



Close Out Plan
Winston Zeolite Mine
Sierra County, NM
Permit SI006RE

Prepared for the
New Mexico Mining and Minerals Division

by

St. Cloud Mining Company

February 27, 2013

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Executive Summary

On December 7, 2012, the New Mexico Mining and Minerals Division (MMD) issued a notice of noncompliance to St. Cloud Mining Company (St. Cloud) for disturbance exceeding its permit limits for St. Cloud's zeolite mine and plant site in Sierra County, NM. Among other things, the notice of noncompliance asked that an updated close out plan, reclamation schedule, and reclamation cost estimate be developed to ensure the site was in compliance with the New Mexico Mining Act and associated rules.

This is an updated close out plan, reclamation schedule, and reclamation bond estimate for the Winston site.

The Winston mine and plant site is located about four miles south of Winston, NM, at approximately 33°17'30" N. Latitude, 107°37'35" W. Longitude. The Winston site now consists of a zeolite processing plant, an impoundment used for storage of fines, an old main zeolite pit (which is no longer being mined), and the Yellowjacket (Bowman) pit that is currently being mined. Three tailings impoundments and about half of the old main pit have been reclaimed. The plant site, pits, and impoundments encompass about 50 acres of private land.

St. Cloud intends to continue using the plant site for the duration of mine life. At cessation of mining, equipment in the plant would be salvaged and sold on the open market. St. Cloud has received an expression of interest from an adjacent land owner for the buildings at the plant site, so St. Cloud intends to sell the buildings along with the land at the cessation of mining. Therefore, the plant site will not be reclaimed.

The impoundment north of the plant site is currently used for storage of fines. It will be backfilled at the end of mine life.

The old main pit will be backfilled and reclaimed by St. Cloud during the next several months.

The Yellowjacket pit is currently being mined. Reclamation is ongoing and will take place behind the mining advance.

The cost estimate for reclamation of the mine site in its current condition minus the plant is \$89,871. Indirect costs added to the reclamation cost equal the proposed bond amount in case of St. Cloud default and reclamation by the MMD through a third party contractor. The bond estimate is \$126,558.

Financial assurance for the bond amount is in the form of real property, as approved in permit modification SI006RE-Modification 03-1. The deeded land encompasses one 48.251- acre tract and two 3/4- acre residential lots near Winston, NM, in the S1/2 of the N1/2, Section 22, T. 11 S., R. 8 W., NMPM.

The November 2012 appraised value of the property is \$169,000, which is adequate to cover the entire proposed bond amount and serve as collateral for all the current and proposed operations at the St. Cloud Winston zeolite mine site under permit SI006RE.

Introduction

On December 7, 2012, the New Mexico Mining and Minerals Division (MMD) issued a notice of noncompliance to St. Cloud Mining Company (St. Cloud) for disturbance exceeding its permit limits for St. Cloud's zeolite mine and plant site in Sierra County, NM. Among other things, the notice of noncompliance asked that an updated close out plan and reclamation schedule be developed to ensure the site was in compliance with the New Mexico Mining Act and associated rules.

This close out plan was compiled in response to the December 7, 2012, notice of noncompliance. The purpose of this plan is to outline a coherent reclamation plan for the Winston mine and plant site. A coherent plan is necessary to help guide St. Cloud in ongoing reclamation while mining operations are occurring and to provide the MMD with a plan that could be used for reclamation in the event of default by St. Cloud.

This plan updates previous reclamation plans that were developed piecemeal for the subject site from 1998 through 2007. Additionally, this plan updates a 2007 St. Cloud cost estimate for reclamation operations at the Winston site.

Location

The Winston mine and plant site is located at approximately 33⁰17'30" N. Latitude, 107⁰37'35" W. Longitude. The site is located on the Winston, NM, U.S. Geological Survey 7.5' topographic quadrangle and encompasses parts of sections 3,4, 10, and 11, T. 12 S., R. 8 W., NM Principal B&M.

The Winston site can be reached by traveling south from Winston, NM, on Republic Road for about 0.5 miles, then south along Forest Road 157 about 1.0 mile, south along county road C007 for 3.0 miles, then turning northwest along the South Fork of Negro Creek on county road C004.

Site Description

The Winston site now consists of a zeolite processing plant, an impoundment used for storage of fines, an old main zeolite pit which is no longer being mined, and the Yellowjacket (Bowman) pit that is currently being mined (attachments 1 and 2).

Plant Site

The plant site formerly housed both a zeolite processing plant and a flotation mill; however, the flotation mill equipment was salvaged and sold. Now the plant site houses only the zeolite processing facility in metal buildings and an equipment storage yard. The zeolite processing facility consists of mine office buildings, storage buildings, and a plant used to crush, screen,

and bag zeolite products produced at the mine. Buildings are on solid concrete foundations. The plant site is labeled "zeolite plant and mine office" on attachment 1. An inventory of equipment is shown in attachment 3.

The plant site encompasses an area about 1,200 feet long by 500 feet wide (attachment 1).

Fines Impoundment # 1

The fines impoundment lies about 300 feet north of the plant site. It is labeled "tailings pond" on the 2002 survey (attachment 1). This impoundment and three other impoundments southeast of the plant site may have been briefly used as tailings ponds for the flotation mill; however, the fines impoundment north of the plant contains no tailings. It is used currently as a storage yard and for storage of fines from the zeolite operation. The fines impoundment is often referred to as impoundment #1.

Impoundment #1 encompasses an area about 300 feet long by 250 feet wide or about 1.7 acres.

Impoundments # 2,3, and 4

Impoundments #2, #3, and # 4 southeast of the plant site (labeled tailings pond on the 2002 survey, attachment 1) have all been reclaimed, although they are still monitored through monitoring wells through monitoring plan DP-314.

Old Main Pit

The old main pit lies about a mile southeast of the plant site. It is labeled as the "open pit zeolite mine" on the 2002 survey (attachment 1). This pit is no longer active and has filled in part with water from surface runoff.

Portions of the old main pit have been reclaimed. The unreclaimed portion of the pit now encompasses about 12 acres.

The stockpile at the old main pit described in a 2007 St. Cloud cost estimate has been removed.

Yellowjacket Pit

The Yellowjacket pit lies about 2,000 feet southeast of the old main pit (attachment 2). It is the active zeolite mining site and produces about 3,000 tons of zeolite per month. Mining formerly occurred from west to east in the pit; current mining is occurring along the northeast highwall. The high wall will be advanced to the northeast then mined from the southeast to the northwest to recover more zeolite.

Portions of the southeast end of the Yellowjacket pit have been reclaimed. The unreclaimed portion of the pit now encompasses about 20.5 acres.

The stockpile in the Yellowjacket pit described in the 2007 cost estimate has been removed.

Access Roads

Main access roads used in the Winston operation are county roads (attachments 1 and 2) except one noncounty two track road (866 feet X 10 feet) on the northwest side of the Yellowjacket pit.

Reclamation Plan

Plant site

No reclamation of the plant site will be required. Equipment in the plant would be salvaged and sold in the open market if the site were ever abandoned by St. Cloud. Additionally, the plant site and buildings would be sold with the land to a willing buyer.

St. Cloud has an expression of interest from the adjacent land owner, Dr. Kenneth Eng, of Eng Ranches, Inc., to acquire the plant site and its buildings. According to a May 21, 1998, letter from Dr. Eng to St. Cloud, Eng Ranches intends to use the buildings for offices, shops, and residences to support Eng Ranches.

St. Cloud reaffirmed the agreement between St. Cloud and Eng Ranches on February 2, 2013, as shown in attachment 4.

Fines Impoundment

Material in impoundment #1 and impoundment dams will be leveled with a bulldozer. The impoundment will then be backfilled with material that resides around the margins of the impoundment. Material will be pushed down slope to the center of the impoundment. Slopes will be graded to 3H:1V or less.

Old Main Pit

Both zeolite waste and material from around the pit margins will be used to backfill the old main pit. The pit will be filled to about three feet below the county road level and graded so that slopes are 3H:1V or less.

Yellowjacket Pit

Both zeolite waste and material from around the pit margins will be used to backfill the Yellowjacket pit. The pit will be filled to about three feet below county road level and graded so that slopes are 3H:1V or less.

Access Roads

None of the county roads will be modified during reclamation of the Winston site.

The two-track road northwest of the Yellowjacket pit will be ripped and seeded for reclamation.

Revegetation

Seed will be broadcast by hand on all graded and disturbed areas at a rate of eight pounds live seed / acre with the seed mix shown in table 1:

Table 1. Proposed Winston seed mix.

Common Name	Proportion (%)
Blue grama	5.4
Sand dropseed	0.6
Sideoats grama	24.2
Indian ricegrass	24.2
Fourwing saltbush	4.0
Desert globemallow	1.0
Western wheatgrass	27.4
Yellow sweetclover	8.1
Apache plume	1.0
California bluebells	1.0
Yellow prairie coneflower	1.0
Antelope bitterbrush	2.0
Total	99.9

Straw will be applied on top the native seed, and the straw will be crimped with a bulldozer.

Reclamation Schedule

Reclamation of the subject site is ongoing in concert with the current mining operation. The Yellowjacket pit will be expanded a maximum of 150 feet to the northeast, then mining will advance from southeast to northwest. Overburden from this expansion will be placed in the canyon to the northwest of the Yellowjacket pit. Backfilling and reclamation will occur behind the advance. Material will be pushed from the north side of the pit into the pit for reclamation.

Approximately 2.5 acres of the Yellowjacket pit was backfilled and graded in December 2012 in response to a notice of noncompliance from the MMD.

Additionally, areas no longer needed for the operation will be reclaimed beginning this spring.

Reclamation tasks and schedule for reclamation is shown in Table 2.

Table 2. Winston site reclamation tasks and schedule.

Reclamation Task	Scheduled Date For Task Completion
Demolition and reclamation of zeolite plant facility.	Equipment will be salvaged and sold. Plant buildings and facilities will be left and sold for post mine land use.
Backfill impoundment #1 - Backfill using existing zeolite fines and overburden.	Will be done after cessation of mining.
Grade impoundment #1 - Grade slopes to 3H:1V. Cap with overburden.	Will be done after cessation of mining.
Reclamation of impoundments 2, 3, and 4. Monitoring only required under DP-314.	Done. Monitoring ongoing.
Backfill Old Main Pit - Partially reclaimed (50% done in 2007). Backfill the remainder of the pit, including flooded area, with mix of zeolite waste and overburden.	Will be reclaimed in the next several months. Scheduled dirtwork completion date is December 31, 2013. The site will be seeded in the spring 2014.
Grade Old Main Pit - Grade slopes to 3H:1V and cap with overburden.	Will be reclaimed in the next several months. Scheduled dirtwork completion date is December 31, 2013.
Backfill Yellowjacket / Bowman Pit - Backfill using existing zeolite waste and overburden.	Ongoing. Backfill will be done behind the mining advance.
Grade Yellowjacket / Bowman Pit - Grade slopes to 3H:1V and cap with overburden.	Grading and overburden cap will be done behind the mining advance.
Rip 866 feet of perimeter access roads.	Will be done after cessation of mining.
Reseed all disturbed areas except plant site and the reclaimed impoundments. Total acres = 34.4.	All areas graded and capped with overburden will be seeded the next spring and monitored for success.

Reclamation Cost Estimate

General

The MMD requested in a December 7, 2012, letter that St. Cloud update its permit SI006RE Modification 07-1 to comply with the New Mexico Mining Act and associated rules. Specifically,

the MMD asked that a cost estimate be completed for an updated close out plan for the Winston operation.

According to St. Cloud and MMD records, a close out plan cost estimate was completed for the subject site in 2007, which was based on the status of the site at that time. This cost estimate is an update of the 2007 reclamation cost estimate and is based on the current status of the site .

Assumptions

We used the following assumptions for this cost estimate:

- 1) This estimate shows the costs for a third party contracted by the MMD to implement and complete the current close out plan.
- 2) The 2007 close out plan cost estimate was accepted by the MMD, so it is used as a foundation for this cost estimate.
- 3) All disturbed areas will be graded to blend with the pre-mining topography and seeded with a native seed mixture. All reclaimed slopes will be graded to 3H:1V.
- 4) Equipment in the plant site would be sold in the event of default. Facilities at the plant site and the site itself would be sold and used by the new owner. Consequently, no demolition or removal costs for the plant site are included with this cost estimate.
- 5) Conditions of impoundment #1 have not changed since 2007, so necessary reclamation work and dirt work volumes for impoundment #1 remain the same as the 2007 cost estimate.
- 6) Impoundments #2,3, and 4 have been reclaimed. Monitoring of the impoundments will occur until 2018 and cost \$2,500 per year based on current costs of monitoring (Audie Padilla, Winston Mine Superintendent, personal communication, January 21, 2013). Monitoring costs are included in this cost estimate.
- 7) Approximately one-half of the old main pit has been reclaimed. About 12 acres are still disturbed. Conditions of the old main pit have not changed since 2007, so necessary reclamation work and dirt work volumes remain the same as the 2007 cost estimate. Reclamation costs for the remaining 12 acres are included in this close out plan estimate.
- 8) The volume of dirt that needs to be moved to reclaim the Yellowjacket pit is based on a 2012 survey of the pit boundaries and cross sections across the pit. Cross sections are shown in attachment 5. Cross sections are not parallel, so the distance of influence has been adjusted to ensure overlap and account for all volumes. Bank cubic yards was converted to loose cubic yards with a swell factor of 20%.

9) All reclamation dirtwork can be accomplished with a bull dozer without the aid of scrapers or other excavation equipment. A Caterpillar D9T bull dozer was chosen for this cost estimate because a D9 was used in the 2007 estimate.

10) Equipment production volume estimates for a D9 were checked against data from Caterpillar Handbook no. 42.

11) Ownership and operating costs for a D9T were estimated using current data. Initial cost is from a dealer estimate (Empire Caterpillar, Phoenix, AZ). Salvage value is based on internet quotes of available second hand equipment. Estimated usage is 2,008 hours per year with a 17 year depreciation life. Insurance cost is from a quote from an insurance company (Betty Meier, Agent, Acoma Insurance, personal communication, January 25, 2013). Property tax was estimated at 0.34% of the taxable value after nine years of operation. Fuel usage and operating costs were based on data from Caterpillar Handbook no. 42 and on data for a D8 used in current operations at the Winston site. Maintenance and repair costs for the D8 were increased by 30% for an estimate of maintenance and repair of the D9T. The rounded up ownership and operating costs for a D9T is \$128 / hour.

12) Labor costs for a bulldozer operator was estimated from several sources. Department of Labor Davis-Bacon Act information suggests a rate of \$25 / hour for Sierra County. Davis-Bacon Act labor rates used by the Bureau of Land Management for reclamation in Arizona are \$32.50 hour. St. Cloud pays its bulldozer operator \$26 / hour. Applying the Bureau of Labor Statistics producer price index to the operator rate used in the 2007 cost estimate yields a rate of \$31.43 / hour. We decided to use an average of these labor rates, which comes to \$28.73 / hour, rounded up to \$29 / hour. This cost includes all fringe benefits and applicable tax burden.

13) Seed mix, equipment, and labor rates for revegetation remain the same as the 2007 cost estimate.

11) Indirect costs are based on current data from the MMD (Chris Eustice, Senior Environmental Engineer, MMD, personal communication, January 24, 2013).

Summary

A reclamation cost estimate was completed for the Winston site using Microsoft EXCEL spreadsheets modified after the 2007 St. Cloud cost estimate (Summary sheets and CD with electronic version are shown in attachment 6). A summary of reclamation costs and proposed bond amount for the Winston mine site is shown in table 3.

Direct reclamation costs for the Winston site is estimated at \$89,871. Indirect costs based on MMD information amount to \$36,687. Combining direct and indirect costs gives a proposed bond amount. The proposed bond amount is \$126,558.

Table 3. Summary of reclamation costs and proposed bond amount, Winston site, Sierra County, NM.

BOND AMOUNT CALCULATION
New Mexico Mining and Minerals Division
Reclamation Bond Summary

Zeolite Mine
Worksheet #16

DIRECT COSTS	1st time revegetation		\$27,520
	Earthmoving		\$30,839
	Revegetation @ 5%/yr failure rate	60%	\$16,512
	Other (DP314 monitoring)		\$15,000
		Subtotal	\$89,871
	Cost Escalation Period (years)	0	
	Cost Escalation Rate	0.0%	
	Adjusted Subtotal		\$89,871
INDIRECT COSTS	Mobilization and Demobilization (1%-10%)	3%	\$2,246
	Contingencies (2%-10%)	5%	\$3,744
	Engineering Redesign Fee (2%-10%)	3%	\$2,246
	Contractor Profit and Overhead	28%	\$20,964
	Project Management Fee	5%	\$3,744
	MMD Procurement Cost (2%-10%)	5%	\$3,744
	Gross Receipts tax-no longer charged (5.75%)	0%	\$0
TOTAL BOND AMOUNT		49%	\$126,558

Financial Assurance

Financial assurance for the bond amount is in the form of real property, as approved in permit modification S1006RE-Modification 03-1. The deeded land encompasses one 48.251- acre tract and two 3/4- acre residential lots near Winston, NM, in the S1/2 of the N1/2, Section 22, T. 11 S., R. 8 W., NMPM. The two residential lots are identified as lots 17 and 18 of the Fairview Estates Subdivision.

The property is owned by St. Cloud as recorded in the WD Book 93, page 4813 and Book 94, page 4389, on June 25, 2001, Sierra County, NM.

The land was reappraised by Barrett Appraisal Services, LLC, on November 6, 2012. A copy of the executive summary of the appraisal is shown in attachment 7. The entire appraisal is available on request.

The November 2012 appraised value of the property is \$169,000, which is adequate to cover the entire proposed bond amount and serve as collateral for all the current and proposed operations at the St. Cloud Winston zeolite mine site under permit S1006RE.

Attachments

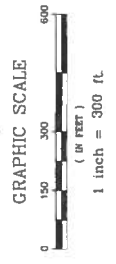
Attachment 1 - 2002 Survey of the Winston mine and plant site.

Insert 2002 full size survey of the Winston site labeled Attachment 1.

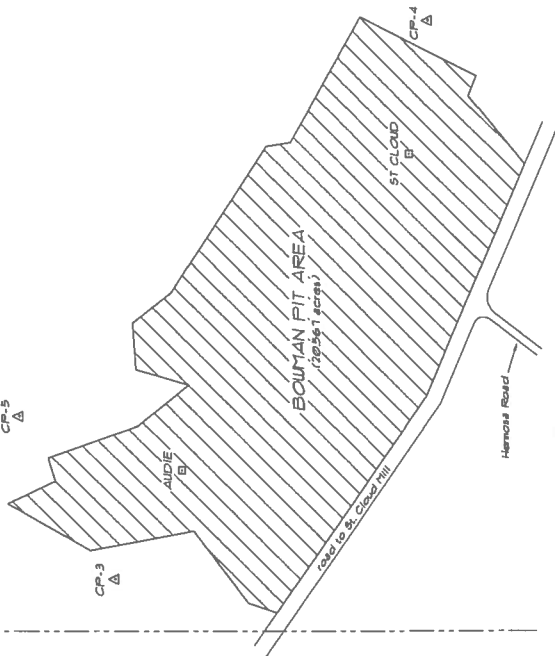
Attachment 2 - 2012 Survey plat of the Bowman pit area, Winston mine site.

PLAT OF

the Bowman Pit Area, Zeolite Mine,
St. Cloud Mining Company,
in the NW1/4 of Section 11, Township 12 South, Range 8 West, N14E11E,
Sierra County, New Mexico



Control Point	Northing	Easting	Elevation
ST CLOUD	830086.6078	7193480.9978	5935.58
AUDIE	831956.637	718267.1678	5975.94
CP-1	832697.1381	718174.7208	5928.82
CP-2	830797.337	7184427.758	5863.40
CP-3	832564.854	7182391.309	5936.07
CP-4	830716.6078	7183027.317	5966.64
CP-5	831804.846	7182866.872	6046.73



November 21, 2012

Senn & Associates
Professional Land Surveying

P.O. Box 675 Elephant Butte, New Mexico 87835

CERTIFICATE

This is to certify that I, as a registered Professional Land Surveyor, have personally supervised the field survey and the plot hereon and that the same is correct to the best of my knowledge and belief.

David R. Senn, Surveyor
License Number 1203

CP-2
A

Notes:

- Coordinate System is New Mexico State Plane, West Zone, NAD83, (reduced, related to the ground)
- Horizontal Datum is NAD 83
- Vertical Datum is NAVD 88
- Elevation Bench Mark held is ST Cloud, (5935.58)
- Grid to Ground Factor is 1.000335645

Legend

- ▲ = 1/2" rebar w/irv-cap 028
- = 2-1/2" aluminum cap
- ⊕ = 1/8" GLO brass-cap monument

CP-1
A

Insert 2012 full size survey of the Bowman pit labeled as Attachment 2.

Attachment 3 - Inventory of equipment at the Winston zeolite plant facility.

Appraisal values are from 1998.

GENERATORS

950 KW Kato with Detroit 16V149 diesel engine - 11,380 hours
 1000 KW Kato with Detroit 16V149 diesel engine - 7,799 hours

Generators were operating at the time of inspection and were operating without any noticeable problems. Electrical transformer and control center equipment was operating and appeared very functional and typical for this type of millsite.

APPRAISED VALUATION \$40,000

ZEOLITE PLANT

Apron Feeder	Nico	42" x 12'
Jaw Crusher	Nordberg	21" x 36"
Cona Crusher	Symons	48"
2D Screen	Nordberg	4' x 12'
5D Screen	Midwestern	MTV57-5
5D Screen	Midwestern	MTV57-5
VSI Crusher	Cemco	AEV 35
Rotary Dryer	Barber Greene	8 x 30
Burner	Genco	AF-15
Rotex Screen	Rotex	3' x 8'
Conveyor C-1	Nordberg	36" x 40'
Conveyor C-2	Nordberg	24" x 76'
Conveyor C-3	Nordberg	24" x 65'
Conveyor C-4	Nordberg	24" x 100'
Conveyor Z-1		24" x 30'
Conveyor Z-2	Fab Tech	24" x 60'
Conveyor Z-3	Fab Tech	24" x 40'
Conveyor Z-4		30" x 40'

Conveyor Z-5	Fab Tech	24' x 40'
Conveyor Z-6	Kase	24' x 60'
Rotary Dryer	Barber Greene	7 x 20
Rotary Dryer		32' x 20'
125 ton silo		
40 ton silo		
40 ton silo		
10 ton silo		
Bucket Elev.		55'
Bucket Elev.		35'
Baghouse	R.L. Flowers	Incl. cycln and ductwork
Hopper/feeder	Excel	150 hp, 30,000cfm
BaggerSewTape	Doboy	HD-9000
Bagger Tube	St. Regis	
Misc. Bagging Equip.		

The zeolite plant equipment is in very good operating condition and appears to have been well maintained since its installation during 1963. The valuation of this equipment reflects the condition of this equipment and the open ease of access to dismantling this equipment for removal from the site.

APPRAISED VALUATION \$127,000

Attachment 4 - Correspondence between St. Cloud and Eng Ranches, Inc.

This letter reaffirms the 1998 agreement for an Eng Ranches acquisition of the Winston plant site.

Kenneth Eng, Jr., Ph.D.

CONSULTANT

Eng - Inc.

February 2, 2013

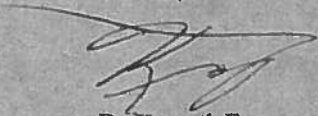
St. Cloud Mining Company
P.O. Box 196
Winston, NM 87943

To Whom It May Concern:

In reply to you note regarding the letter I sent May 21, 1998 this letter confirms that the option to purchase the Zeolite Mine and Mill Site still stands by Eng Ranches.

Should you have addition questions or need more specific details, please do not hesitate to contact me.

Sincerely,



Dr. Kenneth Eng

KSE/ap

ENG Ranch (-K-)
Winston, NM 87943
(575) 743-6331
FAX (575) 743-0087

ENG RANCHES (-K-) (-C-)
7970 Fredericksburg Rd, #101-377
San Antonio, Texas 78229
(210) 979-0011
FAX (210) 979-0631
Cell (210) 865-8376
ken-eng@hotmail.com

ENG-Carissa Ranch, California
San Luis Obispo County
(805) 475-2273
FAX (805) 475-2256

May 21, 1998

Dr. Kenneth Eng
Eng Ranch, Inc.
Winston, NM 87943

St. Cloud Mining Company
P.O. Box 1670
Truth or Consequences, NM 87901

Re: Future Zeolite Mine Reclamation

Dear Mr. Freeman:

Eng Ranch, Inc. is engaged in cattle ranching and land development and owns adjacent and surrounding lands at St. Cloud's Winston mill site and owns and leases the land effected by the zeolite mining operation. As such, we have a material interest in the future of the mining operations and the post mining reclamation standards for those operations.

Eng Ranch understands that the zeolite mining activities may continue for an extended period of time, but on conclusion of those operations, we request the following:

- Zeolite Mine:** On completion of zeolite mining, the main access roads should remain intact, the pit high walls sloped to be compatible with existing topography and revegetated to achieve a sustainable ecosystem to support cattle grazing, and the pit itself should be left open and allowed to flood or hold water to support recreation, fishing or for other ranching or land development purposes. If St. Cloud, over the life of the mining activity, should exercise any rights or options to purchase these effected lands, Eng Ranch, Inc. extends an offer to repurchase said lands for \$100 per acre, subject to satisfactory proof of title and release of liability.
- Mill Site:** On termination of mining operations, Eng Ranch, Inc. would be interested in acquiring the buildings, lands, improvements, utilities, water wells and water rights, etc. relating to the mill site. The buildings and improvements could be utilized as barns, offices, shops, residences, etc. to support cattle ranching, land development, and big game outfitting and related activities. Eng Ranch, Inc. would expect St. Cloud to remove the mineral processing equipment, complete capping and seeding of the tailings impoundments, etc. but would like to have the empty buildings left intact, and the access roads, water wells and distribution systems, electrical and telephone lines, fencing, lighting and related infrastructure left intact. Eng Ranch, Inc. extends an offer to purchase the mill site and buildings for \$50,000 and the approximately 500 acres of land surrounding the mill site for \$100 per acre, subject to completion of reclamation, satisfactory proof of title and release of liability.

Sincerely,

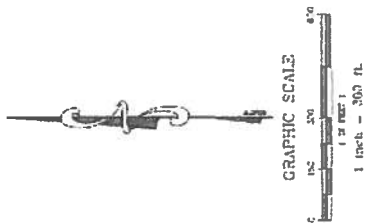
Dr. Kenneth Eng

Attachment 5 - Yellowjacket pit cross sections.

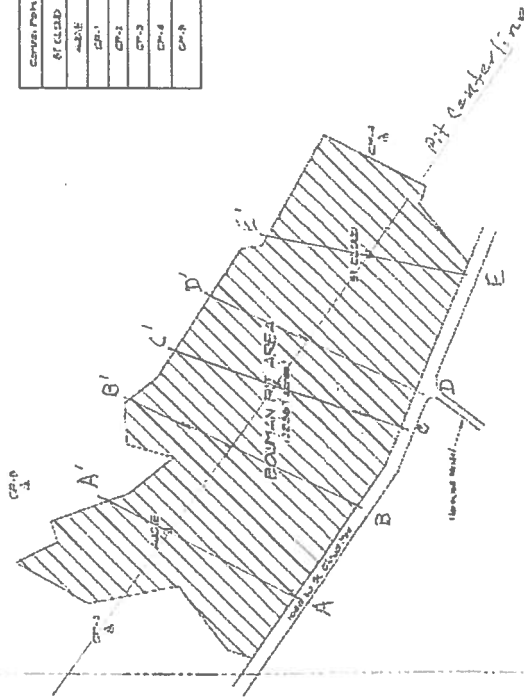
Attachment 1

PLAT OF

the BOUNAN PIT AREA, Zecilia Mine,
St. Cloud Mining Company,
in the NE1/4 of Section 11, Township 12 South, Range 3 West, N.M.P.M.,
Sierra County, New Mexico



Corner Pch.	Northing	Easting	Elevation
BT CLSD	2511.60799	2511.60799	8559.8
AD-E	2511.60799	2511.60799	8559.8
CP-1	2511.60799	2511.60799	8559.8
CP-2	2511.60799	2511.60799	8559.8
CP-3	2511.60799	2511.60799	8559.8
CP-4	2511.60799	2511.60799	8559.8
CP-5	2511.60799	2511.60799	8559.8



NOVEMBER 21, 2022

Serr & Associates
Professional Land Surveying
425 Duran Blvd. Silverton, Colorado 81068

CERTIFICATE

This is to certify that the above described plat was prepared by me or under my direct supervision and that I am a duly Licensed Professional Land Surveyor in the State of Colorado.

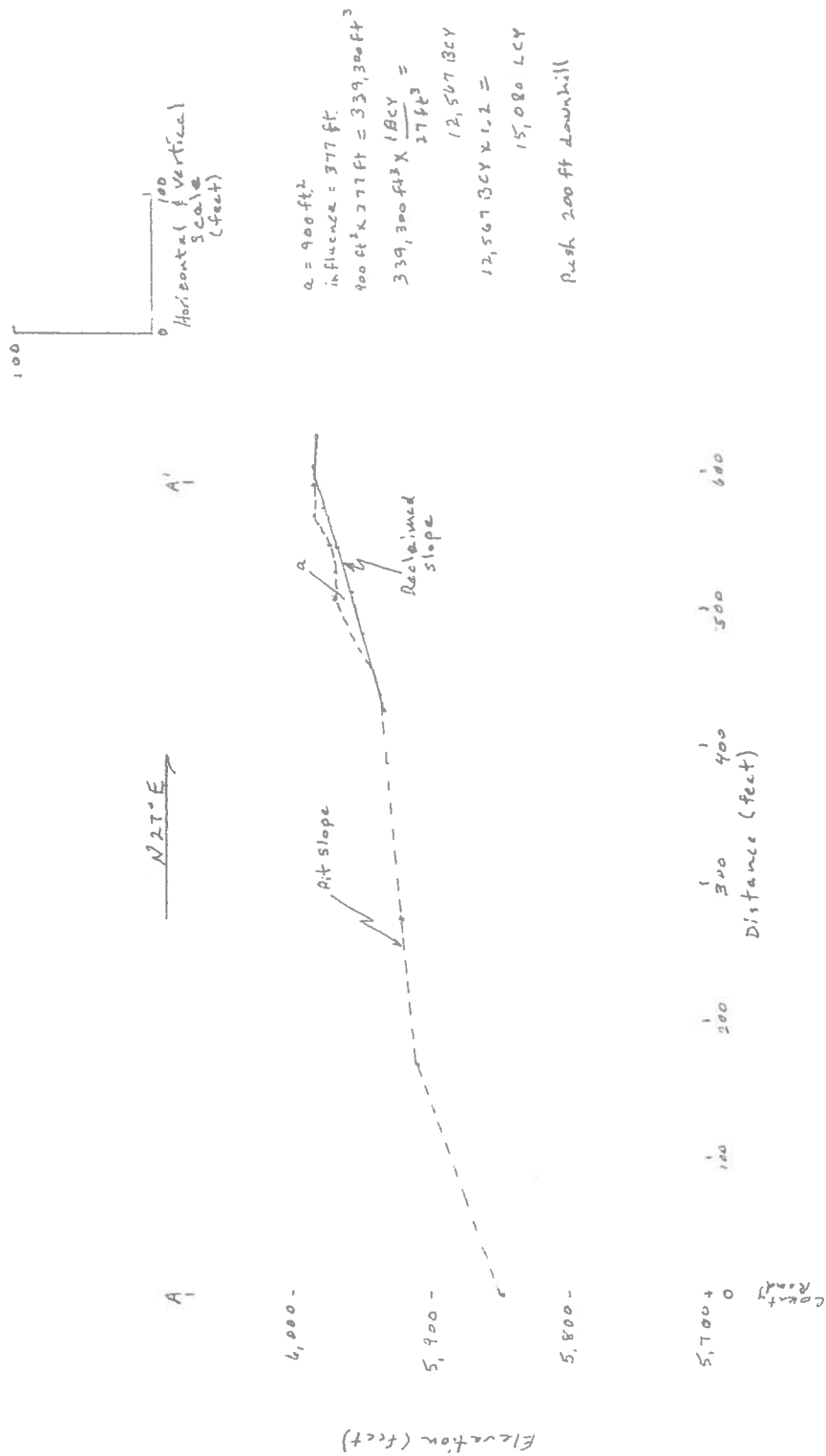
Surveyed by: *[Signature]*
Licensed Professional Surveyor

CP-2
A

Legend:
 Δ = 1/4" mark = corner
 ○ = 1/2" mark = center
 ⊕ = 1/4" mark = center

Notes:
 1. Corner B is a 1/4" mark.
 2. Corner C is a 1/2" mark.
 3. Corner D is a 1/4" mark.
 4. Corner E is a 1/4" mark.
 5. Corner A is a 1/4" mark.
 6. Corner A' is a 1/4" mark.
 7. Corner B' is a 1/4" mark.
 8. Corner C' is a 1/4" mark.
 9. Corner D' is a 1/4" mark.
 10. Corner E' is a 1/4" mark.

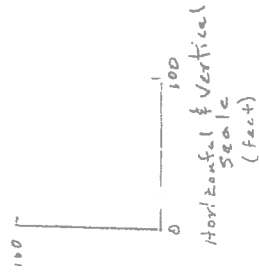
CP-1
A



$a = 900 \text{ ft}^2$
 influence = 377 ft.
 $900 \text{ ft}^2 \times 377 \text{ ft} = 339,300 \text{ ft}^3$
 $339,300 \text{ ft}^3 \times \frac{1 \text{ BCY}}{27 \text{ ft}^3} = 12,567 \text{ BCY}$
 $12,567 \text{ BCY} \times 1.2 = 15,080 \text{ LCY}$

Push 200 ft downhill

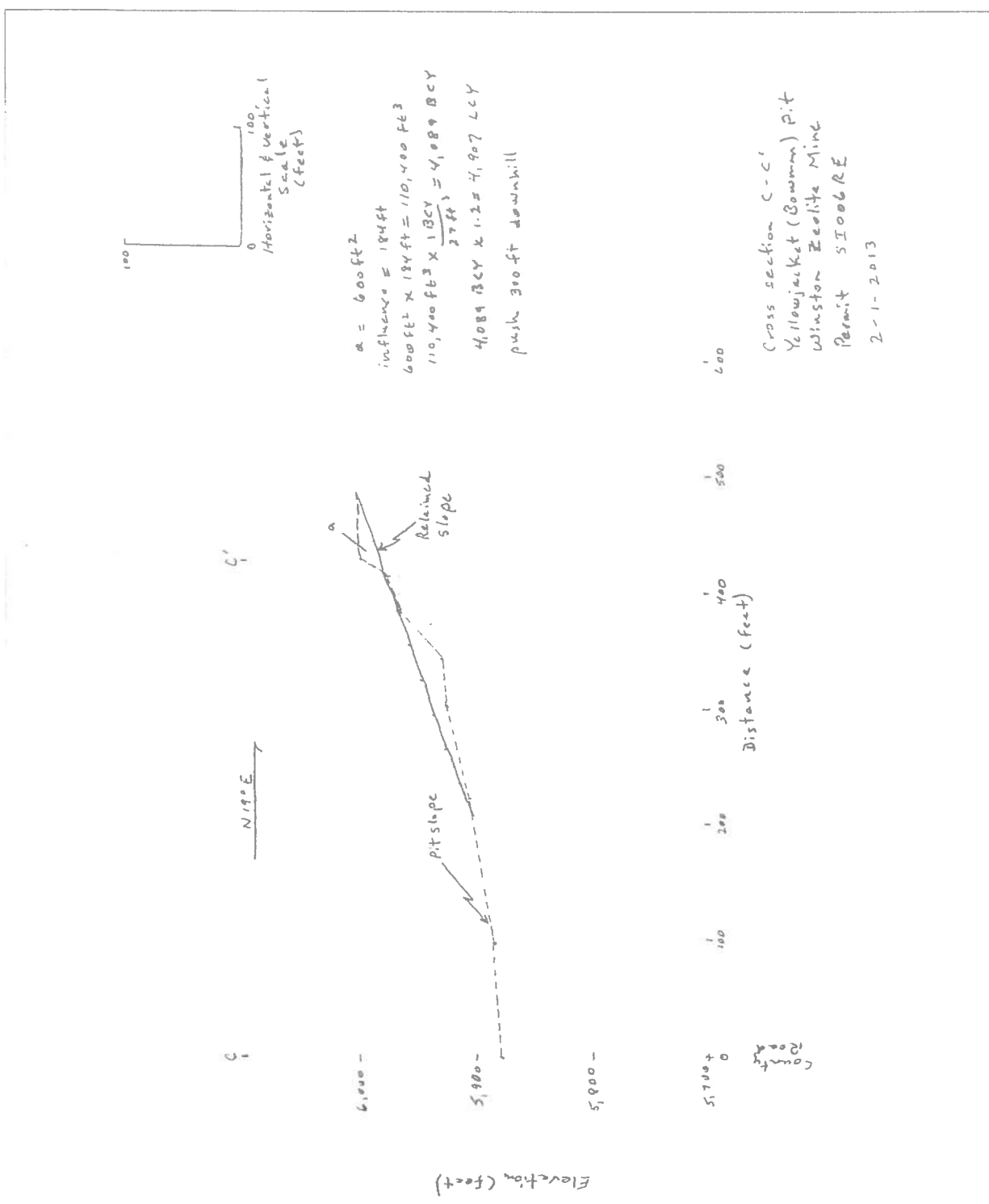
Cross section A-A'
 Yellowjacket (Bowman) Pit
 Winston Zoolite Mine
 Permit 5I006RE
 2-1-2013



$a = 950 \text{ ft}^2$
 inflow = 2600 ft
 $950 \text{ ft}^2 \times 2600 \text{ ft} = 2,470,000 \text{ ft}^3$
 $2,470,000 \text{ ft}^3 \times 1.3 \text{ CY} = 3,211,000 \text{ CY}$
 $3,211,000 \text{ CY} \times 1.2 = 3,853,200 \text{ CY}$
 Push 300 ft downhill

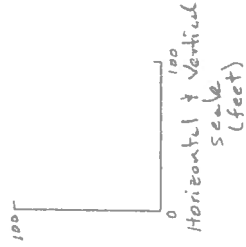


Cross section B-B'
 Yellowjacket (Bommen Pit)
 Winston Zeolite Mine
 Permit 51000 RE
 2-1-2013

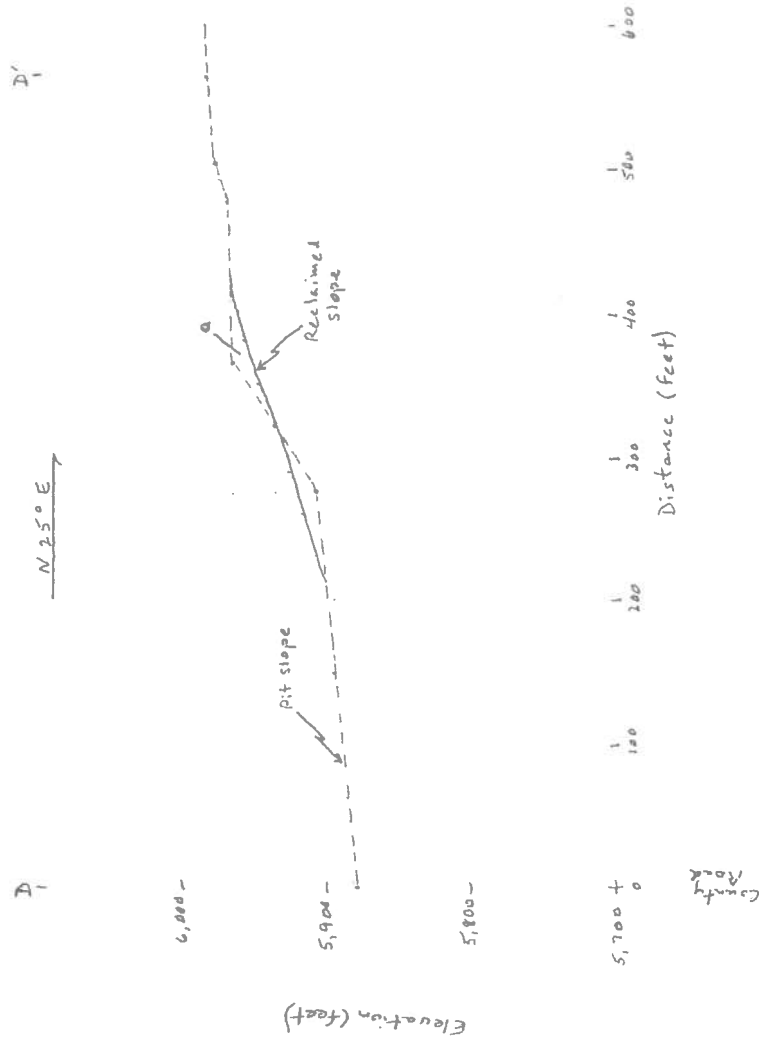


$a = 600 \text{ ft}$
 influence = 184 ft
 $600 \text{ ft} \times 184 \text{ ft} = 110,400 \text{ ft}^2$
 $110,400 \text{ ft}^2 \times \frac{1.3 \text{ CY}}{27 \text{ ft}^3} = 4,089 \text{ BCY}$
 $4,089 \text{ BCY} \times 1.25 = 4,907 \text{ LCY}$
 push 300 ft downhill

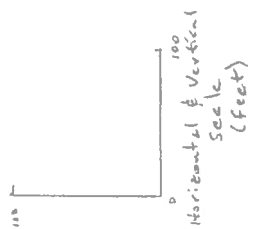
Cross section C-C'
 Yellowjacket (Bosman) Pit
 Winston Zedira Mine
 Permit 51006RE
 2-1-2013



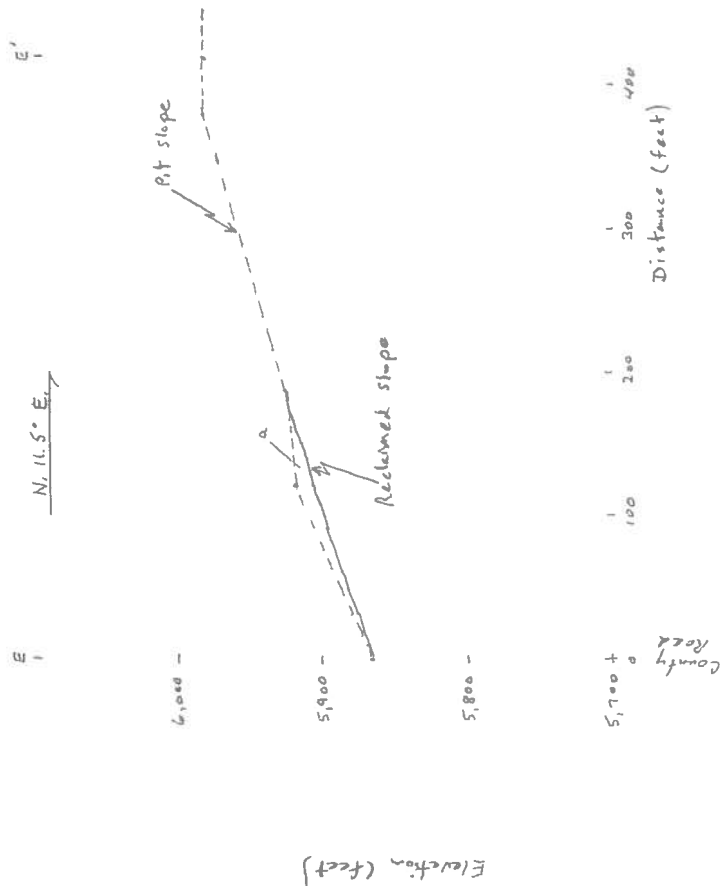
$a = 500 \text{ ft}^2$
 influence = 224 ft
 $500 \text{ ft}^2 \times 224 \text{ ft} = 112,000 \text{ ft}^3$
 $\frac{112,000 \text{ ft}^3 \times 130 \text{ CY}}{27 \text{ ft}^3} = 4,148 \text{ BCY}$
 $4,148 \text{ BCY} \times 1.2 = 4,978 \text{ LCY}$
 push 200 ft downhill!!



Cross section D-D'
 Yellowjacket (Bourbon) Pit
 Winston Zeolite Mine
 Permit S1006 RE
 2-1-2013



$a = 1,150 \text{ ft}^2$
 influence = 262 ft
 $1,150 \text{ ft}^2 \times 262 \text{ ft} = 301,300 \text{ ft}^3$
 $301,300 \text{ ft}^3 \times \frac{1.0 \text{ CY}}{27 \text{ ft}^3} = 11,159 \text{ BCY}$
 $11,159 \text{ BCY} \times 1.2 = 13,391 \text{ LCY}$
 push 200ft toward center pit



Cross section E-E'
 Yellowjacket (Bowman) Pit
 Winston Zoolite Mine
 Permit S1006RE
 2-1-2013

Attachment 6 - 2013 cost estimate summary and CD.

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals Division
General Information **Final**

Zeolite Mine
 TGF/SAL

Applicant	St. Cloud Mining Company	Contact:
	PO Box 1670	Audie Padilla
	T or C, NM 87901	(505) 743-5215
Permit Number	SI006RE	
Number of Acres	51 acres	
Type of Operation	Existing/Surface/Zeolite	
Location	Sierra County	
Prepared by		
Cost Estimate Calculation	\$126,558	

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals Division
Reclamation Description

Zeolite Mine
 Worksheet #1

Describe worst-case reclamation scenario:

Demolition (Removal of buildings, sheds, equipment, tanks, fuel, and foundations)

Buildings and structures in the facilities area will be left for post mine land use (PMLU)

Remove milling equipment in concentrator building at no cost to State

Earthmoving

Backfill Impoundment #1

Backfill Main Pit

Backfill Yellowjacket

Pit

Impoundments #2,3 and 4 are backfilled and capped

Ripping

Rip 866 feet of perimeter access

Grading

Grade Impoundment #1 Backfill

Grade Main Pit

backfill

Grade Yellowjacket Pit backfill

Revegetation

Revegetation of Impoundment 1 and all Pits + 60% failure rate

Other

Monitoring, DP-314, ongoing through 2018

Erosion control on pond outslope along arroyo completed

BOND AMOUNT CALCULATION
New Mexico Mining and Minerals
Division

Zeolite Mine
Worksheet #3

Material Handling Plan Summary Sheet

Item	Description	Volume (cy)	Origin	Destination	Haul Distance (ft)	Grade	Equipment
1	Impoundment #1	3,922	site	Site	100	5%	D9
2	Impoundment #1	3,922	site	Site	300	-5%	D9
Zeolite Pit Reclamation							
1	Main Pit-SE highwall	42,778	highwall	Pit	150	-30%	D9
2	Main Pit-SE stockpile	0	stockpile	Pit	60	-15%	D9
3	Yellowjacket NE Highwall	35,943	highwall	Pit	250	-30%	D9
4	Yellowjacket SE corner	13,391	highwall	Pit	200	0%	D9
	Pit volume	92,112					

Stockpiles in the Main and Yellowjacket pits have been disposed

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals
 Division

Zeolite Mine
 Worksheet #5

Productivity and Hours Required for Dozer Use---Earthmoving

Description: Backfill Impoundment #1 and level dams, 100' push

Equipment:

D9---Imp. #1, 100' push

Volume	3,922 cy	Time	5.6 hours
		Productivity	695 cy/hr-dozer
PERFORMANCE FACTORS			
material	0.80	Operator	0.75
grade	1.10	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
normal production	1,400 cy/hr	direct drive trans.	1.00

Description: Backfill Impoundment #1 and level dams, 300' push

Equipment:

D9---Imp. #1, 300' push

Volume	3,922 cy	Time	15.5 hours
		Productivity	254 cy/hr-dozer
PERFORMANCE FACTORS			
material	1.00	Operator	0.75
grade	0.90	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00

normal production	500 cy/hr	direct drive trans.	1.00
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Description: Backfill pit, SE highwall, 150' push

Equipment: D9---Pit, SE highwall

Volume	42,778 cy	Time	53 hours
		Productivity	812 cy/hr-dozer
PERFORMANCE FACTORS			
material	1.00	Operator	0.75
grade	1.60	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
normal production	900 cy/hr	direct drive trans.	1.00

Description: Backfill pit, SE stockpile, 60' push

Equipment: D9---Pit, SE stockpile

Volume	0 cy	Time	0.0 hours
		Productivity	1,173 cy/hr-dozer
PERFORMANCE FACTORS			
material	1.00	Operator	0.75
grade	1.30	work hour	50 min/hr

soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
normal production	1,600 cy/hr	direct drive trans.	1.00

Description: Backfill pit, NE highwall, 250' push

Equipment: D9---Pit, NE highwall

Volume 35,943 cy		Time 69 hours	
		Productivity	519 cy/hr-dozer
PERFORMANCE FACTORS			
material	1.00	Operator	0.75
grade	1.60	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
normal production	575 cy/hr	direct drive trans.	1.00

Description: Backfill pit, SE Corner, 200' push

Equipment: D9---Pit, SE Corner

Volume 13,391 cy		Time 33.9 hours	
		Productivity	395 cy/hr-dozer
PERFORMANCE FACTORS			

material	1.00	Operator	0.75
grade	1.00	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
normal production	700 cy/hr	direct drive trans.	1.00

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals Division
Productivity and Hours Required for Dozer Use---Grading

Zeolite Mine
 Worksheet #6

Description: Recontour all disturbed areas

Equipment:

D9

Area	34 ac	Time	17.7 hours
		Productivity	1.94 ac/hr-dozer
PERFORMANCE FACTORS			
material	1.00	Operator	0.75
grade	1.00	work hour	50 min/hr
soil weight correction	2550 lb/cy	Visibility	1.00
prod. method/blade	1.00	Elevation	1.00
effective blade width	14.2 feet	direct drive trans.	1.00
speed	2 r	miles/h	

Acreeage from Impoundments 2,3,4 removed
Acreeage from additional pit disturbance included

Description: Rip perimeter road NW of Yellowjacket pit

Equipment:

D9		

Volume	641 cy	Time	1.66
		Productivity	386 cy/hr
Performance Factors			
Rip Spacing	3 ft	Speed	0.5 miles/hr
Penetration	2 ft	Speed	44 ft/min

Rip distance	866	ft	Turn around time	0.25	min
Road width	10	ft	Cycle time	19.93	min/cycle
Work hour	50	min/hr	Cycles / hr	3	cycles / hr
Efficiency (experience)	0.8		Volume per cycle	192	cy / cycle
Max Production	483	cy / hr			

BOND AMOUNT CALCULATION

New Mexico Mining and Minerals Division

*Summary Calculation of Earthmoving Costs*Zeolite
Mine
Worksheet
#13

Total Cost	\$30,839
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Equipment Type	Owning and Operating Cost (\$/hr)	Labor Cost (\$/hr)	Time Req'd (hrs)	Total Cost (\$)	Total Production	Prod. Unit	Unit Cost (\$/unit)
Dozers-Earthmoving							
D9---Imp. #1, 100' push	128.00	29.00	5.6	887	3,922	cy	0.23
D9---Imp. #1, 300' push	128.00	29.00	15.5	2,427	3,922	cy	0.62
D9---Pit, SE highwall	128.00	29.00	52.7	8,273	42,778	cy	0.19
D9---Pit, SE stockpile	128.00	29.00	0.0	0	0	cy	#DIV/0!
D9---Pit, NE highwall	128.00	29.00	69.3	10,881	35,943	cy	0.30
D9---Pit, SE Corner	128.00	29.00	33.9	5,328	13,391	cy	0.40
Dozers-Grading & Ripping							
D9	128.00	29.00	17.7	2,783	34.4	ac	80.90
D9	128.00	29.00	1.66	261	641	cy	0.41

\$30,839

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals Division
Revegetation Costs

Zeolite Mine
 Worksheet #14

Description:

Apply mulch, fertilizer, and seed mix to areas
 and chain, plow, and crimp

No Location Adjust.	100.0%
Total Cost	\$27,520

Area	Area (acres)	Unit Cost (\$/acre)	Subtotal Cost (\$)
Plant & Mill Site	15.6	800	0
Yellojacket Pit	20.5	800	16,400
Impoundment #1	1.7	800	1,360
Old main pit	12.0	800	9,600
Access Roads	0.2	800	160
	34.4		\$27,520

BOND AMOUNT CALCULATION
 New Mexico Mining and Minerals Division
Other Reclamation Activity Costs

Zeolite Mine
 Worksheet #15

0

Activity	Quantity	Unit	Unit Cost (\$/unit)	Item Cost (\$)
Monitoring, DP-314	6	years	2,500	15,000
Rip rap levee at impoundments	0	Cy	31.10	0
Total				\$15,000

Rip rap levees at impoundments - done
 Monitoring through 2018; cost based on experience

BOND AMOUNT CALCULATION
New Mexico Mining and Minerals Division
Reclamation Bond Summary

Zeolite Mine
Worksheet #16

DIRECT COSTS	1st time revegetation		\$27,520
	Earthmoving		\$30,839
	Revegetation @ 5%/yr failure rate	60%	\$16,512
	Other (DP314 monitoring)		\$15,000
		Subtotal	\$89,871
	Cost Escalation Period (years)	0	
	Cost Escalation Rate	0.0%	
		Adjusted Subtotal	\$89,871
INDIRECT COSTS	Mobilization and Demobilization (1%-10%)	3%	\$2,246
	Contingencies (2%-10%)	5%	\$3,744
	Engineering Redesign Fee (2%-10%)	3%	\$2,246
	Contractor Profit and Overhead	28%	\$20,964
	Project Management Fee	5%	\$3,744
	MMD Procurement Cost (2%-10%)	5%	\$3,744
	Gross Reciepts tax-no longer charged (5.75%)	0%	\$0
TOTAL BOND AMOUNT		49%	\$126,558

Insert CD with Excel Spreadsheet of cost estimate

Attachment 7 - Collateral property appraisal executive summary.

BARRETT APPRAISAL SERVICES, LLC

Land Appraisal
Summary Report

48.25 Acres M/L of Undeveloped Land
And Two Adjacent Residential Lots
Winston, Sierra County, NM

Prepared for:

St Cloud Mining Company
P.O. Box 1670
Truth or Consequences, NM 87901

November 2012

Prepared by:

G. Vincent Barrett, Ph.D., MAI
NM Certification #00506-G

BAS, LLC

Executive Summary

- Report Format:** Complete Appraisal / Summary Format
- Appraisal Assignment:** The appraisal assignment is to determine the current market value of the subject 48.28-acre tract and adjoining two lots. There is no herd or emblements associated with the subject or this appraisal.
- Location:** The land is located approximately 25 miles NW of the City of Truth or Consequences and 1/2 mile south of Winston, within Sierra County, NM.
- Client:** St. Cloud Mining Co.
P.O. Box 1670
Truth or Consequences, NM 87901
- Intended Use:** The intended use of this appraisal is to determine the current market value of the subject property for multiple uses or functions of the client, including, without limitation, mortgage loan purposes, internal use in establishing current asset values, operating budgets and for establishing a listing and or sale price.
- Intended User:** The intended user of this report is the above-mentioned client and no others. The client is an experienced user of appraisals and is considered the responsible party for payment of the appraisal fees.
- Ownership Interest:** Fee Simple
- Zoning:** The site is outside the City Limits of Truth or Consequences within Sierra County and is not zoned.
- General Area Analysis:** Sierra County area is highly dependent on ranching, farming, tourism, mining and retail trade. There has been a flat rate of growth since 2000. The current population of Sierra County is approximately 12,000 with a positive rate of growth projected. The current real estate market is considered slow with few sales.
- Highest and Best Use:** Hold for future development as a likely large tract residential subdivision.
- Marketing time:** 12 months or less

Current Market Value: \$169,000

St. Cloud Mining Company

P.O. Box 196 Winston, New Mexico 87943

Ph: 505-743-5215 Fax: 505-743-3333 (email)

Website: apadilla@stcloudmining.com

February 27, 2013

Chris Eustice, Permit Lead
Mining Act Reclamation Program
New Mexico Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Notice of Noncompliance
Zeolite Mine, Permit SI006RE

Dear Mr. Eustice:

In your December 7, 2012, letter, you asked, among other things, that St. Cloud Mining Company (St. Cloud) provide the Mining and Minerals Division (MMD) with an updated close out plan, reclamation schedule, and updated reclamation cost estimate for the Winston Zeolite mine and mill site in Sierra County, New Mexico. This letter is to transmit the close out plan, reclamation schedule, and cost estimate.

The reclamation plan and schedule for the Winston site are components of the attached updated close out plan. Note that reclamation of the current Yellowjacket pit is ongoing behind the mining advance. About 2.5 acres of the pit was reclaimed in January. Also, St. Cloud intends to reclaim the old main pit (about 12 acres) before December 31, 2013. Impoundment #1 is still being used periodically for storage of fines from the processing plant. It will be reclaimed when it is no longer needed.

The mill site now houses only equipment used in the processing of zeolite; the flotation mill was salvaged and sold. St. Cloud intends to continue using the mill site in its current operation. When it is no longer needed, the equipment will be salvaged and sold on the open market. An adjacent land owner, Eng Ranches, Inc., has asked that we leave the buildings in tact after processing ceases so it can use the buildings in its operation. We have received a letter from Eng Ranches (shown in attachments in the close out plan) reaffirming its intention to purchase the land and buildings for post mine use.

The reclamation cost estimate and proposed bond amount are included as part of the close out plan. We used the 2007 St. Cloud estimate as a foundation for this current estimate. Also, we again ask that real property near Winston be used as collateral for the bond.

Please call me if you have any questions at 575-743-5215. We look forward to hearing from you.

Sincerely,


Audie Padilla
Zeolite Operations Superintendent