Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

December 21, 2010

Interested Party List

RE: Draft Checklist EA for Tom Gauger for an Operating Permit

Dear Reader:

Enclosed for your review and comment is the Draft Checklist Environmental Assessment (CEA) for an operating permit requested by Tom Gauger (Gauger) located at 5440 River Road, Laurel, MT 59044. Gauger applied for an Operating Permit on April 3, 2008, from the Montana Department of Environmental Quality (DEQ), Environmental Management Bureau in Helena. The application was later revised on October 26, 2010.

The application for an operating permit would allow quarrying sandstone, bentonite, and gravel on private property, encompassing 76.3 acres. The sandstone would be used for retaining walls, flagstone, and other landscaping and masonry purposes. Any bentonite encountered would be removed and stockpiled for potential future sale. A gravel deposit on the property would be used for road surfacing on the site. The quarry would be excavated using heavy equipment such as excavators and haul trucks. No blasting is required. The excavated areas would be sloped and contoured to blend in with the surrounding areas. The current and postmining land uses would be for grazing and use as a home site.

The proposed site is about 4 miles east of Laurel, MT in Section 9, Township 2 South, Range 25 East, in Yellowstone County. Existing roads would be used to access the proposed quarry. The major roads within the proposed permit boundary have been graveled as needed. The roads would be left for postmining access through the property.

Quarrying would take place on a seasonal basis, usually nine months of the year (March through November). Depending on need, there would be approximately one load per day hauled out along the frontage road during operations, Monday through Friday, but occasionally on a weekend. Normal hours of operation would be 8:00 am to 5:00 pm.

The proposed operation has been reviewed for compliance under a Supplemental Programmatic Environmental Assessment (SPEA) for a General Quarry Operating Permit published by the DEQ in February 2004. DEQ must prepare an environmental assessment (EA) as the site proposed by Gauger does not meet the requirements under the

SPEA. The disturbance cannot be kept below five acres disturbed and unreclaimed at any one time, sediment control ponds would be constructed, and equipment and disturbances cannot be kept at least one hundred feet from typical high water marks of drainages near crossings.

The Draft CEA addresses issues and concerns raised during public involvement and from agency scoping. The agencies have decided to approve the permit with agency modification as the preliminary preferred alternative. This is not a final decision. This conclusion may change based on comments received from the public on this Draft CEA, new information, or new analysis that may be needed in preparing the Final CEA

Copies of the Draft CEA can be obtained by writing DEQ, Environmental Management Bureau, P.O. Box 200901, Helena, MT 59620, c/o Herb Rolfes, or calling (406) 444-3841; or sending email addressed to hrolfes@mt.gov. The Draft CEA will also be posted on the DEQ web page: www.deq.mt.gov. Public comments concerning the adequacy and accuracy of the Draft CEA will be accepted until January 28, 2011.

Since the Final EA may only contain public comments and responses, and a list of changes to the Draft CEA, please keep this Draft CEA for future reference.

Warren D. McCullough

Warren D. McCullough, Chief
Environmental Management Bureau

12/22/10

Date

G:\EMB\OP\OP_Applications\TomGauger\DraftEACoverletter

DRAFT CHECKLIST ENVIRONMENTAL ASSESSMENT

COMPANY NAME: Tom Gauger, 5440 River Road, Laurel, MT 59044
PROJECT: Quarry operation
PERMIT OR LICENSE: Operating Permit Application
LOCATION: The proposed site is about 4 miles east of Laurel, MT in Section 9, Township 2 South, Range 25 East (Figure 1)
COUNTY: Yellowstone
PROPERTY OWNERSHIP: [ ] Federal [ ] State [X] Private

TYPE AND PURPOSE OF ACTION: Tom Gauger (Gauger) has applied for an operating permit to the Department of Environmental Quality (DEQ) for quarrying sandstone, bentonite, and gravel on private property, encompassing 76.3 acres. The sandstone would be used for retaining walls, flagstone, and other landscaping and masonry purposes. Any bentonite encountered would be removed and stockpiled for potential future sale. A gravel deposit on the property would be used for road surfacing on the site. The quarry would be excavated using heavy equipment such as excavators and haul trucks. No blasting is required. The excavated areas would be sloped and contoured to blend in with the surrounding areas. The current and postmining land uses would be for grazing and use as a home site.

Soil would be salvaged at least ten feet ahead of quarrying and areas used for overburden disposal. A minimum of six inches of soil would be removed. Salvaged soil would be used for reclamation with a minimum replacement depth of six inches. The soil would be placed over regraded overburden and then seeded with an approved seed mix. Soil stockpiles that remain inactive for more than one year would be shaped and seeded.

Existing roads would be used to access the proposed quarry sites. The major roads have been graveled as needed. The roads would be left for postmining access through the property.

A stormwater plan will be submitted to DEQ. No chemical use is proposed, and there would be no wash plants or tailings ponds constructed on the site. Water would not be used as part of the quarrying operation. Gauger commits to water roads if necessary to control dust.

There are two springs within the proposed permit area and ephemeral drainages. The springs are located in the southwest corner of the proposed permit boundary, near where soil would be stored. Stormwater would be controlled through Best Management Practices (BMPs) and sediment ponds.

Quarrying would take place on a seasonal basis, usually nine months of the year (March through November). Depending on need, there would be approximately one load per day hauled out along the frontage road during operations, Monday through Friday, but occasionally on a weekend. Normal hours of operation would be 8:00 am to 5:00 pm.

Fuel would be stored on site. Any leakage or spills would be recovered and contaminated materials properly disposed. Gauger proposes to keep equipment and disturbances at least one hundred feet from typical high water marks of drainages, except at approved crossings. All fuel spills over 25 gallons would be reported to the DEQ Enforcement Division. Solid wastes would not be disposed on site unless an appropriate solid waste management system license is first obtained.

DEQ must prepare an environmental assessment (EA) as the site exceeds the 5-acre disturbed and unreclaimed

at any one time disturbance limitations in a Supplemental Programmatic Environmental Assessment (SPEA) completed by DEQ for rock collecting sites and quarries in 2004. The site proposed by Gauger meets the requirements under the SPEA except the disturbance cannot be kept below five acres disturbed and unreclaimed at any one time, sediment control ponds would be constructed, and equipment and disturbances cannot be kept at least one hundred feet from typical high water marks of drainages near crossings.

N = Not present or No Impact would occur.
Y = Impacts may occur (explain under Potential Impacts).
N/A = Not Applicable

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACT AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[Y] The quarry would be located about four miles east of Laurel, MT, and about 1,600 feet south of the Yellowstone River. The quarry would be in the Belle Fourche Shale (Upper Cretaceous), which is about 350 to 400 feet thick. The shale is dark gray, fissile, and contains several thick bentonite beds in the lower part. Thin sandstone beds commonly contain small chert pebbles, and a zone of very dusky-purple to glossy grayish-black, ironstone concretions near the base. Light-gray to brownish-gray concretions six inches to one foot in diameter and large (up to four feet in diameter) light-brown to dark yellowish-orange concretions can be found. A thin sandstone may be present in the upper part that is fine to medium grained, with a salt-and-pepper appearance. The upper contact is marked by an abrupt change to a calcareous shale found above a light greenish-gray bentonite bed about two feet thick at the top of the Belle Fourche Shale. Up to 80% of the soils in the proposed permit area consist of the Lismas clay soil type. Soils are shallow to bedrock. The Lismas clay consists of deeply eroded shale uplands. Closely spaced ridges separate narrow, steep-sided coulees or drainageways. The steeper soils have only a sparse cover of grass and sagebrush and some greasewood. Shale outcrops are found on the steepest slopes, on ridge points, and on the sides of eroded drainageways. The terraces have a mantle of gravelly, loam alluvium. Drainageways have cut through this thick gravelly alluvium into the underlying shale. The ridges and drainageways slope steeply from the gravelly, terrace edges to the floor of the main valleys. Scattered patches of gravel occur on the widest ridges. Pebbles and cobblestones occur on the surface in areas. Slopes are short and runoff is rapid. The risk of erosion is high. Moderate rill and gully erosion occurs on the steep south facing slopes and in overgrazed areas. This soil is used only for rangeland grazing.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	The Pierre soil type makes up about 15% of the soils. The parent material for the Pierre is clayey residuum weathered from shale. Slopes are 15% or less. An active gravel pit exists on the site, located near the southwestern corner of the proposed permit area. The gravel pit is for private use only.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[Y] Several springs are located near the southwestern corner of the proposed permit area. The spring to the west is piped to a pond in front of the landowner's house while the spring to the east is filtered and piped to the house. Only ephemeral streams exist. The Yellowstone River is about 1,600 feet north of the proposed site. Access and haul roads have been graveled to reduce sediment. A sediment pond exists on the site. Riprap has been used on various drainages to reduce erosion. Some salable rock would be removed from the surface. Otherwise, overburden would have to be removed. All equipment and facilities would be kept at least 100 feet from typical high water marks on drainageways, except at approved crossings. The depth to groundwater varies. The site has two springs, however, a 120 foot deep well drilled for the Gauger residence came up dry. A total of eight domestic wells exist within one mile of the site and range from eighteen feet to 160 feet in depth, and produce from 0 to 20 gpm. Quarrying would remove ridge tops, with the overburden used to fill topographic lows, resulting in a flatter postmine topography. Mining should not encounter groundwater. DEQ would stipulate that mining must cease in areas where groundwater is encountered until a revised water management plan is submitted and reviewed. Because the operator would fill the drainages and flatten the overall topography, any overflow from the two springs would have to be rerouted over the fill, creating new drainages over the reclaimed overburden. The impacts to non-wetland Waters of the US would be minimal and less than one acre in size. The landowner owns the water rights to the springs. The water would be routed so as to exit the proposed permit boundary at the same point as currently exists. Impacts from petroleum product spills, and herbicides used to control weeds, would be limited by the distance from water. Minor spills are expected to occur from hydraulic hoses. The operator would use BMPs to control minor spills during operations.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	A modified ephemeral drainage pattern would be created to function similarly as the existing dry ravines. There would be some rerouting within the proposed permit area but runoff would exit the permit boundary at the same locations as premining. Some water would be retained in the sediment pond during and after mining.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[Y] Dust would be produced due to travel on gravel roads within the proposed permit area. The operator would water roads as needed and to avoid complaints from neighbors.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[Y] The native plant communities are dominated by grass, shrubland and woody draw communities. DEQ has identified important species found on the site. A seeding plan has been drawn up based on that list, one for steep slopes, and one for soiled areas and swales where cheatgrass is likely to invade. Disturbance of native plant communities is an unavoidable impact of quarrying activities. Reclamation of the site and seeding of grass species suited to postmining conditions would limit impacts but the native plant communities cannot be restored. A search of the Natural Resource Information System (NRIS) database found that there are no known threatened and endangered or sensitive plant species growing in the proposed permit area. Proposed disturbances would lead to more noxious weed invasion in the area. This is an unavoidable impact of disturbance. Weed control efforts would limit these impacts. Soil stockpiles that remain for more than one year would be shaped and seeded. The agencies would stipulate that soil stockpiles are seeded immediately after each soil stripping campaign before the soil becomes crusted and weeds can germinate.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The area is traversed by mule deer, antelope, and sharptail grouse. Birds nest in woody draws.
6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified	[N] A search of the NRIS database found that there are no known threatened and endangered animal species in the area. A species of special concern found in the general area is the bald eagle (last observed in 2005).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
habitat present? Any wetlands? Species of special concern?	
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] A records search by the State Historic Preservation Office indicated that there are no known cultural areas of concern in the permit area. As noted in the application, the operator would provide protection for archaeological and historical sites if they are discovered.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[Y] The proposed quarry is in a rural area. However, quarrying would reduce the height of a ridge top on the western side of the proposed permit boundary by about 20 feet, and may be visible from the frontage road, houses located in the area, and from the Yellowstone River. Soil would be replaced and seeded after the stockpiles and other facilities have been removed and regraded. The reclaimed quarry would no longer have the appearance of the original land surface. Overburden would be placed in low areas, smoothing out the landscape. Pit highwalls exist up to 60 feet high. The highwalls would be fenced to prevent public entry. Property fences would be signed to indicate that an active quarry exists. Once quarrying is completed the highwalls would be resloped to 2(H):1(V). The changes in landform are an unavoidable impact of quarrying activities. Due to the relatively isolated location of the quarry impacts from lights and noise should be minimal at the proposed permit boundary. On average there would be one truck load per day, Monday through Friday, entering the frontage road during a nine month season. Occasionally, haulage may occur on weekends. The mine would be operated during daylight hours, normally operating from 8 AM to 5 PM during the months of March through November.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area?	[N] This project would be somewhat isolated and require a minimum of energy resources.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] The surrounding land use has historically been livestock grazing and wildlife habitat.

IMPACTS ON THE HUMAN POPULATION	
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[Y] On average there would be one truck load per day, Monday through Friday, entering the frontage road during a nine month season. Occasionally, haulage may occur on weekends. The mine would be operated during daylight hours, normally operating from 8 AM to 5 PM during the months of March through November. The increase in traffic would be an unavoidable impact of the quarry operation.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The quarry would provide a source of rock for masonry and landscaping.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[Y] The only employee would be the landowner.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[Y] This project would create minimal new tax revenue.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] There is no anticipated need for increased government services that would result from this project.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] There are no wilderness or major recreational areas near the site. The major recreational uses in the region are hunting, fishing, and boating on nearby rivers and lakes. The Yellowstone River is about 1,600 feet north of the site.

IMPACTS ON THE HUMAN POPULATION	
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[Y] The project would be regulated by the Metal Mine Reclamation Act (MMRA).
22. PRIVATE PROPERTY IMPACTS: Does the proposed regulatory action restrict the use of the regulated person's private property? If not, no further analysis is required.	[N]
23. PRIVATE PROPERTY IMPACTS: Does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives.	[Y] See Item 22 above.
24. OTHER APPROPRIATE	[N]

IMPACTS ON THE HUMAN POPULATION	
SOCIAL AND ECONOMIC CIRCUMSTANCES:	

25. Alternatives Considered:
No Action: Deny the request for an operating permit. No issues were identified which would require denying the permit.
Approval: Approve the permit as proposed.
Approval with Modification: The agencies would require that:
    1) mining must cease in areas where groundwater is encountered, and

    2) soil stockpiles must be seeded immediately after each soil stripping campaign before the soil becomes crusted and weeds can germinate.

26. Public Involvement: A legal notice was published in the *Billings Gazette* on 5/11/08, 5/18/08 and 5/25/08 and in the *Laurel Outlook* on 5/14/08, 5/21/08 and 5/28/08. Only one comment was received which concerned increased travel along the frontage road. Another legal notice and a press release will be issued when this draft EA is released.

27. Other Governmental Agencies with Jurisdiction: None

28. Magnitude and Significance of Potential Impacts: There would be no significant impacts associated with this proposal. As noted, there would be impacts to soils, geologic resources, native plant communities, an increase in noxious weeds in the area, as well as impacts on aesthetics due to modification of the landforms. These are unavoidable impacts of permitting the quarry.

Quarries and rock collecting sites are increasing throughout Montana. DEQ prepared a Supplemental Programmatic Environmental Assessment (SPEA) on these operations in 2004. The operations that qualify must meet the following provisions as listed in the SPEA.

- Any individual small quarry must maintain a working disturbance of up to five acres maximum. Total disturbance during the life of an individual operation could exceed five acres, but concurrent reclamation would be required to keep the disturbance at any one time to five acres or less. Access roads would not be included in the disturbed total, but the operator would submit a reclamation bond for roads that do not have an appropriate use after quarrying. Roads appropriate for the land use after quarrying and access or haulage roads which are required by a local, state, or federal agency having jurisdiction over that road would not have to be bonded;
- There would be no impact to any wetland, surface or ground water;
- There would be no constructed impoundments or reservoirs used in the operation;
- There would be no potential to produce any acid or other pollutive drainage from the quarry;
- There would be no impact to threatened and endangered species; and
- There would be no impact to significant historic or archaeological features.

The quarry proposed by Gauger meets most requirements with the exceptions that the operator cannot keep the disturbance to less than five acres disturbed and unreclaimed at any one time, would construct sediment control ponds, and may alter the route of two flowing springs located in ephemeral drainages

within the proposed permit boundary. There would be no other impacts beyond those analyzed in the SPEA. This Checklist EA tiers to the 2004 SPEA. Reclamation would limit impacts. DEQ would bond Gauger to reclaim acres disturbed by mining as well as for removal of stockpiles and any facilities associated with the quarry.

29. Cumulative Impacts: None. No other projects in the area would cumulatively add to the impacts from this project.

30. Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

The DEQ has selected the Approval with Modification as the preferred alternative.

31. EA Checklist Prepared By: Herb Rolfes, Operating Permit Section Supervisor.

32. EA Reviewed By: Patrick Plantenberg, Reclamation Specialist, and Warren McCullough, EMB Bureau Chief.

Herb Rolfes 12/21/10

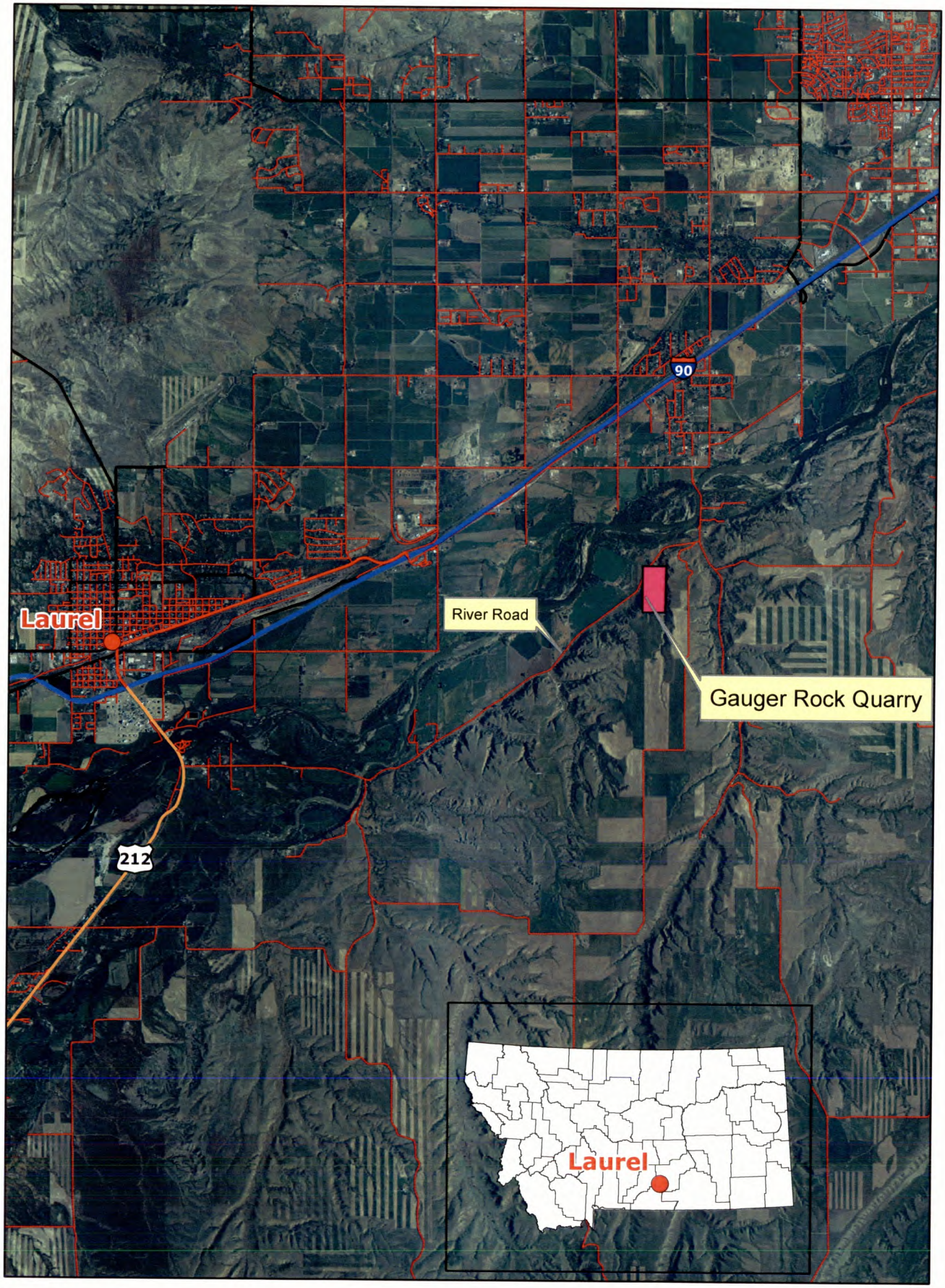
Signature Date

Herb Rolfes
Operating Permit Section Supervisor

File: pending Gauger.70

OP_Applications\Tom Gauger\DraftchecklistEA

Gauger Site Location Map



Montana Department of
Environmental Quality

0 0.5 1 2 Miles

N