1-1-120-1-1-120-1-1-1-1	and the second company of the plant and the second company of the	Control of the Control of the Prince Section Control of the Contro	10512	
	Croell Projected # of Trucks/Day 1 truck per every 1.6 minutes	Tons per Truck	Tons per 8 Hour Day	Tons per 40 hour Week	Projected Tons per Year	Multiple Times Previoius 33 Year Average	
	150						
	Option #1	10	1,500	7,500	390,000	20	
	Option #2	17	2,550	12,750	663,000	34	-
	Option #3	34	5,100	25,500	1,326,000	68	
				distribution and according			

Note - the Croell permit request is for mining from 2016 - 2014, 25 years

Perli Production from Croell Info

To be placed in Section 3 - Operation Plan $\,$

Data submitted by Croell from the DENR Annual Reports

YEAR	Aggregate Construction	Pennington County	Pete Lien	Quinn Construction	Talley Construction	Croell, Inc.	Annual Total
1982							
1983							
1984							-
1985		8,000					8,000
1986		10,000					10,000
1987		12,000					12,000
1988		14,000					14,000
1989		20,000					20,000
1990							- 1-
1991							1.9
1992							
1993							
1994	25,000						25,000
1995	2,500						2,500
1996	2,000						2,000
1997	5,608						5,608
1998	4,000						4,000
1999							
2000			- 1	17,698			17,698
2001				97,849			97,849
2002			47,501	49,102			96,603
2003			27,781	1. (0.1)			27,781
2004			44,949				44,949
2005			14,992				14,992
2006			49,705				49,705
2007			- VIII				
2008							4
2009					21,345		21,345
2010					26,449		26,449
2011					28,291		28,291
2012					25,010	4	25,010
2013					34,402		34,402
2014					55,986		55,986
2015					64,221		64,221
2016					43,132		43,132
2017						45,998	45,998
						Total Tons	797,519

Average Tons/Yr for last 35 years 22,153

Average Tons/Yr for Years Excavated Only 30,674

Average Tons/Yr for Last Five (5) Years 48,748

Maximum Excavated 97,849

Minimum Excavated 2,000

Data submitted by Croell in Mining Permit Application (see attached)

Trucks / Hour	Croell Projected # of Trucks/Day	Tons per Truck	Tons per 9 Hour Day	Tons per 40 hour Week	Projected Tons per Year	Multiple Times Previous 35 Years (Excavated)	Multiple Times Previous 5 Years
0.78	7 (min)	32	224	1,120	58,240	1.90	1.19
1.78	16 (max)	32	512	2,560	133,120	2.73	1.36

Estimated number of truckloads per day, and estimated weight of material per truckload.

Typical PERLI

	100,000 Sales	Tons / Truck	Truckloads / Month	Working Days/Mo	Truck / Day	Hours of Operation	Truck/ Hour
Jan	6,000	32	188	20	9	9	1.0
Feb	5,000	32	156	21	7	9	0.8
Mar	9,000	32	281	22	13	9	1.4
Apr Ma	10,000	32	313	21	15	9	1.7
У	10,000	32	313	. 22	14	9	1.6
Jun	11,000	32	344	22	16	9	1.7
Jul	11,000	32	344	21	16	9	1.8
Aug	11,000	32	344	23	15	9	1.7
Sep	9,000	32	281	22	13	9	1.4
Oct	8,000	32	250	21	12	9	1.3
Nov	5,000	32	156	21	7	9	8.0
Dec	5,000	32	156	21	7	9	0.8
	100,000			257			

5 DAY/WK

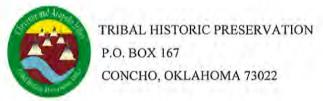
Average number of truck loads per day - estimated between 7 and 16 trucks per day

Average Ton per Truck = 32

Tons

THPO Comments Cheyenne Arapaho

To be placed in Section 15 - Public Comments



1-800-247-4612 Toll Free 405-422-7416 Telephone



November 7, 2018 THPO ID # 1306

Pennington County Planning Department Jeri Ervin 130 Kansas City Street, Suite 200 Rapid City, SD 57701

RE: Construction and Mining Permit Applications by Croell, Inc.

On behalf of the Tribal Historic Preservation Office of the Cheyenne and Arapaho Tribes, thank you for the notice of the referenced project. I have reviewed your Consultation request under Section 106 of the National Historic Preservation Act regarding the project proposal and comment as follows:

At this time, it is determined to be categorized as **No Properties**; however, if at any time during the project implementation inadvertent discoveries are made that reflect evidence of traditional cultural properties (TCP) such as: ceremonial or celebration objects, stone rings, villages, burial mounds, battlefield artifacts, or human remains please cease work immediately, in area of discovery and notify the Cheyenne Arapaho THPO Office within 72 hours.

In addition, if inadvertent discoveries are made; pursuant to Title 36 Code of Federal Regulation Part 800.13, as amended; you will also be required to make arrangements for a professional archaeologist to visit the site of discovery and assess the potential significance of any artifacts or features that were unearth. If human remains are discovered State and Tribal NAGPRA representatives will be contacted and protocols will be executed.

Please contact me with the THPO ID number at (405) 422-7416 or mdemery@c-a-tribes.org, if you have any questions or concerns. Alternate Contact is Max Bear at mbear@c-a-tribes.org. Thank you again for your notification!

Best Regards,

Micah Looper Research Analyst

Tribal Historic Preservation

CC:

Max Bear, THPO

Public Comment Jensen

To be placed in Section 15 - Public Comment

Molitor Brittney

From:

Conover PJ

Sent: To: Friday, December 7, 2018 1:01 PM Bolstad Cassie; Molitor Brittney

Subject:

FW: WEBFORM: Board Of Commissioners - Contact Us

From: Hennies Holli

Sent: Friday, December 07, 2018 12:12

To: Lacroix Lloyd <Lloyd.Lacroix@pennco.org>; Deb Hadcock (Debdistrict3@vastbb.net) <Debdistrict3@vastbb.net>; Ron

Rossknecht <value@hills.net>; Mark DiSanto <markddist4@gmail.com>; Gary Drewes <gary.drewes@gmail.com>

Cc: Martin Joan < joan.martin@pennco.org>

Subject: FW: WEBFORM: Board Of Commissioners - Contact Us

Commissioners - Here is a webform regarding the Croell hearings. Also - here is my response to her.

Hi Julie! Thank you for reaching out!

I have attached the hearing news release that will be going out next week so you have all the dates as requested.

Also - here is the link to the documents the Planning Commission will be considering for their application. http://docs.pennco.org/docs/PZ/packets/01-08-2019.pdf

We will send the other webform asking for a meeting to the Commissioners. I do want to let you know that there is a chance you may not get a response from the Commissioners as with the SD open meetings laws, all info must be shared and disclosed to all in the same manner and with something this big and controversial, we absolutely want to make sure all sides are being heard fairly and equally. We encourage you to submit your comments and concerns in writing to the Planning Commission and Board of Commissioners so it can become an official part of the record and can be addressed in open session. You can email them to me or the Planning Department.

Please let me know if you have any additional questions or concerns!

Thanks! Holli

----Original Message----

From: NoReply

Sent: Friday, December 07, 2018 8:15 AM

To: Martin Joan <joan.martin@pennco.org>; Hennies Holli <hollih@pennco.org>

Subject: WEBFORM: Board Of Commissioners - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>>>

Submitted Information:

Your name: Julie Jensen

Your e-mail address: jensen@visitrapidcity.com

Your phone number: 6057188485

Who would you like to send your message to? All 5 Commissioners

Message: Hi all!! I am working to activate people to attend the mining hearings (Croell Mining) and would love an opportunity to meet with each of you to have a meaning conversation about this issue. Are any of you game?

Public Comment Clean Water Alliance

To be placed in Section 15 - Public Comment

Molitor Brittney

From:

Hennies Holli

Sent:

Thursday, December 6, 2018 11:17 AM

To:

Conover PJ; Molitor Brittney; Ervin Jeri

Subject:

FW: Pennington County Water and Mining Information

Attachments:

REVIEW OF LITERATURE ON CONNECTIONS BETWEEN RAPID CREEK AND OTHER

WATER SOURCES.docx; Press Release - Review of Literature - 12-18.docx

From: Clean Water Alliance [mailto:nobhuranium@gmail.com]

Sent: Thursday, December 06, 2018 10:59 AM

To: Hennies Holli <hollih@pennco.org>

Subject: Pennington County Water and Mining Information

CAUTION: This email is from an outside source. Use caution before opening attachments, clicking links or providing confidential information.

Hi, Holli --

Please share this information with each Commissioner, including both current and upcoming Commissioners, with the Planning Department, and with any other County employees who have responsibility for public works or water quality.

Thank you.

Lilias Jarding 605-787-2872

Clean Water Alliance
www.bhcleanwateralliance.org

Facebook -- Black Hills Clean Water Alliance

REVIEW OF LITERATURE ON CONNECTIONS BETWEEN RAPID CREEK AND OTHER WATER SOURCES: IMPLICATIONS FOR GOLD MINING-RELATED ACTIVITY IN THE RAPID CREEK WATERSHED

"Complex interactions between Rapid Creek and ground water occur between Pactola Reservoir and central Rapid City. Streamflow losses west of Rapid City recharge aquifers in the Madison Limestone and Minnelusa Formation, and artesian springflow from these aquifers occurs in several locations in Rapid City."

These sentences begin the Abstract for a report by Anderson, Driscoll, and Williamson written for the US Geological Survey (USGS) in 1999, in cooperation with the City of Rapid City and the SD Department of Game, Fish and Parks. For Rapid City residents facing gold exploration — and the possibility of a large-scale gold mine — in the Rapid Creek watershed, these sentences pose a warning. Rapid Creek, the Madison aquifer, and the Minnelusa aquifer are the three sources of water for Rapid City, the state's second largest city, and for enterprises and communities down the Creek and into the Cheyenne River. The fact that Rapid Creek and the aquifers are connected means that contamination in Rapid Creek could enter both aquifers, impacting the City's entire water system.

Large-scale modern gold mines are associated with the cyanide that is used to process the ore, with two Superfund sites² in the northern Black Hills (Homestake Mine and Gilt Edge Mine), and with a history of inability to clean up acid-laced water that perpetually seeps to the surface at old mine sites. The Gilt Edge Mine is an example of the latter situation.

The spill at the shuttered Gold King mine in southwestern Colorado -- and into Arizona -- in 2015 is another example of the problems that can result far downstream. There, a three-million-gallon spill of water, acid, arsenic, and sediment contaminated the Animas River. Impacts were felt for 150 miles downstream, stopping all uses of the river, including drinking water, agriculture, and recreation. The spill required the closure of not only municipal water intakes, but also 1,000 nearby wells.³ The 103 holders of water rights to Rapid Creek, including the city of Rapid City, need to know about the possibility of a similar event as they plan for the future and face the issue of large-scale gold mining in their watershed.

There have been at least four studies of the connections among water sources in the Rapid City area. The first was completed in 1973 by Rahn and Gries of the SD School of Mines and Technology in cooperation with South Dakota State University, the University of South Dakota, and the South Dakota Geological Survey.⁴ The study reports on research done between 1966 and 1969 that sought to find the

¹ Anderson, M.T., Driscoll, D. G., & Williamson, J.E. (1999). *Ground-Water and Surface-Water Interactions along Rapid Creek near Rapid City, South Dakota*. U.S. Department of the Interior. U.S. Geological Survey. Water-Resources Investigations Report 98-4214.

² Superfund sites are locations that have been designated to be among the nation's most polluted places under the 1980 Comprehensive Environmental Response, Compensation, and Liability Act.

³ Turkewitze, J. (August 10, 2015). Environmental Agency Uncorks its own Toxic Water Spill at Colorado Mine. *The New York Times*. https://www.nytimes.com/2015/08/11/us/durango-colorado-mine-spill-environmental-protection-agency.html

⁴ Rahn, P. H., & Gries, J. P. (1973). *Large Springs in the Black Hills, South Dakota and Wyoming*. South Dakota Geological Survey. Report of Investigations No. 107.

sources of the large springs in the Black Hills. Among other things, the study sought to understand the seeming loss of water into "sinkholes" in creeks that crossed the limestone formations that also acted as aquifers.

In the study, Rahn and Gries did stream gauging, classified the area's springs into six categories, placed dye in sinkholes to see where it came out, and did other tests. They found out, for example, that some of the dye placed in Boxelder Creek came out of City Springs in northwestern Rapid City 34 days later.⁵ Their research began to show that the water that went into the sinkholes went through the Pahasapa Limestone, now commonly called the Madison Limestone, on their way to the springs. The Madison Limestone is also a large aquifer that supplies a number of communities in the area, including Rapid City. This research was thorough by the standards of the time, but later studies added more detail.

The second study was reported in 1999 by Anderson, Driscoll, and Williamson, who were cited above. The study detailed the manner in which water in Rapid Creek "traverses outcrops of several bedrock formations," including the Madison and Minnelusa formations. When this happens, large amounts of water in Rapid Creek flow down into the Madison and Minnelusa aquifers — what Rahn and Gries called "sinkholes." Then there are "[c]omplex ground-water and surface-water interactions [which] result from large secondary permeability within these aquifers." In other words, the water then flows around underground — sometimes in large amounts — and in ways that are complex. In some cases, the water comes back up out of the ground at springs, as discussed above and considered more below.

The study showed that the amount of water lost from Rapid Creek into the underground aquifers is substantial. In Dark Canyon, between Pactola Reservoir and Rapid City, net losses from the Creek average about 4 to 8 cubic feet per second. When losses are calculated to include the area from Pactola Reservoir through Rapid City, the net seepage is about 5,930 acre-feet per year, or 1.93 billion gallons of water per year. This is not an isolated situation in the Black Hills. Boxelder Creek to the north and Spring Creek to the south "lose all of their base flow in crossing these outcrops." This study provided important information about the relationships between surface water and key groundwater sources in the eastern Black Hills.

The third study was completed by Putnam and Long in 2007 and covered research that was done in 2003 and 2004 to analyze water flow among Rapid Creek, Spring Creek, and the Madison aquifer. The study used fluorescent dyes to track water movement – like Rahn and Gries, the scientists injected dye into the water at one place and watched for where it resurfaced. This study was done by the USGS in cooperation with the city of Rapid City and the West Dakota Water Development District.⁹

The authors of this study begin by again noting that streamflow recharges the Madison aquifer and that "the Madison aquifer, has extensive fractures and solution-enhanced openings that result in large

⁵ Rahn and Gries. P. 12.

⁶ Anderson, Driscoll and Williamson. P. 4.

⁷ An acre-foot is the amount of water needed to cover an acre of ground to a depth of one foot.

⁸ Anderson, Driscoll, and Williamson. Pp. 10, 54, 57.

⁹ Putnam, L.D., & Long, A.J. (2007). *Analysis of Ground-Water Flow in the Madison Aquifer using Fluorescent Dyes Injected in Spring Creek and Rapid Creek near Rapid City, South Dakota, 2003-04*. U.S. Department of the Interior. U.S. Geological Survey. Scientific Investigations Report 2007-5137.

secondary porosities and permeabilities.... Streamflow recharge to the Madison aquifer is associated with conduit formation in the limestone and rapid ground-water velocities." ¹⁰

Putnam and Long's research then provides information on just how rapidly that groundwater is moving. Along Rapid Creek, the dye was injected into the creek upstream of the Madison outcrop over a period of 27.8 hours, and — using water flow calculations — half of the dye was assumed to have entered the Madison Limestone/aquifer. The dye was detected in a well and a spring about a mile downstream in Dark Canyon within .5 day and 1.1 days, respectively. Other results were less clear, but the authors noted that it was important for the city of Rapid City to consider the difference between treating groundwater and treating "groundwater under the influence of surface water." 11

The fourth study was completed in 2007 by Long and Putnam, along with Sawyer, who used environmental tracers, rather than dyes, to outline the locations of conduits in the Madison Limestone that would allow fast water movement through the aquifer. They noted that "Contamination issues are a major concern because these conduits are characterized by direct connections to sinking streams, high groundwater velocities, and proximity to public water supplies." 12

Long, Sawyer and Putnam found that water moved through conduits in the area at speeds as high as 1,980 meters per day -- 1.2 miles.¹³ Research by a South Dakota School of Mines graduate indicated that water in Rapid Creek moves from the current gold exploration area in the central Black Hills down to Pactola Reservoir in as little as 29 minutes. From Pactola, it is only a few miles to the area in which water drops through sinkholes into the Madison and Minnelusa aquifers. If a spill occurs, these high water speeds don't leave downstream communities with much time to protect themselves and their water supplies.

These studies make the situation clear. History – both in the Black Hills and elsewhere – indicates that gold mining contaminates water, and that the contamination cannot always be contained. Gold exploration is occurring in the Rapid Creek watershed, and the company that is doing that exploration wants to dig "another Homestake" mine. In Rapid City, contamination of Rapid Creek from gold activities could also contaminate the groundwater that the City uses, due to connections between Rapid Creek and the Minnelusa and Madison aquifers. This would mean that all three of the water sources used by the City could be negatively impacted – and at the same time. Pennington County water would be impacted for at least dozens of miles. City and County officials need to become familiar with this information, and they need to take action to protect water resources, businesses, citizens, ranches, and communities in the area.

¹⁰ Putnam and Long. P. 1.

¹¹ Putnam and Long, P. 20.

¹² Long, A.J., Sawyer, J.F., & Putnam, L. D. (2008). Environmental tracers as indicators of karst conduits in groundwater in South Dakota, USA. *Hydrogeology Journal* 16: 263-280. P. 263.

¹³ Long, Sawyer, and Putnam. Pp. 275.



December 6, 2018

STUDIES SHOW RISKS TO ALL RAPID CITY WATER SOURCES FROM POTENTIAL GOLD ACTIVITIES IN CENTRAL BLACK HILLS

Contact: Lilias Jarding, Ph.D.

605-787-2872

During the day M, W, F: 605-455-2700

Clean Water Alliance recently completed research that reviewed studies about the connections between the surface water in Rapid Creek and two major underground aquifers, the Madison aquifer and the Minnelusa aquifer. According to the Rapid City Water Division, Rapid Creek and these two aquifers provide all of Rapid City's water.

This is significant in the context of a major gold exploration project at Rapid Creek's headwaters, as well as four other requests for gold exploration permits in the central Black Hills. If there was a leak at a gold project in the area of the current gold exploration near Pe' Sla and Rochford, it would come down Rapid Creek. According to a School of Mines graduate who studied the situation, it would take as little as 29 minutes for a leak to reach Pactola Reservoir.

Studies done for the U.S. Geological Survey and studies done by School of Mines professors show that Rapid Creek water goes underground between Pactola Reservoir and Rapid City.² When the water goes underground, it goes into the Madison and Minnelusa aquifers. So a spill at a gold site in the central Hills could contaminate all of the water sources currently used by Rapid City. It could also threaten families, ranches, businesses, cultural sites, and other communities from the Creek's source in the central Black Hills to where it joins the Cheyenne River about 35 miles east of Rapid City.

This is important because large-scale modern gold mines are associated with the cyanide that is used to process the ore, with two Superfund sites³ in the northern Black Hills (Homestake Mine and

¹ The research summary is attached for your reference.

² This also happens to the water in Boxelder Creek and Spring Creek.

³ Superfund sites are locations that have been designated to be among the nation's most polluted places under the 1980 Comprehensive Environmental Response, Compensation, and Liability Act.

P.O. Box 591 – Rapid City, South Dakota 57709 – www.bhcleanwateralliance.org nobhuranium@gmail.com – Facebook: Black Hills Clean Water Alliance

Gilt Edge Mine), and with a history of inability to clean up acid-laced water that perpetually seeps to the surface at old mine sites. The spill at the shuttered Gold King mine in southwestern Colorado -- and into Arizona -- in 2015 is an example of the problems that can result. There, a three-million-gallon spill of water, acid, arsenic, and sediment contaminated the Animas River. Impacts were felt for 150 miles downstream, stopping all uses of the river, including drinking water, agriculture, and recreation. The spill required the closure of not only municipal water intakes, but also 1,000 nearby wells.⁴

In our semi-arid region, we cannot take a chance on losing even one source of water. But Rapid City's situation is particularly problematic -- if there was a gold mining related spill in the central Black Hills, the City could lose all its sources of water at once. Dr. Lilias Jarding, who reviewed this research, has a clear message: "Clean Water Alliance calls on all City, County, State, and Federal officials to put a stop to gold exploration and permitting in the central Black Hills. Protect our communities, our families, our economy, and our future generations."

Clean Water Alliance is a diverse collection of citizens concerned about the health, environmental, and economic impacts that proposed destructive and radioactive mining projects would have on our communities, people, economy, and natural resources.

⁴ Turkewitze, J. (August 10, 2015). Environmental Agency Uncorks its own Toxic Water Spill at Colorado Mine. *The New York Times*. https://www.nytimes.com/2015/08/11/us/durango-colorado-mine-spill-environmental-protection-agency.html

P.O. Box 591 – Rapid City, South Dakota 57709 – www.bhcleanwateralliance.org nobhuranium@gmail.com – Facebook: Black Hills Clean Water Alliance

Perli Pit Report

Prepared by:

Ron L. Rossknecht
Pennington County
Commissioner Elect
For
District #1

CURRENT PERLI PIT HIGHWAY 16 MEDIAN

Current Perli Pit Highway 16 Median



At present some haul trucks cross Highway 16 50' Median heading for Rapid City. According to a 2017 SDDOT traffic count, the average daily bi-directional traffic count in this area is 8,408



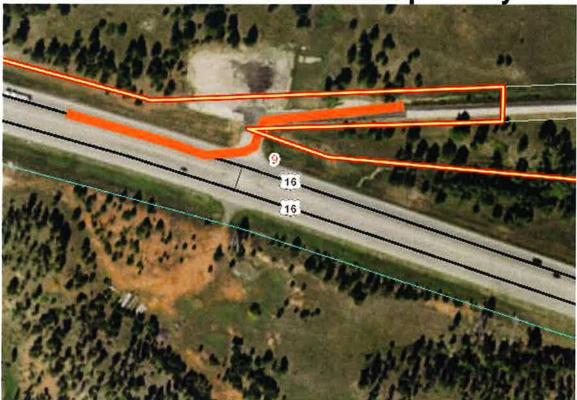
On south side of Highway 16 viewing north toward Perli Pit approach and existing 50' Median



At 50' Median viewing easterly toward Rapid City

PERLI PIT HIGHWAY 16 MEDIAN

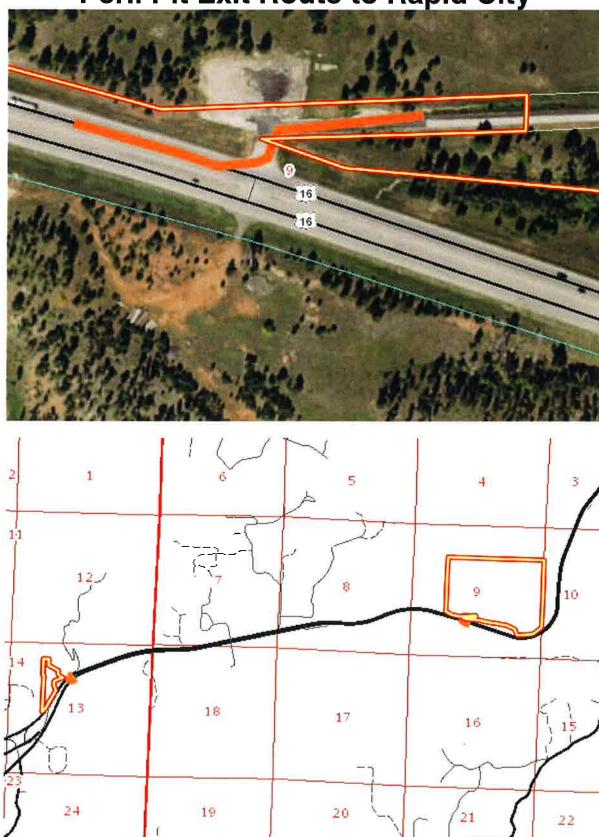
Perli Pit Exit Route to Rapid City





Based on my past experience when traveling on Highway 16 during the summer months it appears that in certain instances haul trucks exit the quarry and head southwest approximately three miles on Highway 16 toward a longer 150' (+ or -) Median located near *Baker Timber Products*, then head northeast on the south lane of Highway 16 when traffic flow allows.

Perli Pit Exit Route to Rapid City



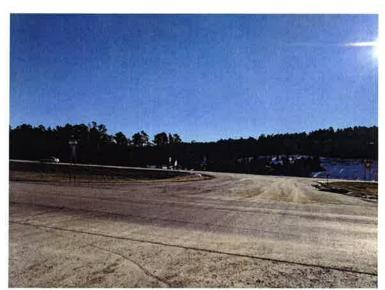
Based on my past experience when traveling on Highway 16 during the summer months it appears that in certain instances haul trucks exit the quarry and head southwest approximately three miles on Highway 16 toward a longer 150' (+ or -) Median located near *Baker Timber Products*, then head northeast on the south lane of Highway 16 when traffic flow allows. The above map depicts the route.

CURRENT BAKER TIMBER PRODUCTS HIGHWAY 16 MEDIAN

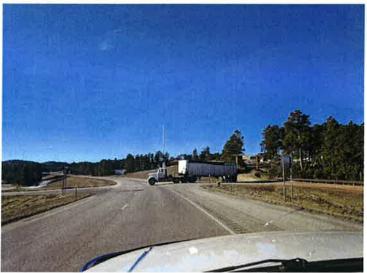
Current Baker Timber Products Highway 16 Median



At present some Perli Pit haul trucks reportedly traverse 3 miles SW to the 150' Median depicted above during situations of heavy bi-directional traffic. Median located at Baker Timber Products



On north side of Highway 16 viewing SE toward 150' Median located at Baker Timber Products

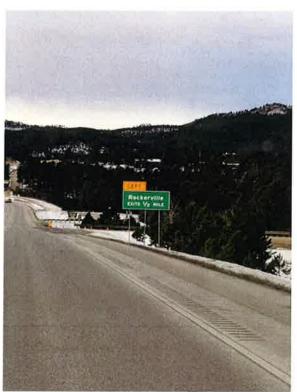


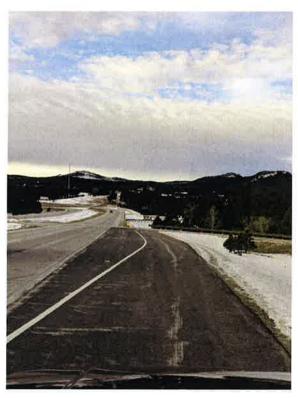
Semi Leaving Baker Timber Products Heading for 150' Median

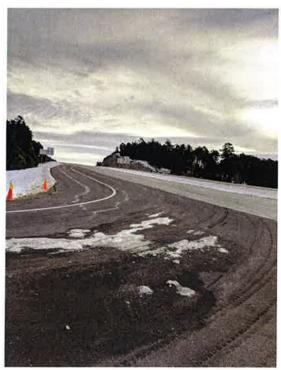
NEW TURING LANE ON HIGHWAY 16 LOCATED EAST OF BAKER TIMBER

New Highway 16 Turning Lane for Jeffery Hoffman









)		L	ENNINGTON	PENNINGTON COUNTY P. ERTY RECORD CARD	ERTY R	ECORD (CARD					,	
	Active	Tax Year: 2018	r: 2018	Ref#: R40306		Map#: 57053	7053	œ	un Date:	Run Date: 12/12/2018 11:11:02 AM		Page 1 of 3	
OWNER NAME AND MAILING ADDRESS					l	SA	LES INFO	SALES INFORMATION					0
HOFFMAN, JEFFREY A & KRISTI M 1699 SEDIVY LN RAPID CITY, SD 57703-4177		Date 01/16/2015 05/08/2012	Type Land and Land and	Sale Amount \$0 \$200,000	#00	Src Other	Validity Related Valid sale	tr sale	Inst War War	Inst.Tvpe Warrantv Deed Warrantv Deed	Instrum 15-153 12-1254	Instrument # 15-153 12-1254	
Additional Owners No.							BUILDING PERMITS	ERMITS	1				
PROPERTY SITUS ADDRESS 13569 S HIGHWAY 16		Number	Issue Date	Amount	nt Status		Туре	Description	tion				
GENERAL PROPERTY INFORMATION						IN	SPECTION	INSPECTION HISTORY					i
Primary ABS Code: AG-A1 - Living Units: 1 Zoning:		Date 11/18/2003 10/20/1989 09/28/1989	Code Measure Only, no one to 17 Interview and Measure	Code Measure Only. no one home 17 Interview and Measure		ŭ.	Reason		Appraiser D/P A&L DHS	aiser	Contact-Code 0 0 Owner	de	
Neighborhood 401.0-401.0 - Western Ag			RECENT	RECENT APPEAL HISTORY	RY					ASSESSMENT VALUE HISTORY	VALUE HISTO	RY	
Tax Unit Group: 4D-LFKA Exemptions:	1	Year Level	o	Case # St	Status A	Action			Year 2018 2017 2016		Total Assessed \$63.300 \$64.200 \$64.000	seessed \$63.300 \$64.200 \$64,000	
PROPERTY FACTORS		IMP	ROVEMENT C	IMPROVEMENT COST SUMMARY					AF	APPRAISED VALUES	ES		i
l obography:		Residential			\$61.700	00			Land	Building	Total	al Method	8
Utilities:		Commercial				\$0 C	Current	69	\$1.600	\$61.700	\$63.300	OC COST	
Access:		Other Improvements	ents			\$0 Pr	Prior	ь	\$1.600	\$62,600	\$64.200	OC COST	
		Manufactured Homes	sewo			\$0							
Parking Type:		Total Impts			\$61.700	00							
Parking Quantity:						MARKE	TLANDI	MARKET LAND INFORMATION	z				i
LEGAL DESCRIPTION		Method	Type	AC/SF/Units	Inf.	Fact1	Inf2	Fact2 M	Model	Flat Value	Unit Pr Ovr	Value Est.	

30

30

Agricultural

Growth

Buildings

Land \$1.600

Total 1,600
ABSTRACT SUMMARY

GIS SF

0

Calc Land Area

S13, T1S, R06E, Black Hills Meridian, GL 2 LESS ROW; NW1/4NE1/4 LESS ROW

80

\$61,700

\$0

Non Ag

PENNINGTON COUNTY P. ERTY RECORD CARD

Tax Year: 2018 Active

Ref#: R40306

Map#: 57053

Run Date: 12/12/2018 11:11:02 AM

27

Page 2 of 3

DWELLING INFORMATION

Parcel ID: 53-13-200-006

1 - Single-family Residence Res Type: Quality:

2.00 - Fair 1889 Year Bit:

NA-A1 Abs Code:

1.953 Total Living Area: Remodel:

RESIDENTIAL SECTIONS

BUILDING DESCRIPTION

Bungalow Style: Concrete - 2 Foundation:

Bedrooms: Full Bath:

Half Bath:

Garage Cap:



74.0.006 7.5 Deck-Roof 154.0 sf 1186py 352.0 sf

SKETCH VECTORS

61.700

Bldg Value:

Year

	Code										
	Pct Ex Fr Sk Year	100 Y	100 Y	>	100 Y	>	>-	>	>	>	
RESIDENTIAL COMPONENTS	Units	180		4			5	-	1,953	352	154
RES	Code		214-Metal. Preformed	286-Dormers. Finished (LF). Gable Roof	309-Forced Air Furnace	402-Automatic Floor Cover Allowance	601-Plumbing Fixtures (#)	602-Plumbina Rouah-ins (#)	622-Raised Subfloor (% or SF)	801-Total Basement Area (SF)	906-Wood Deck (SF) with Roof

Ref#: R40306

Tax Year: 2018

Active

Parcel ID: 53-13-200-006

Map#: 57053

Run Date: 12/12/2018 11:11:02 AM

Page 3 of 3

		AGRICUL'	AGRICULTURAL LAND	O	THE DESIGNATION OF THE PERSON	No.		AGRI	CULTURAL LAND SUMMARY	MARY
Ag Type	Agres	Map	Top	Map System Rating	A rea	Adjustments Man S		Category	Acres	Va
Pasture	0.46	CvB - Cordeston		0.4342		1.000	1.000	Total Ag	50.05	÷.
Pasture	0.05		475	0.1309	1.000	1.000	1.000	Cropland	0.00	
Pasture	10.17		475	0.0478	1.000	1.000	1.000	Pasture	50.05	1,6
Pasture	11.71	SrE - Sawdust - Vanc	475	0.094	1.000	1.000	1.000			
Pasture	14.36	VkE - Vanocker - Lak	475	0.042	1.000	1.000	1.000			
Pasture	13.30	VoG - Vanocker - Sav	475	0.0752	1.000	1.000	1.000			1
									-	

Value 1,600 1,614

COMMENTS

SUBMITTED SAFETY CONCERN

Jolitor Brittney

rom:

Ervin Jeri

Sent:

Monday, November 05, 2018 8:21 AM

To:

Conover PJ; Molitor Brittney; Bolstad Cassie

Subject:

FW: WEBFORM: Planning and Zoning - Contact Us

----Original Message----

From: NoReply

Sent: Sunday, November 04, 2018 8:42 PM

To: plz <plz@pennco.org>

Subject: WEBFORM: Planning and Zoning - Contact Us

The following information was submitted from a web form on the Pennington County website.

DO NOT click reply. To reply, copy and paste the e-mail address below into the "To" field of an outgoing message.

>>>>>>>>>

Submitted Information:

Revoit-

Your name: Karen Wendt

Your e-mail address: karenjwendt@yahoo.com

Your phone number: 6059399007

Message: I am writing you to request that you vote no on the Croell permit request for the old Perli pit off of highway 16.

My primary concern is safety. I was nearly run off the road, with all three kids in the car, last year when one of the double dump trucks was pulling out from the mine. When the truck pulled out it blocked all 4 lanes of traffic.

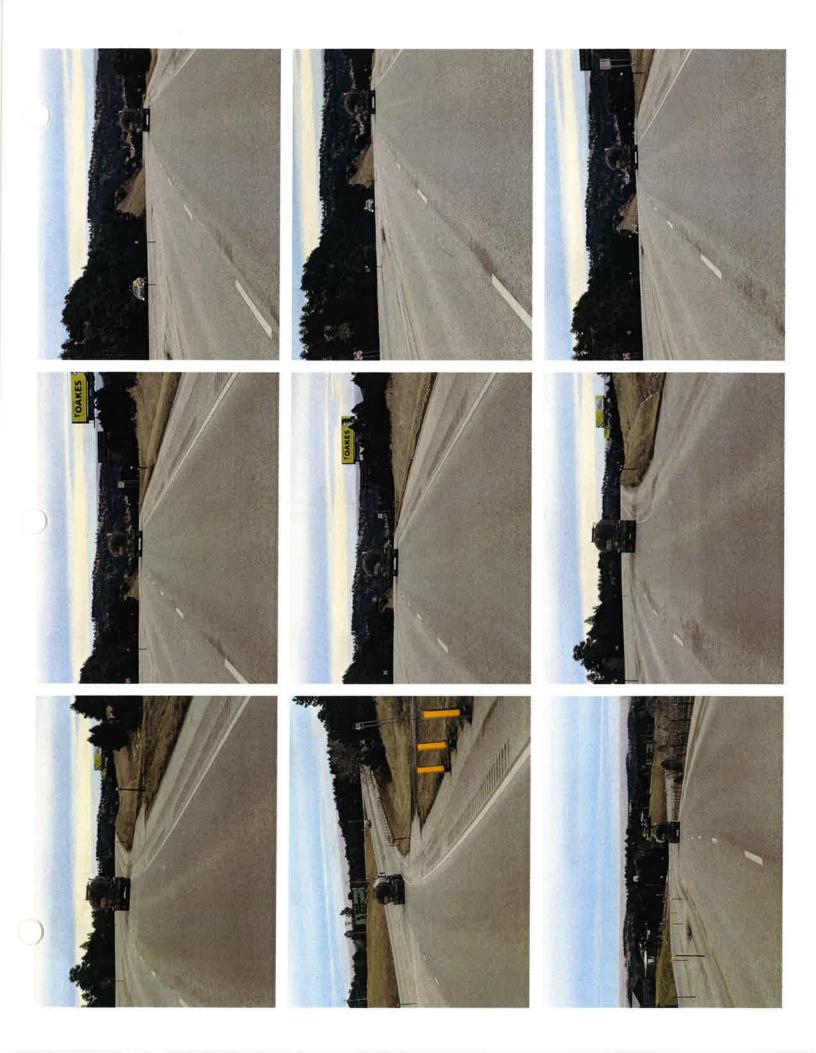
Freported this incident to the State Highway Patrol.

This is a horrible location for a large mining operation and not what we need for our city. Please vote no on this request.

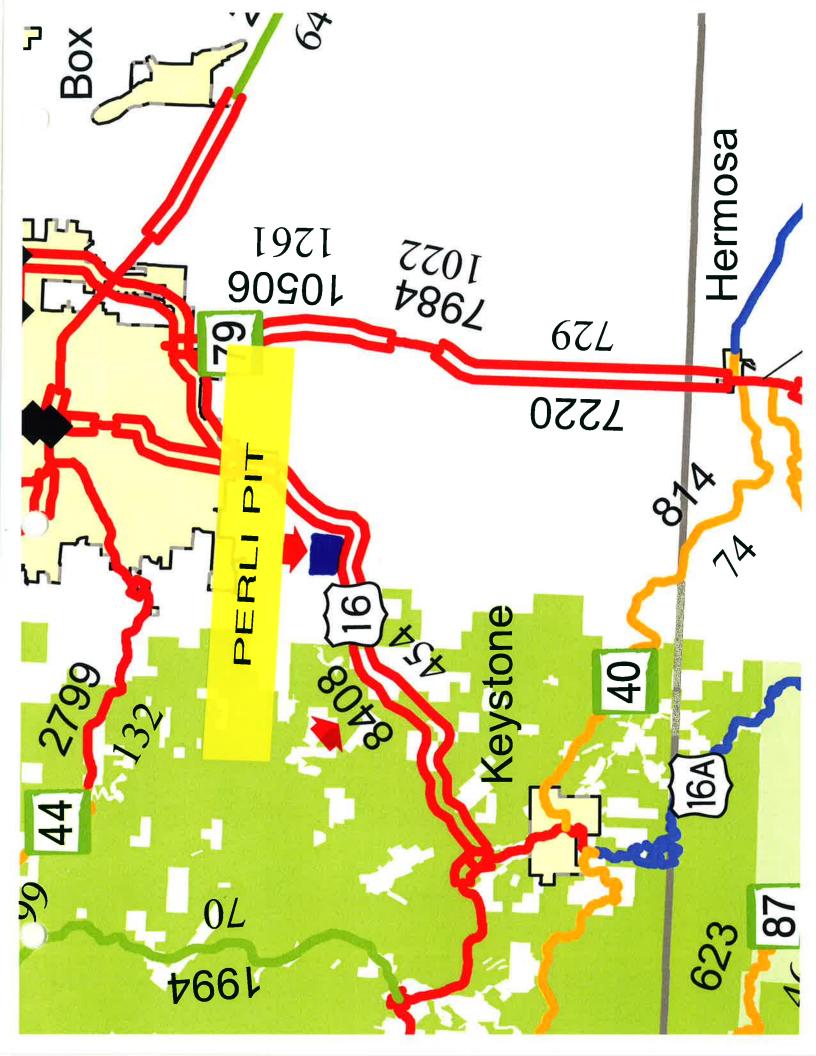
thank you

Karen Wendt

PHOTOS OF HIGHWAY 16 BETWEEN BEAR COUNTRY AND PERLI PIT

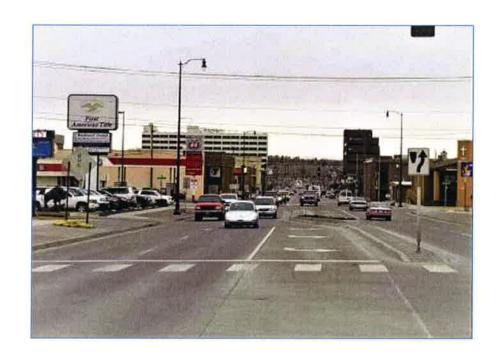


STATE AND CITY TRAFFIC COUNTS



Rapid City Area Metropolitan Planning Organization

2017 TRAFFIC VOLUME COUNTS REPORT



In cooperation with:

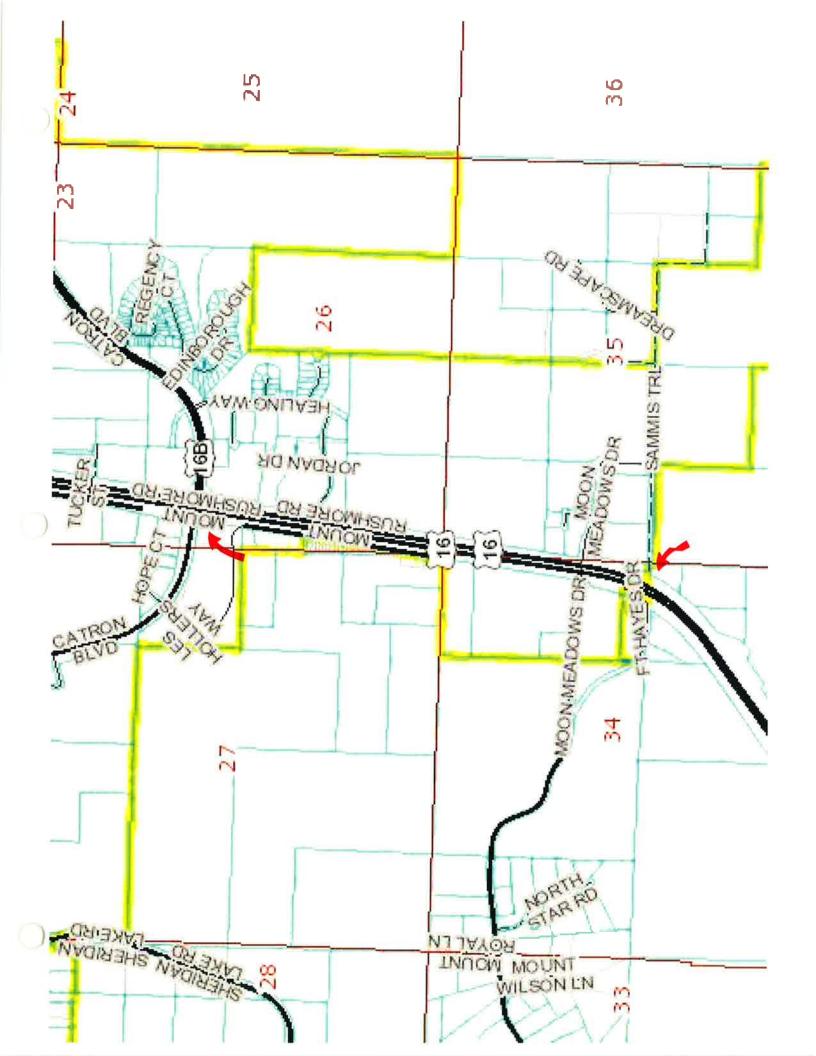
City of Rapid City
Engineering Services Division
Public Works Department

January 2018

ROAD	LIMITS	2014 SEASONALLY ADJUSTED COUNT	2015 SEASONALLY ADJUSTED COUNT	2016 SEASONALLY ADJUSTED COUNT	2017 SEASONALLY ADJUSTED COUNT	% CHANGE 2016/2017
SHERIDAN LAKE RD	DUNSMORE TO S WILDWOOD	7,362	8,064	8,861	8,603	-3%
SHERIDAN LAKE RD	S WILDWOOD TO CATRON	8,161	8,872	8,417	8,450	0%
SHERIDAN LAKE RD	CATRON TO CORRAL	14,047	16,106	16,551	16,235	-2%
SHERIDAN LAKE RD	CORRAL TO FLORMANN	13,076	16,399	15,127	15,126	0%
SHERIDAN LAKE RD	FLORMANN TO JACKSON	14,147	17,230	15,249	16,149	6%
SHERIDAN LAKE RD	JACKSON TO CANYON LAKE	10,575	9,662	9,189	9,212	0%
SHERIDAN LAKE RD	CANYON LAKE TO W MAIN	9,285	10,182	9,100	8,201	-10%
SOO SAN DR	CANYON LAKE TO RANGE	6,303	6,879	8,183	5,920	-28%
SOUTH CANYON RD	BERRY PINE TO 44TH	6,651	6,814	6,426	6,312	-2%
SOUTH CANYON RD	W MAIN TO 44TH	1,128	1,144	1,096	964	-12%
ST JOSEPH (W) ST	WEST ST TO WEST BLVD	16,566	16,542	16,223	15,411	-5%
ST JOSEPH ST	WEST BLVD TO MT RUSHMORE	13,741	13,115	12,043	12,876	7%
ST JOSEPH ST	MT RUSHMORE TO 5TH	11,519	11,497	9,629	11,778	22%
ST JOSEPH ST	5TH TO EAST BLVD	9,832	8,984	7,951	8,895	12%
ST JOSEPH ST	EAST BLVD TO STEELE	7,897	9,239	7,862	7,285	-7%
ST JOSEPH (E) ST	STEELE TO ST PATRICK	12,081	14,567	12,808	11,279	-12%
ST JOSEPH (E) ST	ST PATRICK TO CAMBELL	6,666	7,854	7,372	6,667	-10%
ST PATRICK ST	WEST BLVD TO MT RUSHMORE	2,959	3,502	5,991	3,203	-47%
ST PATRICK ST	MT RUSHMORE TO 5TH	7,099	8,496	7,996	5,835	-27%
ST PATRICK ST	5TH TO ELM	11,694	11,424	10,986	9,848	-10%
ST PATRICK (E) ST	ELM TO ST JOSEPH	13,767	14,434	14,485	12,607	-13%
ST PATRICK (E) ST	ST JOSEPH TO CAMBELL	14,431	12,583	14,313	13,138	-8%
ST PATRICK (E) ST	CAMBELL TO CREEK	15,742	15,635	15,292	14,290	-7%
ST PATRICK (E) ST	CREEK TO SD-44	9,518	10,967	9,502	9,610	1%
STURGIS RD	MAIN TO W CHICAGO	11,318	10,875	12,642	11,432	-10%
STURGIS RD	W CHICAGO TO ST MARTINS	9,547	8,869	10,860	10,992	1%
TWILIGHT DR	SD-44 TO JOLLY LN	6,729	6,572	6,159	5,843	-5%
TWILIGHT DR	JOLLY LN TO RESERVOIR	6,734	8,526	7,724	7,561	-2%
US-14/16	I-90 TO WESTGATE	14,208	14,444	14,227	14,644	3%
US-14/16	S ELLSWORTH TO OAK	1,864	1,863	1,853	1,929	4%
US-16	CITY LIMIT TO CATRON	16,685	20,405	19,181	19,565	2%
US-16	CATRON TO CATHEDRAL	13,370	9,900	11,213	12,171	9%
W CHICAGO ST	44TH TO STURGIS	11,458	12,125	11,934	11,512	-4%
W CHICAGO ST	STURGIS TO DEADWOOD	16,126	18,458	15,880	17,069	7%
WEST BLVD	FLORMANN TO ST PATRICK	1,350	1,304	1,951	1,976	1%
WEST BLVD	ST PATRICK TO ST CLOUD	5,762	6,489	10,942	6,582	-40%
WEST BLVD	ST CLOUD TO ST JOSEPH	8,194	8,886	11,701	8,500	-27%
WEST BLVD	ST. JOSEPH TO MAIN	12,673	12,411	14,907	14,385	-4%
WEST BLVD	MAIN ST TO OMAHA ST	14,614	14,838	14,590	13,509	-7%
WEST GATE RD	US-14/16 TO BLUEBIRD	3,530	3588	3,372	3,709	10%

1

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INTERVIEWS OF INTEREST

Perli Pit – *Talley Excavating*

John Talley - (605) 209-7831

Concerns

John informed me that he leased the Perli Pit for about 8 years. He provided his own scale which was used to calculate the tonnage which reportedly averaged around 50,000 to 60,000 tons annually. He paid the Perlis around \$.50/ton for royalties. Annual tonnage was reported to the Perlis and the State DENR. During that period that John operated the pit there was no water source. Water was hauled in for dust control which did not seem to be an issue. John though that the Perlis owned around 258 acres, 60 acres that had been mined and 50 acres located to the north that had potential. John did not think that the balance was suitable for limestone mining as it appeared to be predominantly pasture land. When John left there was roughly 7.00 acres of un-reclaimed land that he was asked to leave as is. John said he was working a 35' seam that had good potential when he pulled out. Two of the largest projects that used material from the Perli Pit were reportedly Mount Rushmore Parking Area and Highway 16. John said all drivers should hold a CDL license and know what is safe and what is not when making decisions. During periods of heavy traffic, trucks would go west and use wider medians. John utilized his own crusher. Over the period that John operated the pit, a variety of haul trucks were used, some small and some large. John said that after the property was sold to the Croells they continued to honor the agreement between him and the Perli family.

Perli Pit – Quinn Excavating

Bob Quinn - (605) 381-1647

Concerns

Bob informed me that he leased the Perli Pit for a number of years. He provided his own scale which was used to calculate the tonnage which reportedly averaged around 50,000 to 60,000 tons annually. He paid the Perlis around \$.40/ton for royalties. Annual tonnage was reported to the Perlis and the State DENR. During that period that Bob operated the pit there was no water source. Water was hauled in for dust control which did not seem to be an issue. Bob mentioned that the size of haul tracks varied, many were standard 15 ton dual axel haul trucks. Larger belly and side dumps also hauled from the pit. When asked about traffic concerns, his suggestion was the following during the busy summer months.

- 1.) Haul more during slow hours (6:00 AM to Noon)
- 2.) Haul less during busy hours (Noon to 5:00 PM)

and

Install flashing warning signs on both sides of current Highway 16 approach

and

Develop acceleration and deceleration lanes

Additionally, during periods of heavy traffic, trucks would go west and use wider medians.

Perli Pit – Pete Lien

Pete Lien ~ (605) 209-2673

Remarks

Pete informed me that they leased the Perli Pit for a number of years. One of the Perli family helped operate the quarry. They eventually were asked if they were interested in purchasing the property. To make the purchase financially feasible they assumed that they would have to move north into an undisturbed area of the property which would have created noise, dust, traffic, and so on. The results would have probably created adversity to neighbors which they did not want, so they chose not to purchase the property. Pete went on to say that had they purchased the property and continued to operate the quarry, they would have voluntarily developed acceleration and deceleration lanes just because it would have been the best thing to do taking into consideration safety issues and not impeding the traffic flow on Highway 16 which serves as the main corridor to Mount Rushmore and southern Black Hills region.

Perli Pit - Dakota Stone

James Dean – 574-2706 (W) - 574-2192 (H)

Concerns

Jim informed me that he personally has hauled 520 loads out of the pit over the years. He said the location of the pit was much better than having to haul from Rapid City. Only concerns was entering and exiting the pit during periods of heavy traffic flow. Jim's truck was a dual axeled 15 ton haul truck. Jim's employees also hauled from the pit, no mention of accidents.

SOUTH DAKOTA DOT MIKE CARLSON – ENGINEER STACY BARTLETT – CORRIDOR PRESERVATION

Ron Hossknecht

From:

"Hennies Holli" <hollih@pennco.org>

To:

"Ron Rossknecht" <value@hills.net>

Wednesday, December 12, 2018 10:47 AM

L ject:

FW: RE: Contact at DOT

From: Molitor Brittney

Sent: Wednesday, December 12, 2018 10:15 AM

To: Hennies Holli <hollih@pennco.org>

Subject: RE: RE: Contact at DOT

48 7. 20, 18 Carlson, Mike Mike.Carlson@state.sd.us Area Engineer, 605.394.2248

Bartlett, Stacy Stacy Bartlett@state.sd.us Corridor Preservation West River: 605.773,2268 or 605,394,2244

From: Hennies Holli hollih@pennco.org Sent: Wednesday, December 12, 2018 9:57 AM To: Molitor Brittney < brittneym@pennco.org>

Subject: RE: Contact at DOT

B - Ron Rossknecht has asked for a contact name and number at DOT to ask questions about the entrance to Croell and trucks.

Either send direct to him or email me.

Thanks.

e-mail, including any attachments, is confidential, may be legally privileged, and is covered by the Electronic Communications Privacy Act, 18 USC §§ 2510-2521. If you are not the intended recipient, you are hereby notified that any retention, disclosure, distribution, or copying of this information is strictly prohibited. If you are not the intended recipient, please reply to the sender that you have received this message in error and then delete it and any attachments.