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**MONTANA FOURTH JUDICIAL DISTRICT COURT
MISSOULA COUNTY**

<p>CARLTON PROTECTION TRUST,</p> <p style="text-align: right;">Plaintiff/Appellant,</p> <p>vs.</p> <p>MISSOULA COUNTY BOARD OF COMMISSIONERS, a body politic of Missoula County, and MISSOULA COUNTY,</p> <p style="text-align: right;">Defendants.</p>	<p>Cause No.:</p> <p>Dept.:</p> <p style="text-align: center;">APPEAL AND COMPLAINT</p>
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COMES NOW, Plaintiffs/Appellants Carlton Protection Trust, by and through its undersigned counsel of record, and for their complaint against the Missoula County Board of County Commissioners, body politic of Missoula County (“Commissioners”), state and allege as follows:

INTRODUCTION

1. This action seeks declaratory and injunctive relief for violations of Montana law by the Missoula County Board of Commissioners.

2. In August 2024, the Commissioners approved a variance request for Western Materials, LLC (“Western”) for the creation and expansion of a gravel and asphalt mine located in a residentially zoned district, Zoning District #40 (“ZD40”).
3. Western initiated their request for a zoning variance on October 23, 2023.
4. Plaintiff/Appellant Carlton Protection Trust and other members of the community participated in the Commissioners’ review of the variance request at every available opportunity and voiced their concerns for the possibility of a large-scale industrial gravel mine in their own backyard.
5. However, Plaintiff/Appellant’s concerns were ignored in favor of approval of Western’s variance request.
6. Accordingly, Plaintiff/Appellant requests that this Court declare and issue a permanent injunction ordering the Commissioners to rescind approval of the variance request.

PARTIES, JURISDICTION AND VENUE

7. Plaintiff/Appellant is the Carlton Protection Trust, a non-profit corporation incorporated in the State of Montana, is a community coalition of residents living and residing within Zoning District #40, also known as the Carlton neighborhood, in Missoula County. Plaintiff/Appellant’s mission is to “protect and inform citizens of potential hazards that may affect their health, their quality of life and the environment. We strive to educate to protect health, water sources, air and soils quality, and the Bitterroot River.” In pursuit of these goals and values, Plaintiff/Appellant, through its members, emphatically opposed the approval of a variance request for the expansion of the Hendrickson Mine in their quiet residential neighborhood.
8. The Missoula County Commission is the local governing body of Missoula County.

9. Missoula County is a political subdivision of the State of Montana.
10. The jurisdiction of this Court is invoked pursuant to § 76-2-110, MCA; Title 27, Chapter 8, MCA (Uniform Declaratory Judgment Act); Title 27, Chapter 19, MCA (Injunctions); and § 11.6(A)(4) of the Missoula County Zoning Regulations.
11. The violations of law alleged herein have occurred and will occur within Missoula County, Montana. Venue is therefore proper in this Court.

FACTS RELATED TO ALL CLAIMS

Zoning District #40 & Resolution #76-59

1. ZD40 was adopted by citizen initiative on April 30, 1976, with the intent of creating and providing for “low density residential development adjacent to critical resource areas, such as aquifer recharge areas and critical wild habitats, such as winter game ranges, breeding and spawning areas, rare vegetation. *See* Exhibit A, Zoning Resolution #76-59.
2. ZD40 encompasses all of Section 23, the North Half (N1/2) of Section 26, the Northeast Quarter (NE1/4) of Section 27, Township 11 North, Range 20 West, P.M.M., all in Missoula County, Montana.
3. ZD40 permitted the following uses: (1) Single family residence; (2) Accessory buildings incidental to main building; and (3) Parks and playgrounds. *Id.*
4. ZD40 provides further that “any existing non-conforming uses shall be limited to their present size and not allowed to expand in any form or nature” but to provide “that community residential facilities having an existing physical plant capable of accommodating more than eight (8) persons shall be permitted to fully utilize their present facilities for care and treatment of handicapped persons.” *Id.*

5. Finally, ZD40 provides that in “conformity with the provisions of Section 16-4103, R.C.M., 1947, the Board of County Commissioners shall have the power to authorize such variance from these regulations that will not be contrary to public interest where, owing to special conditions, the literal enforcement of a decision of the Planning and Zoning Commission would result in unnecessary hardship.” *Id.*

History of the Underlying Mine Site

6. The existing Hendricksen Mine is located in the SW1/4 of Section 23, Township 11 North, Range 20 West, in Missoula County, and operates under Permit # 2681 issued by the Montana Department of Environmental Quality pursuant to the Openpit Mining Act of Montana.
7. The Hendricksen Mine is operated by Western Materials, LLC, a Montana Limited Liability Company.
8. The Carlton Neighborhood is located in the NW1/4 of Section 26, Township 11 North, Range 20 West, in Missoula County, and is located within ZD40 (“Carlton Neighborhood”). The Carlton Neighborhood is home to members of Plaintiff/Appellant’s organization.
9. In 1976, the Mine Site at issue in this matter was owned by John Felton, after acquiring the property from Josephine B. Hirst and W.D. Hirst on June 1, 1970. *See* Exhibit B, Warranty Deed Hirst to Felton.
10. According to Mr. Felton’s obituary, Mr. Felton was a real-estate developer, who was responsible for subdividing the notable Mansion Heights neighborhood in Missoula.

11. Pursuant to Mr. Felton's obituary, "John bought 155 acres of land in 1969 with the intentions of building a subdivision." *See* Exhibit C, Obituary for John Felton published by the Daily Interlake, June 18, 2008.
12. In 1991, John Felton conveyed the lands he owned in ZD40 to Stanley Hendrickson. *See* Exhibit D, Warranty Deed Felton to Hendrickson.
13. Aerial images of the Mine Site in 1955 reveal the property was largely used for agricultural purposes. A small ground disturbance exists in the southeast corner of the property that could be described as a pit (hereinafter referred to as the "Original Pit"). *See* Exhibit E, 1955 Aerial.
14. Upon information and belief, this pit was presumably created for the construction of private roads on the property, which can also be seen in the southeast corner of the property.
15. Aerial images of the Mine Site in 1966 reveal that the property continued to be used for agricultural purposes. The original pit has expanded slightly, and further road development can be seen. *See* Exhibit F, 1966 Aerial.
16. Aerial imagery from the 1970's is not available.
17. Aerial images taken of the area in 1982 similarly reveal the use of the Mine Site for agricultural purposes as well a growing Carlton Neighborhood to the south of the Mine Site. *See* Exhibit G, 1982 Aerial. The Original Pit appears to have moved to some degree and is connected to a neighboring mining operation east of the Mine Site.
18. Aerial images taken of the area in 1995, following the acquisition of the property by Mr. Hendrickson, illustrate continued agricultural use, however, the Original Pit appears to have expanded to approximately 2-3 acres in size. *See* Exhibit H, 1995 Aerial.

19. Aerial images taken of the area in 2005 reveal a dramatic change: the Original Pit had extended to encompass nearly all of the E1/2SW1/4 of Section 23, Township 11 North, Range 20 West. *See* Exhibit I, 2005 Aerial.

Unlawful Expansion of the Underlying Mine & Amendments to Permit #2681

20. On June 4, 1993, Stanley Hendricksen obtained a Zoning Compliance Permit from Missoula County. The Zoning Compliance Form declared the following at that time:

- a. “I/We, hereby declare that Stanley Hendrickson (applicant) has notified me/us that Applicant is proposing to conduct opencut sand and gravel mining operations in the SE1/4SW1/4, Section 23, Township 11N, Range 20W, Missoula County. The proposed operation complies with Missoula County/City’s approved zoning regulations, and is not located within an area zoned as residential.” *See* Exhibit J, 1993 Zoning Compliance Form & Letter.

21. Handwritten notes on the Zoning Compliance Form also reference a “Letter from S. Hendricksen” and “USGS Maps 1-4”. *Id.*

22. The Letter referenced on the Zoning Compliance Form stated the following:

- a. “To the Missoula County Zoning Authority[,] I Stan Hendricksen own a gravel pit which has been in operation for 40 years, the gravel removed so far has come from a 5 acre area and has left a 50 ft steep bank. I plan to slope this bank when I am done with the pit to meet state mining act requirements which (sic) may require up to 10 acres more land to be disturbed in order to get the gentle slope I want to end up with. I am bonded, own the property, and will meet the states requirements for reclamation (sic), seeding, replacing topsoil etc. Stan Hendricksen”

23. Zoning Compliance Permits are considered administrative actions or decisions by the Missoula County Zoning Regulations, §11.3, and are decided by a Zoning Officer.
24. Administrative actions or decisions are not publicly noticed and are either approved or denied internally by Missoula County.
25. Therefore, the 1993 Zoning Compliance Permit was issued to Stanley Hendricksen without notice to residents of ZD40.
26. The 1993 Zoning Compliance Permit was used by Stanley Hendricksen to acquire the original Opencut Mine Permit #2681 to begin industrial mining at the Hendricksen Site.
27. On June 11, 1993, Stanley Hendrickson entered into a Mined Land Reclamation contract with the State of Montana Department of State Lands, which was required for “conducting an operation that will cause the OPERATOR’S total amount of mineral and overburden mined in Montana to be over 10,000 cubic yards.” *See* Exhibit K, 1993 Mined Land Reclamation Contract.
28. The State of Montana Board of Land Commissioners authorized Stanley Hendricksen to conduct open cut mining operations “on 3.5 acres in the SE1/4SW1/4 of Section 23, T.11N, R.20W, Missoula County, Montana.” The contract did “not authorize opencut mining operations other than as described in the application or as described above.” *Id.*
29. In June 2001, the DEQ issued a Notice of Violation and Statement of Proposed Penalty against Stanley Hendrickson and JTL Group, Inc., the Operator of the Hendricksen Mine at that time. *See* Exhibit L, 2001 Notice of Violation.
30. Against Stanley Hendricksen, the DEQ alleged the following:
 - a. In June 1993, Hendrickson obtained Mined Land Reclamation Permit No. HES-001 from the Department as required by the Act. Except for the location of a

screening facility, the map submitted by Hendricksen with its permit application does not depict any processing facilities. The map is made part of the permit upon the Department's approval of the application and issuance of the permit. The permit authorizes the operation of a gravel pit that disturbs a total of 3.5 acres.

- b. On October 7, 1998, Rod Samdahl (Samdahl), Reclamation Specialist for the Department, conducted a field inspection of the Hendrickson Pit. He observed that Hendrickson had expanded the operation to approximately 15 acres. He also observed the operation of a hot asphalt plant at the site. This processing facility was not indicated on the map approved by the Department in issuing the permit.
 - c. In a letter dated October 27, 1998, Samdahl informed Hendrickson that the operation was five times larger than that permitted and that the operation of the hot asphalt plant also constituted a permit violation.
31. The DEQ directed Hendricksen and JTL to immediately cease all open-cut mining operations being conducted outside of the permitted area and immediately cease operations of the hot asphalt plant.
32. In August 2001, Stanley Hendricksen applied to increase the operation to 72 Acres.
33. The DEQ did not issue the permit for expansion in 2001, however the Mine continued to expand.
34. As of 2008, the operation had disturbed all of the 72 acres, and was operating unpermitted.
35. In 2008, Stanley Hendricksen requested an updated Zoning Compliance Permit from Missoula County.

36. The issue was reviewed by Missoula County Deputy Attorney Michael Sehestedt, who issued an internal memorandum to David Loomis of the Office of Planning and Grants of Missoula County on April 14, 2008. *See* Exhibit M, Sehestedt Memorandum.

37. The Memorandum states the following:

- a. “This is an interesting problem. The zoning precludes gravel pits but this pit predated the zoning with an area in 1999 as a non-conforming use of 15 acres.
- b. “In August 2001 an application was made to DEQ to increase the operation to 72 acres. Subsequently bond was posted for 72 acres and JTL began operating out of the pit as part of the major Highway 93 expansion project.
- c. “While the permit applied for in 2001 was apparently never issued, the DEQ treated it as a 72 acre operation in its records and requests for reports. It appears that the operation has now disturbed almost all of the 72 acres.
- d. “Apparently the problem came to light when DEQ was reviewing reclamation bonds.
- e. “My recommendation, since DEQ has treated this as permitted at 72 acres and since it now has disturbed about that much surface, is to grant the zoning compliance permit with the provisions that the permit while allowing gravel extraction, is limited by the permit period and will lapse at the end of that period. It should also note that zoning compliance is granted to permit the eventual restoration of the site to a slope and configuration that will permit residential development.

- f. “I base this recommendation on estoppel and statute of limitations grounds and on the fact that the pit has operated as proposed without objection for the last six plus years.”
38. On July 28, 2009, David Loomis completed a Zoning Compliance form noting that the site location is zoned as ZD40, but that the “Proposed operation complies with county zoning regulations.” *See* Exhibit N, 2009 Zoning Compliance Permit.
39. The 2009 Zoning Compliance Permit was issued without notice to the public, including residents of ZD40.
40. On October 1, 2009, Stanley Hendricksen received another Violation Letter from the DEQ for mining activities occurring outside of the existing 3.5-acre permit boundary.
41. On December 3, 2009, Stanley Hendricksen again applied to amend the original permit issued in 1993. At that time, Stanley Hendricksen stated that the “intent of this amendment is to reduce the mine permit area to 49 acres.” *See* Exhibit O, 2009 Amendment #1.
42. This amendment also requested a change to the date of final reclamation to December 2020.
43. The DEQ did not issue a permit for this Amendment applied for in 2009.
44. On April 16, 2010, Stanley Hendricksen re-applied for an Amendment. This amendment was intended to “increase the mine permit area to 50 acres.” *See* Exhibit P, 2010 Amendment #1. The requested reclamation date was December 2020.
45. Stanley Hendricksen relied on the Zoning Compliance Permit issued in 2009. Of note, the Zoning Compliance Permit specifies that “Zoning Compliance Permits are valid for six months (180 days) from the date of issuance.”

46. The DEQ issued the Amendment to Opencut Mining Permit on May 14, 2010, expanding the operation to 50 acres. At that time, the DEQ referred to the Permit as Permit #1314, but relates to the Hendricksen Mine Site. *See Exhibit Q, 2010 Amendment to Permit #1314.*
47. Again, 2014, DEQ received an application for another amendment to Permit #1314 for purposes of changing the reclamation date to December 2045. *See Exhibit R, 2014 Amendment #2.*
48. Stanley Hendricksen did not include an updated Zoning Compliance Permit with the 2014 amendment, but did include the previously issued 2009 Zoning Compliance Permit.
49. DEQ approved Amendment 2 to Permit #1314 on January 6, 2015. *See Exhibit S, 2014 Amendment to Permit #1314.*
50. Amendment 2 to Permit #1314 includes a NOTE on the Permit, which states the following:
 - a. “Due to historical circumstances when the preceding amendment was approved, the current Irrevocable Letter of Credit dated February 13, 2008 identifies a bonded acreage (72) and aggregate amount (\$259,748) that are greater than the permitted acreage (50) and the bond amount (\$181,522) shown on the current Reclamation Bond Spreadsheet dated April 14, 2010.”
51. On January 23, 2015, Stanley Hendricksen applied to assign Permit #1314 to Western. *See Exhibit T, 2015 Reassignment.*
52. DEQ approved the assignment on February 11, 2015 and reissued the permit to Western as Permit #2681. *See Exhibit U, 2015 Permit #2681.*

53. On July 06, 2016, Western applied to amend Permit #2681 to add an asphalt and concrete plant and to change the hours of operation to include “Extended-Hours Projects” on Saturdays. *See* Exhibit V, 2016 Amendment Application.
54. On July 11, 2016, DEQ approved Amendment 3 to Permit #2681. *See* Exhibit W, Amendment 3 to Permit #2681.
55. On May 7, 2021, Western applied again to Amend Permit #2861 for the purpose of changing the mining depth, adding fuel storage, adding acreage, and updating the landowner from Stanley Hendrickson to Western following Western’s acquisition of the property. *See* Exhibit X, 2021 Amendment Application.
56. Western Materials included Land Use Permit No. LZ20038317 issued by Missoula County Community and Planning Services (CAPS).
57. A comment on the Permit states, “Project is approved for zoning compliance as an expansion to a legal nonconforming use. The approved expansion does not increase the degree of nonconformity to the extent that it does not comply with ZD 40[,]” despite the addition of 15 new acres of mining activity.
58. On May 20, 2021, DEQ approved Amendment 4 to Permit #2681. *See* Exhibit Y, Amendment 4 to Permit #2681.
59. At no point between 1993 and 2021 were residents of ZD40 notified of the County’s continued issuance of Zoning Compliance for the ongoing expansion of the operation nor did they have reason to suspect that the Hendricksen Mine had not gone through the proper channels to receive a lawful variance to operate an industrial gravel and asphalt mine within a residentially zoned neighborhood.

60. Throughout the thirty (30) years, residents of ZD40 trusted their county officials and state agencies to ensure that the operation of the Hendricksen Mine was lawfully undertaken.

Variance Request to Expand Mine to Adjacent Property

61. In November 2023, Western began investigating what would be required from Missoula County to expand the Hendricksen Mine site into the neighboring property, taking the site from 80 acres to 150 acres, and effectively doubling the size of the Hendricksen Mine.

62. Western’s plan for expansion involved acquiring the adjacent property, owned by Scott Leibenguth, which is located within ZD40.

63. Scott Leibenguth’s property had formerly been considered for subdivision development pursuant to ZD40.

64. Unlike their predecessor, Stanley Hendricksen, Western recognized the need to obtain a variance from ZD40, or otherwise amend the zoning resolution, in order to comply with the residential land use restrictions, which required that they obtain approval from the Commissioners for the variance.

65. Communications between Western, their engineers, WGM Group, Inc., and Missoula County, reveal that it was unclear whether Western should obtain a variance or attempt to force an amendment to ZD40 in order to expand the Hendricksen Site.

66. For instance, emails between Missoula County Planner, Jennie Dixon, Missoula County Attorney, John Hart, and Western’s legal counsel, Alan McCormick reveal the following:

- a. On March 15, 2023, Alan McCormick wrote the following to John Hart:
 - i. “...John Kappes and WGM met with the planning folks recently to discuss a variance for the Lolo Pit project to expand into adjacent property. I

believe they met with Jennie Dixon and perhaps Tim as well. Although we've been given direction in the past to go the variance route and there may be a way to do that within the non-conforming provisions at this meeting they were guided to seek an amendment to the zoning district regulations, perhaps creating a subdistrict from the gravel operations. We are not opposed to doing so, but it is apparently the County's position that Western would need to obtain signatures from 60% of the landowners in the district in order to proceed with a zoning amendment. Quite frankly, that's an insurmountable task from any practical perspective. Certainly, Part 1 zoning districts require 60% of landowners to petition a county to create a district, but there is no such requirement for future amendments specified in statute. I acknowledge the statute is silent on procedures for amendments to the zoning district regulations after adoption of the district, which leads to some grey area of interpretation. But the language does apply the 60% requirement to the "creation" of the district. I've always considered subsequent amendments to be within the inherent power of the zoning commission and the county commissioners. My experience with the Big Sky Part 1 district in Gallatin County has been consistent with my interpretation. John and I would like to find a time to visit with you and whomever you would welcome from the planning department." (Emphasis added).

- b. On March 17, 2023, John Hart sent the following email to Jennie Dixon and Tim Worley, both of Missoula County:

- i. Tim and Jennie, I spoke with Alan last night. He's not going to be heavy on the 'I-know-more-than-you-do.' He acknowledges that the County's past practice re amending a Part 1 zoning reg is not unreasonable given the lack of guidance in the statutes. He understands why we need to be consistent and don't want to change course, but they'll press us anyway. They will be looking for any other paths forward that don't require signature consent of 60% of 70 or so property owners in the district."
- c. On April 14, 2023, Tim Worley of Missoula County wrote the following to Jennie Dixon and Karen Hughes:
 - i. "I called John about our conclusion on Z.D. 40 – that we couldn't see a way to move forward on a variance based on the prohibition against enlarging a non-conformity. It's clear that the county supported amendments to two Part 1 districts (8A and 25A) without requiring a petition of 60% of the affected real property owners. The BCC even approved final amendments (from county staff) to district standards in the case of Z.D. 8A. John believes it's fine to share this information with Alan McCormick. I thought about waiting until Wednesday and our regular JH meeting, but I'm not sure that's necessary. I thought I'd let you know just in case you have any questions, objections, etc."
- d. On April 25, 2023, Tim Worley wrote the following to Karen Hughes and Jennie Dixon:

- i. “Alan was glad to hear that a petition wouldn’t be required for merely requesting to amend district standards. He’ll consider various approaches and get back to us.”
- e. On November 14, 2023, Karen Hughes, Director of Planning, Development and Sustainability Department, sent the following email to the Commissioners:
 - i. “Greetings Commissioners, It sounds like citizen inquiries and comments are picking up related to the Western Materials LLC Variance request for Citizen Zoning District #40. There is a Missoula County Voice Page for this project...that provides information on the request, how to contact us with questions, and options for providing comments.”
 - ii. Commissioner David Strohmaier responded on November 15, 2023:
 - 1. “What is our decision space on this matter?”
 - iii. John Hart responded on November 15, 2023:
 - 1. “Wide discretion”

67. Correspondence between Missoula County and the Applicant also reveal a very close working relationship, even deferring to Western’s legal counsel for guidance in preparing their internal Staff Report. For instance:

- a. On November 28, 2023, Jennie Dixon wrote the following to Alan McCormick:
 - i. “Hi Alan, I’m working on the staff report for the Western Materials Use Variance and wanted to see if you could help me with one question and perhaps crafting a finding relative to § 76-2-109, MCA. (need by Friday 12/1) Effect on natural resources. (1) Regulations adopted under this part may not regulate lands used for grazing, horticulture, agriculture, the

growing of timber, or the complete use, development, or recovery of any mineral. (2) (a) A provision of this part may not be construed to alter Montana law regarding the primacy of the mineral estate, to limit access to the mineral estate, or to limit development of the mineral estate. (b) A regulation, resolution, or rule adopted pursuant to the provisions of this part may not prevent the complete use, development, or recovery of any mineral that is under the jurisdiction of the board of oil and gas conservation pursuant to Title 82, chapter 11, part 1.” I’ve done a little research on my own to try to understand why sand and gravel are not considered minerals, and it seems to revolve around a 2004 Supreme Court decision, with Justice Roberts issuing a minority opinion. Here’s my favor. Can you think of wording for a Finding of Fact about why § 76-2-109, MCA, doesn’t apply to sand and gravel mines – it can be as short as a sentence or two...I just want to include something simple aside from “it just doesn’t apply.”

68. Following extensive discussions with Missoula County officials, Western submitted their application for a Part 1 Use Variance request on October 25th of 2023.
69. The Use Variance requested to allow the existing 80-acre gravel operation to expand into the 70-acre area adjacent, thereby nearly doubling the size of the operation.
70. Missoula County received the first Petition in Opposition of approval on November 28, 2023. The first Petition in Opposition was signed by 78 residents, representing 37 households in Missoula County, 34 of which were located within ZD40.

71. On December 1, 2023, Western requested a delay in the public hearing date for their variance “in order to have more time to address agency and public comment” with a new hearing date set for “sometime in 2024.”
72. Missoula County received a second Petition in Opposition of approval on February 20, 2024. The second Petition in Opposition was signed by 31 additional people, representing 21 households, none of which were located within ZD40.
73. Public Meetings regarding the Use Variance were held on February 22, 2024, April 4, 2024, May 2, 2024, June 20, 2024, and August 6, 2024.

Public Comment

74. Missoula County received hundreds of public comments, the overwhelming majority of which were in opposition to approval.
75. Missoula County received one agency comment in opposition to the expansion from Missoula County Parks, Trails & Open Lands (“MCPTOL”), which identified issues with the intent of ZD40, particularly that the District was “created to provide for low density residential development adjacent to critical resource areas, such as aquifer recharge areas and critical wildlife habitats, such as winter game ranges, breeding and spawning areas, and rare vegetation.”
76. MCPTOL observed the following:
 - a. “This intent statement is important to highlight because the proposed 70-acre gravel pit expansion is adjacent to a critical wildlife habitat corridor for grizzly bears and elk. This area also constitutes one of the last remaining intact ecosystem linkages between the Bitterroot Mountains, Sapphire Mountains, and Graves

Range, making it extremely valuable to the long-term health of our wildlife populations.”

- b. “Gravel pit operations create disturbance due to not only their footprint on the land, but the noise and increased traffic associated with their use which can alter and deter wildlife movement.”
- c. “Based on information provided in the variance request, the gravel pit was only around 15 acres when ZD40 was established. While the gravel operation was already expanded to its current 80 acres since that time, additional expansion would create additional impacts and is contrary to the intent of both ZD40 and what is stated in the 2002 Lolo Regional Plan for that area.”
- d. “In summary, PTOL does not support the expanded gravel pit operation and we recommend the Planning and Zoning Commission follow the spirit of the ZD40 regulations by not granting the proposed variance.”

77. MCPTOL’s comment further highlights the misinformation contained in the Use Variance application and materials relied upon by the Planning and Zoning Commission and Board of Commissioners in making their decision to approve or deny.

78. Additional public comments include the following¹:

- a. “Commissioners: I’m flabbergasted that the Western Materials Gravel Pit is not required to follow the zoning ordinances when the rest of us living in the county (voting for you and paying our taxes) MUST. We aren’t allowed to do whatever we want on our own property without proper permits, let alone affecting an entire community negatively IN EVERY WAY – pollution, noise, unsightliness, traffic,

¹ https://missoulacountyvoice.com/use-variance-to-expand-gravel-operation-south-of-lolo?page=3&tool=guest_book

the road conditions not meant for tons of gravel trucks, the wildlife, water table, and property values! Why do they get to skirt the zoning ordinances for rural residential zoning? Why haven't you already dismissed their approval to expand when they have no right to even exist? We would have let them be if they hadn't gotten bold and greedy by trying to expand in a place that isn't zoned for them. Is it a money issue because we residents don't have deep pockets? How many connections does the gravel pit owners have with you, the city, and future proposed projects? It seems we weren't informed of everything appropriately, but now it's "oh well, the pit's already there, we might as well drag our feet over it until the residents against the expansion give up or run out of money to fight it." Please vote AGAINST THE EXPANSION VARIANCE BECAUSE IT'S THE RIGHT, LAWFUL THING TO DO. Sincerely, RetiredTeacherInFlorence."

- b. "Why has the county not corrected the factual error in their description? From above: "The existing gravel operation pre-dates this zoning and so is permitted to continue as a legal nonconforming use." At worst, this is negligent misrepresentation of the facts. When viewed in light most favorable to the applicant, there are facts which are in dispute regarding when the pit in its current iteration started. In order to avoid the appearance of favoritism, maybe the summary should be factually correct."
- c. "I am not a civil engineer or a hydraulic engineer, but there are a few things I think I understand about soil. WGM however is a large engineering firm and I would appreciate if one of their engineers would correct me if I'm mistaken. Several neighbors have expressed their concerns about access to water and water

quality, and I can only agree with them. What I understand about soil and geological layers is that they act as a filter, as a sponge and as a sealant. As a filter in the sense that underground water is protected from contaminants which could seep into the ground. As a sponge in the sense that soil stores and slowly releases the water at the end of the rain/wet season. As a sealant to prevent direct contact with airborne pollutants and oxygen, which allows for noxious bacteria to develop. On the other hand, opencut mining annihilates and irreversibly destroys all of the above. The wetland along the Old Highway has dried out in recent years. It used to look more like a pond. Many neighbors have had to move their wells on their properties and drill deeper. Still the flow of water would be diminished. The pit operation has not increased significantly in acreage in recent years but has gone significantly deeper into the geological layers. Both the filtering and storage characteristics of these layers have already been damaged if not permanently destroyed. The next phase is the sealant aspect. As long as this mining operation stays active on top of our aquifer, it is only a matter of time for a disaster to happen. The proposed expansion would only accelerate this process. And the addition of an asphalt plan would add carcinogenic particles to the mix. Is the County and especially the Planning Office willing to take responsibility for the destruction of an entire neighborhood? Is the County going to address the damage that has already been done? As a reminder and a response to the Planning Office who still tries to allege that there is some uncertainty as to the intent behind the establishment of ZD40 (see the 1970s news articles brought forth during the last hearing), I would like to quote the intent section of ZD40 statutes: Intent: This

district is created to provide for low density residential development adjacent to critical resources areas, SUCH AS AQUIFER RECHARGE AREAS and critical wildlife habitats, etc. The designers of our zoning knew very well how many people the aquifer could sustain and what kind of activity it could allow. Mining was not part of them and still is not today. Again, please DENY the use variance.”

- d. “Commissioner Slotnick and others, I attended the April 4th public meeting where this use variance was first discussed. In that meeting you posed a question to residents who have moved to this area after the existing pit was in place, wondering “why we might be concerned now but were not concerned before?” I am one of those residents, my wife and I moved out of Missoula in 2016 and purchased a house here in Florence in advance of starting our family. At the time we were looking for three main things: a rural/rural-residential setting to raise our children in a manner similar to both of our rural upbringings; adequate land to raise fruit, vegetables, and livestock since we both came from organic farms and farming communities prior to our time in Missoula; and adequate water rights to sustain such farming activities. When we purchased, we did know that the area was zoned rural-residential at 3ac. per unit, that was a specific selling point for us. We did also know of the pit’s existence by driving past it everyday. At that time the pit was near its full spatial acreage but it wasn’t a significant concern for us for two reasons: 1) as you’ve heard before, the general understanding of everyone in the area was that this was a small operation for which the singular owner was limited in scope by law and zoning (only through this variance and subsequent investigation have we learned otherwise). This was explained to us by multiple

neighbors whom we met prior-to and after purchasing. (2) In 2016 when we purchased the Hendrix pit was still, truly a 1-man type operation with only a few excavators on site and 1 or 2 dump trucks that pulled a load down Old Hwy 93 a few times daily. As you've heard from many other residents, I believed that the existing zoning as well as some limits I assumed an overseer like DEQ would impose were a protection from any significant mining. I still remember the day, post Covid, when I was traveling on HWY 93 (which provides more visibility than my typical route alongside the pit) that I saw what a drastic change had occurred since the purchase by WM. It was truly eye-popping! The spatial area might not have changed much but in the last three years the depth and pace of mining across the lot has expanded rapidly. The 1-man operation we all reluctantly acknowledged had shifted to include aggregate and concrete batching, so many more on-site machinery, and now tractor-trailer sized loads passing over our small road throughout the day. Side-note, its already dangerous and hard enough to turn north onto HWY 93 near Trader Brothers, the slow crawl of 18-wheelers does not improve this for the locals. WM says that the local residence will not feel an impact of increased mining, but out of the other side of their mouth they are also telling you that this pit is unique in that it has everything they need to make it their primary production facility. If they shift their primary mining and batching activities from the Mullan pit to Hendrix, how are we not expected to notice an ever further increase in activity? By and large, we made the decision to move near an existing pit because of what that pit was in 2016, and what it was supposed to become per everyone's understanding of the zoning law. That 2016

iteration of the Hendrix pit is far and away different than the operation it has morphed into in just the last 3 years. I do hope you do not sign off on the variance to finally legitimize something that should have never been allowed in the first place. Many Thanks, Joe Fortier.”

- e. “Is Missoula County trying to push a potentially illegal gravel pit operation down the throats of the neighbors of Citizen Initiated Zoning 40? We have been calling out to the Board of County Commissioners for months now that public records PROVE that this operation was started and continued to grow against the laws of our zoning and BEHIND THE BACKS of the neighbors whose lives it directly impacts. What kind of backroom government are we running in Missoula County where the constituents are left in the dark about decisions that directly affect them? How is it possible that the unelected Planning Office employees get to decide zoning permits that clearly go against the zoning statutes? Do they have the authority to make these decisions when the law of our zoning clearly states any modification to our zoning MUST go before the Board of County Commissioners and have a public hearing? Where is the oversight of this office?”
- f. “I’m commenting as a neighbor in opposition to the Western Materials gravel pit expansion. I watched the entirety of both meetings, most recently the one held on April 4th, 2024, and have several comments in opposition to Western Materials’ expansion. I reside with my wife roughly ¾ of a mile to the southwest of Western Materials’ gravel operation. While the operation itself doesn’t impact us in terms of noise, dust, light pollution, or odor, we do suffer from the added traffic congestion at the Rowan/93 South Intersection and on the frontage road which has

yet to be addressed adequately. First, while the county touts zoning as being the only mechanism communities have to protect the character of their neighborhoods, they clearly don't hold citizen zoning in high regard and county staff made that clear in the April 4th meeting. Missoula County residents should be on notice that while the county will offer zoning up as a solution, they are demonstrably and openly antagonistic against the citizen initiated versions.

Second, the county is acting almost in a representative capacity for the applicant, advocating for them and letting the applicant's counsel opine on questions of law and procedure which should be the purview of the county's counsel. Look at the FAQ section to the right, which is clearly one-sided. Interested parties, if looking solely at the "FAQs" are not getting the full story – rather they are getting what amounts to an endorsement from the county to the detriment of all whom this expansion would impact. County counsel admittedly has no opinion about what legal processes should have happened regarding previous expansions. Rather than admitting such and bringing on counsel who does know what should have happened, they consulted applicant's counsel provide guidance, a clear conflict.

Isn't the county supposed to be neutral? There is not just an appearance of favoritism, they have demonstrated this time and again that they don't care about existing zoning, the malfeasance which got us to this point, nor the significant impact on those near the pit. The focus is almost entirely on the "hardship" inflicted upon Western Materials. Not to mention, that they are creating their own hardship by contracting to purchase a property they do not have a legal right to exploit yet. Next, the "hardship" argument is weak considering the reams of facts

which point to this not being legal or practical. Western has 20-25 years worth of material in their existing footprint, plenty of time to find an alternative source which is economically feasible.”

79. In addition to the comments above, the public provided substantial comment on the following issues of concern:

- a. The legality of the underlying gravel pit;
- b. The impact on traffic and safety at a particularly problematic intersection of Highway 93 South;
- c. The contamination of drinking water resulting in particular from the asphalt and concrete plant;
- d. The abundance of gravel in other locations not zoned residential;
- e. The impact on critical wildlife corridors, especially to the resident elk herd and migrating grizzly bears;
- f. The impact on critical wetlands;
- g. The failure of Western to meaningfully mitigate the public’s concerns;
- h. The failure of the county to confirm the zoning location of the Hendricksen mine prior to issuing the 1993 Zoning Compliance Permit;
- i. Documented health risks associated with asphalt production, concrete production and gravel pits generally;
- j. Inability to sell property located within ZD40 without disclosing the existence of the mine and incurring substantial losses in property values;
- k. Incongruity with the aesthetics of the surrounding neighborhood;
- l. Dust control;

- m. Chemical exposure & poisoning;
 - n. Noise pollution; and
 - o. Psychological and social impacts.
80. The commission largely failed to address all of these issues as a part of its analysis, findings and conclusions.
81. There is no evidence in the record that any of the concerns of the public will be adequately addressed, mitigated, or remedied by either the conditions applied to the permit, or by established facts in the administrative record.
82. Specifically in relation to water resources, after significant concerns were raised by the public in relation to a lack of information regarding affects of the project on water quantity and quality, the Commission asked both sides to undertake the significant expense of producing professional hydrologic opinions on the issue.
83. Plaintiffs/Appellants submitted a Hydrologic Report prepared by HydroSolutions, Inc. in response to the Hydrologic Report prepared on behalf of Western (“GSI report”), which found the following:
- a. “The GSI report falls short in terms of characterizing depth to groundwater at the proposed mine expansion site. A clear understanding of depth to groundwater is critical to assessing the potential for groundwater quality and quantity impacts at an opencut site because it (along with the mining plan) determines whether groundwater is likely to be intercepted by mining activities.”
 - b. “Published literature (cited in the GSI report) indicates that groundwater levels in the Bitterroot Valley fluctuate seasonally. However, the GSI report only presents approximately 10 days of groundwater level monitoring, which is far too short to

adequately characterize the degree of seasonal groundwater level fluctuation at the site or to approximate annual minimum and maximum groundwater levels (as acknowledged by the GSI report).

- c. “The approach used by GSI for assessing groundwater flow direction and gradient is suboptimal for two reasons. First, the GSI report indicates that all four wells in their monitoring network (W1, W5, W5A, W5B) are used as water supply wells (p. 3). This is most notably reflected in the frequent fluctuations of water level in W1 (more than 25 feet at times) and the less frequent dips in most of the other wells’ water levels (see GSI report Figure 4). The regular pumping of W1 likely results in a depressed groundwater level that does not accurately reflect the static groundwater level in the surrounding aquifer. Thus, data collected from this well in particular may erroneously suggest that the groundwater is deeper than it actually is.”
- d. “Second, the spatial configuration of the wells used by GSI for assessing groundwater flow direction and gradient is poor and likely limits the accuracy and relevance of these determinations. At its simplest, determination of groundwater flow direction and gradient is an exercise in defining a place in space that represents the groundwater table or potentiometric surface. Definition of a plane requires a minimum of three points – in this case groundwater elevation in wells.”
- e. “Based on the materials that I have reviewed, there appears to be potential for shallow groundwater to be encountered during mining of the proposed expansion area.”

- f. “Based on this information, the extent, depth, and quantity of shallow groundwater beneath the proposed expansion area is uncertain. However, the items I have cited above suggest it is a possibility that mining in excess of about 9 feet bgs in the proposed expansion area could intercept groundwater.”
- g. “Applicant should provide information on current and proposed water use related to opencut mining operations so that nearby property owners can understand and evaluate the potential effects of expanded water usage.”
- h. “Qualitatively speaking, any removal of overburden and gravel above the aquifer at the proposed mine expansion area will increase the risk of surface contamination impacting groundwater over that of a no mining scenario.
- i. “Thus, as a consequence of expanded opencut mining, downgradient groundwater users (and potentially surface water bodies) are likely to experience a degree of elevated risk of contamination from any surface spills at or near the mine site.”
- j. “The GSI report concludes that “site-specific hydrogeologic data collected by GSI in June 2024 do not indicate that operations at the existing or proposed expansion of the Pit will adversely impact water quality or water quantity...” (p. 7). Based on the minimal amount of data presented, it is my opinion that these conclusions are overly broad and premature for the reasons described in my comments above. In addition, regarding water quality, GSI presents no data on existing water quality, no sampling results, no analysis, and no other basis to support their conclusion of no likely effect from expanded mine operations.”

See Exhibit Z, Hydrosolutions Comments; Exhibit AA, GSI report.

84. This report created a direct conflict in the record before the Commission as to the potential for harm to water quality and quantity as a result of the project.
85. The Commission arbitrarily or intentionally failed to address this reality, instead, ignoring completely the potential harm to local drinking water wells, agricultural water rights, and downgradient water bodies, such as the adjacent Bitterroot River.
86. Despite these concerns, the Commissioners voted to approve the Use Variance with mitigating conditions on August 6, 2024, following a recommendation for approval from the Planning, Development, and Sustainability Department and a vote for approval by the Planning and Zoning Commission.
87. The Commissioners relied heavily on the mitigating conditions of approval to justify their decision to approve the Use Variance.
88. These mitigating conditions include but are not limited to:
- a. Construction of berms intended to hide the unsightly nature of large-scale commercial mining;
 - b. The use of white noise reverse alarms to address noise complaints;
 - c. Hours of operation from 5 am to 5 pm Monday through Saturday, with limited night-time operations that are undefined;
 - d. One hundred (100) foot setbacks for processing equipment from nearby Old Highway 93 South;
 - e. Three hundred (300) foot wide buffer and wildlife corridor along the north and south sides of the entire operation; and
 - f. Track pads and water to keep dust at a minimum, among other conditions.

89. While useful in theory, Missoula County also clearly states that the “Missoula County Commissioners do not have direct control over gravel operations” and that if citizens are concerned over how Western operates their gravel operation, they are directed to “contact the Department of Environmental Quality.” See Missoula County Voice, FAQs.²
90. These conditions also did not address the date of reclamation, which may again be amended to a date beyond 2045 as the pit operators have historically done.

COUNT 1 – VIOLATION OF ZONING REGULATIONS

91. The preceding paragraphs are realleged as though set forth hereunder.
92. The district court reviews the Commissioner’s decision for an abuse of discretion.
- Flathead Citizens for Quality Growth, Inc. v. Flathead Cnty. Bd. of Adjustment*, 2008 MT 1, ¶ 32, 341 Mont. 1, 175 P.3d, 282.
93. A variance is proper where (1) the variance is not contrary to the public interest; (2) a literal enforcement of the zoning ordinance results in unnecessary hardship owing to conditions unique to the property; and (3) the spirit of the ordinance is observed and substantial justice done. *Carlson v. Yellowstone Cnty. Bd. of Adjustment*, 2017 MT 186, ¶ 17, 288 Mont. 232, 399 P.3d 322.
94. The Board of Commissioners shall have the power to authorize such variance from the recommendations of the planning commission as will not be contrary to the public interest, where owing to special conditions, a literal enforcement of the decision of the planning and zoning commission will result in unnecessary hardship. § 76-2-106(2), MCA.

² <https://missoulacountyvoice.com/use-variance-to-expand-gravel-operation-south-of-lolo/widgets/73535/faqs#11898>

95. The Missoula County Planning and Zoning Commission does not have regulations specific to Part 1 Use Variance Requests. MCZR § 11.6(C).
96. ZD40 itself describes that the “Board of County Commissioners shall have the power to authorize such variance from these regulations that will not be contrary to public interest where, owing to special conditions, the literal enforcement of a decision of the Planning and Zoning Commission would result in unnecessary hardship.
97. Further, ZD40 itself describes that “[a]ny existing non-conforming uses shall be limited to their present size and not allowed to expand in any form or nature.”
98. A [commission] “is bound to apply” the relevant zoning regulations. *Carlson*, 2018 MT 186, ¶ 17. A [commission] may not “disregard the provisions of, nor exceed the powers conferred by, a zoning ordinance and must act in accordance with the law.” *Id.* (citation and internal quotations omitted).
99. Testimony and public comment at the various special meetings demonstrated that the approval of the variance was not in the public interest, would severely impact the neighboring residents, particularly those living within ZD40, and is not supported by the spirit of ZD40.
100. The Commissioner’s deliberations focused entirely on the need and their future aspirations for county-wide development rather than the impact to Plaintiff/Appellant and other neighboring residential communities.
101. The Commissioners failed to consider the impacts to the spirit of the zoning of ZD40 or how their decisions could establish a precedent for future industrial projects located in residentially zoned neighborhoods, such as the Carlton Neighborhood.

102. The Commissioner’s approval of the Use Variance was an abuse of its discretion because the facts in the administrative record establish that allowing industrial scale mining in a quiet residential neighborhood is contrary to the public interest, a denial of the Use Variance request would not have resulted in undue hardship to the Applicant, who was well aware of the rural-residential zoning restrictions when they became involved with the project, and a variance for a 150-acre gravel and asphalt mine within a residentially-zoned neighborhood does not observe the spirit of ZD40.
103. A literal enforcement of ZD40 does not result in any undue hardship or “deprive [the Applicant] of any right enjoyed by nearby property owners.” *Carlson*, 2017 Mont. 186, ¶ 22.
104. Similarly, any hardship potentially suffered by the Applicant, is one of their own making, “not anything inherent” in the land that would cause this hardship. *Id.* at ¶ 21.
105. Finally, the decision to grant Applicant’s variance request is not in the public interest, and greatly conflicts “with the general purpose of the zoning regulations.” *Id.* at ¶ 24.
106. The failure to consider and make findings regarding the proper factors – including specifically the spirit of ZD40 and the hardship of literal enforcement – among other things, rendered the Commission’s decision arbitrary, capricious and an abuse of discretion.
107. Pursuant to § 27-8-201, et seq., Plaintiffs/Appellants seek and are entitled to a declaration that the Commissioners’ decision to approve the Western Variance on August 6, 2024, was unlawful and an abuse of discretion.

COUNT II – REQUEST FOR DECLARATORY JUDGMENT II

(EXISTING SITE IS AN ILLEGAL NON-CONFORMING USE)

108. The preceding paragraphs are realleged as though set forth in full hereunder.
109. Pursuant to § 27-8-201, et seq., Plaintiffs/Appellants seek and are entitled to a declaration that the Commissioner's actions to approve the Hendricksen Mine Site via the 1993, 2009, and 2020 Zoning Compliance Permits was unlawful and an abuse of discretion.
110. There is no evidence in the record before the Commission that could establish that the Hendricksen Pit existed at the time of zoning in 1976 and thus, the Commission's decision, both in the past and in the present, use-variance process to characterize the site as a legal non-conforming use that existed at the time of zoning is arbitrary, capricious and an abuse of discretion.
111. Rather, the Hendricksen Pit has continuously expanded through the years as a result of negligent fact-finding, due process, and public participation opportunities by the County to verify the history of the pit and confirm that it was or was not a lawful non-conforming use that existed at the time of zoning in 1976.
112. Likewise, lawful non-conforming uses may not expand, unless such enlargement is permitted by zoning ordinance. *Watts v. City of Helena*, 151 Mont. 138, 141, 439 P.2d 767, 768 (1968).
113. Missoula County's decision to secretly grant the Zoning Compliance Permits in 1993, 2009, and 2020 through non-public administrative processes, thereby allowing the underlying pit to continue to expand, was unlawful and an abuse of discretion, particularly where the underlying pit was not a vested non-conforming use upon adoption of ZD40 in 1976.

114. The Commission approved the Use Variance request on August 6, 2024, by describing the decisions as allowing “the existing legal non-conforming gravel operation to expand.” *See* Exhibit BB, August 6, 2024, Memo.

115. At the meeting on August 6, 2024, the Commissioners stated that if the underlying mine was found to be an illegal non-conforming use, the decision to grant the Variance Request would be void.

116. The Commission further expressly stated that their decision to grant the use-variance at issue was directly tied to them finding the existing mine is a legal non-conforming use.

117. Plaintiff/Appellant is entitled to a declaration from this court that Missoula County’s decision now and in the past to grant non-conforming use status to a land use that demonstrably did not predate the creation of the zoning district and for which it undisputed that no public notice or due process for a variance was ever held, is unlawful and that the decision is void.

COUNT III – REQUEST FOR DECLARATORY JUDGMENT III

(VIOLATION OF THE RIGHT TO PARTICIPATE)

118. The preceding paragraphs are realleged as though set forth in full hereunder

119. Article II, § 8 of the Montana Constitution guarantees to the public the right to “expect governmental agencies to afford such reasonable opportunity for citizen participation in the operation of the agencies prior to the final decision as may be provided by law.”

120. Article II, § 8 is implemented here through the Public Participation Act, §§ 2-3-101, et seq., MCA, and through Missoula County Zoning Regulations, §§ 11.1(G),

11.6(A)(2), both of which require that the public be afforded with notice and a reasonable opportunity to comment on agency decisions that are quasi-judicial or of significant interest to the public. Public participation – input from the public – is intended to foster better decision-making by agencies.

121. Here, Missoula County provided the public an opportunity to comment on the Use Variance proposed in 2023, but provided no such opportunity in 1993, 2009, or 2020. In effect, Plaintiffs were not notified of the potential illegality of the underlying pit until additional facts came to light via the opportunity to participate in 2023.

122. ZD40 provides that *only* the Board of County Commissioners shall have the power to authorize a variance from the regulations that will not be contrary to public interest where, owing to special conditions, the literal enforcement of a decision of the Planning and Zoning Commission would result in unnecessary hardship.

123. Although the underlying pit is often characterized by Missoula County as a legal non-conforming use that existed at the time of zoning in 1976, this characterization is demonstrably false.

124. The 15-acre pit described by Stanley Hendricksen in 1993 did not exist at the time of zoning in 1976 and cannot be described as a legal non-conforming use.

125. Missoula County failed the citizens of ZD40 when they issued the 1993, 2009, and 2020 Zoning Compliance Permits, which allowed the Hendricksen Pit to expand to the size it is today without proper notice to the public or the opportunity to provide comment on this expansion.

126. The failure to provide the public an opportunity to participate in the 1993, 2009, and 2020 decisions to issue Zoning Compliance Permits and thereby stymied

Plaintiff's/Appellant's ability or opportunity to reasonably participate and mutated "what should have been a genuine interchange into a mere formality." *Bryan v. Yellowstone Cty. Elementary School Dist.*, 2002 MT 264, ¶ 46.

127. Therefore, Plaintiff/Appellant requests a declaratory judgment that Missoula County has violated the public participation requirements of the Public Participation Act, Missoula County Zoning Regulations, and ZD40.

128. Due to Missoula County's violation of the right to participate under the law, Missoula County's issuance of all past Zoning Compliance Permits should now be set aside, and the underlying pit declared an illegal non-conforming use.

COUNT IV - PERMANANT INJUNCTION

129. The allegations in the foregoing paragraphs are re-alleged and incorporated herein by reference.

130. Pursuant to § 27-19-102, MCA., a permanent injunction should be issued if:

- (1) pecuniary compensation would not afford adequate relief;
- (2) it would be extremely difficult to ascertain the amount of compensation which would afford adequate relief;
- (3) the restraint is necessary to prevent a multiplicity of judicial proceedings;

131. Here, the County's application of negligent, secretive, arbitrary, capricious and abusive decision-making as described above has allowed an illegal land use to proliferate and grow in a residentially zoned neighborhood where industrial-scale mining is expressly prohibited.

132. The evidence in the administrative record demonstrates that this growth and proliferation of a non-conforming use has harmed Plaintiff's/Appellant's members by

way of loss of enjoyment of their property, loss of expected life and health outcomes, loss of clean air, loss of wildlife habitat, and potential harm to their water quality.

133. The evidence in the record further establishes that Missoula County has knowingly violated citizens constitutional right to know and participate in their government's decision making.
134. Irreparable harm is "harm for which there is no adequate legal remedy [.]" *Ariz. Dream Act Coal. v. Brewer*, 757 F.3d 13 1053, 1068 (9th Cir. 2014) (citing *Rent-A-Ctr., Inc. v Canyon Television & Appliance Rental, Inc.*, 94 F.2d 597, 603 (9th Cir. 1991).
135. "Because intangible injuries generally lack an adequate legal remedy, 'intangible injuries [may] qualify as irreparable harm.'" *Ariz. Dream Act. Coal.*, 757 F.3d at 1068 (citing *Rent-A-Ctr.*, 944 F.2d at 603).
136. Furthermore, the Montana Supreme Court has conclusively determined that the loss of a constitutional right may constitute an irreparable injury. *Driscoll v. Stapleton*, 2020 MT 247, ¶15, 401 Mont. 405, 473 P.3d 386.
137. Although, the Montana Supreme Court has not defined environmental harm as *per se* irreparable, this must be balanced with the legislature's edict that "the interpretation and application of [the preliminary injunction standards] closely follow United States supreme court case law." Section 27-19-201(4), MCA (2023.)
138. Adopting this approach means that "[e]stablishing irreparable injury should not be an onerous task for plaintiffs" that seek to protect the environment, *Cottonwood Environmental Law Center v. U.S. Forest Service*, 789 F.3d 1075, 1086 (9th Cir. 2015) (cert. denied at 580 U.S. 916), because "[e]nvironmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long

duration, *i. e.*, irreparable.” *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 545, 107 S. Ct. 1396, 1404 (1987).

139. Thus, an environmental injury, because it interferes with a person’s constitutional right to a clean and healthful environment, may constitute an irreparable injury. *Netzer Law Office, P.C. v. State*, 2022 MT 234, ¶¶ 21-22, 410 Mont. 513, 520 P.3d 335; *Montana Env’tl. Information Center v. Dep’t of Env’tl. Quality*, 1999 MT 248, ¶ 77, 296 Mont. 207, 988 P.2d 1236 (Montanans’ have a fundamental constitutional right to a clean and healthful environment).

140. The injury to Plaintiff’s/Appellant’s constitutional right to participate in government is also an irreparable injury.

141. Therefore, pecuniary compensation is not adequate to alleviate these harms.

142. Therefore, it would be extremely difficult to ascertain the amount of compensation which would afford adequate relief.

143. If an injunction is not issued preventing the continuation of the existing illegal and non-conforming land use of an industrial scale mine in a zoned residential neighborhood a multiplicity of lawsuits is likely to result because the negligent, arbitrary and abusive actions of Missoula County have created both a public and private nuisance which itself will need to be enjoined and for which financial damages are owed.

144. Therefore, Plaintiffs/Appellants respectfully request that this Court issue a permanent injunction prohibit any further mining activities until such time as the land at issue has gone through the public process for granting a use variance required by Montana’s constitution, state statute, and local regulations.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff/Appellant prays for relief as follows:

1. Determine and declare that the Commission's decision to approve the Use Variance on August 6, 2024, was unlawful and an abuse of discretion for the reasons alleged herein, and remand with instructions to deny the Use Variance;
2. Determine and declare that Missoula County's decision to issue Zoning Compliance Permits in 1993, 2009, and 2020 were unlawful and an abuse of discretion for the reasons alleged herein;
3. Determine and declare that the underlying Hendricksen site is an illegal non-conforming use and permanently enjoin the underlying Hendricksen Site from continuing operations in ZD40;
4. Determine and declare that Defendants violated the Plaintiff/Appellant's Constitutional, statutory and regulatory right to know and participate in the continuous expansion of the underlying Hendricksen Site from 1993 to 2024;
5. For Plaintiff/Appellant's costs and attorneys' fees; and
6. For all other relief the Court deems just and proper.

DATED this 5th day of September 2024.

By: /s/ Graham J. Coppes
Graham J. Coppes

By: /s/ Emily F. Wilmott
Emily F. Wilmott

By: /s/ Taylor K. Heggen
Taylor K. Heggen

EXHIBIT A

40-11

RESOLUTION #76-59

BE IT RESOLVED, thatwhereas a petition was filed with the Board of County Commissioners of Missoula County, Montana, for the creation of a planning and zoning district as described in said petition, and

WHEREAS, the petition was signed by more than sixty percent (60%) of the freeholders within such area, and

WHEREAS, the County Commissioners there upon appointed a Planning and Zoning Commission in accordance with the provisions of Chapter 41, Title 16, R.C.M., 1947, as amended, and

WHEREAS, the Planning and Zoning Commission hereafter, by order directed that Notice of a Public Hearing be given as required by law, and such Notice was given and public hearing held,

NOW, THEREFORE, IT IS ORDERED AND THIS DOES ORDER that there is hereby created Missoula County Planning and Zoning District No. 40, which said district is described as follows:

All of Section 23, the North Half (N $\frac{1}{2}$), Section 26, the Northeast Quarter (NE $\frac{1}{4}$), Section 27, T11N, R20W, P.M.M., all in Missoula County, Montana.

IT IS FURTHER ORDERED that this district is hereby zoned C-RR Rural Residential in accordance with county zoning Resolution No. 161, as amended.

IT IS FURTHER ORDERED, and this does order, that the following regulations shall govern the use of lands and structures within the above Planning and Zoning District No. 40.

A. INTENT

This district is created to provide for low density residential development adjacent to critical resource areas, such as aquifer recharge areas and critical wild habitats, such as winter game ranges, breeding and spawning areas, rare vegetation.

B. SPACE AND BULK REQUIREMENTS

Maximum residential density	1 dwelling per 5 acres
Minimum lot width	150 feet
Minimum front yard	50 feet
Minimum side yard	15 feet
Minimum rear yard	20 feet
Maximum building height	50 feet
Maximum lot coverage	5 percent

C. GENERAL PERFORMANCE STANDARDS

Off-street parking and signs - See Chapter V, Missoula County

Zoning Resolution.

D. PERMITTED USES

- 1. Single family residence
- 2. Accessory buildings incidental to main building
- 3. Parks and playgrounds

E. CONDITIONAL USES

- 1. Home occupation
- 2. Residential PUD
- 3. Community Residential Facilities as defined by Section 11-2702.1 and .2, R.C.M. 1947, which accommodate more than eight (8) persons.

F. NON-CONFORMING USES

Any existing non-conforming uses shall be limited to their present size and not allowed to expand in any form or nature. Provide that community residential facilities having an existing physical plant capable of accommodating more than eight (8) persons shall be permitted to fully utilize their present facilities for care and treatment of handicapped persons.

In conformity with the provisions of Section 16-4103, R.C.M., 1947, the Board of County Commissioners shall have the power to authorize such variance from these regulations that will not be contrary to public interest where, owing to special conditions, the literal enforcement of a decision of the Planning and Zoning Commission would result in unnecessary hardship.

Dated this 30th day of April, 1976.

SEAL

ATTEST:

S/ Robert E. Arras
Clerk and Recorder

DISTRICT 40, PLANNING & ZONING
COMMISSION

S/ Ludvig G. Browman
S/ Wilfred V. Thibodeau
S/ Richard Ostergren

S/ Richard H. Colvill
S. Douglas W. Campbell

EXHIBIT AA



HYDROGEOLOGIC EVALUATION REPORT

Hendricksen Pit
Missoula County, Montana

Prepared for:
Garlington, Lohn & Robinson, PLLP
P.O. Box 7909
Missoula, MT 59807

On behalf of:
Western Materials, LLC
P.O. Box 4746
Missoula, MT 59806

Prepared by:
GSI ENVIRONMENTAL INC.
145 Front Street
Missoula, MT 59802
www.gsienv.com

Job No.: 10101
Issued: June 28, 2024

Hydrogeologic Evaluation Report
Hendricksen Pit
Missoula County, Montana

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1.0 INTRODUCTION

GSI Environmental Inc (GSI) prepared this Hydrogeologic Evaluation Report for Garlington, Lohn & Robinson, PLLP, on behalf of Western Materials, LLC (WM) in response to groundwater quantity and groundwater quality concerns related to the proposed expansion and zoning variance of the existing permitted Hendricksen Pit (Pit) located south of Lolo, Montana in Missoula County, Montana. The Pit is located in Township 11 North, Range 20 West, Section 23 (**Figure 1**).

The Pit is currently permitted under Montana Department of Environmental Quality (MDEQ) Opencut Permit #2681 and is located within Citizen Zoning District (ZD) #40, adopted by the Missoula County Planning and Zoning Commission in 1976. The Pit operated prior to the adoption of ZD #40, therefore, continued operation of the existing Pit is legal under the MDEQ permit.

The Missoula County Planning and Zoning Commission held open public hearings related to the proposed expansion and zoning variance on February 22, April 4, May 2, and June 20, 2024. At the time of writing this report, an additional hearing is scheduled for August 6, 2024.

This report is intended to describe the groundwater system beneath the Pit and is organized as follows:

- Section 2.0 describes the geologic setting of the Pit, including regional groundwater occurrence and flow;
- Section 3.0 describes site-specific hydrogeologic data that was collected by GSI following the May 2, 2024 Missoula County Planning and Zoning Commission hearing;
- Section 4.0 describes how the site-specific data were processed and analyzed;
- Section 5.0 includes results from analysis of site-specific hydrogeologic data;
- Section 6.0 includes conclusions regarding potential water quality and quantity related impacts from an expanded Pit; and
- Section 7.0 includes reference documents supporting this report.

2.0 GEOLOGIC SETTING

The Pit is located within the Bitterroot River Valley, approximately 4.5 miles south of Lolo, Montana and 4.3 miles north of Florence, Montana (**Figure 1**). The Pit is located on agricultural land, generally sloping to the east, with elevation of the existing Pit ranging from 3,190 feet (ft) above mean sea level (amsl) to 3,300 ft amsl.

The Bitterroot Valley is oriented north-south and is located between the Bitterroot Range to the west and the Sapphire Mountains to the east. The Bitterroot River flows to the north and is located approximately 1.5 miles east of the Pit at an elevation of approximately 3,170 ft amsl. Metamorphic and igneous intrusive rocks are present within the core of the Bitterroot Range and Sapphire Mountains, with the low lying portions of the valley consisting of layered quaternary and tertiary aged alluvial deposits (Montana Bureau of Mines & Geology [MBMG], 2013). Most of the water supply wells in the vicinity of the Pit are completed within Quaternary aged unconsolidated alluvial sediments. Alluvial sediments are 100 to 150 ft thick in the vicinity of the Pit (MBMG, 2006a). A limited number of water supply wells in the vicinity of the Pit are completed within bedrock and are located adjacent to the Bitterroot Range west and northwest of the Pit.

The unconsolidated alluvial sediments beneath the Pit are 100 to 200 ft thick, with bedrock mapped at an elevation of ~3,100 ft amsl (MBMG, 2006c). The alluvial sediments between ground surface and the underlying bedrock are layered and heterogeneous, consisting of layers of coarse and fine grained sediments that are present in both MGBG cross sections (MBMG, 2006d) and available MBMG groundwater information center (GWIC) well logs (**Appendix A**).

2.1 Groundwater Occurrence and Flow

Groundwater levels within the valley fill alluvial aquifer vary due to multiple factors including seasonal streamflow and climate variability, recharge from irrigation practices, long-term (yearly to decadal) climate variations, and groundwater pumping (MBMG, 2013). Groundwater generally flows away from topographic highs (adjacent mountain ranges) and towards the Bitterroot River. Groundwater recharge occurs through infiltration of precipitation, losing stream reaches, septic system return flows, or leaking (unlined) irrigation ditches. Groundwater discharge occurs through well pumpage, springs/seeps, gaining stream reaches, and transpiration through plants and crops.

Groundwater level fluctuations in the Bitterroot Valley exhibit multiple seasonal patterns related to recharge/discharge sources, including irrigation response, springtime runoff response, stream recharge response, and a usage response (MBMG, 2006b). Wells in the vicinity of the Pit exhibit either an irrigation response, springtime recharge response, or a combination of an irrigation/recharge response. Wells with an irrigation response rise in April/May/June and then steadily rise through September because of crop irrigation and/or irrigation ditch leakage. Wells with a recharge response rise in April/May/June and generally decrease until July when they stabilize for the remainder of the year (MBMG, 2006b).

3.0 SITE SPECIFIC DATA COLLECTION

GSI collected site-specific groundwater level and hydraulic data from the Pit in May and June 2024 in response to groundwater quantity and quality concerns by local stakeholders located in the vicinity of the Pit. Site-specific data was collected in accordance with industry standard best practice technical procedures for collection of standardized hydrogeologic data (United States Geologic Survey [USGS], 2011). Specifically, the following USGS groundwater technical procedures documents (GWPDs) were used to guide hydrogeologic data collection at the Pit:

- GWPD 2—Identifying a minimum set of data elements to establish a groundwater site;
- GWPD 3—Establishing a permanent measuring point and other reference marks;
- GWPD 4—Measuring water levels by use of an electric tape; and
- GWPD 16—Measuring water levels in wells and piezometers by use of a submersible pressure transducer.

The following sections describe collection of site-specific groundwater levels and hydraulic data regarding aquifer yield and aquifer hydraulic parameters.

3.1 Groundwater Levels

WGM Group, Inc. (WGM) of Missoula, Montana completed a vertical and horizontal survey of wells located on the Pit parcel and several nearby wells located to the northwest on privately owned parcels, outside of the proposed Pit expansion. **Appendix A** includes available MBMG well logs from the Pit property and **Table 1** summarizes well attributes. **Appendix B** includes a copy of the WGM well survey. The following elements of each well were surveyed by WGM:

horizontal location of the well in state plane coordinates, ground surface elevation surrounding the well casing, and the north side of the steel well casing. Note that GWM collected ground surface elevations at multiple locations adjacent to the steel well casing as these wells are not located on perfectly flat ground. **Table 1** includes an average of the ground surface elevation for each well. The elevation of the steel well casing is used as a consistent measuring point for subsequent depth to water measurements in accordance with USGS (2011) GWPD 3—Establishing a permanent measuring point and other reference marks.

Figure 2 shows the wells on the Pit property that were measured multiple times with an electronic water level indicator (also known as an “electric tape”) in addition to installation of automated electronic pressure transducers. A total of four wells were instrumented (W1, W5, W5A, and W5B) to gather data for this report. Note that W5B was not instrumented until June 20, 2024, and is not included in the potentiometric surface map dataset collected on June 17, 2024. Well W1 serves a residence on the Pit property and is used for domestic water supply. Wells W5, W5A, and W5B are located in the southeast portion of the Pit property and are used by WM to support dust suppression, feed the gravel wash plant, and support the onsite concrete plant.

3.2 Aquifer Hydraulic Parameters and Aquifer Testing

An 8-hour constant rate aquifer test was performed on June 21, 2024 to support evaluation of aquifer parameters and radius of influence that were used to analyze the potential for off property water quantity impacts. Well W5A was pumped while monitoring water levels in wells W5 and W5B. Well W5A is reportedly the highest yield well located on the Pit property and is used to feed the gravel wash plant. The constant rate aquifer test was used to estimate the hydraulic conductivity and storativity of the alluvial aquifer beneath the Pit. Aquifer parameters including hydraulic conductivity, aquifer thickness, and storativity can be used to evaluate the hydraulic radius of influence from pumping a well (Fetter, 2001).

4.0 DATA PROCESSING AND ANALYSIS

The following subsections describe data processing and analysis of groundwater level and aquifer test data.

4.1 Groundwater Levels

Manual depth to water measurements with an electric tape were used to calculate the depth to water and depth to the automated electronic pressure transducer in each well. Groundwater elevation is calculated in each well by subtracting the manual depth to water measurement from the surveyed elevation of the top of casing. Determining the depth to the pressure transducer is calculated by adding the pressure reading from the transducer (measured in feet of water pressure) to the synchronous depth to water measurement (measured in feet below the top of the well casing). The electronic pressure transducers were programmed to record hourly measurements for general monitoring purposes and were reprogrammed to record measurements every minute during the pumping and recovery periods of the aquifer test performed at well 5A. Additionally, a barometric pressure datalogger was installed onsite to compensate (subtract) the barometric pressure captured by the electronic pressure transducers.

4.2 Aquifer Hydraulic Parameters and Aquifer Testing

GSI performed a constant rate aquifer test at well W5A on June 21, 2024. Existing pumping infrastructure was used to convey water from well W5A to a storage pond near the gravel wash plant located approximately 400 ft northwest of well W5. The storage pond has accumulated a layer of fine sediment from gravel washing operations, limiting leakage to the subsurface and

eliminating the potential for recirculation of aquifer test discharge to the groundwater table. Discharge of well W5A was monitored with an electronic totalizing flow meter and water levels at wells W5, W5A, W5B, and W1 were monitored using electronic pressure transducers recording water levels at 1-minute intervals. Well W5A has a maximum short-term pumping rate of 80 gallons per minute (gpm). For the 8-hour aquifer test, Well W5A was pumped at a constant rate of 77.9 gpm. Pumping at W5A was terminated after 483 minutes (8.05 hours), and the electronic pressure transducers remained in the pumping well and monitoring wells following cessation of the aquifer test to record water level recovery. **Appendix C** includes a daily field report documenting aquifer test activities.

Aquifer test data from the pressure transducers were barometrically compensated and processed consistent with groundwater level data that resulted in a continuous 1-minute groundwater elevation dataset from the test for analysis in the AQTESOLV (Duffield, 2007) software package. AQTESOLV is an industry standard software package for analytical solutions that is used to analyze data from different types of aquifer and other hydraulic tests. The following list summarizes basic inputs for the aquifer test data in AQTESOLV:

- Location and well construction specifications of pumping and observation wells;
- Aquifer thickness and aquifer type (confined, leaky confined, or unconfined);
- Flow rate measurements from the pumping well;
- Water level observations from pumping and recovery (non-pumping) periods; and
- Basic aquifer parameters including the horizontal to vertical hydraulic conductivity ratio.

The aquifer thickness used in the analysis was conservatively set at 60 feet based on total depth measurements at wells W5A and W5B, mapped depth to bedrock under the Pit (MBMG, 2006c), and the lack of hydraulic communication between wells W5 and W5A observed during the aquifer test. As previously mentioned, well logs for W5A and W5B are not available in the GWIC database. These wells were assumed to be completed with a 10 ft perforated interval at the bottom of the casing as measured by total depth measurements. Regardless of the aquifer thickness and well completion assumptions stated above, aquifer test analytical solutions are relatively insensitive to these parameters.

The aquifer in the vicinity of wells W5, W5A, and W5B was determined to behave as a leaky confined (semi-confined) aquifer due to the very minor hydraulic communication between wells W5 and W5A/W5B as demonstrated during the aquifer test and typical operational pumping cycles recorded prior to the aquifer test. Aquifer test data from well W5 was not analyzed due to the limited response and minimal drawdown observed at this location (0.09 ft) during the aquifer test.

Pumping responses at wells W5A (pumping well) and W5B (observation well) were analyzed in AQTESOLV using the Hantush and Jacob (1955) solution for leaky confined (semi-confined) aquifers. The Hantush and Jacob (1955) analytical solution is based upon the following assumptions (Duffield, 2007):

- Aquifer has infinite areal extent;
- Aquifer is homogeneous, isotropic, and of uniform thickness;
- Pumping well is fully or partially penetrating;
- Flow to the pumping well is horizontal when pumping well is fully penetrating;

- Aquifer is leaky confined;
- Pumping well discharge is constant rate or variable rate;
- Water is released instantaneously from storage with decline of hydraulic head;
- Diameter of control well is very small so that storage in the well can be neglected;
- Aquitards have infinite areal extent, uniform vertical hydraulic conductivity, and uniform thickness;
- Aquitards are overlain or underlain by an infinite constant-head plane source;
- Aquitards are incompressible (no storage); and
- Flow in the aquitards is vertical.

The semi-confined aquifer system in the vicinity of wells W5/W5A/W5B may not adhere to all assumptions of the Hantush and Jacob (1955) method; however, all hydrogeologic analytical solutions are based on mathematical porous media fluid flow equations that are unable to account for aquifer heterogeneity and limited areal extent as exists in the natural environment. Analytical solutions from the Hantush and Jacob (1955) method, or any hydraulic analytical method, are carefully examined by hydrogeologists to determine any possible bias and to determine the representativeness of the results.

5.0 ANALYTICAL RESULTS

5.1 Groundwater Levels

Table 2 summarizes groundwater elevation measurements collected at the Pit and **Figure 3** presented a potentiometric surface of the Pit area. Groundwater beneath the Pit flows to the east with a minor southeast component towards the Bitterroot River.

A complete evaluation of seasonal groundwater elevations is not currently available due to the limited period of record (June 14 to June 24, 2024). Electronic pressure transducers remain installed in wells W1, W5, W5A, and W5B and are available for a more comprehensive evaluation of seasonal groundwater elevations.

Water levels in well W1 (the domestic well) are trending slightly upward, however, this well may be influenced by nearby irrigated lands to the west that provide groundwater recharge through the summer months (MBMG, 2006b). Static water levels in wells W5, W5A, and W5B appear to be stable during the period of record despite intermittent use supporting gravel pit operations.

Figure 4 shows hydrographs for wells W1, W5, W5A, and W5B prior to, during, and following the constant rate aquifer test conducted on June 21, 2024. Typical pumping cycles are visible at wells W1, W5, and W5A; in addition to the aquifer test conducted at W5A on June 21, 2024. Well W1 is located approximately 1,650 feet north of wells W5, W5A, and W5B. Wells W5, W5A, and W5B do not respond to pumping at well W1, despite a typical pumping cycle at W1 resulting in more than 30 ft of drawdown.

Pumping at well W5 does not result in drawdown at nearby wells W5A and W5B. Well W5 is completed to a depth of 41 ft (**Table 1**) and wells W5A and W5B are completed to depths greater than 80 ft. The lack of water level response at wells W5A and W5B from pumping at well W5 suggests that a semi-confining layer is likely present between the bottom of well W1 and the open intervals of wells W5A and W5B.

Well W5B was not pumped during the period of water level monitoring at the Pit. This well reportedly has a yield of approximately 50 gpm and is utilized on an as needed basis to support Pit operations.

5.2 Aquifer Hydraulic Parameters and Aquifer Testing

Table 3 summarizes the aquifer test performed at well W5A on June 21, 2024. **Appendix C** includes a daily field report and photos of the aquifer test activities. **Appendix D** presents analytical results from the Hantush and Jacob (1955) solution analyzed using AQTESOLV. **Figures 5** and **6** present hydrographs and aquifer test drawdown, respectively.

Pumping well W5A exhibited 4.66 ft of drawdown after 483 minutes (8.05 hours) of pumping at an average rate of 77.9 gpm (**Figure 5**). Industry standard guidance (Fetter, 2001) suggests that the flow rate during a constant rate aquifer test should vary by less than 10%. The flow rate for this test met this threshold as the flow rate varied by a maximum of 2% during the duration of the pumping portion of the aquifer test. Drawdown stabilized at well W5A after approximately 10 minutes and remained relatively constant throughout the remainder of the aquifer test (**Figure 6**). Pressure transducer data from the pumping well W5A exhibits approximately 1 ft of apparent variation in water level due to the turbulence within the well casing from operating the pump near the maximum potential pumping rate. Apparent variation in electronic pressure transducer data from a pumping well is normal and the analytical solution is matched to the central portion of the data limits. The water level recovered very quickly following the pumping period, recovering to 90% of pre-pumping levels within 3 minutes of turning off the pump.

The resultant aquifer transmissivity value from well W5A is 13,850 feet squared per day. Transmissivity is defined as the aquifer thickness in feet times the hydraulic conductivity of the aquifer in feet per day. A 60 ft aquifer thickness results in a hydraulic conductivity estimate of 231 feet per day. Note that the storativity (S) value and the confining unit leakage term (r/B) are not valid estimates based solely on pumping well drawdown data. Pumping well effects including turbulence, casing storage, well efficiency losses, and well clogging precludes the estimation of storativity and leakage term values from pumping well data only (Fetter, 2001).

Observation well W5B exhibited 2.71 ft of drawdown after 483 minutes (8.05 hours) of pumping at well W5A (**Figure 5**). Drawdown stabilized at W5B after approximately 100 minutes and remained relatively constant throughout the remainder of the aquifer test (**Figure 6**). The water level recovered very quickly following the pumping period, recovering to 90% of pre-pumping levels within 7 minutes of turning off the pump.

The resultant aquifer transmissivity value from well W5B is 4,183 feet squared per day. A 60 ft aquifer thickness results in a hydraulic conductivity estimate of 65 feet per day. The estimated storativity value from well W5B is 5.5×10^{-6} (dimensionless) and the estimated Hantush leakage term is approximately 0.013 (dimensionless). Aquifer parameters estimated from observation well measurements are generally considered more reliable than those from pumping well measurements as the observation well is not subject to pumping well effects as described above.

6.0 CONCLUSIONS

Groundwater beneath the Pit flows to the east with a minor southeast component towards the Bitterroot River. Groundwater in the vicinity of the Pit exhibits multiple seasonal patterns based on a spring recharge or irrigation return flow signature (MBMG, 2006b). Wells located in the vicinity of the Pit exhibit a total annual seasonal range of approximately five to eight feet. The groundwater flow direction is expected to exhibit minor seasonal variability considering the Bitterroot Range located to the West and the Bitterroot River located 1.5 miles east of the Pit.

Aquifer testing completed at existing wells in June 2024 indicates that an unconfined (W5) and a leaky confined (W5A and W5B) aquifer exist beneath the Pit. Despite the limited aquifer test hydraulic connectivity between wells W5A/W5B and W1/W5, these wells do communicate on a limited basis and represent a single alluvial aquifer potentiometric surface with the hydraulic gradient within the expected range of values (Fetter, 2001). Existing and proposed expanded operations will not encounter groundwater and a buffer between seasonal high groundwater and the Pit floor will be maintained as a best practice to reduce the potential for water quality impacts.

Three existing wells (W5, W5A, and W5B) completed within a distance of ~170 ft all exhibit different aquifer properties, confirming the layered and heterogeneous nature of the alluvial aquifer as mapped and interpreted by MBMG (2006d). The estimated hydraulic conductivity values at wells W5A and W5B are both consistent with the range of values for well sorted sands and gravels (Fetter, 2001). The relative difference in hydraulic conductivity between wells W5A and W5B is consistent with the yield of each well, with well W5A exhibiting a significantly higher yield throughout mining operations.

Drawdown in well W5B (observation well located 65.6 ft from well W5A) was 42% less than drawdown in well W5A (pumping well). In addition, negligible drawdown (0.09 ft) was observed at well W5 located 106.5 ft to the northeast of the well W5A. The Pit typically operates on a seasonal basis, therefore, an 8-hour aquifer test is representative of a typical pumping cycle from Well W5B. The limited and inconsistent pattern of observed drawdown at wells located close to the pumping well suggest that the potential for impairment of domestic wells located at distances of 1,000 to 6,000 feet and located up-gradient and cross-gradient from the Pit is extremely low.

Site-specific hydrogeologic data collected by GSI in June 2024 do not indicate that operations at the existing or proposed expansion of the Pit will adversely impact water quality or water quantity of adjacent landowners located up-gradient and cross-gradient from the Pit. The easterly groundwater flow direction and the limited radius of influence from aquifer tests completed onsite do not suggest that any significant adverse groundwater related impacts will occur as a result of mining operations.

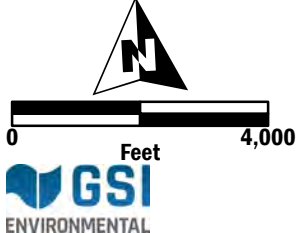
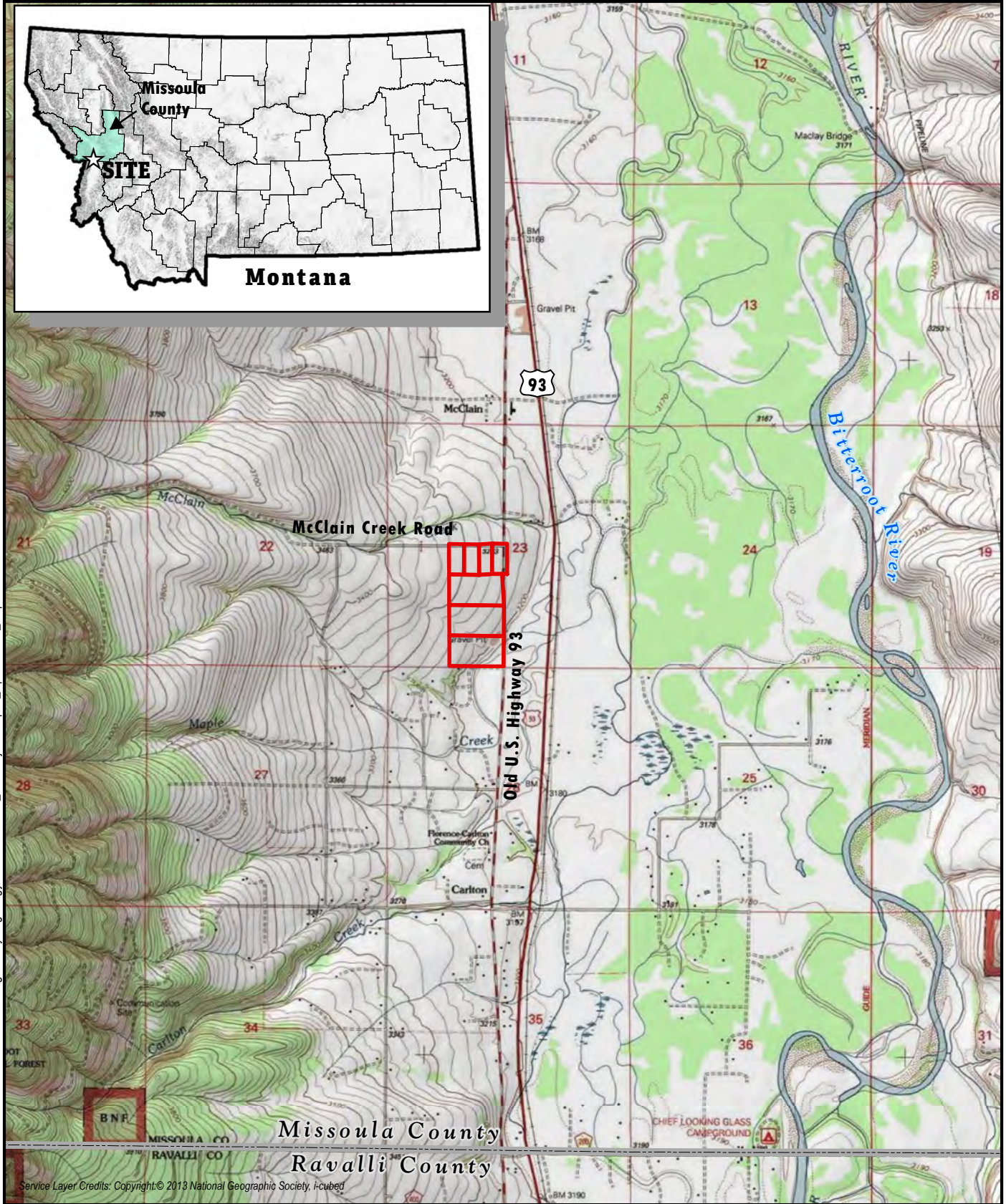
7.0 REFERENCES

- Duffield, G.M., 2007. AQTESOLV for Windows Version 4.5 User's Guide, HydroSOLVE, Inc., Reston, VA.
- Fetter, C. W., 2001. Applied Hydrogeology. 4th Edition. Prentice Hall, Upper Saddle River, New Jersey.
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- MBMG, 2006b. Montana Ground-Water Assessment Atlas 4, Part B, Map 10. Patterns of Water-Level Fluctuations, Lolo-Bitterroot Area, Mineral, Missoula and Ravalli Counties, Montana.
- MBMG, 2006c. Montana Ground-Water Assessment Atlas 4, Part B, Map 5. Altitude of the Bedrock Surface in the Bitterroot Valley: Missoula and Ravalli Counties, Montana.
- MBMG, 2006d. Montana Ground-Water Assessment Atlas 4, Part B, Map 2. Hydrogeologic Framework of the Lolo-Bitterroot Area, Mineral, Missoula, and Ravalli Counties, Montana.
- MBMG, 2013. Montana Ground Water Assessment Atlas No. 4, Groundwater Resources of The Lolo-Bitterroot Area: Mineral, Missoula, And Ravalli Counties, Montana. Part A* - Descriptive Overview and Water-Quality Data.
- U.S. Geological Survey (USGS), 2011. Groundwater Technical Procedures of the U.S. Geological Survey. Techniques and Methods 1–A1.

FIGURES

Figure 1	Location Map
Figure 2	Site Map
Figure 3	Groundwater Potentiometric Surface
Figure 4	Hendricksen Pit Hydrographs - June 2024
Figure 5	W5B Constant Rate Aquifer Test Hydrographs - June 2024
Figure 6	W5B Constant Rate Aquifer Test Drawdown - June 2024





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 Western Materials LLC Parcels

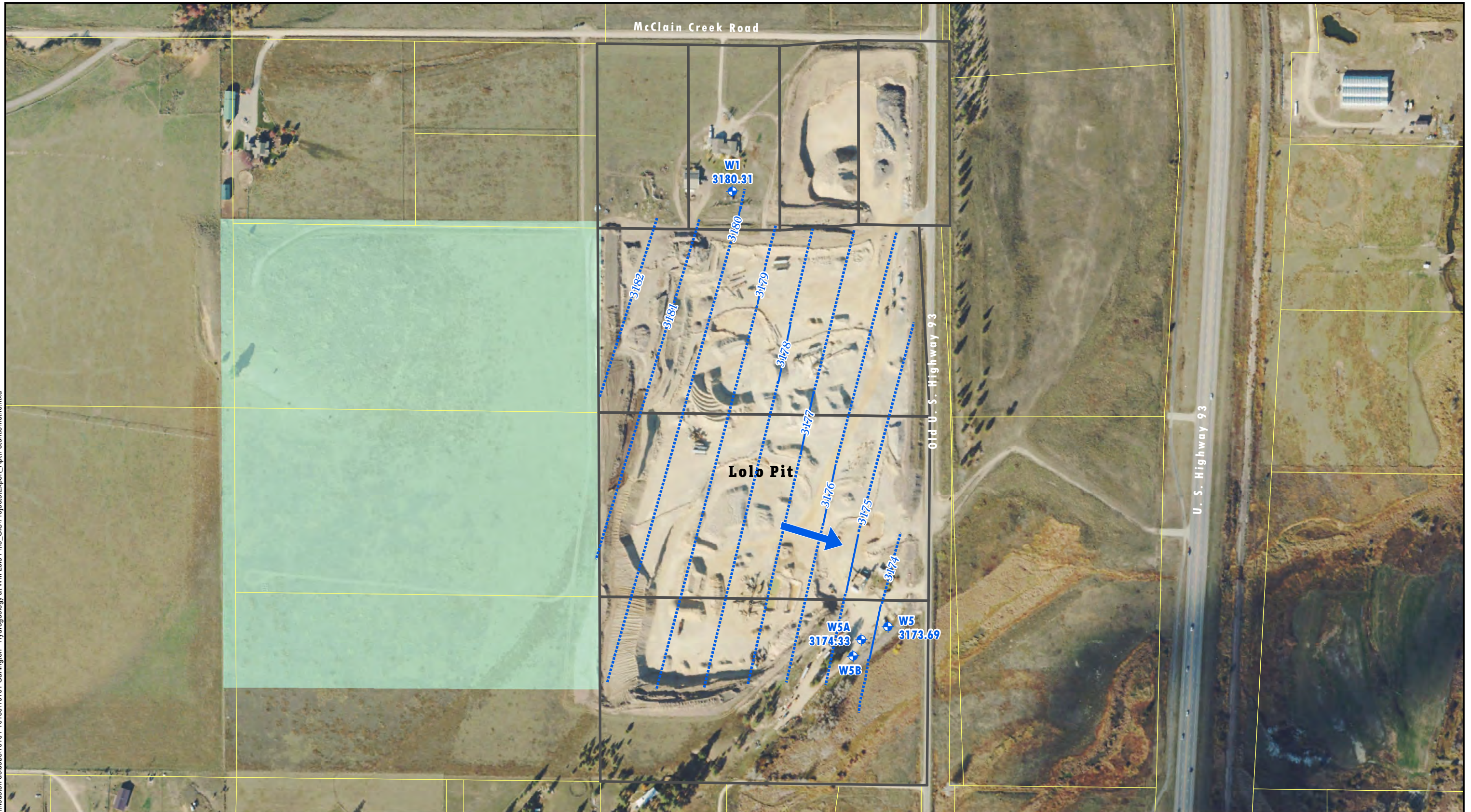
Location Map
Western Materials Hendricksen Pit
Missoula County, Montana
FIGURE 1



-  Missoula County Cadastral Parcel Boundaries
-  Western Materials LLC Parcels
-  Well Locations
-  Proposed Pit Expansion

Site Map
Western Materials Hendricksen Pit
Missoula County, Montana
FIGURE 2

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- Missoula County Cadastral Parcel Boundaries
- Western Materials LLC Parcels
- Well Locations and Groundwater Elevations (feet) Where Available
- Groundwater Elevation Contours (feet-dashed where inferred)
- Proposed Pit Expansion
- Approximate Groundwater Flow Direction

Note: Groundwater elevation data collected June 17, 2024.

Groundwater Potentiometric Surface
Western Materials Hendricksen Pit
Missoula County, Montana
FIGURE 3

FIGURE 4
Hendricksen Pit Hydrographs - June 2024
Western Materials, Hendricksen Pit, Missoula County, Montana

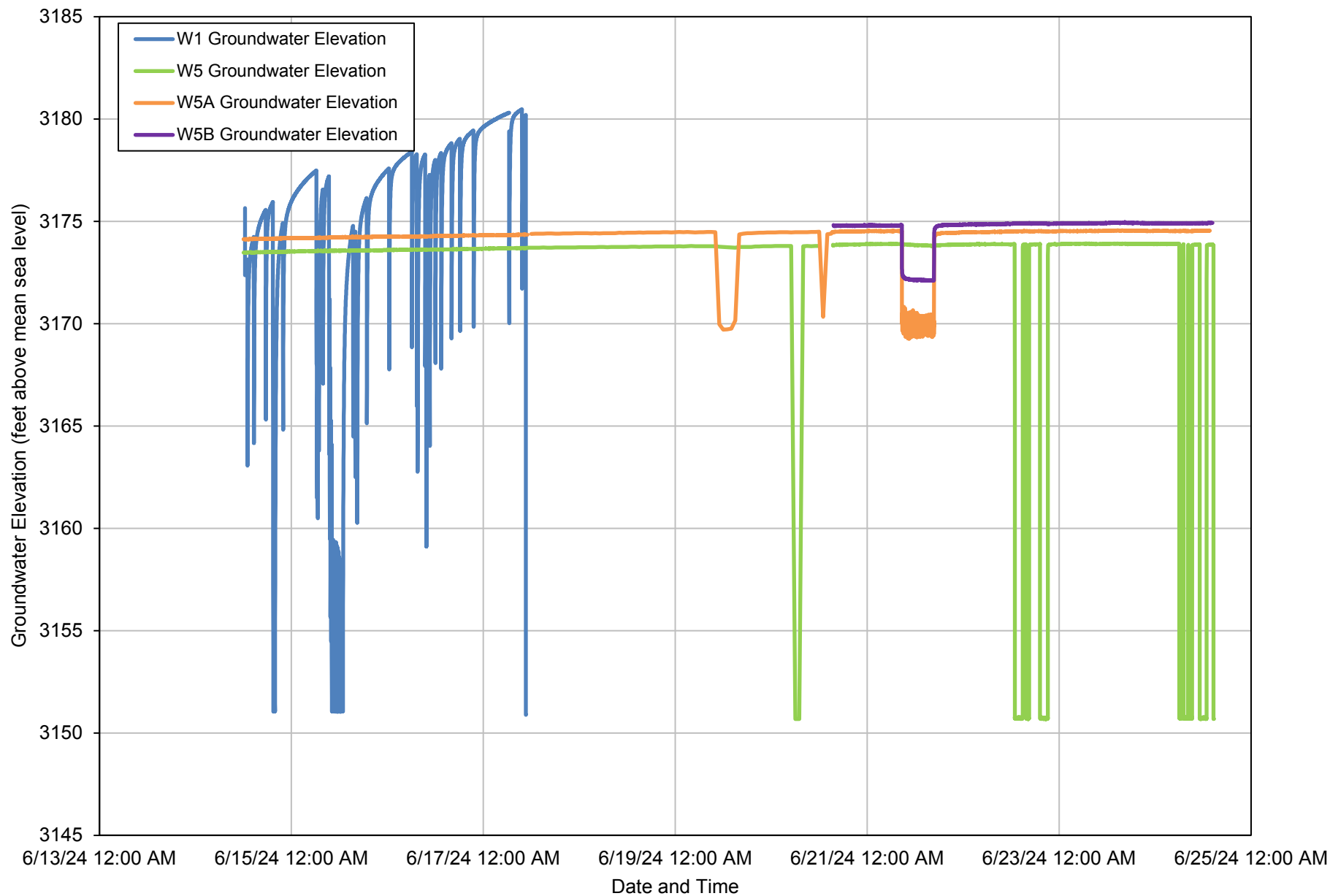


FIGURE 5
W5B Constant Rate Aquifer Test Hydrographs- June 2024
Western Materials, Hendricksen Pit, Missoula County, Montana

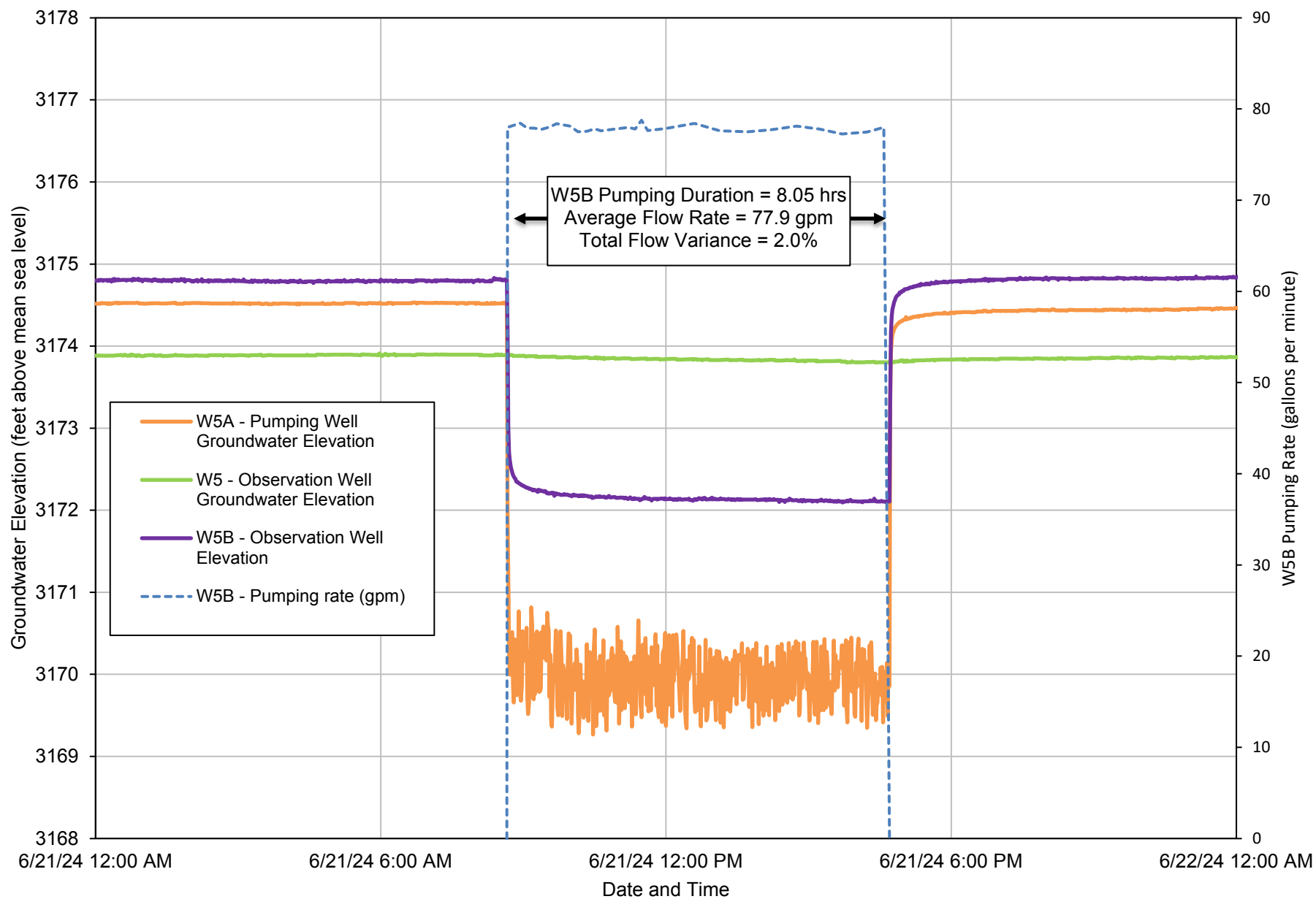
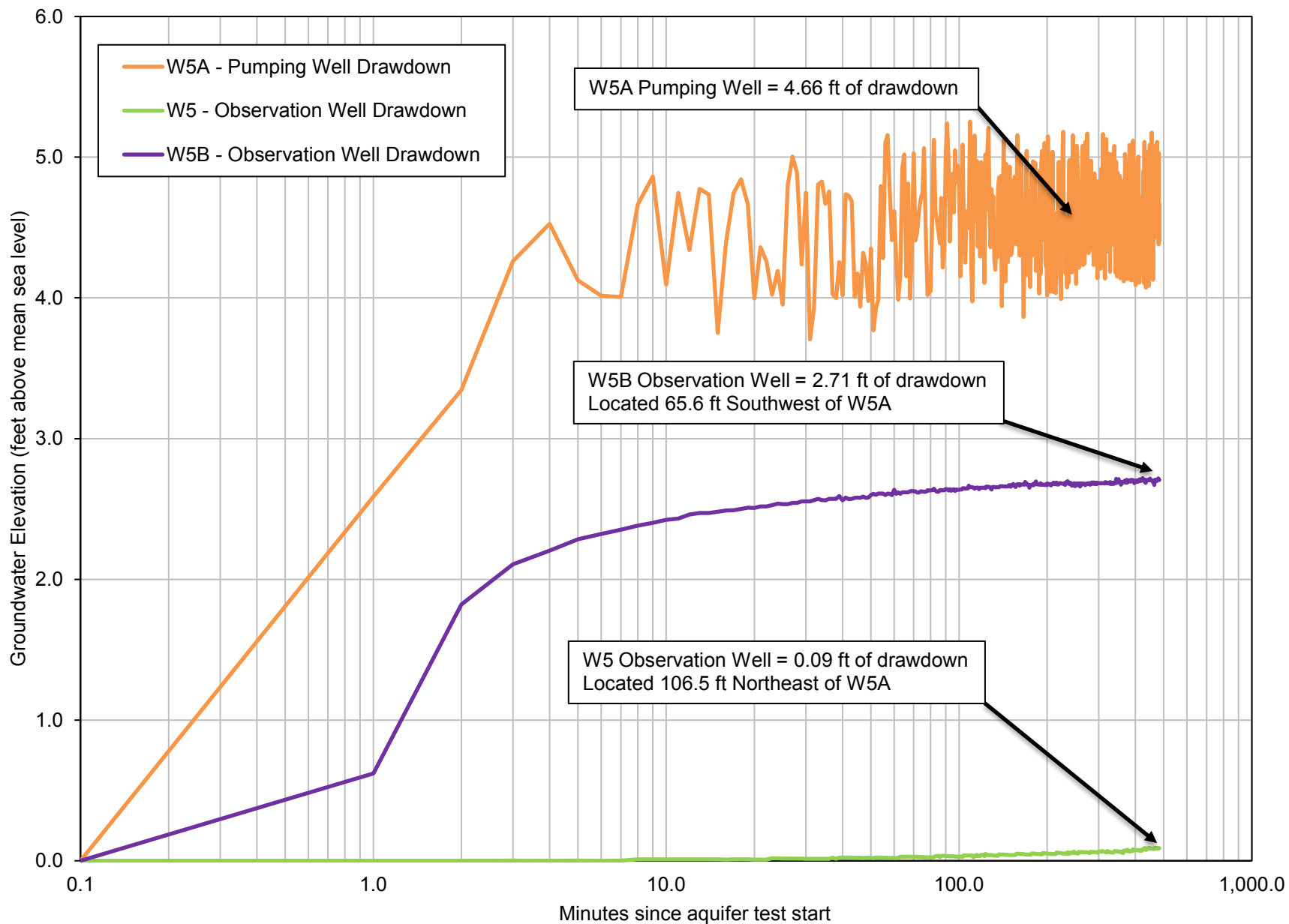


FIGURE 6
W5B Constant Rate Aquifer Test Drawdown - June 2024
Western Materials, Hendricksen Pit, Missoula County, Montana



TABLES

Table 1	Hendricksen Pit Well Summary
Table 2	Groundwater Elevation Measurements
Table 3	Aquifer Test Summary

TABLE 1
Hendricksen Pit Well Summary
Western Materials, Hendricksen Pit, Missoula County, Montana

Well ID	Northing ¹	Easting ¹	Ground Surface Elevation (ft AMSL) ¹	Top of Casing Elevation (ft AMSL) ¹	Well Depth (ft bgs) ²	GWIC ³ Well ID	Casing Perforated Interval (feet bgs)	Casing Type and Well Diameter (inches)
W1	925169.54	820400.02	3289.12	3291.09	158.5	213515	150 - 158.5	6-inch Steel
W5	923574.38	820876.87	3183.40	3185.12	41.0	152123	33 - 38	6-inch Steel
W5A	923532.17	820779.06	3185.56	3189.13	>80.5	N/A ⁴	N/A ⁴	6-inch Steel
W5B	923475.22	820746.48	3185.77	3189.47	>95.7	N/A ⁴	N/A ⁴	6-inch Steel

Notes:

1. Montana 2500 State Plane Horizontal Coordinates NAD83-CORS (International Feet)
 Vertical datum - National Geodetic Vertical Datum of 1929 (International Feet)
 2. Estimated depths for W5A and W5B were measured with an electronic water level meter.
 Measured well depth may represent top of well pump.
 3. Montana Bureau of Mines and Geology - Ground Water Information Center (GWIC) - Well Log Database.
 4. GWIC Well Log Not Available in Database.
- ft - US feet
 AMSL - above mean sea level
 bgs - below ground surface

See **Figure 2** for well locations

TABLE 2
Groundwater Elevation Measurements
Western Materials, Hendricksen Pit, Missoula County, Montana

Well ID	Top of Casing Elevation (ft AMSL) ¹	Depth To Groundwater (ft BTOC)	Groundwater Elevation (ft AMSL)	Groundwater Flow Direction (Azimuth and Direction)	Groundwater Hydraulic Gradient (Unitless)
W1	3291.09	110.78	3180.31	284.7	0.008
W5	3185.12	11.43	3173.69		
W5A	3189.13	14.80	3174.33		

Notes:

1. Montana 2500 State Plane Horizontal Coordinates NAD83-CORS (International Feet)
 Vertical datum - National Geodetic Vertical Datum of 1929 (International Feet)
2. Depth to water measured with electronic pressure transducer at 6:26 AM on June 17, 2024
 ft - US feet
 AMSL - above mean sea level
 bgs - below ground surface
 BTOC - below top of casing

See **Figure 2** for well locations

TABLE 3
Aquifer Test Summary
Western Materials, Hendricksen Pit, Missoula County, Montana

Well ID	Well Type	Distance From Pumping Well (ft)	Well Depth (ft)	Average Pumping Rate (gpm)	Pumping Duration (hours)	Observed Drawdown (ft)
W5A	Pumping	0.0	>80.5	77.9	8.05	4.66
W5B	Observation	65.6	>95.7	N/A	N/A	2.71
W5	Observation	106.5	41.0	N/A	N/A	0.09

Notes:

ft - US feet

gpm - gallons per minute

See **Figure 2** for well locations

APPENDICES

- Appendix A Well Logs
- Appendix B Well Survey
- Appendix C Daily Field Report – June 21, 2024
- Appendix D Aquifer Test Analytical Results

APPENDIX A

Well Logs

MONTANA WELL LOG REPORT**Other Options**

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

[Go to GWIC website](#)
[Plot this site in State Library Digital Atlas](#)
[Plot this site in Google Maps](#)
[View scanned well log \(2/4/2009 11:18:41 AM\)](#)

Site Name: HENDRICKSON STAN
GWIC Id: 213515

W1**Section 1: Well Owner(s)**

1) HENDRICKSON, STAN (MAIL)
 P.O. BOX 267
 LOLO MT 59846 [08/11/2004]

Section 7: Well Test Data

Total Depth: 158.5
 Static Water Level: 112
 Water Temperature:

Air Test *

8 gpm with drill stem set at 155 feet for 1 hours.
 Time of recovery 0.35 hours.
 Recovery water level 112 feet.
 Pumping water level feet.

Section 2: Location

Township 11N **Range** 20W **Section** 14 **Quarter Sections** SE¼ SW¼
County **Geocode**

MISSOULA

Latitude 46.705791 **Longitude** -114.080517 **Geomethod** TRS-SEC **Datum** NAD83
Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

* *During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Addition **Block** **Lot**

Section 8: Remarks**Section 3: Proposed Use of Water**

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
 Status: DEEPENED

Section 9: Well Log**Geologic Source**

Unassigned

From	To	Description
0	98.5	EXISTING
98.5	117	GRAY CLAY
117	132	BLUE & GRAY CLAY MIX
132	150	TAN CLAY
150	158.5	POUROUS LIGHT BROWN CLAY STONE W / B

Section 5: Well Completion Date

Date well completed: Wednesday, August 11, 2004

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Section 6: Well Construction Details**Borehole dimensions**

From	To	Diameter
0	158.5	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	158.5	6	0.250		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
150.5	155.5	6	12	5 X 5/32	TORCH OR PLASMA CUTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	0	EXISTING	Y

Name:**Company:** ESLINGER DRILLING & PUMP SERVICE**License No:** WWC-44**Date Completed:** 8/11/2004

MONTANA WELL LOG REPORT**Other Options**

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

[Go to GWIC website](#)
[Plot this site in State Library Digital Atlas](#)
[Plot this site in Google Maps](#)
[View scanned well log \(2/4/2009 12:15:43 PM\)](#)

Site Name: HENDRICKSON STAN
GWIC Id: 152123

Section 7: Well Test Data

W5

Total Depth: 41
 Static Water Level: 9
 Water Temperature:

Section 1: Well Owner(s)

1) HENDRICKSON, STAN (MAIL)
 BOX 267
 LOLO MT 59847 [08/03/1995]

Bailer Test *

40 gpm with feet of drawdown after 1 hours.
 Time of recovery hours.
 Recovery water level feet.
 Pumping water level 30 feet.

Section 2: Location

Township	Range	Section	Quarter Sections
11N	20W	23	SE¼ SW¼
County			Geocode

MISSOULA

Latitude	Longitude	Geomethod	Datum	
46.691298	-114.080492	TRS-SEC	NAD83	
Ground Surface Altitude	Ground Surface Method	Datum	Date	

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Addition	Block	Lot
-----------------	--------------	------------

Section 8: Remarks

ESLINGER DRILLING FILE NO. 2092

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 9: Well Log**Geologic Source**

111ALVM - ALLUVIUM (HOLOCENE)

Section 4: Type of Work

Drilling Method: ROTARY
 Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Thursday, August 3, 1995

Section 6: Well Construction Details

There are no borehole dimensions assigned to this well.

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	41	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
33	38	6		5/32X5	TORCH CUTS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	18	BENTONITE	

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name: Company: ESLINGER DRILLING & PUMP SERVICE License No: WWC-44 Date Completed: 8/3/1995
--

APPENDIX B

Well Survey

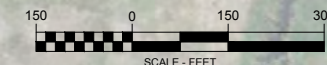


WGM GROUP
WWW.WGMGROUP.COM

PRELIMINARY

PLOTTED: 6/7/24
SAVED: 6/7/24

**WELL LOCATION EXHIBIT
HENDRICKSEN OPENCUT PIT EXPANSION
CARLTON, MONTANA**



REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT: 16-10-33
LAYOUT: 01
SURVEYED: WGM GROUP
DESIGN: ...
DRAFT: TNS
APPROVE: ...
DATE:

JUNE 2024

SHEET 01 OF 02

FILE: W:\Projects\16-10-33\161033_TCAD Data\Exhibit 161033 Well Locations.dwg



WGM GROUP
WWW.WGMGROUP.COM

PRELIMINARY

PLOTTED: 6/7/24
SAVED: 6/7/24

**WELL LOCATION EXHIBIT
HENDRICKSEN OPENCUT PIT EXPANSION
CARLTON, MONTANA**

COORDINATE TABLE - WELL 3003				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3001	925413.00	818612.53	3398.90	EL
3002	925414.01	818611.29	3398.81	EL
3003	925413.84	818612.11	3401.02	WELL-NORTH SIDE

COORDINATE TABLE - WELL 3007				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3004	925746.45	818911.33	3381.98	EL
3005	925743.49	818912.79	3381.68	EL
3006	925747.58	818914.93	3382.07	EL
3007	925746.09	818912.36	3384.38	WELL-NORTH SIDE

COORDINATE TABLE - WELL 3008				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3008	925649.71	819125.55	3374.90	WELL-NORTH SIDE
3009	925649.43	819126.65	3372.23	EL
3010	925649.87	819124.15	3372.26	EL

COORDINATE TABLE - WELL 3015				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3011	925168.72	820399.56	3289.09	EL
3012	925169.89	820400.36	3289.11	EL
3013	925169.72	820399.49	3289.08	EL
3014	925169.02	820400.40	3289.20	EL
3015	925169.54	820400.02	3291.09	WELL-NORTH SIDE

COORDINATE TABLE - WELL 3019				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3016	923475.69	820746.41	3185.86	EL
3017	923474.05	820746.18	3185.79	EL
3018	923474.95	820745.56	3185.67	EL
3019	923475.22	820746.48	3189.47	WELL-NORTH SIDE

COORDINATE TABLE - WELL 3024				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3020	923531.38	820778.21	3185.52	EL
3021	923531.12	820779.57	3185.62	EL
3022	923532.32	820779.86	3185.60	EL
3023	923532.46	820778.16	3185.49	EL
3024	923532.17	820779.06	3189.13	WELL-NORTH SIDE

COORDINATE TABLE - WELL 3029				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
3025	923574.27	820876.10	3183.25	EL
3026	923573.19	820876.59	3183.37	EL
3027	923574.02	820877.79	3183.62	EL
3028	923575.07	820877.13	3183.37	EL
3029	923574.38	820876.87	3185.12	WELL-NORTH SIDE

REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT: 16-10-33
LAYOUT: 02
SURVEYED: WGM GROUP
DESIGN: ...
DRAFT: TNS
APPROVE: ...
DATE:

JUNE 2024

FILE: W:\Projects\16-1033\161033_TCAD Data\Exhibit 16-1033 Well Locations.dwg

APPENDIX C

Daily Field Report – June 21, 2024

Default Site Location

General Info

Date	06/21/2024	Time	08:00
Personnel	Sam Berkelhammer		

Activities

Time	Observation
08:02	S. Berkelhammer arrives at site, talk to D. Gluekert
08:13	At wash pond. Totalizer reads 3,283.059 gallons (initial reading before pump test)
08:21	W5B depth to water (DTW) = 15.16 feet below top of casing (BTOC)
08:25	W5A DTW = 14.67 feet BTOC
08:26	W5 DTW = 11.27 feet BTOC
08:40	Start pumping. Instantaneous rate of about 78 gallons per minute (gpm).
16:42	Turn off pump after 8 hours.
16:43	Final totalizer reading = 40,843.955 gallons. Total cumulative volume = 37,560.896 gallons over 482 minutes is equivalent to an average flow rate of 77.93 GPM.
16:49	W5 total depth (TD) = 41.22 feet BTOC
16:57	W5B TD = approximately 95.75 feet BTOC. Most likely top of pump
17:06	W5A TD = approximately 80.54 feet BTOC. Most likely top of pump
17:13	S. Berkelhammer leaves site.

Photos



(46.69165, -114.07845)

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(46.69165, -114.07845)

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Photos



(46.69165, -114.07845)

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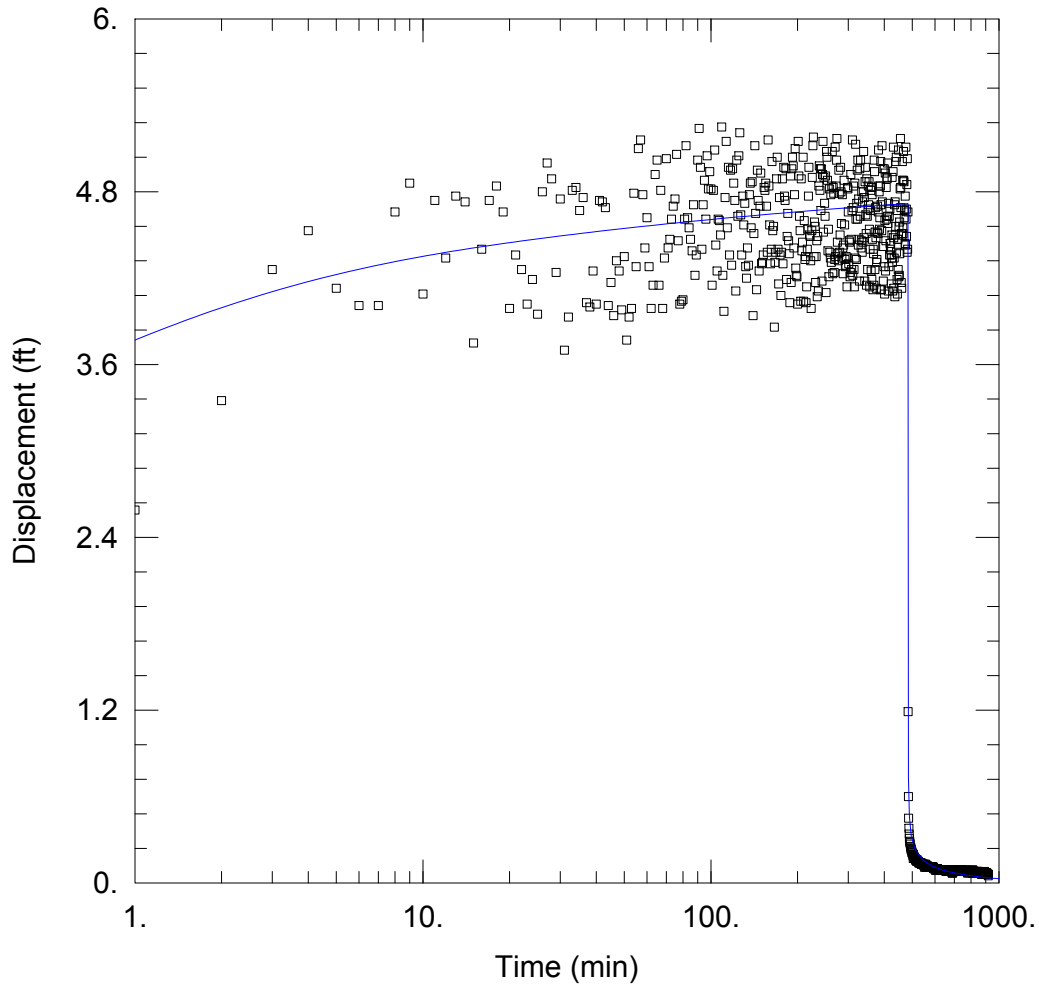


(46.69165, -114.07845)

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APPENDIX D

Aquifer Test Analytical Results



WELL TEST ANALYSIS

Data Set: C:\GSI Project Files\GLR Lolo Pit\W5A PW DD Leaky.aqt
 Date: 06/26/24 Time: 09:07:16

PROJECT INFORMATION

Company: GSI
 Client: GLR
 Project: 10101
 Location: Missoula County, MT
 Test Well: W5A
 Test Date: 6/21/2024

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
W5A	820779.06	923532.17

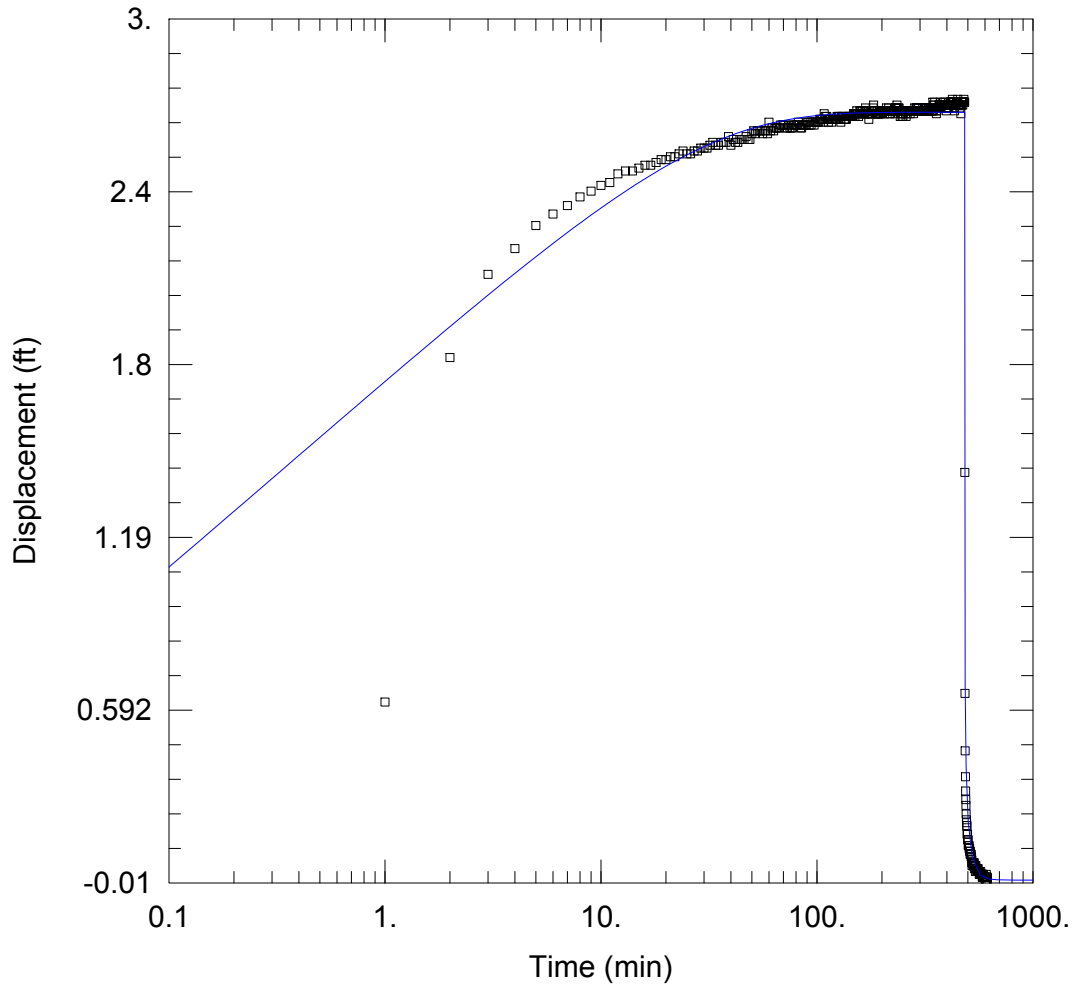
Observation Wells

Well Name	X (ft)	Y (ft)
□ W5A	820779.06	923532.17

SOLUTION

Aquifer Model: Leaky
 T = 1.385E+4 ft²/day
 r/B = 0.0008595
 b = 60. ft

Solution Method: Hantush-Jacob
 S = 0.1227
 Kz/Kr = 0.1



WELL TEST ANALYSIS

Data Set: C:\GSI Project Files\GLR Lolo Pit\W5B DD Leaky.aqt
 Date: 06/26/24 Time: 11:58:49

PROJECT INFORMATION

Company: GSI
 Client: GLR
 Project: 10101
 Location: Missoula County, MT
 Test Well: W5A
 Test Date: 6/21/2024

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
W5A	820779.06	923532.17	□ W5B	820746.48	923475.22

SOLUTION

Aquifer Model: <u>Leaky</u>	Solution Method: <u>Hantush-Jacob</u>
T = <u>4183.2 ft²/day</u>	S = <u>5.541E-6</u>
r/B = <u>0.01323</u>	Kz/Kr = <u>0.1</u>
b = <u>60. ft</u>	

EXHIBIT B

Order No.

BOOK 251 PAGE 2270

WARRANTY DEED

For Value Received JOSEPHINE B. HIRST, and W. D. HIRST, her husband,
of Missoula County, Montana

the grantors, do hereby grant, bargain, sell and convey unto

JOHN FELTON, TRUSTEE, of Missoula, Montana,
P.O. Box 7099
MISSOULA, MT. 59807

the grantee, the following described premises, in ...Missoula.....County, Montana,
to wit:

REVENUE STAMPS

The Southwest Quarter (SW $\frac{1}{4}$) of Section Twenty-three (23), Township
Eleven (11) North, Range Twenty (20) West, less easements and
rights-of-way of record.

Together with 45 inches of water from McClain Creek,
representing one-half of a 90 inch water right from said
McClain Creek owned by Grantor.

Together with an easement for the construction, operation and maintenance
of a buried sewer line, extending from a point on the Easterly boundary of the
above described quarter section, 900 feet North of the Southeast corner thereof
and extending from said point in a general Easterly direction to Northern Pacific
trestle which point is 787 ft. North of the South boundary line of the said quarter
section extended Easterly; said easement shall pass under the Northern Pacific
trestle and extend generally Easterly from that point across lands owned by
grantors to land owned by the State of Montana. During construction the easement
shall cover a strip 60 ft. in width and after construction has been completed, the
easement strip shall thereafter be 30 ft. in width (15 ft. on each side of center line
of said sewer), which shall be for ingress and egress and for the repair, maintenance
and operation of the said sewer line.

TO HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee,
his heirs and assigns forever. And the said Grantors do hereby covenant to and
with the said Grantee, that they are the owners in fee simple of said premises; that they are free
from all incumbrances

and that he/ will warrant and defend the same from all lawful claims whatsoever.

Dated: June 1 1970.

Josephine B. Hirst
W. D. Hirst

STATE OF MONTANA, COUNTY OF Missoula
On this 1 day of June, 1970,
before me, a notary public in and for said State, personally
appeared Josephine B. Hirst, and W. D.
Hirst, her husband,



known to me to be the persons whose names are
subscribed to the within instrument, and acknowledged to
me that they executed the same.

Harold D. Johnson
Notary Public
Residing at Missoula, Montana
Comm. Expires Feb. 24, 1973

STATE OF MONTANA, COUNTY OF Missoula
I hereby certify that this instrument was filed for record at
the request of

at ~~11:00~~ 11:03 o'clock A.M.,
this 18 day of Dec
1970, in my office, and duly recorded in Book 251 Miss
of Deeds at page 2270

Jean Hart
Ex-Officio Recorder

By *Jean Chausson* Deputy.
Fees \$5.00 cash Doc: WJ
Mail to: grantee

INS. REC. 18 JUN 11 03
INSTRUMENT No. 8623909

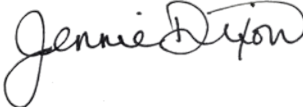
EXHIBIT BB

DEPARTMENT OF PLANNING, DEVELOPMENT & SUSTAINABILITY

Mailing: 200 W. Broadway
Physical: 127 E. Main, Suite 2
Missoula, MT 59802
P: 406.258.4657 | F: 406.258.3920
E: pds@missoulacounty.us



TO: Missoula County Planning and Zoning Commission
Missoula County Board of County Commissioners

FROM: Jennie Dixon, Planner IV, AICP 

DATE: August 6, 2024

RE: Western Materials Gravel Pit Use Variance Request – Additional Information
(Findings of Fact) & Recommended Conditions

I. RECOMMENDED MOTION

I MOVE to approve the request for a use variance in ZD #40 to allow the existing legal non-conforming gravel operation to expand onto parcels legally described as COS #5565, Parcels B and C; COS #3935; the south half of the northwest quarter of the southwest quarter; the north half of the southwest quarter of the southwest quarter; and the south half of the southwest quarter of the southwest quarter in Section 23, Township 11 North, Range 20 West, PMM, Missoula County, Montana, based on the application, the findings of facts and conclusions of law found in the staff report, and public comment and other information submitted for consideration prior to and at public meetings, subject to the conditions of approval, as amended (and shown in the August 6, 2024, memo).

Below are staff recommended conditions of approval (May 2, 2024) with most recent underline/strikeout additions and deletions shown in red.

II. RECOMMENDED CONDITIONS

1. Western Materials shall file a development agreement binding upon them and their successors, which shall apply at the time of expansion to any of the following tracts used for resource extraction:
 - 1) C.O.S. 5565, PARCEL B (5 ac), and/or
 - 2) C.O.S. 5565, PARCEL C (5 ac), and/or
 - 3) C.O.S. 3935, S2 NW4 SW4 (20 ac), and/or
 - 4) C.O.S. 3935, N2 SW4 SW4 (20 ac), and/or
 - 5) C.O.S. 3935, S2 SW4 SW4 (20 ac)

The development agreement shall include the following provisions which cannot be revised or deleted without Missoula County approval and that allow for County enforcement. The DEQ mining permit shall be revised to reflect all of the following provisions prior to any expansion beyond the originally approved bonded area.

Berms

- a. Until the pit is reclaimed in accordance with the DEQ permit, berms shall be constructed around the perimeter of the active area of resource extraction and processing (to include southeast corner of property), to a minimum of six (6) feet tall, seeded with native vegetation and subject to a weed management plan approved by the Missoula County Weed District.
- b. All berms must be designed and maintained to provide adequate sight visibility at all intersections, subject to review and approval by Missoula County Public Works.
- c. All stockpiles must be kept to a lower elevation than the surround berms to the north, south and west.

Dust

- d. Track pads shall be installed in front of the scale to keep dust to a minimum.
- e. The access drive from the scale to the main road(s) shall be paved.
- f. The pit operator shall continue to hose down the site as required by the DEQ permit to reduce dust from the operation.

Traffic Safety

- g. All egress points from the pit must have stop signs installed for trucks exiting the pit and include a warning that traffic coming from the north on Old Highway 93 could be traveling at high speeds over a hill and may require extra time for safe traffic movement.

Noise

- h. All vehicles owned by the pit operator and its subcontractors shall be equipped with white-noise back-up notification devices.

Hours of Operation

- i. Hours of Operation shall include the following:
 - Mining and crushing – 7 am to 5 pm (Monday – Saturday)
 - Concrete and asphalt – 5 am to 5 pm (Monday – Saturday)
 - Retail Sales – 6 am to 5 pm (Monday – Friday)Limited night-time hours of operations are permissible if the pit operator:
 - 1) Notifies the Planning Office in writing prior to any operation occurring after 5 pm and before 5 am. The notification shall include a copy of the contracted work indicating nighttime operations, the approved Missoula Public Health Department permits, and the dates and hours for the nighttime operations for the specific contract.
 - 2) Provides notification two weeks prior to the commencement of nighttime operations to property owners within 300 feet of the property, post notice at a location visible from Hwy 93 South adjacent to the pit and along McClain Creek Road.
 - 3) If required by OSHA, strobe light warnings shall be permitted on all vehicles during nighttime operations. If additional site lighting is required for safety, all lighting shall be shielded so that no light emits beyond the property boundary.

Processing & Equipment

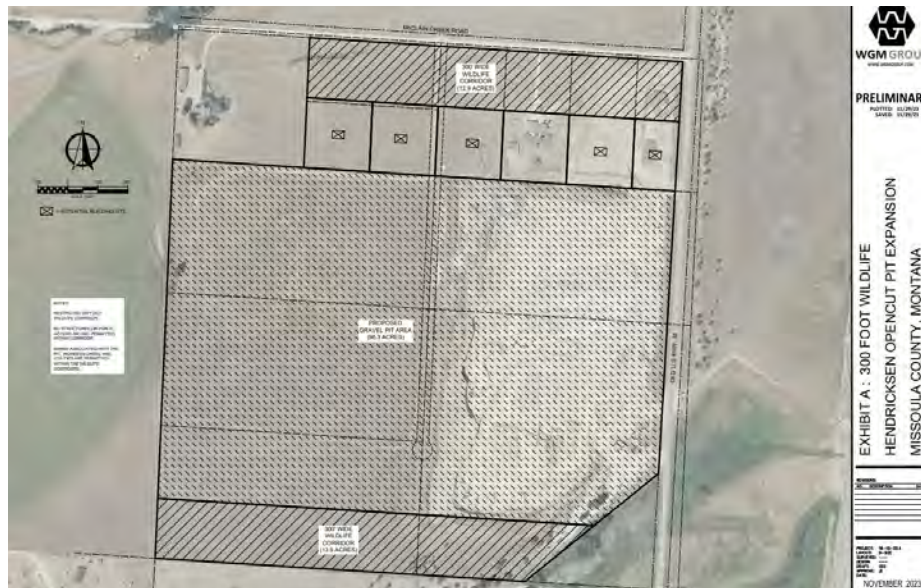
- j. All structures associated with resource extraction and production must be setback a minimum of 100' from Old Highway 93 South, and in no case may any structure or

equipment associated with resource production move any further south than their current locations. No structures or equipment shall be placed within the 51-acre western expansion area, except when necessary to move mined material to the original mining area to the east.

- k. Once extraction has been completed on site, the site must be reclaimed and the pit cannot be used for processing materials from any other remote site. Material from other pits may be not brought to this site for processing once 85 acres of the permitted 96.3 acres has been disturbed.

300' Buffer and Wildlife Corridor

- l. A 300' wide buffer and wildlife corridor shall be provided (and depicted graphically in the development agreement) along the north and south sides of the entire operation, as shown in the figure below. These areas shall exclude all structures and resource extraction equipment, and public access and use. Berm construction and reclamation, necessary utilities, ingress/egress, and wildlife-friendly fencing may be permitted within these buffer/corridors, as well as necessary grading and contouring to accomplish these allowed uses. Chain link fencing (slats prohibited) is only permitted in these areas along the perimeter of the active resource extraction area for safety purposes.



Future Development Scenario

- m. The DEQ Reclamation Plan shall be revised to reflect Scenario #2, shown within this report and below and as an attachment to the applicant's submittal *Proposed Mitigations Memo, 1/29/24*. Upon reclamation, the 150-acre property shall be permitted to develop with homes clustered in the development area as shown in the figure below, with the remaining area set aside as permanently protected open space.



Fencing

- n. If fencing is to be installed within the 300' buffers/wildlife, wooden-rail or smooth-wire wildlife friendly fencing shall be used, consisting of no more than three rails or wires, with the bottom of the bottom rail/wire at least 18 inches off the ground and the top of the top rail/wire no higher than 42 inches off the ground.
2. All other necessary permits administered by agencies other than Planning, Development, and Sustainability shall be obtained by the property owner or designated representative. These permits may include but are not limited to, building, zoning compliance, electrical, mechanical, approach, sanitation, and DEQ mining permits.
3. The DEQ permit shall be revised prior to issuance of a zoning compliance permit with the following restrictions and shall not be revised or deleted without governing body approval:
 - a. Mining is prohibited within 10 feet of groundwater.
 - b. Pit run from other gravel pits may not be processed at this gravel pit. Any material needed for mix designs from other gravel pits must be processed elsewhere and hauled in.
 - c. Processed materials hauled from other gravel pits shall be limited to 20% of the annual production of the plants to ensure that when this pit is out of its gravel resource, it will no longer produce concrete and asphalt.
 - d. Prior to issuance of a Zoning Compliance permit for expansion or placement of an asphalt plant onsite (whichever comes first), two groundwater monitoring wells shall be installed on the western site boundary in locations recommended by the hydrogeologic evaluation report for water quality monitoring purposes by the pit operator.
 - e. The extraction area shall not exceed a total of 66 acres at any point in time; additional land may be bonded for but may only include land within wildlife corridors.

III. FINDINGS OF FACT

Below are additional findings to supplement the original findings in the staff report issued on February 22, 2024.

Findings

75. The Missoula County Planning & Zoning Commission conducted their first public hearing on this variance request on **February 22, 2024**. At this first hearing, the following topics were discussed as part of the public testimony.
- a. Property Values
 - i. Concerns were raised about decreased home and property values due to the gravel pit.
 - ii. Evidence was provided showing that homes in the vicinity of the pit are retaining their value and are comparable to the rest of the Missoula Valley.
 - iii. Visual impacts from the pit are mitigated by berms, reducing its visibility from neighboring properties.
 - b. Wildlife Impact
 - i. The proposed gravel pit expansion includes measures to preserve wildlife corridors, particularly for elk migration.
 - ii. A revised plan was presented to provide 300-foot corridors on the north and south sides of the property to mitigate impacts on wildlife.
 - iii. Post-mining reclamation plans include maintaining 85 acres of open space for wildlife in perpetuity.
 - c. Public Benefit
 - i. The expansion proposal aims to provide a local source of quality gravel for construction, reducing the need to truck in materials from outside the area, thereby minimizing transportation costs and associated environmental impacts.
 - ii. Western Excavating has committed to not mining into the groundwater table, which is not a requirement but an additional measure to protect water resources.
 - d. Community and Environmental Mitigations
 - i. Conditions of approval include restricting the location of equipment to its current position, maintaining berms to reduce visual and noise impacts, and ensuring post-mining reclamation includes significant open space.
 - ii. The existing zoning allows for residential development in the area, which could proceed without the gravel pit, potentially resulting in less favorable conditions for wildlife and increased residential density without the mitigations proposed by Western Excavating.
 - e. Zoning Compliance
 - i. Compliance of the operation with zoning regulations by previous and current operators of the gravel pit was questioned.
 - ii. The community expressed concerns about past irregularities in the permitting process and the need for strict adherence to current zoning regulations moving forward.
 - iii. Requests were made for a comprehensive environmental impact report focusing on elk and other wildlife.
 - f. Public and Community Input

- i. Numerous community members submitted written comments and testified in person, expressing strong opposition to the expansion of the gravel pit.
 - ii. Community concerns included the lack of transparency and accountability in the permitting process and the need for a formal, documented paper trail for all decisions and actions taken by the County Planning Office.
 - g. Alternatives and Future Development
 - i. If the variance is denied, Western Excavating will continue operations within the existing bonded area, potentially leading to the sale and residential development of adjacent land without the benefits of the proposed mitigations.
 - ii. The development scenario which includes residential dwellings without wildlife corridors or clustering may have greater environmental impacts than the proposed gravel pit expansion.
 - h. Health and Safety
 - i. Increased truck traffic and dust generation are concerns associated with the gravel pit's operation.
 - ii. Mitigating conditions such as berms and equipment restrictions aim to reduce health and safety risks to nearby residents.
 - i. Economic Viability
 - i. The proposal argues for the economic viability of expanding the gravel pit to ensure a local source of construction materials, supporting community infrastructure projects and reducing costs.
 - ii. Denial of the variance may lead to increased costs for trucking materials from outside the area, impacting public and government projects.
 - j. Environmental Regulations
 - i. The proposal includes voluntary compliance with additional environmental protections not mandated by the Department of Environmental Quality (DEQ), such as not mining into the groundwater table and maintaining visual and noise buffers. (February 22, 2024, Missoula County BCC Public Meeting Minutes)
76. The Missoula County Planning & Zoning Commission conducted a second public hearing on this variance request on **April 4, 2024**. (April 4, 2024, Missoula County BCC Public Meeting Minutes)
77. At this hearing, Alan F. McCormick, a representative for Western Materials, LLC, explained that the unnecessary hardship prompting the variance request is the existence of gravel on the property that cannot be extracted due to zoning restrictions. He compared the situation to classic hardship cases where zoning restrictions, like a setback, make a property unusable. In this case, the zoning prevents accessing a valuable resource, just as a setback might prevent using a lot. Variances are sought to address such hardships by allowing exceptions to zoning laws that hinder the use of property. McCormick's discussion focused on the implications of not allowing the expansion of a gravel pit in Missoula County. (April 4, 2024, Missoula County BCC Public Meeting Minutes)
78. McCormick addressed the question about the impact of not allowing the expansion, considering that the existing pit has an estimated 20 years' worth of gravel. Concerns included potential increased costs for construction due to transportation if the expansion

isn't approved, and the broader implications for gravel supply in the county. (April 4, 2024, Missoula County BCC Public Meeting Minutes)

79. McCormick emphasized that the uniqueness of the gravel's quality and proximity to Missoula adds to its value. While this uniqueness is important, it is not directly relevant to determining unnecessary hardship for the variance. The focus should be on whether the zoning regulations create an unreasonable hardship for the specific property and landowner. (April 4, 2024, Missoula County BCC Public Meeting Minutes)
80. Western Materials is in a purchase agreement contingent upon the variance being approved. McCormick explained that it is common for landowners to seek necessary approvals as part of the purchase process. The hardship criteria apply to the specific landowner's situation, even if they do not yet own the property. (April 4, 2024, Missoula County BCC Public Meeting Minutes)
81. There was discussion about the history of the land, including previous considerations of residential development versus gravel extraction and whether this history of the existing gravel pit affects the current variance request. McCormick noted that the history of gravel extraction helps explain the current situation but that it is not directly relevant to the current request or the variance criteria. (April 4, 2024, Missoula County BCC Public Meeting Minutes)
82. The Missoula County Planning & Zoning Commission conducted a third public hearing on this variance request on **May 2, 2024**. At that hearing, the following topics were discussed as part of the public testimony.
 - a. Historical Operations and Permit Issuance
 - b. Compliance and Documentation
 - c. Expansion and Current Operations
 - d. Current Proposal and Public Feedback
 - e. Public Concerns and Opposition
 - f. Zoning and Regulatory Framework
 - g. Criteria for Variance Approval
 - i. Special Conditions
 - ii. Unnecessary Hardship
 - iii. Public Interest
 - h. Reclamation and Environmental Impact
 - i. Operational Conditions (May 2, 2024, Missoula County BCC Public Meeting Minutes)
83. Graham Coppes, a representative of the Carlton Protection Trust (CPT), argued against granting a variance for industrial-scale mining in a residential area. Coppes asserted it would set a harmful precedent and negatively impact the community and urged the board to consider the broader implications for public health, safety, and zoning integrity.
 - a. Economic Impact: The mining operation will negatively affect property values and tax revenues, which fund public projects. While the mining company may benefit financially, this doesn't translate to benefits for the public.
 - b. Public Health and Safety: The proposed mining activities will have detrimental effects on public health and safety, and the variance contradicts the Missoula County growth policy that aims to balance resource needs with public welfare.

- c. Precedent and Compliance: Allowing the variance sets a dangerous precedent for significant deviations from zoning regulations. The expansion of the mining operation, which started with a smaller, undocumented scale, has not followed proper zoning processes.
 - d. Regulatory Concerns: The Department of Environmental Quality (DEQ) does not sufficiently regulate mining activities, leaving gaps in controlling pollution and environmental impacts. Additionally, there is no evidence that the specific materials are unique to this site, as similar resources likely exist in nearby areas.
 - e. Legal Precedents: Reference is made to previous court decisions, including a case where emergency zoning was used to prevent a similar issue. Mr. Coppes argues that the same principles should apply here to protect the residential area from adverse effects of mining. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
84. Mr. Coppes addressed the environmental and public health impacts of a gravel mining operation, emphasizing the following concerns:
- a. Mining exposes more porous soils, leading to faster and broader contamination of groundwater with harmful chemicals and dust.
 - b. Current regulations are insufficient, making zoning decisions crucial for controlling and mitigating impacts.
 - c. The existing pit could continue until 2045 or later. Denying expansion might not address current issues, but it could prevent worsening conditions.
 - d. CPT proposed requiring detailed environmental studies and operational limits to reduce impacts on neighbors.
 - e. CPT suggested preventing further harm through zoning conditions and addressing existing problems, with future litigation as a possible separate process. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
85. Mr. Coppes discussed a legal precedent and its application to a variance request, highlighting the Montana Supreme Court's three-part test for reviewing variances, established in the 2017 case "Carlson v. Yellowstone County Board of Adjustment." This test requires that the variance 1) must not be contrary to the public interest; 2) must address unnecessary hardship due to unique conditions of the property; and, 3) must respect the spirit of the ordinance and ensure substantial justice. Coppes asserted that granting the variance could set a harmful precedent and cited potential negative effects on public health, property values, and tax revenue. He argued that the applicant's situation is self-created and not unique. Coppes urged the board to consider these factors carefully, referencing past emergency zoning actions taken to protect neighborhoods and questioning why a similar approach should not be applied in this case. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
86. Public comments at the May 2nd hearing reflected a range of concerns including environmental impact, zoning integrity, operational transparency, and community safety. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
87. The discussion at the May 2nd hearing highlighted the possibility of a groundwater analysis, focusing on assessing groundwater quality and quantity and effective water use management. (May 2, 2024, Missoula County BCC Public Meeting Minutes)

88. Concerns were raised about potential impacts on local wells and the need for more comprehensive groundwater analysis, especially regarding whether different aquifers are affected. Additional groundwater investigation was discussed to address these concerns. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
89. The discussion covered water use limits (35 gallons per minute) and recycling practices, with water being extracted, used, and then recycled within a pond. The adequacy of this approach in relation to the local water supply and potential impacts was questioned by the Carlton Protection Trust (CPT). (May 2, 2024, Missoula County BCC Public Meeting Minutes)
90. CPT raised concerns about the sufficiency of the reclamation bond amount, especially over long periods. It was suggested that the bond amount be evaluated periodically rather than set for a fixed future date. The DEQ process includes re-evaluating the bond amount based on current costs, but there was interest in additional county-level oversight. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
91. The feasibility of partial reclamation during mining operations was discussed. Due to the placement of processing equipment, full reclamation might not be possible until mining in a particular area is complete. However, some areas could be reclaimed as mining progresses. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
92. CPT discussed the ongoing impact of a project on the neighborhood and suggested heavily conditioned approval terms to benefit the community. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
93. The Board of County Commissioners suggested that the involved parties negotiate conditions and conduct a groundwater investigation. The next steps included setting a date of June 20, 2024, to reconvene and address the groundwater study to ensure the water study results are incorporated into the project's mitigation plans before moving forward. (May 2, 2024, Missoula County BCC Public Meeting Minutes)
94. The Planning and Zoning Commission held a fourth public hearing on **June 20, 2024**, where the applicant described the suitability of the site for expansion and outlined the benefits of using the resource at this location. (June 20, 2024, Missoula County BCC Public Meeting Minutes)
95. Key points included Missoula's current gravel resources are nearing depletion, making the expansion crucial for future construction and cost control. In addition, the site requires less energy to extract gravel compared to other methods, has minimal trucking impacts, and avoids groundwater or floodplain areas. Further, the site meets all construction standards and is capable of supplying aggregates for various construction phases. The topography also helps mitigate noise, dust, and visibility impacts. (June 20, 2024, Missoula County BCC Public Meeting Minutes)
96. Western Materials, LLC, proposed additional mitigation measures include limiting the processing of material from other pits, maintaining the same bonded acreage for reclamation, and installing groundwater monitoring wells before expanding. (June 20, 2024, Missoula County BCC Public Meeting Minutes)
97. Dave Rue from GSI Environmental provided an update on groundwater studies for this site, indicating that the groundwater flows towards the Bitterroot River and is unlikely to affect

nearby developments. GSI Environmental expects that further monitoring as part of the Hydrogeologic Evaluation will confirm little to no impact on water levels and quality. (June 20, 2024, Missoula County BCC Public Meeting Minutes)

98. Graham Coppes of CPT reported ongoing negotiations regarding the hydrologic study for the project. Although a report is still pending, Coppes requested additional time to review it once available, emphasizing the need for an independent review of potential groundwater impacts. He noted unresolved disagreements about the project's duration and daily operation times, which affect local residents. He requested more time to review and report on hydrologic concerns and emphasized the importance of thoroughly examining potential groundwater pollution. (June 20, 2024, Missoula County BCC Public Meeting Minutes)
99. GSI Environmental issued the Hydrogeologic Evaluation Report on June 28, 2024. The report concludes that the operations at the existing pit or proposed pit expansion area will not adversely “impact water quality or quantity of adjacent landowners located up-gradient or cross-gradient from the pit. The easterly groundwater flow direction and the limited radius of influence from aquifer tests completed onsite do not suggest that any significant adverse groundwater related impacts will occur as a result of mining operations.” (Hydrogeologic Evaluation Report, GSI Environmental, June 28, 2024, “Hendrickson Pit”)
100. Discussion at the June 20, 2024, hearing revolved around whether gravel is considered a mineral for zoning purposes and what regulatory authority exists for gravel mining, particularly how case law (Missoula County vs. American Asphalt) affects the regulation of gravel mining. McCormick explained that statutory provisions related to mineral regulation apply differently under Part 1 and Part 2 zoning, with some ambiguity remaining; Coppes agreed, noting that gravel is typically not considered a mineral and is therefore subject to zoning regulation. He emphasized that past zoning decisions were made to address similar issues. (June 20, 2024, Missoula County BCC Public Meeting Minutes)

EXHIBIT C

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John Calhoun Felton, 85

By Daily Inter Lake

| June 18, 2008 6:06 AM

John Calhoun Felton, 85, "officially retired" at his home on Sunday, June 15, 2008. John was born to Robert and Stella Felton on March 25, 1923, in the heart of the Bear Paw Mountains, where he spent his adolescent years. John attended welding school in Butte and then moved to Seattle to work in the shipyards.

In 1942, John enlisted in the Navy and served in World War II with Naval and amphibious forces in the southwest Pacific. While on leave in 1943, John met Jean Allison in San Francisco; they were married Feb. 12, 1945. In September 1945, John received a medical discharge and the young couple moved to Havre for a short time, then to Spokane, and he began his career working in the construction business with Murphy Brothers.

In 1966, John established Felton Construction Company, which led him to many utility construction projects in Montana, Oregon, Washington and Alaska. With the need to save time and money, his company began developing, designing and manufacturing equipment to increase safety and job productivity; thus Felco Industries Ltd. was founded in 1981. John bought 155 acres of land in 1969 with intentions of building a subdivision. After many setbacks, John finally brought his dream to reality with the creation of Mansion Heights.

On July 31, 1997, Jean passed away. He met and then married Emma Cooper on July 15, 1999.

Preceding John in death were his wife, Jean; his parents; brothers, Charles and Harry; and brothers-in-law, Alfred Dion and Dean Welborn.

Survivors include his wife, Emma; sisters, Ruth Dion of Bethesda, Md., and Nettie Welborn of Dillon; grandchildren from marriage to Jean, Charles Felton and Cindy, and Rick Felton and Lisa; and several nephews, nieces, great-grandchildren, cousins, great-nephews and nieces. He also leaves behind his two faithful labs, Coco and Maggie.

John had been an active member of the Masonic Lodge, a past master of the Missoula Lodge, a Shriner, a jester and a potentate of the Algeria Shrine Temple in 1993. He is a past member of the Board of Governors of the Spokane Shrine Hospital.

John lived life the same way he died, "his way," with dignity and with respect from those who knew and loved him.

A memorial service will be held at 11 a.m. Friday, June 20, at Garden City Funeral Home in Missoula, with Pastor Jack Oates officiating. A celebration of life reception will follow at Joker's Wild Restaurant, 4829 North Reserve, in Missoula.

Memorials may be given to the Spokane Shrine Hospital, 911 W. Fifth Ave., Spokane, WA 99204-2901, or gifts can be made payable to The University of Montana Foundation and be noted for law scholarships in memory of John Felton. Checks can be mailed to The UM Foundation, P.O. Box 7159, Missoula, MT 59807-7159.

CREATE AN EVENT

Search for events

Switch Days (Grades 6-12) - Bigfork
Flathead County Library - Bigfork 10:00AM

Live Music at Thirty Eight with David Walburn Duo Presented By...
Thirty Eight 6:00PM

Chair Yoga
Swan River Community Hall 10:30AM

MORE EVENTS

EXHIBIT D

WARRANTY DEED

For Value Received John Felton, Trustee, the Grantor, of P.O. Box 7099, Missoula, Montana 59807, does hereby grant, bargain, sell and convey unto Stanley C. Hendricksen, the Grantee, of P.O. Box 267, Lolo, Montana 59847, the following described premises, in Missoula County, Montana, to-wit:

NWSEWSW, Section 23, Township 11 North, Range 20 West, P.M.M., Missoula County, Montana (See Certificate of Survey 3935, Records of Missoula County, Montana).

No warranty is made concerning any right, or interest in any minerals, mineral rights, or related matters, including but not limited to oil, gas, coal, and other hydrocarbons.

SUBJECT TO: Easements, conditions, and restrictions shown on Certificate of Survey No. 3935, Records of Missoula, Montana, or otherwise of apparent or of record.

TO HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee, his heirs and assigns forever. And the said Grantor does hereby covenant to and with the said Grantee, that he is the owner in fee simple of said premises; that they are free from all encumbrances, except those noted above, if any, and that he will warrant and defend the same from all lawful claims whatsoever.

Dated: ~~April~~ ^{May} 1, 1991

John Felton
John Felton

STATE OF MONTANA)
County of Missoula) :ss.

On this ^{May} 1st day of ~~April~~ 1991, before me, a Notary Public in and for said State, personally appeared John Felton, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year first above written.



Sheryl A. Phillips
Notary Public for the State of Montana
Residing at Missoula, Montana
My Commission expires: *November 21, 1992*

9106994

I RECEIVED AND FILED THIS INSTRUMENT FOR RECORD ON THE 7 DAY OF ^{May} 1991 AT 10:15 O'CLOCK A.M. AND IT IS RECORDED IN VOL 328 OF LAND RECORDS OF THE COUNTY OF MISSOULA, STATE OF MONTANA, ON PAGE 2256 FEE 5.00 PAID *CK*
RETURN TO Grantee WITNESSES MY HAND AND SEAL THIS 7 DAY OF May 1991
ADDRESS BY *Karen Mason* DEPUTY DOC *LDN*

EXHIBIT E



EXHIBIT F



EXHIBIT G



EXHIBIT H



EXHIBIT I



EXHIBIT J

ZONING COMPLIANCE FORM

**OPENCUT SAND AND GRAVEL MINING
COMPLIANCE WITH LOCAL ZONING REGULATIONS
TITLE 76, CHAPTER 2, AND TITLE 84, CHAPTER 4**

This document must be signed by an appropriate city/county government representative and accompany all applications for a Mined Land Reclamation Contract where the mineral to be mined is Sand & Gravel.

I/We, hereby declare that STAN HENDRICKSEN (applicant) has notified me/us that Applicant is proposing to conduct opencut sand and gravel mining operations in the SE 1/4 SW 1/4, Section 23, Township 11N, Range 20W, MISSOULA County. The proposed operation complies with MISSOULA County/City's approved zoning regulations, and is not located within an area zoned as residential.

A.M. Hettich
SIGNATURE

6/4/93
DATE

AP
TITLE

Attachments: Letter from S. Hendrickson
USGS Maps 1-4

To the Missoula County zoning authority

I, Stan Hendrickson own a gravel pit which has been in operation for 40 years, the gravel removed so far has come from a 5 acre area and has left a 50ft steep bank. I plan to slope this bank when I am done with the pit to meet state mining act requirements which ~~will~~ ^{may} require up to 10 acres more land to be disturbed in order to get the gentel slope I want to end up with.

I am bonded, own the property, and will meet the states requirements for reclamation, seeding, replacing topsoil etc.

Stan Hendrickson

EXHIBIT K

STATE OF MONTANA
DEPARTMENT OF STATE LANDS
Capitol Station
Helena, MT 59620
(406) 444-2074

MINED LAND RECLAMATION CONTRACT
OPENCUT MINING ACT

HES-001

HENDRICKSEN SITE

This CONTRACT is made and entered into by and between the STATE OF MONTANA, BOARD OF LAND COMMISSIONERS (BOARD) of Helena, Montana and STAN HENDRICKSEN

~~Pursuant to Section 82-4-422(1) MCA the BOARD is authorized to enter into Mined Land Reclamation Contracts where it is found that the requirements of the law and rules can be carried out and will be observed.~~

Pursuant to Section 82-4-431(1) MCA the OPERATOR is required to enter into a Mined Land Reclamation Contract prior to conducting an operation that will cause the OPERATOR'S total amount of mineral and overburden mined in Montana to be over 10,000 cubic yards.

In consideration of the above and other good and sufficient consideration, the parties agree as follows:

1. The BOARD hereby authorizes the OPERATOR to conduct opencut mining operations, as described in the attached application which was previously submitted and approved and is hereby made a part of this contract, on 3.5 acres in the SE 1/4, SW 1/4, Sec. 23, T. 11 N, R. 20 E, MISSOULA County, Montana. This contract does not authorize opencut mining operations other than as described in the application or as described above. Operating without a contract is a violation of law subject to civil penalties. The application is hereby incorporated as a part of this contract for all purposes.
2. The OPERATOR shall comply with all requirements of the Opencut Mining Act in Title 82, Chapter 4, Part 4, MCA and all rules adopted pursuant thereto.
3. The OPERATOR shall reclaim all affected land in accordance with the previously submitted and approved Mining and Reclamation Plan which is part of the application and of this contract. The BOARD may periodically review each plan and require modifications as necessary. Reclamation shall be as concurrent with mining as feasible and will be completed within the time frame specified in the plan.
4. The OPERATOR may submit amendments to the contract at any time. If approved, the amendments shall be attached to the contract and become a part of the contract for all purposes.
5. The OPERATOR (unless the State of Montana, a county, city, or town) has submitted a bond or other acceptable surety to ensure that the affected land is reclaimed in accordance with the Mining and Reclamation Plan. Failure to reclaim in accordance with the plan shall result in forfeiture of the bond. If the bond is revoked or otherwise becomes invalid, the operator shall submit a new bond or surety within 30 days. Failure to submit a new bond suspends this contract.

6. The OPERATOR shall allow access by the BOARD and its representatives at all times in order to determine whether the terms of this contract are being complied with.

7. If reclamation according to the Mining and Reclamation Plan has not been completed in the time specified, the BOARD, after 30 days written notice, shall order the OPERATOR to cease mining. If the OPERATOR does not cease, the BOARD shall institute action to enjoin further open-cut mining by the OPERATOR and may sue for damages for breach of contract.

8. This contract is effective upon signature by the COMMISSIONER and shall remain in force until terminated by mutual consent or by the BOARD upon 6 months notice.

STATE OF MONTANA
BOARD OF LAND COMMISSIONERS

BY

Archie R. Cloud
COMMISSIONER OF STATE LANDS

6/24/93
DATE

Stan Hendrickson
OPERATOR

BY _____

TITLE owner

[Signature]

RECEIVED

JUN 11 1993

STATE OF MONTANA
DEPARTMENT OF STATE LANDS
Capitol Station
Helena, Montana 59620
(406) 444-2074

APPLICATION FOR MINED LAND RECLAMATION CONTRACT

#HES-001

11541

Name and address of applicant
(print or type):

STAN HENDRICKSEN
P.O. Box 267
Lolo, MT 59847

This application must include:

1. \$50.00 fee;
2. Mined Land Reclamation Contract form; ✓
3. Plan Of Operation; ✓
4. Map; ✓
5. Bond; and ✓
6. ~~Landowner Consent Form~~
7. Zoning Compliance Form ✓

Phone number:

2736767

Site Name:

Surface ownership of land to be
affected (name and address):

STAN HENDRICKSEN
P.O. Box 267
Lolo, MT 59847
27367

Legal description:

SE 1/4, SW 1/4, Sec. 23, T. 11 N/S, R. 20 E/W

County:

MISSOULA

Distance and direction from nearest community:

4 MI So. Lolo

Phone number:

2736767

Mineral ownership (name and address):

Same

Mineral to be mined: Quantity of mineral and/
or overburden to be re-
moved: Gravel 100,000 cy

Estimated acres to
be surface mined:

2.0

Estimated total acres to
be disturbed:

3.5

Phone number:

Contractor(s) who will be working on
site:

Estimated maximum depth of mining:

30'

Date operation will begin:

already in operation

Name of individual who will be on site
& familiar with the Plan Of Operation:

APPLICANT AFFIRMS THAT APPLICANT HAS THE RIGHT
AND POWER, BY LEGAL ESTATE OWNED, TO MINE THE
LANDS HERETOFORE DESCRIBED. APPLICANT ALSO
AFFIRMS THAT THE CONTENTS OF ALL ATTACHMENTS
TO THIS APPLICATION BECOME A PART OF THE
TERMS THEREOF.

Signature and Title

Date

Stan Hendrickson owner

June 8, 1993

FOR DEPARTMENT USE ONLY

Fee Received: #11541

Bond #: 300053 - C.D

Bond Amount: \$2,000.00

PLAN OF OPERATIONS
"HENDRICKSEN" SITE

Section I - Pre-mining Conditions

- (1) Topography: The mine is located below a flat-lying, flood irrigated agricultural bench between the foothills of the Bitterroot Mountains and the Bitterroot River. It is a quaternary glacial stream deposit 3 miles north of the town of Florence and is composed of stratified layers of sands and gravel overlain by a layer of sandy silt loam.
- (2) Present land uses, and past mining disturbance, if any: The area is currently used for grazing and irrigated grain farming.
- (3) Estimated depth to the water table: Approximately 8-10 feet, and flood irrigation has an unknown effect on the static water level at this location. Depth to water is based on the cattail slough directly south of the site.
- (4) Locations, descriptions, and uses of surface water features: The Bitterroot River flows north approximately a mile east of the site. There is a small intermittent flowing stream drainage 100 feet south of the site. The drainage fills with irrigation runoff and sustains a boggy mud flat that contains cattails and other wetland plant species. No adverse effects on the quality of the wetland is anticipated at this time since the plan does not include entering the slough.
- (5) Locations, depths, and uses of water wells: There are no water wells within 1000 feet of the site.
- (6) Soil types to be disturbed: The existing soil thickness and type is 12 inches of gravelly sandy loam overlying the gravel. There is little overburden present.
- (7) Dominant vegetation: Various wheatgrasses, bluegrass, timothy, brome, roses, quack grass. Spotted Knapweed exists throughout.
- (8) Use by wildlife: The area is generally utilized by deer, game birds (ducks and geese), non-game birds, herons, muskrats, rodents and raptors.
- (9) Other useful information: Annual precipitation averages about 18-22 inches of rainfall with approximately 100 frost-free days.

Section II - Mining and Reclamation Plan

- (1) (POST-MINING LAND USES) State the proposed post-mining land use(s) of the site: The site will be reclaimed to a residential landscape with topsoiled side slopes graded at a 3:1 planted with compatible grasses.
- (2) (SOIL AND OVERBURDEN HANDLING) All available soil material will be stripped from any area that will be excavated or used as a permanent disposal site. Soil material will be stripped or bladed off of all overburden and mineral stockpile areas, all processing facility areas, and all staging areas and access, haul, and support road locations that will be improved. Soil materials will be salvaged and stockpiled separately from overburden, and stockpiled where they will not be lost to erosion or disturbed by mining activities. Describe the proposed methods and depths of soil and overburden material salvage:
 - a. All available topsoil will be stripped and saved with a 10 foot buffer zone between the mine and stockpile areas. Approximately 12 inches of topsoil will be salvaged, where present, using a dozer. The stockpile area will be along the west side of the pit.
 - b. Topsoil varies in depth but averages 12 inches and will all be saved.
 - c. The topsoil stockpile will be located away from mining and protected

from contamination, wind and water erosion. All newly stripped topsoil or topsoil stockpiles that are moved will be saved and protected by sloping the sides of the stockpiles at a 3:1 and seeding with the same mix and rates as the slopes immediately after placement.

d. All salvaged topsoil will be re-spread over graded areas. A dozer will be used to replace topsoil to a smooth and even surface.

e. There is no appreciable overburden.

(3) (ROAD CONSTRUCTION) All access, haul, and support roads will be located, constructed, and maintained in a manner that will control erosion. Describe any planned road improvements and construction: The access road will be left as access to the residential site.

(4) (WATER MANAGEMENT) Describe any proposed sediment control and water containment structures, water treatment systems, drainage systems, and diversions (include diagrams): None.

(5) (WATER PROTECTION) Surface and groundwater will be given appropriate protection from deterioration of water quality and quantity that could be caused by mining and reclamation activities.

All fuel, oil and waste will be kept out of the pit area. Any spills will be excavated and removed from the contract area immediately. Any fuel tanks on site will be placed within a plastic lined, bermed impoundment area.

(6) (GRADING) To the extent possible, all surfaces will be: graded to conform to the surrounding topography, including drainageways; graded to 4:1 or flatter and left at least 3 feet above the estimated highest seasonal water table, unless the construction of a pond is approved by the Department. Describe the planned post-mining topography, the backfilling, grading, and overburden replacement methods, the pit portion to stay open (if any) and pond(s): The final topography will be a smooth graded, flat bottomed building site overlooking the wetlands to the south. The site will be graded with a dozer and will have smooth, continuous slopes at 3:1 or flatter. There will be 1 foot of topsoil replaced on the site and no portion of the pit will remain open for gravel mining after the final reclamation is done.

(7) (ROAD RECLAMATION) Upon abandonment, all road locations will be graded to conform to the surrounding topography, including drainageways, then ripped, topsoiled, and seeded. Describe any roads, or portions thereof, to remain, and stabilization methods: The road will be left for use by the landowner.

(8) (REFUSE DISPOSAL) Garbage will not be imported and placed in the pit or buried on site. Inorganic solid refuse not conducive to plant growth, including road, facility, and stockpile area surface waste, will be buried under at least 3 feet of overburden or other suitable material. Oversize mineral, reject mineral, and excess overburden will not be placed on sideslopes or in drainageways, unless a plan for such disposal is approved by the Department, and petroleum, asphalt and other potentially toxic materials will be disposed of off site. Describe the proposed methods, sites, and fill areas for refuse disposal: There will be no overburden or oversize left uncovered. No fuel or petroleum products will be stored in the permit area and no waste will be buried.

(9) (MINERAL STOCKPILES) To the extent possible, excess minerals left on site will be consolidated into stockpiles of similar grade and left in a common area close to a primary access point; any reject mineral remaining stockpiled will be graded to 4:1 or flatter, and sufficient stockpiled soil will be left, shaped and seeded, for the future reclamation of sites where mineral stockpiles remain. Additional information: No stockpiles will be left.

(10) (REVEGETATION) Describe the proposed:

(a) Methods and depths of ripping: All areas that are compacted will be ripped to a depth of 8 - 10 inches prior to topsoiling.

(b) Methods and depths of topsoiling: Topsoil will be replaced to an

even depth of at least 12 inches on all stripped areas. Topsoil will be replaced uniformly and smoothly with a dozer.

- (c) Methods, types, rates, and times of fertilizer or other amendment application: None
- (d) Methods of seedbed preparation: The graded and topsoiled pit slopes and other areas to be seeded will be loosened with a disc to prepare a loosened seedbed prior to seeding.
- (e) Methods, species, rates, and time periods for seeding or planting: Seeding will be drilled following the slope contours immediately after final grading using the below mix. The seeding mix and rates to be used are as follows:

<u>SPECIES</u>	<u>#'s PLS/ACRE</u>
Western wheatgrass	3.5
Green needlegrass	3.5
Alfalfa	3.0
Timothy	3.0
Red clover	3.0
Slender wheatgrass	<u>2.5</u>
total pounds per acre	18.5

The #'s PLS/ACRE means pounds per acre of pure, live seed that is certified to be weed free. Final reclamation and planting will be done in the fall of 1998.

- (f) Methods, types, and rates of mulch application: None

(11) (WEED CONTROL) All seed will be weed free and noxious weeds will be controlled as specified in the respective district weed management plan. Describe any additional weed control measures: All finished slopes and topsoil stockpiles that will remain for more than 1 month will be seeded at the first opportunity with certified weed free seed utilizing the above mix and application rates to prevent noxious weeds. The County Weed Board will be contacted and a plan will be implemented to control weeds.

(12) (SITE PROTECTION AND MANAGEMENT) Describe the proposed methods and arrangements for the protection and management of seeded or planted areas: The area is fenced and no livestock will be allowed onto the reclaimed site for at least two growing seasons to allow the grasses to firmly root.

(13) (CONCURRENT AND FINAL RECLAMATION) Reclamation will be concurrent with mining, and all grading, topsoiling, and revegetation work will be completed within 1 year after the cessation of mining and related activities on any area of significant size. Give the estimated completion date of the final reclamation of all affected areas: Final reclamation will be complete in the fall of 1998. An extension of time may be requested for all or portions of the site that are unfinished at that time.

(14) (RECLAMATION COSTS) Provide an estimate of the on-site, per-acre costs for the reclamation of the proposed mine and facility level disturbances, and give the estimated total cost to reclaim the entire site.

Following is an itemized, per acre estimate of the costs to reclaim the land where 12 inches of topsoil overlies the gravel. The assumption is that the mining process has left the pit in a general graded state that will not require major earth-moving or topsoil purchases for completion, and that the land would be reclaimed to graded, level residential tract:

<u>ITEM</u>	<u>COSTS</u>
grading: D8K Cat dozer, 2 hours @ \$100/hr	\$ 200
ripping: 14G Cat patrol, 2 hours @ \$60/hr	\$ 120
topsoiling: D8K Cat dozer, 4 hours @ \$100/hr	\$ 400
seeding: 18.5 lbs @ \$9/lb	<u>\$ 167</u>
Total cost per acre	\$ 887

Total reclamation cost: 2.9 acre @ \$ 887 = \$ 2,572

Section III - Fire Prevention, Archaeological and Historical Value Protection, Annual Reports, and Field Personnel and Subcontractors

- (1) Proper care will be taken to prevent wildfires;
- (2) Archaeological and historical values in the affected area will be given appropriate protection. Should significant archaeological or historical value be found, the operation will be routed around the site of discovery for a reasonable time until salvage can be made. The State Historical Preservation Office will be promptly notified;
- (3) The Annual Progress Report requirements of ARM 26.4.206 will be complied with; and
- (4) All parties involved in the mining and reclamation of the site will be familiar with the specifics of the Mining and Reclamation Plan.

Section IV - Additional Information (refer to the appropriate subsections and attach other information as necessary) None

I CERTIFY THAT THE STATEMENTS AND INFORMATION GIVEN APPLY TO THE "HENDRICKSEN" SITE. THIS PLAN WILL BE FOLLOWED UNLESS OFFICIALLY MODIFIED BY THE OPERATOR OR THE DEPARTMENT.

Sta Hendrickson
SIGNATURE

June 8 1993
DATE

3/89

RS/
FILE: HENDRICK.pln

N

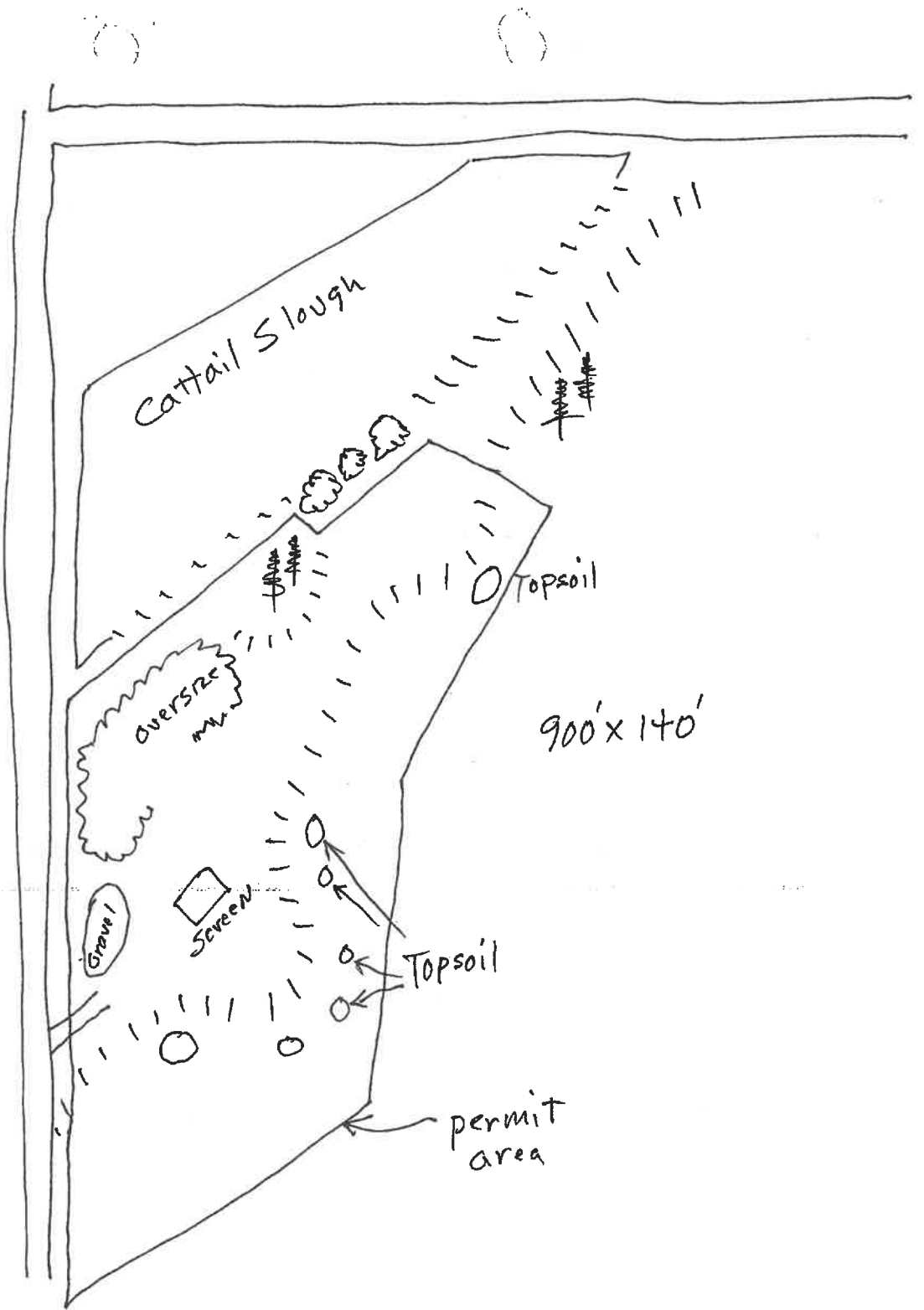


EXHIBIT L



Montana Department of
ENVIRONMENTAL QUALITY

Judy H. Martz, Governor

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

RECEIVED

JUN 13 2001

D.E.Q.

June 12, 2001

JTL Group, Inc.
Attn: Alrick Hale
P.O. Box 790
Missoula, MT 59806

Certified Mail 7000 0600 0022 6746 0675
Return Receipt Requested

SUBJECT: Notice of Violation and Statement of Proposed Penalty, Docket OC-01-03 (FID #478)

Dear Mr. Hale:

Pursuant to Section 82-4-441(3), Montana Code Annotated, the Department of Environmental Quality is issuing the enclosed Notice of Violation and Statement of Proposed Penalty (NOV/SPP). The NOV/SPP alleges that JTL Group, Inc. (JTL) violated provisions of the Montana Open-cut Mining Act to disturb land outside the permitted area. You also operated an asphalt hot plant that was not authorized by permit. The NOV/SPP directs you to cease or prohibit mining outside the permitted disturbance and operating the asphalt hot plant until authorized by the Department. The Department proposes that JTL pay the Department a civil penalty of \$575 to settle the violation.

You are entitled to a hearing on the alleged violation and proposed penalty under Section 82-4-427, MCA. A written request for the hearing must be submitted within 30 days of the date of this NOV/SPP to:

Board of Environmental Review
PO Box 200901
Helena, MT 59620-0901

If JTL does not request a hearing and provide testimony at the hearing provided, it will forfeit the right to seek judicial review of the Department's violation and penalty determination. If JTL has any questions, please call me at (406) 444-4202.

Sincerely,

Scott McCollough, Enforcement Specialist
Enforcement Division
(406) 444-4202; fax (406) 444-1923
E-mail: smccollough@state.mt.us

Enclosure

cc (with enclosure):

Ed Hayes, DEQ Attorney
Industrial and Energy Minerals Bureau Chief
Ravalli County Sanitarians' Office, Courthouse Box 5019, 205 Bedford, Hamilton, MT 59840

1 BEFORE THE DEPARTMENT OF ENVIRONMENTAL QUALITY

2 OF THE STATE OF MONTANA

3 IN THE MATTER OF:
4 VIOLATION OF THE OPENCUT MINING
5 ACT BY STAN HENDRICKSON AND THE
6 JTL GROUP, INC., AT THE
7 HENDRICKSON PIT, RAVALLI COUNTY,
8 MONTANA

9 NOTICE OF VIOLATION
10 AND
11 STATEMENT OF PROPOSED PENALTY

Docket No. OC-01-03

7 TO: Stan Hendrickson
8 P.O. Box 267
9 Lolo, MT 59847

JTL Group, Inc.
Attn: Alrick Hale
P.O. Box 790
Missoula, MT 59806

10 NOTICE OF VIOLATION

11 PLEASE TAKE NOTICE that the Montana Department of Environmental Quality (the
12 Department) alleges that Stan Hendrickson (Hendrickson) and JTL Group, Inc. (JTL), are in
13 violation of legal requirements under the Opencut Mining Act as follows:

14 Violations by Hendrickson

- 15 1. Hendrickson is engaged in or controls an opencut mining operation that, alone or when
16 aggregated with its other opencut mining operations, have resulted or will result in the
17 removal of 10,000 cubic yards or more of materials or overburden. The opencut mining
18 operation is located approximately 4 miles south of Lolo in Section 23, Township 11
19 North, Range 20 West, Ravalli County, Montana. The site is referred to as the
20 Hendrickson Pit.
- 21 2. Hendrickson is, therefore, subject to the requirements of the Opencut Mining Act (Title
22 82, Chapter 4, part 4, Montana Code Annotated (MCA), referred to as "the Act") and the
23 administrative rules adopted under the Act (Administrative Rules of Montana (ARM)
24 Title 17, Chapter 24, Subchapter 2).
- 25 3. Pursuant to Section 82-4-431, MCA, an operator may not conduct an opencut mining
26 operation that results in the removal of a total of 10,000 cubic yards or more of materials
27 and overburden until the Department has issued a permit for the reclamation of the land
28 affected. An operator must follow the procedure set forth in Section 82-4-432, MCA, to
29 cover additional land that is contiguous or near the area of land permitted. That
30 procedure requires an operator to apply for a permit amendment and any additional bond
31 required.

- 1 4. Pursuant to ARM 17.24.204(k), an application for a contract must be accompanied by a
2 map showing all existing and proposed processing facilities and staging areas. Section
3 82-4-403(11), MCA, defines processing facilities to include all crushers, screens, and
4 asphalt or concrete plants.
- 5 5. In June 1993, Hendrickson obtained Mined Land Reclamation Permit No. HES-001 from
6 the Department as required by the Act. Except for the location of a screening facility, the
7 map submitted by Hendrickson with its permit application does not depict any processing
8 facilities. The map is made part of the permit upon the Department's approval of the
9 application and issuance of the permit. The permit authorizes the operation of a gravel
10 pit that disturbs a total of 3.5 acres. Hendrickson submitted a bond in the amount of
11 \$2,000 to ensure reclamation of the disturbed acreage.
- 12 6. On October 7, 1998, Rod Samdahl (Samdahl), Reclamation Specialist for the
13 Department, conducted a field inspection of the Hendrickson Pit. He observed that
14 Hendrickson had expanded the operation to approximately 15 acres. He also observed
15 the operation of a hot asphalt plant at the site. This processing facility was not indicated
16 on the map approved by the Department in issuing the permit.
- 17 7. In a letter dated October 27, 1998, Samdahl informed Hendrickson that the operation was
18 five times larger than that permitted and that the operation of the hot asphalt plant also
19 constituted a permit violation. Samdahl directed Hendrickson to complete an amendment
20 application to cover the expansion and operation of the hot asphalt plant. Finally,
21 Samdahl indicated that the expansion required the posting of additional bond. Samdahl
22 provided amendment application and bonding forms. In a letter dated June 9, 1999,
23 Samdahl reminded Hendrickson that an amendment to add the additional acreage had not
24 been approved and that bond in the amount of \$39,455.74 would have to be submitted to
cover the total area of disturbance.
8. In a letter dated August 16, 1999, Steve Welch, Industrial and Energy Minerals Bureau
Chief, reminded Hendrickson of the ongoing violation. He gave Hendrickson until
September 1, 1999 to submit the materials needed for a permit amendment. The
Department did not receive any of the requested materials within that timeframe.
9. On December 23, 1999, Hendrickson submitted to the Department a property bond in the
amount of \$39,456. The Department did not receive a completed application for an
amendment to the permit regarding the expansion and the operation of the hot asphalt
plant.
10. On five occasions, from January 6, 2000 through September 25, 2000, Samdahl and
Hendrickson exchanged communications and amendment materials. Samdahl
determined that the materials were inadequate for a permit amendment.
- //

- 1 11. On September, 14, 2000, Samdahl conducted another field inspection of the Hendrickson
2 Pit. He observed continued mining outside the permitted area and continued operation of
the hot asphalt plant.
- 3 12. Hendrickson's expansion of the gravel pit resulted in the disturbance of land not covered
4 by its reclamation permit. This condition constitutes a violation of Sections 82-4-431 and
432(5), MCA.
- 5 13. The operation of a hot asphalt plant by Hendrickson constitutes a violation of ARM
6 17.24.204(k) and Permit HES-001.

7 **Violation by JTL**

- 8 14. JTL is engaged in or controls an opencut mining operation that, alone or when aggregated
9 with its other opencut mining operations, has resulted or will result in the removal of
10 10,000 cubic yards or more of materials or overburden.
- 11 15. JTL is, therefore, subject to the requirements of the Opencut Mining Act (Title 82,
Chapter 4, part 4, Montana Code Annotated (MCA), referred to as "the Act") and the
12 administrative rules adopted under the Act (Administrative Rules of Montana (ARM)
Title 17, Chapter 24, Subchapter 2).
- 13 16. Pursuant to Section 82-4-431, MCA, an operator may not conduct an opencut mining
14 operation that results in the removal of a total of 10,000 cubic yards or more of materials
and overburden until the Department has issued a permit for the reclamation of the land
15 affected.
- 16 17. During the field inspection of September, 14, 2000, Samdahl observed JTL operating at
17 the Hendrickson Pit site. JTL's operations were not within in the 3.5 acres permitted by
the Department for Hendrickson.
- 18 18. JTL's opencut mining operations are not authorized by Permit No. HES-001 issued by the
19 Department to Hendrickson, nor has JTL obtained a reclamation permit in its own name
for the land disturbed by its opencut mining operation.
- 20 19. JTL's disturbance of land by its opencut mining activity that is not covered under the
21 permit issued to Hendrickson or under a permit issued in its own name is a violation of
Section 82-4-431, MCA.

22 **ORDER OF ABATEMENT**

- 23 20. Hendrickson and JTL are directed to do the following:

24 //

- 1 (a) Immediately cease all opencut mining operations at the Hendrickson Pit that are
2 being conducted outside of the area currently permitted under Permit HES-001.
(b) Immediately cease operations of the hot asphalt plant.

- 3 21. The cessation of mining and operation of the hot asphalt plant as set forth in the previous
4 paragraph shall continue until the Department has approved an amendment to
Hendrickson's permit or issued a permit to JTL authorizing this open cut mining activity.
5 22. Failure to comply with this Order of Abatement will result in the imposition of additional
6 daily civil penalties as set forth in paragraph 23.

7 **STATEMENT OF PROPOSED PENALTY**

- 8 23. Section 82-4-441, MCA, provides that for every violation of the Act or of the rules
9 adopted thereunder or of the provisions of a reclamation permit the Department may
10 assess a civil penalty from \$100 (one hundred dollars) to \$1,000 (one thousand dollars)
for the violation, and an additional civil penalty within the same limits for each day
during which the violation continues following the service of this notice.

- 11 24. The Department proposes a penalty of \$1,000 (one thousand dollars) for Hendrickson's
12 violation as alleged in paragraph 13 above and penalty of \$550 (five hundred fifty
13 dollars) for his violation as alleged in paragraph 14 above. Hendrickson's total civil
penalty is proposed at \$1,550 (one thousand five hundred fifty dollars).

- 14 25. The Department proposes a civil penalty of \$575 (five hundred seventy-five dollars) for
15 JTL's violation as alleged in paragraph 19 above.

- 16 26. The proposed penalties are based upon departmental consideration of: (a) the nature,
17 circumstances, extent and gravity of the violation; (b) the violator's history of violations;
18 (c) the economic benefit of savings, if any, to the violator resulting from the violator's
19 action; (d) the amounts voluntarily expended by the violator to address or mitigate the
violation or impacts of the violation; and (e) other matters that justice may require, as
detailed in the attached penalty calculation worksheets.

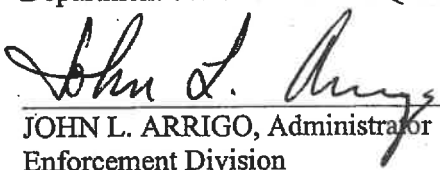
- 20 27. As provided in Section 82-4-427, MCA, you are entitled, by submitting a written request
21 within 30 days of the date of this notice of violation, to a hearing on the issues of whether
22 the alleged violation has occurred and whether the penalty proposed is proper. If you do
23 not request a hearing and submit testimony at such hearing, you forfeit your right to
judicial review of the violation and penalty determinations. Your request should state
your reasons for objecting to the Department's determinations as to the violation and
proposed penalty and be directed to: Board of Environmental Review, PO Box 200901,
Helena, Montana 59620-0901.

24 //

1 28. You are encouraged to discuss this matter with the Department by contacting Scott
2 McCollough, Enforcement Division, at telephone number (406) 444-4202.

3 DATED this 12th day of June 2001.

4 STATE OF MONTANA
5 Department of Environmental Quality

6 
7 JOHN L. ARRIGO, Administrator
8 Enforcement Division

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CERTIFICATE OF SERVICE

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I, Dona McClung, Administrative Officer for the Department of Environmental Quality's Enforcement Division, hereby certify that on the 13th day of June 2001, a true and accurate copy of the foregoing Notice of Violation and Statement of Proposed Penalty, Docket No. OC-01-03, was duly served upon Stan Hendrickson and JTL Group, Inc. as listed below by depositing the same (via certified mail, return receipt requested) in the agency mailroom for collection by Central Mail:

Stan Hendrickson
P.O. Box 267
Lolo, MT 59847

JTL Group, Inc.
Attn: Alrick Hale
P.O. Box 790
Missoula, MT 59806

Dona McClung
Dona McClung, Administrative Officer
Enforcement Division
Montana Dept. of Environmental Quality

SUBSCRIBED AND SWORN TO before me this 13th day of June 2001.

Lyona Holm
NOTARY PUBLIC for the State of Montana
Residing at Helena, Montana
My commission expires: 3/11/2002

(SEAL)



**ENFORCEMENT DIVISION
PENALTY WORKSHEET**

FID #: 478
Responsible Party: JTL Group, Incorporated, Docket OC-01-03
Date: June 12, 2001
Violation: Failure to obtain a reclamation permit for opencut mining
 (Section 82-4-431, MCA)

Nature of Violation: Actual or potential harm to the environment, public health or safety.
 Impairment of the Department's administration of the Act.

<u>Penalty Factors</u>	<u>Range</u>	<u>Penalty</u>
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<p>a) History of Violations: <i>(The Department assesses one point for each notice of violation issued for a similar violation in the last three years.)</i></p>	<p>1 point for each NOV</p>	<p>0</p>
---	-----------------------------	----------

The Department has not issued JTL Group, Inc. (JTL) any Notices of Violation during the past three years.

<p>b) Gravity (Seriousness): <i>(The Department assesses this component of the penalty on whether the degree of seriousness of the violation is slight, moderate or severe. To make this determination, consideration is given to the to the following factors:</i></p>	<p>Slight 1 - 4 Moderate 5 - 8 Severe 9 - 12</p>	<p>10</p>
--	--	-----------

- (a) whether the violation caused a situation where the public health, public safety, or the environment has been adversely affected or is likely to be adversely affected in the future;*
 - (b) whether the specific provisions of the Act, the rules adopted pursuant to the Act, or reclamation contract that was violated is intended to prevent such adverse affect;*
 - (c) whether the violation will significantly alter or hinder reclamation or the approved postmining land use; and*
 - (d) whether the violation impaired the administration of the Act.*
- See penalty ranges at right.)*

A purpose of the Opencut Mining Reclamation Act is to safeguard and reclaim through effective means and methods all agricultural, recreational, home, and industrial sites subject to or that may be affected by opencut material mining. To implement this purpose, the Act requires persons who wish to conduct opencut mining to obtain a permit for all lands to be disturbed prior to beginning operation.

JTL's opencut mining operation at the Hendrickson Pit was not authorized under Hendrickon's permit or a permit of its own. Failure to

<u>Penalty Factors</u>	<u>Range</u>	<u>Penalty</u>
<p>obtain a permit has a high impact to the Department's ability to administer the program and leaves the Department without assurance that the site will be ultimately reclaimed to productive uses as required by law. Without a permit the Department has no way to assess any impacts or public concerns that could be significant or to reclaim the site if the operator fails to do so. The seriousness of this violation is severe.</p>		
<p>c) Extent (Magnitude): <i>(The Department assesses this component of the penalty on whether the extent of deviation from the required conduct is slight, moderate or severe. See penalty ranges at right.)</i></p> <p>The extent of deviation for this violation is severe. The operation disturbed land more than four times the size of the permitted area.</p>	<p>Slight 1 - 3</p> <p>Moderate 4 - 6</p> <p>Severe 7 - 9</p>	7
<p>d) Circumstances (Degree of Negligence): <i>(The Department assesses up to 18 points for this component depending on the degree of negligence exhibited by the violator. See penalty ranges at right.)</i></p> <p>JTL showed a high degree of ordinary negligence. JTL is an experienced opencut mining operator engaged in a significant number of gravel pits in Montana. A prudent opencut mining operator makes sure that its mining operations are permitted by the Department. This responsibility is satisfied by either inspecting the permit under which is assumed to operate or by obtaining a permit in its own name. JTL failed to take either step, resulting in its disturbance of land that is not covered by a reclamation permit.</p>	<p>Ordinary Negligence 1 - 6</p> <p>Gross Negligence 7 - 12</p> <p>Intentional Violation 13 - 18</p>	6
<p>e) Good Faith: <i>(If the violator self-reports or takes measures beyond those required by law to address or mitigate the violation or its impacts, the total penalty may be reduced depending on the amount of time, money, or effort voluntarily expended and the degree of success.)</i></p> <p>JTL took no actions to mitigate the violation that would qualify as good faith.</p>		0
<p>f) Other Matters Justice May Require:</p>		0
<p>Total Number of Points Assigned</p>		23
<p>Base Penalty (number of points assigned X \$25)</p>		\$575
<p>Economic Benefit: <i>(Using the best information reasonably available to it at the time of calculating penalties, the Department is required to consider any economic benefit or savings that the violator gained as a result of the violation.)</i> The Department would have required Hendrickson to obtain the permit amendment and post the additional bond. Also, the Department observed JTL in the Hendrickson Pit expansion on September 14, 2000. This observation occurred after December 23, 1999, the date that Hendrickson</p>		

Penalty Factors

Range

Penalty

submitted the appropriate bond for the expansion. Therefore, no economic benefit is added to the Base Penalty.

Total Proposed Penalty

\$575

Scott McCollough
Scott McCollough, Environmental Enforcement Specialist

June 12, 2001
Date

EXHIBIT M



MEMORANDUM

TO: David Loomis, OPG

FROM: Michael W. Sehestedt
Deputy County Attorney

RE: **Hendricksen Gravel Pit**

DATE: April 14, 2008

This is an interesting problem. The zoning precludes gravel pits but this pit predated the zoning with an area in 1999 as a non-conforming use of 15 acres.

In August 2001 an application was made to DEQ to increase the operation to 72 acres. Subsequently bond was posted for 72 acres and JTL began operating out of the pit as part of the major Highway 93 expansion project.

While the permit applied for in 2001 was apparently never issued, the DEQ treated it as a 72 acre operation in its records and requests for reports. It appears that the operation has now disturbed almost all of the 72 acres.

Apparently the problem came to light when DEQ was reviewing reclamation bonds.

My recommendation, since DEQ has treated this as permitted at 72 acres and since it now has disturbed about that much surface, is to grant the zoning compliance permit with the provision that the permit while allowing gravel extraction, is limited by the permit period and will lapse at the end of that period. It should also note that zoning compliance is granted to permit the eventual restoration of the site to a slope and configuration that will permit residential development.

I base this recommendation on estoppel and statute of limitations grounds and on the fact that the pit has operated as proposed without objection for the last six plus years.

RECEIVED

APR 17 2008

EXHIBIT N

RECEIVED

AUG 03 2009

DEQ/EMB

DEQ OPENCUT MINING PROGRAM • 1520 EAST SIXTH AVENUE • HELENA MT 59620 • PHONE: 406-444-4970 • FAX: 406-444-1923

ZONING COMPLIANCE

For Compliance With Local Zoning Regulations
Title 76, chapter 2, parts 2 and 3; Title 82, chapter 4, part 4, MCA

To ensure that a proposed sand and gravel operation governed by the Opencut Mining Act will be in compliance with local zoning regulations, a permit or amendment application for such an operation must include this form.

Stan Hendricksen (operator) has provided notification to the county city about the proposed sand and gravel operation at the Hendricksen Lolo site in

Sec. 23, T. 11N S, R. 20 E/W

Sec. _____, T. _____ N/S, R. _____ E/W

Missoula County.

Please check one of the following:

Site location is not zoned.

Site location is zoned as ZD #40

If the site location is zoned, please check one of the following:

Proposed operation complies with county city zoning regulations.

Proposed operation does not comply with county/city zoning regulations.

David Loomis
Name (print or type)

David Loomis
Signature

Senior Planner
Title

7/28/09
Date



Zoning Compliance Permit
Office of Planning & Grants



RECEIVED

AUG 03 2009

DEQ/IEMB

Date Issue:

Permit #: Z20090133 GRAVEL PIT

Applicant / Agent Information

APPLICANT HENDRICKSEN STANLEY C 02/15/2008 Phone: 406-273-6767

PO BOX 267
LOLO, MT 59847

License:

OWNER HENDRICKSEN STANLEY C 07/27/2009 Phone:

PO BOX 267
LOLO, MT 59847

Parcel Information

Zoning: ZD#40 Square Footage of Property: 0 In Acres: 100

Property Address: 18715 S OLD HIGHWAY 93 FLO

Legal Description: COS 3935 IN S1/2 NE1/4 SW1/4 23-11-20 Section:23 Township:

11N Range: 20W

Property Use

Jurisdiction City N County Y

Setback Requirements (All measurements are in feet unless otherwise noted.)

Frontyard: 0 Rearyard: 0 Sideyard: 0 Accessory to dwelling unit: 0

Structure

Area of Existing Primary: 0	Area of Existing Accessory: 0	Proposed Structure Area: 0
# of Existing Dwelling Units: 0	# of New Dwelling Units: 0	
Maximum Allowed Structure Height: 0	Measured Structure Height: 0	
Hillside Standards Apply: N	Absolute: N	Modified: N
Permitted Wall Height:	Measured Wall Height:	

Use

New Use: GRAVEL PIT	Previous Use: GRAVEL PIT	Landscaping Required:
---------------------	--------------------------	-----------------------

# of Parking Spaces Required: 0	# of Existing Parking Spaces: 0	# of New Spaces: 0
---------------------------------	---------------------------------	--------------------

Floodplain:

Zone X Out of Floodplain	Panel:	LOMA:
		LOMR:

check # 9063

017 07-30

15200 5



Zoning Compliance Permit
Office of Planning & Grants



AUG 03 2009

Conditions & Approvals

DEQ/IEMB

1: APPLICANT IS RESPONSIBLE FOR CONSTRUCTION OF THE PROJECT AS SHOWN ON SUBMITTED AND APPROVED PLANS.

Item: 00080 Office of Planning & Grants

07/27/2009 LOOMIS Action: APP DOCUMENTATION AND
FINDINGS ATTACHED

THIS PERMIT DOES NOT OBVIATE THE NEED TO OBTAIN PERMITS FROM OTHER LOCAL AND STATE AGENCIES. Building and electrical permits are issued by the City Building Inspection Division and the State of Montana depending on jurisdiction. Public works permits may be required from either the City or County Public Works Departments. Septic permits are issued by the City-County Health Department.

Zoning Compliance Permits are valid for six months (180 days) from the date of issuance. This permit is valid until

Planning Official: LOOMIS

D.L.

Applicant's Signature _____

Total Penalties: \$0.00

Fee Total: \$50.00

435 Ryman Street, Missoula, MT (406) 258-4657 Fax: (406) 258-4903
Website: www.co.missoula.mt.us/opgweb Email: zoner@co.missoula.mt.us

EXHIBIT O

Amendment # (provided by DEQ): 1

APPLICATION FOR AMENDMENT OF OPENCUT MINING PERMIT

Instructions: Review and follow the documents: 1) *How to Obtain and Comply with An Opencut Mining Permit*, and 2) *Operator Application Checklist*. Submit the completed checklist and all required components to the Opencut Mining Program in Helena as one package. The Department will not process an application until all the components are received.

All fields must be completed. Write "none" if applicable.

PART 1 - PROPOSED AMENDMENT Operator provides information on this amendment to Permit # <i>HES-001</i> .	
1. Purpose(s) of this amendment: _____ <i>The intent of this amendment is to reduce the mine permit area to 49 acres.</i> _____ _____	
2. Operator - name, address, and zip code: <i>Stan Hendricksen P.O. Box 267 Lolo, Montana 59847</i> Phone: (406) 273-6767 Cell: (406) 239-5808 Fax: Email:	6. Landowner of amendment area - name, address, & zip code: <i>Same</i> Phone: Cell: Fax: Email:
3. Site Name: <i>Hendricksen Pit</i>	7. County: <i>Missoula</i>
4. Acreage breakdown to the tenth of an acre for area being added to the permit: <input checked="" type="checkbox"/> Not applicable (no area being added), or <input type="checkbox"/> Mine-level acres to be added <input type="checkbox"/> Facility-level acres to be added excluding access roads <input type="checkbox"/> Access road acres to be added <input type="checkbox"/> Undisturbed until bonded acres to be added <input type="checkbox"/> Other (describe): _____ <input type="checkbox"/> Total acres to be added to permit (sum above areas)	8. Are additions to main permit area, access roads, and undisturbed areas marked on the ground in accordance with ARM 17.24.218? (Application will not be processed unless markers are in-place.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 9. Processing equipment in the existing permit: <input type="checkbox"/> grizzly <input checked="" type="checkbox"/> crusher <input type="checkbox"/> wash plant <input type="checkbox"/> pug mill <input type="checkbox"/> screen <input type="checkbox"/> asphalt plant <input type="checkbox"/> concrete plant <input type="checkbox"/> none Other: _____
5. Estimated date when the amendment uses will begin (mm/dd/yy): <i>12/1/09</i>	9a. Processing equipment to be added by this amendment: <input type="checkbox"/> grizzly <input type="checkbox"/> crusher <input type="checkbox"/> wash plant <input type="checkbox"/> pug mill <input type="checkbox"/> screen <input type="checkbox"/> asphalt plant <input type="checkbox"/> concrete plant <input type="checkbox"/> none Other: _____

CONTINUED ON PAGE 2

RECEIVED
 DEC 03 2009
 DEQ/EMB

PART 2 – PERMIT UPDATE Operator provides information that updates the total status of the permit.	
10. Updated permit - acreage breakdown to the tenth of an acre (Sum of this amendment, all previous amendments, and original permit, <u>minus</u> total of acreage fully released by DEQ): _____ Mine-level area _____ Facility-level area excluding access roads _____ Access road area _____ Undisturbed until bonded area _____ Other (describe): _____ _____ Total acres in updated permit area (sum above areas)	11. Updated legal description for access roads and main permit area: (no change) Sec _____, T _____ N/S, R _____ E/W Sec _____, T _____ N/S, R _____ E/W <hr/> 12. Estimated quantity of mine material to be excavated in cubic yards: Amendment: _____ New permit total: 2,350,000 cy
13. Coordinates for approximate center of main permit area: Latitude: _____ Longitude: _____ (In decimal degrees) <u><OR></u> UTM Zone: _____ 11 _____ Easting: _____ 723291 _____ Northing: _____ 5175176 _____	
14. UPDATED MAP(S) - The operator reviews the existing Site and Area Maps and identifies updates required to keep the maps accurate and consistent with the operation. Updated maps are required for amendments <u>except</u> when changing only procedural aspects of the permit that do not alter physical characteristics of the site (e.g. final reclamation date, hours of operation.) Are changes to the maps required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "No," attach copies of the previously approved maps; if "Yes," attach copies of the updated maps. Copies of the: <input type="checkbox"/> existing <u>OR</u> <input checked="" type="checkbox"/> updated maps are attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Site Map is dated <i>November 30, 2009</i> Area Map is dated <i>November 30, 2009</i> NOTE: In accordance with the Map Guideline, updated maps must show: a) proposed amendment areas; b) any changes to existing and proposed site features listed in the Map Guideline. Operator must also provide updated locational coordinates for amendment areas.	
15. UPDATES TO PLAN OF OPERATION - The operator carefully reviews the approved <i>Plan of Operation</i> and identifies updates needed to keep the <i>Plan of Operation</i> and support documents accurate, complete, and consistent with the amended mining operation. Are changes to the approved plan necessary? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "No," explain why this amendment does not require any changes to the <i>Plan of Operation</i> : _____ _____ Operator signed the certification section of the previously approved <i>Plan of Operation</i> on (date): _____ If "Yes," propose updates to the plan using one of the following methods: A) Attach an updated <i>Plan of Operation</i> and support documents. If this option is being used, the operator certified the attached updated <i>Plan of Operation</i> on the following date: <i>11/30/09</i> . B) Provide information below as necessary to update appropriate sections of the <i>Plan of Operation</i> . FOR EACH SECTION LISTED BELOW, indicate the subsection of the <i>Plan of Operation</i> that is being updated. Section I – Premine Information - Provide updated information on existing physical conditions in and around the main permit area and along new access road locations: <i>Section D.2: Residences south of the mine site.</i> <i>Section G.1: Additional well data from the surrounding wells have been included with the amended application.</i>	

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Section II – Operations – Provide updated information on operational features, practices, and equipment that will be used at the site, and/or methods that will be used to mitigate potential impacts to the human and natural environment:

Section A: The mine permit area has been reduced to 49 acres.

Is the estimated maximum depth of mining being changed? Yes No. If “Yes,” the estimated maximum depth of mining under the updated permit will now be *60 feet below ground surface at the highest point of the permit area to a maximum depth at contour elevation 3292.*

Section III – Reclamation Plan - Update methods and materials to be used to reclaim the permit area:

Section B. Post-mining land use will be grassland.

Is the estimated date of final reclamation being changed? Yes No. If “Yes,” the estimated date of final reclamation will now be: *12/20 (mm/yy).*

Is there a change in the postmining land use for the permit area? Yes No. If “Yes,” the acreage of each postmining land use area within this permit will now be: *Grassland*

Section IV – Reclamation Bond Calculation. Non-government operators must update the amount of the reclamation bond using the Reclamation Bond Spreadsheet unless the amendment changes only the final reclamation date, hours of operation, or similar procedural aspects of the permit that do not alter physical characteristics of the site.

Is an updated Bond Reclamation Spreadsheet attached? Yes No

If “Yes,” the total bond for the permit area will now be *\$178,189*, in accordance with the attached Bond Reclamation Spreadsheet dated: *11/27/09.*

Section V – Additional Information. Provide other information pertinent to the application:

OPERATOR AFFIRMS THAT OPERATOR HAS THE RIGHT AND POWER, BY LEGAL ESTATE OWNED, TO MINE THE LANDS DESCRIBED, AND THAT THE CONTENTS OF ALL ATTACHMENTS TO THIS APPLICATION BECOME A PART OF THE TERMS THEREOF.

Name (print or type): *Stan Hendricksen*

Title: *Owner*

Signature: *Stan Hendricksen*

Date: *11-30-09*

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EXHIBIT P

Amendment # (provided by DEQ): 1

APPLICATION FOR AMENDMENT OF OPENCUT MINING PERMIT

Instructions: Review and follow the documents: 1) *How to Obtain and Comply with An Opencut Mining Permit*, and 2) *Operator Application Checklist*. Submit the completed checklist and all required components to the Opencut Mining Program in Helena as one package. The Department will not process an application until all the components are received.

All fields must be completed. Write "none" if applicable.

PART 1 - PROPOSED AMENDMENT Operator provides information on this amendment to Permit # <i>HES-001</i> .	
1. Purpose(s) of this amendment: <i>The intent of this amendment is to increase the mine permit area to 50 acres.</i>	
2. Operator - name, address, and zip code: <i>Stan Hendricksen P.O. Box 267 Lolo, Montana 59847</i> Phone: <i>(406) 273-6767</i> Cell: <i>(406) 239-5808</i> Fax: <i>(406) 273-6767</i> Email: <i>none</i>	6. Landowner of amendment area - name, address, & zip code: <i>Same</i> Phone: Cell: Fax: Email:
3. Site Name: <i>Hendricksen Pit</i>	7. County: <i>Missoula</i>
4. Acreage breakdown to the tenth of an acre for area being added to the permit: ___ Not applicable (no area being added), or <u>27.5</u> Mine-level acres to be added <u>19.0</u> Facility-level acres to be added excluding access roads ___ Access road acres to be added ___ Undisturbed until bonded acres to be added ___ Other (describe): _____ <u>46.5</u> Total acres to be added to permit (sum above areas)	8. Are additions to main permit area, access roads, and undisturbed areas marked on the ground in accordance with ARM 17.24.218? (Application will not be processed unless markers are in-place.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 9. Processing equipment in the existing permit: <input type="checkbox"/> grizzly <input checked="" type="checkbox"/> crusher <input type="checkbox"/> wash plant <input type="checkbox"/> pug mill <input type="checkbox"/> screen <input type="checkbox"/> asphalt plant <input type="checkbox"/> concrete plant <input type="checkbox"/> none Other: _____
5. Estimated date when the amendment uses will begin (mm/dd/yy): <i>12/1/09</i>	9a. Processing equipment to be added by this amendment: <input type="checkbox"/> grizzly <input type="checkbox"/> crusher <input type="checkbox"/> wash plant <input type="checkbox"/> pug mill <input type="checkbox"/> screen <input type="checkbox"/> asphalt plant <input type="checkbox"/> concrete plant <input type="checkbox"/> none Other: _____

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PART 2 – PERMIT UPDATE Operator provides information that updates the total status of the permit.	
<p>10. Updated permit - acreage breakdown to the tenth of an acre (Sum of this amendment, all previous amendments, and original permit, <u>minus</u> total of acreage fully released by DEQ):</p> <p><u> 31.0 </u> Mine-level area <u> 19.0 </u> Facility-level area excluding access roads <u> </u> Access road area <u> </u> Undisturbed until bonded area <u> </u> Other (describe): _____ <u> 50.0 </u> Total acres in updated permit area (sum above areas)</p>	<p>11. Updated legal description for access roads and main permit area: (no change)</p> <p style="text-align: center;">Sec <u> 23 </u>, T <u> 11 </u> N, R <u> 20 </u> W Sec _____, T _____ N/S, R _____ E/W</p> <hr/> <p>12. Estimated quantity of mine material to be excavated in cubic yards:</p> <p>Amendment: _____ New permit total: 2,350,000 cy</p>
<p>13. Coordinates for approximate center of main permit area:</p> <p>Latitude: _____ Longitude: _____ (In decimal degrees) <OR> UTM Zone: <u> 11 </u> Easting: <u> 723291 </u> Northing: <u> 5175176 </u></p>	
<p>14. UPDATED MAP(S) - The operator reviews the existing Site and Area Maps and identifies updates required to keep the maps accurate and consistent with the operation. Updated maps are required for amendments <u>except</u> when changing only procedural aspects of the permit that do not alter physical characteristics of the site (e.g. final reclamation date, hours of operation.)</p> <p>Are changes to the maps required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "No," attach copies of the previously approved maps; if "Yes," attach copies of the updated maps.</p> <p>Copies of the: <input type="checkbox"/> existing OR <input checked="" type="checkbox"/> updated maps are attached. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="text-align: center;">Site Map is dated <i>April 14, 2010</i> Area Map is dated <i>November 30, 2009</i></p> <p>NOTE: In accordance with the Map Guideline, updated maps must show: a) proposed amendment areas; b) any changes to existing and proposed site features listed in the Map Guideline. Operator must also provide updated locational coordinates for amendment areas.</p>	
<p>15. UPDATES TO PLAN OF OPERATION - The operator carefully reviews the approved <i>Plan of Operation</i> and identifies updates needed to keep the <i>Plan of Operation</i> and support documents accurate, complete, and consistent with the amended mining operation.</p> <p>Are changes to the approved plan necessary? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "No," explain why this amendment does not require any changes to the <i>Plan of Operation</i>: _____</p> <p>Operator signed the certification section of the previously approved <i>Plan of Operation</i> on (date): _____</p> <p>If "Yes," propose updates to the plan using one of the following methods:</p> <p>A) Attach an updated <i>Plan of Operation</i> and support documents. If this option is being used, the operator certified the attached updated <i>Plan of Operation</i> on the following date: <i>4/15/10</i>.</p> <p>B) Provide information below as necessary to update appropriate sections of the <i>Plan of Operation</i>.</p>	
<p>FOR EACH SECTION LISTED BELOW, indicate the subsection of the <i>Plan of Operation</i> that is being updated.</p> <p>Section I – Premine Information - Provide updated information on existing physical conditions in and around the main permit area and along new access road locations: <i>Section D.2: Residences south of the mine site.</i> <i>Section G.1: Additional well data from the surrounding wells have been included with the amended application.</i></p>	

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Section II – Operations – Provide updated information on operational features, practices, and equipment that will be used at the site, and/or methods that will be used to mitigate potential impacts to the human and natural environment:

Section A: The mine permit area has been increased to 50 acres.

Is the estimated maximum depth of mining being changed? Yes No. If "Yes," the estimated maximum depth of mining under the updated permit will now be *60 feet below ground surface at the highest point of the permit area to a maximum depth at contour elevation 3220.*

Section III – Reclamation Plan - Update methods and materials to be used to reclaim the permit area:

Section B. Post-mining land use will be grassland.

Is the estimated date of final reclamation being changed? Yes No. If "Yes," the estimated date of final reclamation will now be: *12/20 (mm/yy).*

Is there a change in the postmining land use for the permit area? Yes No. If "Yes," the acreage of each postmining land use area within this permit will now be: *Grassland*

Section IV – Reclamation Bond Calculation. Non-government operators must update the amount of the reclamation bond using the Reclamation Bond Spreadsheet unless the amendment changes only the final reclamation date, hours of operation, or similar procedural aspects of the permit that do not alter physical characteristics of the site.

Is an updated Bond Reclamation Spreadsheet attached? Yes No

If "Yes," the total bond for the permit area will now be *181,522*, in accordance with the attached Bond Reclamation Spreadsheet dated: *4/14/10.*

Section V – Additional Information. Provide other information pertinent to the application:

OPERATOR AFFIRMS THAT OPERATOR HAS THE RIGHT AND POWER, BY LEGAL ESTATE OWNED, TO MINE THE LANDS DESCRIBED, AND THAT THE CONTENTS OF ALL ATTACHMENTS TO THIS APPLICATION BECOME A PART OF THE TERMS THEREOF.

Name (print or type): *Stan Hendricksen*

Title: *Owner*

Signature: *Stan Hendricksen*

Date: *4-15-10*

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DEQ OPENCUT MINING PROGRAM • 1520 EAST SIXTH AVENUE • HELENA MT 59620 • PHONE: 406-444-4971 • FAX: 406-444-1923

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ZONING COMPLIANCE

**For Compliance With Local Zoning Regulations
Title 76, chapter 2, parts 2 and 3; Title 82, chapter 4, part 4, MCA**

To ensure that a proposed sand and gravel operation governed by the Opencut Mining Act will be in compliance with local zoning regulations, a permit or amendment application for such an operation must include this form.

Stan Hendricksen (operator) has provided notification to the county city about the proposed sand and gravel operation at the Hendricksen Lolo site in

Sec. 23, T. 11N S, R. 20 E/W

Sec. , T. N/S, R. E/W

Missoula County.

Please check one of the following:

Site location is not zoned.

Site location is zoned as ZD #40

If the site location is zoned, please check one of the following:

Proposed operation complies with county city zoning regulations.

Proposed operation does not comply with county/city zoning regulations.

David Loomis
Name (print or type)

David Loomis
Signature

Senior Planner
Title

7/28/09
Date



Zoning Compliance Permit
Office of Planning & Grants



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Date Issue:

Permit #: Z20090133 GRAVEL PIT

Applicant / Agent Information

APPLICANT HENDRICKSEN STANLEY C 02/15/2008 Phone: 406-273-6767
PO BOX 267
LOLO, MT 59847
License:

OWNER HENDRICKSEN STANLEY C 07/27/2009 Phone:
PO BOX 267
LOLO, MT 59847

Parcel Information

Zoning: ZD#40 Square Footage of Property: 0 In Acres: 100
Property Address: 18715 S OLD HIGHWAY 93 FLO
Legal Description: COS 3935 IN S1/2 NE1/4 SW1/4 23-11-20 Section:23 Township:
11N Range: 20W

Property Use

Jurisdiction City N County Y

Setback Requirements (All measurements are in feet unless otherwise noted.)

Frontyard: 0 Rearyard: 0 Sideyard: 0 Accessory to dwelling unit: 0

Structure

Area of Existing Primary: 0	Area of Existing Accessory: 0	Proposed Structure Area: 0
# of Existing Dwelling Units: 0	# of New Dwelling Units: 0	
Maximum Allowed Structure Height: 0	Measured Structure Height: 0	
Hillside Standards Apply: N	Absolute: N	Modified: N
Permitted Wall Height:	Measured Wall Height:	

Use

New Use: GRAVEL PIT	Previous Use: GRAVEL PIT	Landscaping Required:
# of Parking Spaces Required: 0	# of Existing Parking Spaces: 0	# of New Spaces: 0

Floodplain:

Zone X Out of Floodplain	Panel:	LOMA:
		LOMR:

check # 9003



Zoning Compliance Permit
Office of Planning & Grants



AUG 03 2009

Conditions & Approvals

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1: APPLICANT IS RESPONSIBLE FOR CONSTRUCTION OF THE PROJECT AS SHOWN ON SUBMITTED AND APPROVED PLANS.

Item: 00080 Office of Planning & Grants
07/27/2009 LOOMIS Action: APP DOCUMENTATION AND
FINDINGS ATTACHED

THIS PERMIT DOES NOT OBYIATE THE NEED TO OBTAIN PERMITS FROM OTHER LOCAL AND STATE AGENCIES. Building and electrical permits are issued by the City Building Inspection Division and the State of Montana depending on jurisdiction. Public works permits may be required from either the City or County Public Works Departments. Septic permits are issued by the City-County Health Department.

Zoning Compliance Permits are valid for six months (180 days) from the date of issuance. This permit is valid until

Planning Official: LOOMIS Applicant's Signature _____
D.L.

Total Penalties: \$0.00
Fee Total: \$50.00

435 Ryman Street, Missoula, MT (406) 258-4657 Fax: (406) 258-4903
Website: www.co.missoula.mt.us/opgweb Email: zoner@co.missoula.mt.us

PLAN OF OPERATION

Operator: Stan Hendricksen Site: Hendricksen Pit

INSTRUCTIONS - How to submit a complete and accurate plan:

1. Read the bold text and explanatory information in each section. Do not change any text in this form. The bold text, performance standards, answers, attached support documents, and related maps constitute binding parts of this plan.
2. Fill in all blanks and provide an answer to all questions. Write "none" if that is the correct answer.
3. Attach the following REQUIRED support documents and mark the boxes at the far left to indicate which are attached. If you believe you do not need to submit support document a. or e. because an exception applies, mark the box at that exception and leave the box at far left blank.
 - a. Well Logs (Section I-G 2). Not required if no wells are in or within 1,000 feet of the main permit area.
 - b. County-Approved Noxious Weed Control Plan (Section III-G 1b)
 - c. Bond Reclamation Spreadsheet (Section IV)
 - d. Site Map (Section VI; also see the *Map Guideline*)
 - e. Area Map (Section VI; also see the *Map Guideline*). Not required if all required features are on the Site Map.
4. Attach all the following support documents if you reference any in this *Plan of Operation* and check the appropriate box(es) below to indicate that those referenced are attached:
 - a. Soil & Overburden Thickness Data (Section I-I 2)
 - b. Spill Control and Response Plan (Section II-E 3b)
 - c. Fuel Storage Guideline (Section II-E 5b)
 - d. Monitoring Well Installation Plan (Section II-E 7b)
 - e. Ground Water Monitoring Plan (Section II-E 7b)
 - f. Consultation on Water Rights (Section II-E 8b)
 - g. App. for Concrete & Asphalt Recycling (Sect. II-H 4b)
 - h. Pond Guideline (Section III-D 1b)
 - i. Seed Mix Guideline (Section III-G 5b)
 - j. Other: Zoning Compliance
 - k. Other: _____
 - l. Other: _____
5. Provide (or reference) any additional information in Section V; identify any referenced support document(s) under "Other" in item 4 above, and attach the document(s) to this plan.
6. Sign and date the certification in Section VII.

DEFINITIONS

Access road means an existing or proposed non-public road used in connection with an opencut operation. The term includes the roadbed, cut and fill slopes, ditches, and other structures and disturbances related to access road establishment, use, and reclamation.

Facility-level area means access roads and areas where parking, equipment and material storage, soil and overburden stockpiling, fuel storage, mine material processing and stockpiling, other product production and storage, and water system and control structures are situated.

Main permit area means facility-level areas and mine-level areas, except access roads.

Mine-level area means areas where excavating, grading, and excess overburden and fines disposal occur.

SECTION I – PREMINE INFORMATION

I-A DIRECTIONS TO SITE

Describe how to get from the nearest public road to the main permit area (include mileposts, landmarks, and distances; tell how to obtain keys or combinations for locks).

Answer:

The site is adjacent to old Highway 93, four miles south of Lolo.

I-B TOPOGRAPHY

Describe the terrain in and within 1,000 feet of the main permit area (features include hills, valleys, ridges, draws, spurs, cliffs, and benches).

Answer:

The pit floor is level with the old Highway and the land surface rises to the northwest.

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I-C SURFACE DISTURBANCES

1. Describe the surface disturbances along access roads (disturbances include mine areas, waste piles, and garbage pits).

Answer:

There is no access road; the site is located directly alongside the old Highway.

2. Describe the surface disturbances in and within 1,000 feet of the main permit area.

Answer:

In addition to our current operation, there is an active, large gravel pit being operated by Washington Construction between this site and the present Highway 93.

I-D LAND USES

1. Describe the land uses along access roads (uses include water source pond, wetland, fish pond, riparian area, grassland, shrubland, woodland, special use pasture, hayland, cropland, wildlife habitat, livestock protection site, recreation site, and residential, commercial, and industrial sites).

Answer:

There is no access road; the site is located directly alongside the old Highway.

2. Describe the land uses in and within 1,000 feet of the main permit area.

Answer:

The land to be mined is pasture and there are a few homes to the south and a gravel pit to the east, across the old Highway 93. Washington Construction operates a large gravel pit across old Highway 93 to the east.

I-E STRUCTURES AND FACILITIES

1. Describe the non-operation-related structures and facilities within 500 feet of access roads (these include residential, commercial, and industrial structures and facilities).

Answer:

There is one residential structures located within the mine permit area and within 500 lineal feet of the south access point.

2. Describe the non-operation-related structures and facilities in and within 1,000 feet of the main permit area.

Answer:

Within the permitted area is one mobile home used as a residence. Two residences are located within 500 feet of the permit area. There are three other residences located between 500- 1000 feet of the permit boundary.

I-F SURFACE WATER FEATURES

1. Describe the surface water features within 500 feet of access roads (features include ditches, drainageways, springs, streams, wetlands, ponds, and impoundments).

Answer:

Maple Creek is located 300 feet south of the south access road.

2. Describe the surface water features in and within 1,000 feet of the main permit area.

Answer:

McClain Creek is located 300 feet north and Maple Creek is located within 50 feet of the south side of the permit area. Maple Creek has formed a wetland in the lot south of the site and across the old highway to the east.

I-G WATER WELLS

1. In the table below list the locations, total depths, static water levels, and uses of wells in and within 1,000 feet of the main permit area. Obtain this information from the Montana Natural Resource Information System at <http://maps2.nris.mt.gov/mapper/>. The guideline *Identifying Well Logs within a Specified Radius* describes a convenient method for identifying wells near the site and downloading the well logs. (Give depths and levels in feet below the ground surface; attach an extra sheet if necessary to report all the applicable wells. If there are no wells, write "None" in the table below.) Note: Locations of existing and proposed wells in and within 1,000 feet of the main permit area must be shown and labeled on the Site Map or Area Map (ARM 17.24.221[5]).

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MNUMBER	SITE_NAME	Distance*	TD	PWL	SWL	USE
66056	JONES BERNEY	0' NE Corner	25	20	2	Domestic
66096	HOLMES ARCHIE AND PHYLLIS	1000' South	83	26	11	Domestic
126221	BAUER MAX G JR AND CYNTHIA	0' NE Corner	60	15	5	Domestic
136278	LAMBSON BOYD	300' Northeast	42	35	18	Domestic
152123	HENDRICKSON STAN	In Permit Area	41	30	9	Domestic
153245	HENDERSON BETH	800' Northeast	58	0	5	Domestic
181954	SCRAFFORD KIRK	In Permit Area	56	0	6	Domestic
207560	LEIBENGUTH SCOTT	900' West	40	0	0	Domestic
223714	REIMEN EARL	1000' South	60	0	16	Domestic
246587	LEIBENGUTH SCOTT AND SUSAN	900' West	80	0	31	Domestic
246595	LEIBENGUTH SCOTT AND SUSAN	900' West	80	0	33	Domestic

* Based on Alliquot Description Location, are not accurate physical locations of wells

2a. Attach well logs for wells in and within 1,000 feet of the main permit area.

Are the available well logs attached? Yes No (Required per ARM 17.24.217 [b])
 If Yes, check box 3a on page 1. (If there are no wells, check the exception box for item 3a on page 1.)

2b. Do the well logs indicate any of the wells located within 1,000 feet of the main permit area boundary are used for public water supply? Yes No

3. If warranted, provide additional well information not obtained from well logs. Identify the source(s) of the information (potential sources of additional information include landowners and field observations).

Answer:

The wells identified in the well log search are all located by aliquot section and do not appear to be within the 1000 feet of the permit area. There are four residences within the south buffer of the permit with individual wells that cannot be correlated with the MBMG records.

The well logs for the three on site wells owned by Hendricksen are included. The domestic well for the Hendricksen residence is 300' north of the permit area, has a static water level of 79.5 feet (estimated groundwater elevation of 3210) and total depth of 98.5 feet. The domestic well at the southeast corner of the site is 41 feet total depth with a static water level of 9 feet (estimated groundwater elevation of 3191). The depth to water measured in the well represents the groundwater depth within the permit area.

I-H WATER TABLE LEVELS

1. Give the following information for the main permit area (the seasonal high water table is the level to which water typically rises at its highest stage annually; the seasonal low water table is the level to which water typically falls at its lowest stage annually; include "pond" as a postmining land use under III-B if ground water is anticipated to occur in any portion of the mine during any season and the site will not be constructed with a permanent drainage mechanism (see III-E[7]) or be backfilled (see II-H[2]).

- (a) The estimated maximum depth of mining: 60 feet @ the 3270 foot level/10 feet @ the 3220 foot level
- (b) The estimated seasonal high water table level in the main permit area: 10 feet from ground surface
- (c) The estimated seasonal low water table level in the main permit area: 15 feet from ground surface

2. Give the information sources used (MBMG well or water level data, landowners, and field observations are potential sources).

Answer:

The source of the information is well logs from domestic well in the same geologic formation of the mine permit area (see I-G.3 above)

I-I SOIL AND OVERBURDEN THICKNESSES

1a. Give the following soil and overburden thickness information (examine test holes, observation points such as road cuts and highwalls, and soil survey information to determine the break between soil and overburden; soil is darker colored, has moderate to strong soil structure, and/or contains the majority of plant roots; overburden is lighter-colored, has weak structure or is structureless, and/or contains few to no roots; when overburden is the mine material, or when

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needed as binder, an appropriate quantity must first be dedicated to satisfying the soil plus overburden replacement thickness requirements given in III-F).

- (a) Access road area soil* Range: ____ to ____ inches Average thickness: n/a inches**
- (b) Other facility-level area soil Range: ____ to ____ inches Average thickness: 12 inches**
- (c) Mine-level area soil Range: ____ to ____ inches Average thickness: 12 inches**
- (d) Mine-level area overburden Range: ____ to ____ inches Average thickness: 12 inches**

* - For new road locations or areas disturbed to improve existing roads. Improvements include substantial widening, cutting, and filling. An existing road is typically a worn two-track trail.

** - During reclamation the operator must replace soil and overburden to at least the average thicknesses reported here. In some cases, the operator may be required to replace more than the average thickness of overburden; see III-F of this plan

2. Give the source information: Either attach field data form(s) or provide the field data in the table below. (For each category above, obtain field information from a representative number of test holes or observation points; the Test Hole Log form is available for use; the DEQ may require additional information depending on the size and nature of the areas; soil survey information can be obtained from the Natural Resources Conservation Service). Note: Test hole and observation point locations must be shown on the Site Map (ARM 17.24.221[2e]).

Is soil and overburden thickness field data attached? Yes No

If Yes, check box 4a on page 1.

If No, provide the information in the table below.

There is 48,000 cubic yards of stockpiled topsoil on site. The mine area is 31 acres or 50,000 square yards. The removed stockpile represents about 11.5" of removed topsoil. Test hole data is not available.

Test Hole or Observation Point I.D. on map	Soil Thickness (inches)	Overburden Thickness (inches)	Comments

I-J VEGETATION

Describe the vegetation in the main permit area (list the dominant grasses, forbs, shrubs, and trees; list the noxious weeds observed; landowners, field observations, and soil surveys are good information sources).

Answer:

Various wheatgrasses, bluegrass, timothy, brome, roses, quackgrass and knapweek.

I-K WILDLIFE

1. Describe the fish and wildlife habitats along access roads (see the list of habitats in the Map Guideline; landowners, field observations, and state and federal agencies [DFWP, DNRC, USFS, BLM, USFWS] are good information sources).

Answer:

Not applicable

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2. Describe the fish and wildlife habitats in and within 1,000 feet of the main permit area.

Answer:

The site is generally used by deer, elk, game and non-game birds, rodents, raptors and other small mammals. The western pasture, uphill from the old highway, is winter range for a local resident elk herd.

I-L ADDITIONAL INFORMATION

Describe other characteristics or circumstances unique to the proposed permit and surrounding area.

Answer:

Average precipitation is 18 to 22 inches of rainfall with approximately 100 frost-free days.

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SECTION II – OPERATIONS

II-A MARKERS

Note: Markers must be in place when the permit application is received by DEQ so the site is clearly defined for the field inspection. DEQ staff cannot inspect sites that are not marked in accordance with ARM 17.24.218(a).

1. Operator has:

- (a) Clearly marked new road locations and existing roads to be improved (place temporary, bright-colored markers at every curve, no more than about 300 feet apart, and so they are visible from one to the next).
- (b) Clearly marked the main permit area boundary segments that require marking (boundary segments defined by definite topographic changes, natural barriers, or man-made structures, or located in active hayland or cropland, need not be marked; place durable, bright-colored markers at every corner, no more than about 300 feet apart, and so they are visible from one to the next; stout steel or wood posts are recommended; a boundary marker must remain in place until the beginning of final reclamation of the adjacent area).
- (c) Clearly marked “undisturbed until bonded” areas to be included in the permit but not bonded until they are used for opencut operations. (Typically, “undisturbed” area provides contingent or future mine-level area. Benefits of permitting “undisturbed” area include: 1) deferring the expense of bonding the area until it is needed; and 2) potentially eliminating the need to apply for an amendment if this *Plan of Operation* anticipates, identifies, and plans for its use. Plans for the development, operation, and reclamation of “undisturbed until bonded” areas must provide the same level of detail that is required for bonded areas. Prior to commencing opencut operations in such areas, the operator must submit a *Request to Commence Operations in “Undisturbed Until Bonded” Area* form and post bond on the undisturbed area that is accepted by DEQ.

2. Describe the materials used to clearly mark new road locations and existing roads to be improved.

Answer:

Access is directly into mine area, there is no access road.

3. Describe the materials used to clearly mark the main permit area boundary segments that require marking.

Answer:

The entire site is marked at the main corners with green steel fence posts and at 300' or less intervals in between the corners.

4. Describe the main permit area boundary segments defined by definite topographic changes, natural barriers, or man-made structures.

Answer:

The eastern boundary is marked by the right-of-way for the old Highway 93, the southern boundary is marked by a barbed wire fence and the banks of the wetland area formed by Maple Creek. A fenceline defines the west boundary. And there is a residence (Hendricksen) that defines the north boundary.

5. Describe the main permit area boundary segments located in active hayland or cropland.

Answer:

None.

II-B ACCESS ROADS

1. Operator will:

- (a) Properly establish and use access roads.
- (b) Reclaim or downsize constructed or improved roads to premine condition, except as provided in 3, by:
 - (1) Retrieving and properly using, stockpiling, or disposing of materials used for road construction or improvement (materials include culverts, gravel, and pavement).
 - (2) Backfilling and grading in a manner that leaves stable surfaces blended into the surrounding topography and drainageways.
 - (3) Ripping, resoiling, and revegetating.

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2. Describe the location of and design for each new access road to be constructed and existing road to be improved.

Answer:

There is no access road, the access point goes directly into the mine area.

3a. Does Item A of the Landowner Consultation form request roads remain at the conclusion of Opencut operations? n/a

Yes No

3b. Consistent with the landowner's request in Item A of the Landowner Consultation form, describe the location, length, final width, and intended use of constructed or improved roads proposed to remain open at the conclusion of opencut operations (such roads may remain open for a reasonable use and must be left at a width and in a condition suitable for that use; a 12-foot width is recommended for most roads; if no constructed or improved road is proposed to remain open, put "none" here; if roads are to remain, include "road" as a postmining land use under III-B).

Answer:

None.

II-C MINING, FACILITIES, AND HAULING

1. Describe the general mining progression, including where the first excavation will occur, the direction mining will progress, and the heavy equipment likely to be used.

Answer:

Mining was first begun in the SE corner next to the old Highway and next to the wetland. The general plan is to mine uphill toward the NW and to form two final floors that will be graded out fairly level. The site will feature crushers, grizzlies and screens, as well as an asphalt plant. Mining will occupy the full north-south length of the site, along the old Highway, and will progressively mine toward the west. It is likely that large, temporary operations will occur such as highway projects and paving projects. The majority of the time, a small local sand & gravel operation will be active supplying products year-round.

2. Describe distinct mining phases, including an estimated timeline (for example, "We will mine with loaders to the ordinary water table level during the first year, then mine in the water with an excavator during the second year," or "We will mine the area closest to the subdivision during the first 2 weeks of June, then move to the north site for the rest of the operation").

Answer:

There is no specific timetable for full depletion of this resource at this time. That will depend upon the market.

3. Describe the facilities to be installed or constructed at the beginning of the operation and where they will be located (facilities include grizzly, screen, crusher, asphalt plant, wash plant and settling ponds, concrete plant, pug mill, fuel tanks, scale, and buildings; provide a diagram of a proposed wash plant and pond system; if the Wash Plant Settling Pond Guideline will be followed, reference it here and attach a copy).

Answer:

Facilities will include a crusher (which will be portable and move around the site as needed), a scale and office, a stockpile and sales area for the yearly, full time operation.

4. Describe the anticipated relocation, addition, or removal of facilities as the operation progresses, including the facilities involved, the operational phase when the action will take place, and where facilities will be relocated or added.

Answer:

Cannot predict at this time.

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5. For areas being permitted as “undisturbed until bonded”, describe what the areas will be used for (e.g. mine-level area or facility-level area). If the undisturbed areas will include facility-level area, describe the type of facilities to be developed (e.g., asphalt, concrete, or wash plant, etc.) and the approximate location(s). Plans for the development and use of “undisturbed until bonded” areas must provide the same level of detail that is required for bonded areas.

Answer: N/A

6. Describe the types of haul trucks to be used (additional hauling information may be required depending on the location of the site and the type of operation).

Answer:

Various, including small dump trucks, large dump trucks, belly dumps and tandem trailers.

II-D HOURS OF OPERATION

Describe the proposed hours of operation (give time periods and days of the week; limited hours, such as 7 a.m. to 7 p.m., Monday through Friday may be required to reduce adverse impacts on residential and certain other areas; unless approved otherwise, hours of operation are applicable to mining, processing, loading, hauling, and outdoor maintenance activities).

Answer:

Main hours of operation are 7:00 AM to 7:00 PM, Monday through Friday. The pit may be open some Saturdays for retail sales.

II-E WATER PROTECTION AND MANAGEMENT

1. Operator will:

- (a) Protect on-and off-site surface and ground water from adverse changes in quality and quantity that could be caused by opencut operations.
- (b) Prevent, minimize, or mitigate adverse impacts to on-and off-site surface and ground water structures and systems that could be caused by opencut operations.
- (c) Properly establish, use, and reclaim hydrologic structures and systems used for opencut operations.
- (d) Keep waste, concrete with protruding metal, asphalt, and stationary equipment above the seasonal high water level of surface and ground water.
- (e) Manage fuel storage as follows:
 - (1) Install or construct secondary containment structures for stationary, single-wall, fuel storage tanks in accordance with the current codes adopted by the State Fire Marshall.
 - (2) Routinely inspect and maintain tanks to prevent leaks and spills.
 - (3) Retrieve, handle, and dispose of spilled fuel and contaminated materials in a lawful manner.
 - (4) Report a fuel spill that reaches state waters or is greater than 25 gallons to the Montana Spill Hotline (406-841-3911; “state waters” means surface water, ditch water with return, and ground water).

2. Describe the source, quantity, storage, use, and discharge of water to be used for opencut operations (include water used for dust control, washing, pug milling, and concrete batching; consult the Department of Natural Resources and Conservation (DNRC), Water Rights Bureau [406-444-6610] to see if a water right is needed; operations near public water supply wells or residences using domestic wells typically need to provide a detailed breakdown of estimated water consumption.)

Answer:

There is one source well located at the SE corner of the site to be used for dust suppression. The well can yield 20 gpm. During active operations water will be pumped from the well to a portable storage container and used to fill a water truck to control dust on site. The mine will need approximately 5000 gallons per day during full operation.

Evidence of the Groundwater Certificate is attached.

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3a. Describe the plan for handling solvents, washwater, and wastes associated with asphalt plant, concrete plant, equipment, and truck use.

Answer:

All spills and waste from trucks and equipment on site will be excavated and hauled off site to a proper disposal facility.

3b. Is a spill control and response plan attached? ___ Yes X No

If Yes, check box 4b on page 1.

4. Describe the fuel storage tanks to be used in the main permit area (stationary, mobile, single-wall, double-wall, capacity).

Answer:

There is no planned fixed or mobile fuel storage on the facility. Fuel is provided to equipment with a 200 gallon jump tank in the back of a truck.

5a. Describe the secondary containment structures to be installed or constructed for stationary, single-wall, fuel storage tanks (if the Fuel Storage Guideline will be followed, reference it here and attach a copy).

Answer:

Not applicable.

5b. Is a copy of the Fuel Storage Guideline attached? X Yes ___ No

If Yes, check box 4c on page 1.

6. Describe the plan for managing surface water, sediment, and erosion during opencut operations (discuss the use of diversion channels, interception ditches, on-site collection ditches, sediment ponds and traps, and silt fence; provide designs for substantial structures; indicate which structures will remain as permanent features at the conclusion of opencut operations, if any).

Answer:

All surface water runoff will be diverted internally. No discharge will be allowed to leave the site, especially to the south into the wetlands of Maple Creek. There will be a 50-foot vegetated buffer between the operation and the wetland. No equipment, stockpiles, vehicular traffic of any kind will be allowed to disturb this buffer area, silt fences, hay bales, waddles or other erosion control devices will be used as needed to prevent storm runoff from entering this buffer zone. A General Storm Water Discharge Permit will be obtained from the DEQ Water Protection Bureau.

7a. Describe the plan for managing ground water during opencut operations (discuss the use of subsurface drainage, toe drains, interception ditches, French drains, dewatering wells and sumps, and ground water barriers; provide designs for substantial structures; indicate which structures will remain as permanent features at the conclusion of opencut operations; include "pond" as a postmining land use under III-B if ground water is anticipated to occur in any portion of the mine during any season (see I-H[1]), and the site will not be constructed with a permanent drainage mechanism or be backfilled (see II-H[2]).

Answer:

None, groundwater will not be encountered during mining operations.

7b. Are the following ground water related plans attached? Not applicable

- Monitoring Well Installation Plan ___ Yes x No If Yes, check box 4d on page 1.
- Ground Water Monitoring Plan ___ Yes x No If Yes, check box 4e on page 1.
- Other: _____ ___ Yes x No If Yes, check "Other" box on page 1.
- Other: _____ ___ Yes x No If Yes, check "Other" box on page 1.

8a. Describe the measures to be used to protect the water rights of other parties, or to replace a water source, system, or structure that has a beneficial use but will be adversely affected by opencut operations (if the proposed operation will divert or capture surface or ground water, or if water will be put to a beneficial use such as dust control, gravel washing, stock water, fish and wildlife, irrigation, or recreation, consult the DNRC Water Rights Bureau [406-444-6610] about the need to protect or obtain a water right and provide a summary of that consultation).

Answer:

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A water right application has been received from the DNRC Water Rights Office in Missoula for the water source wells.

8b. Is a summary of your consultation with DNRC about water rights attached? Yes No
If Yes, check box 4f on page 1.

II-F SOIL AND OVERBURDEN HANDLING

1. Operator will strip soil before other opencut operation disturbances occur.
2. Operator will handle soil and overburden separately and minimize the mixing of these materials (if possible, avoid handling soil and overburden when they are wet or frozen).
3. Operator will strip soil from new road locations, new areas to be used for improvements to existing roads, and other facility-level areas to the thicknesses identified in I-I (soil need not be stripped from soil stockpile areas and existing roads; soil stripping may create low spots that collect water, necessitating the establishment of drainage or construction of raised roadbeds and work areas).
4. Operator will:
 - (a) Strip soil from mine-level areas to the thickness identified in I-I.
 - (b) Strip overburden from mine-level areas as needed to satisfy the replacement thickness requirements given in III-F.
5. Operator will maintain a minimum 10-foot buffer stripped of soil and needed overburden along the edges of highwalls.
6. Operator will haul soil and overburden to areas prepared for resoiling, or stockpile and protect them from erosion, contamination, compaction, and unnecessary disturbance.
7. Operator will, at the first seasonal opportunity after soil or overburden stockpile completion, shape and seed to an approved mix a stockpile that will remain for 2 or more years.
8. Operator will keep soil on site and accessible until the approved postmining land uses are established to the DEQ's satisfaction (this ensures that soil remains available for reclamation regardless of the intended postmining land uses; do not use soil off site, give it away, or sell it without written approval from the DEQ).

II-G MINE MATERIAL HANDLING

1. Operator will:
 - (a) Keep mine material stockpiles out of drainage bottoms and off of slopes steeper than 3:1.
 - (b) At the conclusion of opencut operations:
 - (1) Remove from the permit area or bury excavated or processed mine material, except as provided in (2) below (mine material buried en masse could be recovered if needed in the future).
 - (2) Consolidate mine material to remain stockpiled into piles of similar type and grade.
 - (3) Leave an appropriate amount of soil stockpiled, shaped, and seeded within 100 feet of each remaining mine material stockpile (cubic yards of soil to remain equals the square footage of unreclaimed area under and around a mine material stockpile times the thickness in feet of the soil that was stripped from this area divided by 27 cubic feet/cubic yard).
- 2a. Does Item B of Landowner Consultation form request that mine material remain at the conclusion of Opencut operations? Yes No Not applicable
- 2b. Consistent with the landowner's request in Item B of the Landowner Consultation form, describe the approximate quantity and expected use for each type and grade of mine material proposed to remain stockpiled at the conclusion of opencut operations (only approved quantities may remain stockpiled; if no mine material is proposed to remain stockpiled, put "none" here; if stockpiles are to remain, include "mine material stockpile area" as a postmining land use under III-B).

Answer:
None.

II-H OTHER MATERIAL HANDLING

1. Operator will:

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2. Operator will inform key personnel and subcontractors involved in opencut operations of the requirements of this plan.
3. Operator will take proper precautions to prevent wildfires.
4. Operator will provide appropriate protection for identified cultural resources that could be affected by opencut operations, and promptly notify the State Historic Preservation Office (406-444-7715) and the DEQ (406-444-4970) should additional resources be found.
5. By March 1 of each year, operator will complete and return the *Annual Progress Report (APR)* form the opencut program sends to each operator every January. The form reports information on mining conducted during the previous calendar year. At that time, the operator will also calculate the annual fee of 2.5 cents per cubic yard of material mined and submit payment to the DEQ along with the *Annual Progress Report (MCA 82-4-437)*.

SECTION III – RECLAMATION PLAN

Note that some reclamation items are discussed in Section II.

III-A RECLAMATION TIMEFRAMES

1. Operator will complete reclamation work on an area no longer needed for opencut operations, or that the operator no longer has the right to use for opencut operations, within 1 year after the cessation of such operations or termination of such right.
2. Give a reasonable estimate of the month and year by which final reclamation of the permit area will be completed, including seeding the site (consider the estimated mine material demand, expected rate of production, and accessible mine material reserves; you must complete final reclamation by the date given, or you must submit an amendment to extend the final reclamation date).

Answer:

December 2020.

III-B POSTMINING LAND USES

Describe the types, locations, and sizes of postmining land use areas in the main permit area (disturbed areas must be reclaimed to productive uses and this plan must be designed to achieve the designated uses; examples include grassland, pasture, hayland, cropland, wildlife habitat, livestock protection area, recreation site, and residential, commercial, or industrial building sites; describe any: a) roads to remain in accordance with II-B[3b], b) mine material stockpile areas to remain in accordance with II-G[2b], and c) ponds or wetlands that will remain if ground water occurs in any portion of the mine during any season (see I-H[1]) and the site is not constructed with a permanent drainage mechanism (see III-E[7]) or backfilled (see II-H[2]). Also include the postmining land use for areas that are permitted as "undisturbed until bonded.")

Answer:

Grassland.

III-C SITE CLEANUP AND GRADING

1. Unless otherwise approved, operator will remove machinery, equipment, and structures from the permit area.
2. Operator will retrieve and properly use, stockpile, or dispose of foreign materials found in the main permit area (foreign materials include fines, gravel, and pavement; clean surfaces down to native material).
3. Operator will leave reclaimed surfaces:
 - (a) In a stable condition, graded to drain off site or to low areas, and blended into the surrounding topography and drainageways (irregular edges and contours are preferred for livestock and wildlife habitat; minimize slope lengths; reclaim drainageways to natural conditions).
 - (b) With 5:1 or flatter slopes for hayland and cropland, 4:1 or flatter slopes for sandy surfaces, and 3:1 or flatter slopes for other areas (steeper slopes may be approved for certain situations).
 - (c) At least 3 feet above the seasonal high water table level for dryland reclamation, and at least 3 feet below the seasonal low water table level for pond reclamation (seasonal ponds may be acceptable).

III-D SPECIAL RECLAMATION FEATURES

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1a. Describe the locations, designs, and types of ponds to be created (if the Pond Guideline will be followed, reference the guideline here, and attach a copy; consult the DNRC Water Rights Bureau [406-444-6610] to see if a water right is needed; if a pond site is dry during mining, notify the DEQ before it is filled so proper construction can be verified).

Answer:
None, not applicable.

1b. Is the Pond Guideline attached? ___Yes X_No
If Yes, check box 4h on page 1.

2. If a seasonal pond is proposed, describe its purpose below:

Answer:
Not applicable.

3. Describe the locations and designs for other special reclamation features (features include drainageways and building sites).

Answer:
None.

III-E RIPPING

Operator will alleviate compaction by ripping compacted surfaces and replaced overburden to a depth of at least 12 inches before resoiling (this important step relieves compaction, thus allowing air and water movement, root penetration, and subsurface drainage necessary for good plant growth; space ripper shanks about equal to ripping depth; rip on the contour where possible and when materials are dry enough to shatter; protect ripped areas from recompaction; ripping is not required for relatively non-compactable materials such as sands, rocky materials, and bedrock).

III-F SOIL AND OVERBURDEN REPLACEMENT

1. Operator will replace soil on applicable access road areas, other facility-level areas, and mine-level areas to the average thicknesses identified in I-I (at the first seasonal opportunity, seed or plant a resoiled surface to the approved vegetative species, or seed it to a cover crop).

2. Operator will replace a minimum of 6 inches of overburden on mine-level areas (if overburden is available, the soil plus overburden replacement thickness must be up to 18 inches on dryland postmining land use areas, and up to 36 inches on irrigated and cropland postmining land use areas; excess overburden may be used for reclamation, as product, for backfill, or disposed of in an excess material disposal site; private operators must post bond to cover the designated soil and overburden replacement thicknesses).

III-G REVEGETATION

1a. Operator will:

- (a) Establish vegetation capable of sustaining the designated postmining land uses.
- (b) Use certified seed and comply with local weed district requirements.
- (c) Unless otherwise approved, seed during the late fall to early spring seeding season.
- (d) Ensure that areas seeded or planted to perennial species can be and are appropriately protected and managed from the time of seeding or planting through two growing seasons or until site stabilization and revegetation are achieved, whichever is longer.

1b. Operator must attach a copy of the county-approved Noxious Weed Control Plan that will be followed during the operation and throughout reclamation until the opencut permit is released by DEQ.

Is the required copy of the County-approved Noxious Weed Control Plan attached?
X Yes ___ No (Required per ARM 17.24.219[e][i].) If Yes, check box 3b on page 1.

2. Describe the types and rates of fertilizer or other soil amendment applications (this is typically listed as "Optional"; a starter fertilizer containing 10 pounds of nitrogen [N] and 30 pounds of phosphorous [P₂O₅] per acre may improve revegetation success; incorporate fertilizer into the seedbed during seedbed preparation or seeding).

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Answer:
None.

3. Describe the method of tilling to be used to relieve soil compaction and prepare the seedbed (methods include disking, chisel plowing, and harrowing; prepare seedbeds on the contour where possible; when the postmining land use is hayland or cropland, leave the surface free of rocks greater than 5 inches).

Answer:
Disking prior to seeding.

4. The primary method of seeding will be: drilling broadcasting (check one).

5a. Give the species and rates of seeding or planting (give seeding rates as pounds of pure live seed per acre; if the Seed Mix Guideline mix will be used, reference it here and attach a copy; drill seed on the contour where possible; broadcast seed at a rate 100 percent higher than the drill seeding rate and drag or press the surface to cover the seed).

Answer:

Species	lbs/acre (pure live seed)
Western wheatgrass	3.5
Green needlegrass	3.5
Alfalfa	3.0
Timothy	3.0
Red clover	3.0
Slender wheatgrass	<u>2.5</u>
Total pounds per acre	18.5

The seed must be certified to be weed-free. Final planting will be done in the fall of the year or whenever soil moisture would be optimal.

5b. Is the Seed Mix Guidelines attached? Yes No
If Yes, check box 4i on page 1

6. Describe the erosion control products and mulches to be used (these are typically used on areas more likely to experience substantial erosion, such as drainageways and slopes greater than 3:1).

Answer:
None.

7. Describe the measures to be used to manage and protect sites until reclamation vegetation is established (measures include livestock management and fencing).

Answer:
The entire area is fenced and all reclaimed areas will be off limits for livestock use until released by the DEQ.

SECTION IV – RECLAMATION BOND CALCULATION

BOND CALCULATION

1a. Attach a proposed reclamation bond calculation. Use of the Reclamation Bond Spreadsheet is recommended (the bond amount must be based on an estimate of what it would cost the DEQ to reclaim, in accordance with this plan, the anticipated maximum disturbance during the life of the operation; areas permitted as "undisturbed until bonded" need not be bonded until the areas are needed for opencut operations; prior to commencing such operations, the operator must submit a Request to Commence Operations in "Undisturbed Until Bonded" Area form and post bond on the undisturbed area that is accepted by DEQ.

1b. Is the Reclamation Bond Spreadsheet attached? Yes No
If Yes, check box 3c on page 1.

SECTION V – ADDITIONAL INFORMATION

Provide additional information relevant to existing site conditions, the proposed opencut mining operation, and the

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reclamation plan. Reference attached support documents, if any.

Answer: none

SECTION VI – MAPS

1a. This *Plan of Operation* must be accompanied by complete and accurate maps (ARM 17.24.222 [7]). Operators should follow the *Map Guideline* to prepare a Site Map (required) and an Area Map (required if needed to show all pertinent site features).

1b. Is a Site Map attached (required)? Yes No
If Yes, check box 3d on page 1.

1c. Is an Area Map attached (required if needed to show all pertinent site features)? Yes No
If Yes, check box 3e on page 1. (If not required, check the exception box for item 3e on page 1.)

SECTION VII – CERTIFICATION

I have read and understand this plan. I certify that the statements, descriptions, and information given are accurate and that this plan will be followed unless officially amended through the DEQ.

Operator: Self Site: Hendricksen Pit

Name (print or type): Hendrickson Title: Owner

Signature: *Stacy Hendrickson* Date: 4-15-10

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EXHIBIT Q

Amendment # (provided by DEQ): 1

AMENDMENT TO OPENCUT MINING PERMIT

This amendment to permit number **1314** is issued by the State of Montana, Department of Environmental Quality (DEQ) of Helena, Montana to **Stan Hendricksen** (operator).

Pursuant to Sections 82-4-422(1), 82-4-432(5), 82-4-434(4), and 82-4-436, MCA, DEQ is authorized to amend an Opencut Permit where it is found that the requirements of the law and rules can be carried out and will be observed. In consideration of the above and other good and sufficient consideration, the following applies to this amendment:

1. The DEQ hereby authorizes the operator to conduct opencut operations, as described in the amendment application which is hereby approved and made part of the permit. The permit, including all amendments, consists of a total of **50 acres** located in **Sec23, T 11 N, R20 W** in **Missoula County**, Montana, to be known as the **Hendricksen site**.

This amendment does not authorize opencut operations other than as described in the application or as described above. The application is hereby incorporated as a part of said permit for all purposes. The terms contained within said permit apply to this amendment and, unless amended by the application, remain in full force and effect.

2. This amendment becomes operative upon approval below by the DEQ.
3. The DEQ approval of this application does not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY

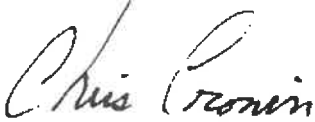

Industrial & Energy Minerals Bureau Opencut Mining Program Supervisor May 14, 2010
Title Date

EXHIBIT R

OPENCUT MINING PLAN OF OPERATION AND APPLICATION

Operator: Stan Hendricksen

Site Name: Hendricksen Pit

INSTRUCTIONS - How to submit a complete and accurate Plan & Application:

- Before completing this form, read the document *How to Obtain and Comply with an Opencut Mining Permit* available on the program's website.
- Fill in all blanks and provide a detailed answer for each question. Write "None" if that is the correct answer.
- This form includes automated calculations that require Microsoft Word 2007 or newer (Word 2003 requires an update to work correctly). As you enter data into this form, autocalculate fields bounded by a red box will autopopulate. If an autocalculate field is blank, required information was not entered into this form and/or may not be needed.
- Opencut Mining Permits are "living" documents, meaning that whenever a permit is amended, the updated information replaces the outdated information. As a result, this form must be filled in completely whether applying for a Permit or an Amendment.
- The DEQ strongly recommends completing this application form in electronic format. Doing so will make applying for a future amendment much easier. Operators should keep the original electronic files and backup copies. (Note: The DEQ does not retain Operator files in original electronic format, so it is essential that the Operator do so.)
- In the table below, indicate which Support Documents are included with this application, and which were included with a previously approved application and do not need to be revised or updated at this time. If you believe you do not need to submit a required support document for "a", "c", or "f" because an exception applies, mark only the Exception box for that document.

ID	Included with:		SUPPORT DOCUMENTS	Plan Section
	This Application	Previously Approved Application		
REQUIRED				
a	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Well Logs Exception: <input type="checkbox"/> No wells w/in 1,000 feet of main permit area	B9-2
b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Map	C5-1
c	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Area Map Exception: <input type="checkbox"/> All required features are on the Site Map	C5-1
d	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boundary Coordinate Table Do <u>not</u> attach paper copy; email to DEQopencut@mt.gov with "Subject" line: BCT(Operator, Site Name)	C5-2
e	<input type="checkbox"/>	<input checked="" type="checkbox"/>	County-Approved Noxious Weed Control Plan	E6-2
f	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Reclamation Bond Spreadsheet Exception: <input type="checkbox"/> Government Operator	F
OPTIONAL				
g	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Additional Well Data	B9-1
h	<input type="checkbox"/>	<input type="checkbox"/>	Soil Photos	C2-1
i	<input type="checkbox"/>	<input type="checkbox"/>	NRCS Soil Data	C2-1
j	<input type="checkbox"/>	<input type="checkbox"/>	Additional Test Hole Data	C2-1
k	<input type="checkbox"/>	<input type="checkbox"/>	Reclamation Map	C5-1
l	<input type="checkbox"/>	<input type="checkbox"/>	Dewatering Data and Analysis	D2-2
m	<input type="checkbox"/>	<input type="checkbox"/>	Stream/Waterway Guideline	D3-14
n	<input type="checkbox"/>	<input type="checkbox"/>	Monitoring Well Installation Plan	D5-1b
o	<input type="checkbox"/>	<input type="checkbox"/>	Ground Water Monitoring Plan	D5-1b
p	<input type="checkbox"/>	<input type="checkbox"/>	Slope Stability Study	E3-7
q	<input type="checkbox"/>	<input type="checkbox"/>	Pond Plan View	E3-9
r	<input type="checkbox"/>	<input type="checkbox"/>	Pond/Wetland Cross-Sections and/or Bottom Contour Map	E3-9
s	<input type="checkbox"/>	<input type="checkbox"/>	Pond Guideline	E3-10
t	<input type="checkbox"/>	<input type="checkbox"/>	Seed Mix Guideline	E6-6
u	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
v	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
w	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
x	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
y	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
z	<input type="checkbox"/>	<input type="checkbox"/>	Other:	

- Sign and date the certification in Section G.
- Use the *Operator Application Checklist* to confirm the application is complete and accurate. Submit the checklist and all required application materials to the Opencut Mining Program in Helena as one package.

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SECTION A – Application Information

A1.

1. Indicate which of the following is being requested (check one):

- Permit Amendment Convert Limited Opencut Operation to a Permit

If for a Permit or Convert Limited Opencut Operation to a Permit, skip to A1-2 and provide all the information requested in this document.

If for an Amendment:

- a. Update all the information requested in this document.
- b. The existing permit number is: 1314
- c. Identify all the purposes of the amendment:
 - Change Reclamation Date Change Post Mining Land Use
 - Change Site Name – Former Site Name was:
 - Change Seed Mix Change Mining Depth Other:
 - Add to permit acreage for:
 - Access Road Facility-Level Area Mine-Level Area Non-Bonded Area Other:
 - Add the following processing equipment:
 - Asphalt Plant Concrete Plant Crusher Grizzly Pug Mill Screen Wash Plant
 - Other:
 - Other:

2. Operator Name: Stan Hendricksen
 Site Name: Hendricksen Pit

Address: PO Box 267
 City: Lolo State: MT Zip Code: 59847
 Office Phone #: 406-273-6767 Cell# 406-239-5808 Fax #: 406-273-6767 Email none

3. Name of the Person who will be familiar with this Plan of Operation & Application (must be an owner and/or employee of the company and not a consultant): Stan Hendricksen Office Phone #: 406-273-6767 Cell# 406-239-5808

4. Landowner Name: Stan Hendricksen

Address: P.O. Box 267
 City: Lolo State: MT Zip Code: 59847
 Home Phone #: 406-273-6767 Cell# 406-239-5808 Fax #: 406-273-6767 Email: none

Below landowner information filled out only if applicable.

Landowner Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Home Phone #: _____ Cell# _____ Fax #: _____ Email: _____

Additional Landowners (if applicable use same format as above):

5. County where the proposed site is located: Missoula

6. Legal Description for Main Permit Area, Permitted Access Roads, and Non-Bonded Areas:
 Section(s) 23 & _____ Township 11 North or South Range 20 East or West
 Section(s) _____ & _____ Township _____ North or South Range _____ East or West
 Additional Sections, Township & Range (if applicable use same format as above): _____

7. What type of materials will be mined from the permit area?
 Bentonite Clay Gravel Peat Sand Scoria Soil

8. What processing equipment will be used in the permit area?
 None Asphalt Plant (answer D3-13a) Concrete Plant (answer D3-13b) Crusher Pug Mill
 Screen Wash Plant (answer D3-13c) Other: Grizzly

9. Estimated Quantity of Mine Material to be Excavated from the Entire Permit Area : 3.0 cubic yards.
3,000,000 C.Cronin 1/5/2015

10. Total Permit Acreage Breakdown (acres must be entered to the nearest TENTH of an acre)

	Existing or New Permit Acres	Amendment Acres (if any)	Total Permitted Acres
Mine – Level Acres	31	0	31.0
Facility – Level Acres	19	0	19.0
Access Road Acres	0	0	0.0
Totals	50.0	0.0	50.0

Note: To ensure that the "Totals" display, use the "Tab" key after entering each acreage amount.

11. Will the permit include any Non-Bonded area at this time? Yes No

If No, skip to Section B below.

If Yes, provide the Non-Bonded Acreage Breakdown below:

	Non-Bonded Acres	Bonded Acres*	Total Permitted Acres**
Mine – Level Acres	0	31.0	0.0
Facility – Level Acres	0	19.0	0.0
Access Road Acres	0	0.0	0.0
Totals	0.0	0.0	50.0

* Must match the "Bonded Acreage Breakdown" column on the Reclamation Bond Spreadsheet as well as the acreage on the bond form submitted to the Department.

** Must match the "Total Permitted Acres" box on the Reclamation Bond Spreadsheet.

- a. Operator understands that Non-Bonded acreage cannot be disturbed for any Opencut operations until the Operator submits a Request to Commence Operations in Non Bonded Area form, a reclamation bond for the non-bonded area, and both are approved by the DEQ.

Operator Understands

SECTION B – PRE-MINE INFORMATION

Note: If a Pre-Application Meeting was conducted by the Department, information from the inspection report can often be used to complete section B.

B1. DIRECTIONS TO SITE

1. Describe in detail how to get from the nearest town or major intersection to the main permit area. Provide directions that can be interpreted and followed by anyone involved with the site, both now and in the future (e.g. identify roads, mileposts, landmarks, and distances; include information on how to obtain keys or combinations for locks).

Answer: The site is located adjacent to old Highway 93 South. From Lolo travel approximately three miles south, turn right onto Rowan Rd, then immediately turn right onto Old Highway 93 South. travel approx. 1.5 miles south. The pit is on the right.

B2. PRIMARY PURPOSE OF THIS SITE

1. What is the primary purpose of this Opencut operation?

Long term material source (typically 5 or more years)

Short term projects (typically less than 5 years)

Public road or construction project*

Private road or construction project

Other project

* If a public project, please provide the following optional information:

Government entity or agency issuing the contract: _____

Agency Contact Name: _____

Phone #: _____

Agency Project Name: _____

Agency Project Number: _____

B3. TOPOGRAPHY [MCA 82-4-403(1)(b)]

1. Describe in detail the terrain in and within 1,000 feet of the main permit area (for example: hills, valleys, ridges, drainages, cliffs, and benches).

Answer: The pit floor is level with the old highway and the land surface rises gently to the northwest.

B4. LAND USES [MCA 82-4-403(1)(b)]

1. Indicate current land uses within the proposed main permit area.

Cropland/Hayland Forest/Timberland Industrial/Commercial Oil & Gas Opencut Operation
 Pasture/Rangeland Residential Other:

2. Indicate current land uses within 1,000 feet of the main permit area.

Cropland/Hayland Forest/Timberland Industrial/Commercial Oil & Gas Opencut Operation
 Pasture/Rangeland Residential Other:

B5. STRUCTURES, FACILITIES, & SURFACE DISTURBANCES [MCA 82-4-434(3)(n)] & [ARM 17.24.217(1)(e)]

1. Are there any manmade structures, facilities, or surface disturbances in or within 1,000 feet of the main permit area?

Yes No

If No, skip to B6.

If Yes, indicate the type of manmade structures, facilities, or surface disturbance(s):

Construction Project Farming Industrial/Commercial Oil & Gas Structures Opencut Operation
 Power Lines or Facilities Residential Roads Underground Utilities Other:

B6. SURFACE WATER FEATURES [ARM 17.24.217(1)(a)]

1. Are there surface water features in the main permit area or within 1,000 feet of the main permit area? Yes No

Note: This includes ground features that may contain water at any time, including seasonal ponds, ephemeral drainages, runoff channels, ditches, floodways, etc.

If No, skip to B7.

If Yes, indicate the type of surface water features present:

Ephemeral Drainage Irrigation Ditch/Canal Lake/Pond River- Name: Spring
 Stream/Creek - name: McClain Creek and Maple Creek Wetlands Other:

B7. VEGETATION [ARM 17.24.222(1)(a)]

1. Provide a list of the dominant grasses, forbs, shrubs and trees located within the main permit area. If the species are not present in the check boxes below, use the "other" to list them.

Bluebunch Wheatgrass Blue Grama Canada Wildrye Cheatgrass Conifer Cottonwood
 Creeping Juniper Crested Wheatgrass Crop Curly Cup Gumweed Green Needlegrass
 Intermediate Wheatgrass Juniper Kentucky Bluegrass Rubber Rabbit Brush Sagebrush
 Slender Wheatgrass Smooth Brome Sweetclover Willow Winterfat Western Wheatgrass
 Other: Various wheatgrasses, bluegrass, timothy, roses, and quackgrass

2. Are there Noxious Weeds present within the main permit area? Yes No

If No, skip to B8.

If Yes, indicate the types of noxious weeds present in the main permit area:

Canada Thistle Dalmatian Toadflax Field Bindweed Houndstongue Leafy Spurge
 Russian Knapweed Spotted Knapweed Tansy ragwort Whitetop Other:

B8. WILDLIFE [ARM 17.24.222(1)(e)]

1. Indicate the fish and wildlife species in and within 1,000 feet of the main permit area.

Antelope Black Bear Coyotes Deer Elk Fish Grizzly Bear Moose Raptors
 Rodents Song Birds Upland Birds Waterfowl Wolves Other:

B9. WATER WELLS [ARM 17.24.217(1)(b)&(c)] & [ARM 17.24.221(5)]

1. In the table below, list the Well I.D., Well Owner, Location, Total Depths, Static Water Levels, and Uses of water wells in and within 1,000 feet of the main permit area.

- Information can be obtained from the Montana Natural Resource Information System (NRIS).
- The guideline *Identifying Well Logs within a Specified Radius* is available on the program's website and describes how to locate wells and download the required logs.
- The DEQ recommends obtaining well information from the Montana Department of Natural Resources and

Conservation (DNRC), Board of Oil and Gas websites to determine the location of any oil and gas wells in the vicinity of the main permit area.

- Additional information may be available from landowners or by conducting field measurements.
- Well locations must be reasonably accurate. In cases where well locations are unavailable or appear inaccurate, field confirmation may be required.
- Provide depths and static water levels in feet below the ground surface.
- Locations of existing and proposed wells in and within 1,000 feet of the main permit area must be shown and labeled on the Area Map or separate well log location map.
- Well logs in excess of 1,000 feet from the proposed permit boundary can be submitted and shown below if they provide valuable information. If provided, their location must be shown on the area map.
- If there are no wells in and within 1,000 feet of the main permit area, write "None" in the table below and skip to B9-4.

Well I.D. on Site Map	Well Owner	Distance & Direction from Main Permit Area Boundary	Total Well Depth (feet)	Static Water Level (feet)	Use	Log Attached	Comments
66056	Jones, Berney	0' NE corner	25	2	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
66096	Holmes, Archie & Phyllis	1000' South	83	11	irrigation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
126221	Bauer, Max G Cynthia	0' NE corner	60	5	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
136278	Lambson, Boyd	300' Northeast	42	18	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
152123	Hendricksen Stan	In Permit Area	41	9	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
153245	Henderson Beth	800' Northeast	58	5	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
181954	Scrafford, Kirk	In Permit Area	56	6	irrigation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
207560	Leibenguth Scott	900' West	40	none	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
223714	Reimen Earl	1,000' South	60	15.6	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
246587	Leibenguth Scott & S	900' West	80	31	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati

Note: If there are additional wells, attach the Program's *Additional Well Data* form available on the program's website and check the appropriate box on page 1.

2. Attach the above identified Well Logs and check the appropriate box on page 1 OR No Well Logs Are Available.
3. Are there wells located within 1,000 feet of the main permit area that are used for public water supply? Yes No
If **Yes**, ensure that the DEQ Source Water Protection Bureau is contacted to determine setbacks and restrictions and incorporate those into this application. **Further Information (if applicable):**
4. Are there any Oil or Gas wells located in or within 1,000 feet of the main permit area? Yes No
If **Yes**, the Operator may be required to provide information about additional wells, buried pipelines, and petroleum release sites that may be present in the vicinity. **Further Information (if applicable):**

B10. ADDITIONAL INFORMATION [ARM 17.24.222(1)]

1. Provide additional pre-mine site characteristics or circumstances not addressed above.
Answer: NA

SECTION C – SITE PREPARATION AND PLANNING

C1. WATER TABLE LEVELS [ARM 17.24.217(1)(c)]

Provide information below for the main permit area.

- The seasonal high water table is the highest level that water typically rises to each year.
 - The seasonal low water table is the lowest level that water typically falls to each year.
1. The estimated maximum depth of mining is: **60 feet below ground surface**
 2. The estimated seasonal high water table level in the main permit area is: **10 feet below ground surface**

3. The estimated seasonal low water table level in the main permit area is: **15 feet below ground surface**
4. How did you determine the seasonal high & low water table levels?

Well Logs NRIS Well Data Landowner Observation-Describe:
 Field Observation-Describe: Other:

Seasonal high water table: **10 feet**
 Maximum depth of mining; **60 feet**
 Difference = **50 feet**

- a. If the difference is ≥ 3 proceed to Section C2.
- b. If the difference is ≤ 0 a pond and/or wetland will be left for final reclamation, and Operator must include "pond" or "wetland" as a postmining land use in Section E2-1 and complete Section E3.
- c. If the difference is > 0 and < 3 it is likely that ground water could occur in some portion of the pit. Therefore, explain how the Operator will maintain a minimum of 3-feet of separation between the seasonal high water table and the reclaimed ground surface (i.e. The Operator will: Backfill the site to maintain a minimum of 3-foot separation of earthen material from ground water; Construct a permanent drainage mechanism; etc).

Explain: PLEASE NOTE: The max depth of mining (60 feet) will occur where the ground surface is approx. 3,270 ft above msl. The water table elevations are measured from the part of the permit where ground surface is at approx. 3,210 ft above msl. Therefore, no groundwater will be encountered

C2. SOIL AND OVERBURDEN [MCA 82-4-434(3)(c)] & [ARM 17.24.217(1)(d)] & [ARM 17.24.219(1)(b)]

1. In the table below, provide soil and overburden thickness data obtained from at least 3 test holes excavated within the proposed permit area (bonded and non-bonded areas). An existing observation point (e.g. road cut, bank, etc.) that exposes both the soil and overburden thickness may be substituted for a test hole. If warranted, due to the size and nature of a site, the DEQ may require the collection of data from additional test holes.
- Saving available soil is critical for successful reclamation, so determining the soil thickness throughout the permit area is very important. Therefore, the DEQ recommends that Operators collect additional soil thickness data from shallow hand-dug holes spaced at a density of at least one hole per acre.
 - Soil is usually darker than overburden, may contain roots, and typically extends deeper than just the top few inches of rich organic matter. The number of roots and degree of darkening decrease with depth. Typically, the boundary between soil and overburden is placed at the lowest point that exhibits darkening. Soil in many areas is rocky, but that does not alter the need to save it for use in reclamation.
 - The DEQ recommends taking sidewall photographs of test holes before backfilling; include a ruler in photos for scale and ensure the photos are clear and good quality. If photos are attached, check the appropriate box on page 1.
 - Soil survey maps and information are available from the Natural Resources Conservation Service. The DEQ recommends that Operators obtain the maps and information for each proposed site and attach copies; ensure the appropriate box on page 1 is checked. Test hole and observation point locations must be shown on the Site or Area Map [ARM 17.24.221(2e)].

Date test pit was dug: none Logged by: none *If test hole is dry answer "none".

Soil Test Hole I.D. on Map	Soil Thickness (inches)	Overburden Thickness (inches)	Total Pit Depth (ft)	*Depth to Water (ft)	Comments (i.e. very rocky overburden, type of soil, etc.)
none					Test Holes were not required in previous applications.

Note: If there are additional test holes, attach the Program's *Additional Test Hole Data* form found on the website and check the appropriate box on page 1.

2. In the table below, provide typical soil and overburden thicknesses based on the data collected at the site and soil and overburden thickness to be replaced for reclamation. **Note:** If overburden is a mine material or will be used as binder, an appropriate quantity must first be saved to satisfy the soil plus overburden replacement thickness requirement described in Sections C2-3 & C2- 4 and Section D4-1b (i.e. The Operator must strip and retain enough overburden, if available, from Mine-Level Areas so that up to an 18-inch thickness of overburden + soil can be replaced for reclamation to rangeland or dryland uses, and up to a 36-inch thickness of overburden + soil can be replaced for reclamation to cropland or irrigated land.).

Soil	Typical Soil Thickness (inches)	Soil Thickness (inches) to be Replaced for Reclamation
Mine -Level Area Soil	12	12*
Facility-Level Area Soil		*
Permitted Access Road Soil		*
Overburden	Typical Overburden Thickness (inches)	Overburden Thickness (inches) to be Replaced for Reclamation
Mine-Level Area Overburden	6	6*

- a. If the "Typical Soil Thickness" varies from the "Soil Thickness to be Replaced for Reclamation", explain why:
 b. Additional Information (if applicable):

3. Operator will strip, stockpile, and save 12 inches of Mine-Level soil, inches of Facility-Level soil and inches of Access Road soil for use in on-site reclamation.*
 a. The total volume of soil to be stripped, stockpiled and saved for reclamation is 50,013 cubic yards of Mine-Level soil, 0 cubic yards of Facility-Level soil, and 0 cubic yards of Access Road soil (unless road will remain as a postmining land use). **
 b. Volume of soil in 1 acre: 1,613 cubic yards of Mine-Level soil per acre, 0 cubic yards of Facility-Level soil per acre, and cubic yards of Access Road soil per acre to be stripped, stockpiled and saved for reclamation.
4. Operator will strip, stockpile and save 6 inches of overburden for use in on-site reclamation.*
 a. The total volume of overburden to be stripped, stockpiled and saved for reclamation is 25,007 cubic yards. **
 b. Volume of overburden in 1 acre: 807 cubic yards of overburden per acre to be stripped, stockpiled, and saved for reclamation.

* - These soil & overburden thickness values must be used in the Reclamation Bond Spreadsheet.

** - The total volume of soil and overburden to be stockpiled is automatically calculated using the following formula:

Example - For 14 inches of soil on a 12 acre site:

$$\frac{(12 \text{ acres} \times 43,560 \text{ ft}^2) \times (14" \text{ soil} + 12" \text{ in one foot})}{27 \text{ ft}^3} = 22,586 \text{ cubic yards of soil to stockpile}$$

C3. ACCESS ROADS [MCA 82-4-403(1)] & [ARM 17.24. 217(a)] & [17.24.218(1)(b)]

1. MCA 82-4-403(1) states a private road (access road) may be included as affected land only with the landowner's consent.

If question A on the *Landowner Consultation* form is marked "Yes", continue with C3-2 below

If No, skip to C4.

2. Operator understands that each access road included in the permit must be: 1) appropriately bonded, 2) delineated with coordinates and 3) shown on the Site Map. Operator understands
3. The length and width of the access road to be permitted is: Length: _____ Width: _____
4. Check the appropriate box(s) below to indicate surface water features within 500 feet of permitted access road(s).
 Ephemeral drainage Irrigation Ditch/Canal Lake/Pond River Spring Stream/Creek
 Other:
Describe the direction & distance of surface water feature(s) from the access road:
5. Permitted access road(s) that will not be left at the conclusion of Opencut operations must be reclaimed as follows:
 - a. Remove the materials used for road construction, widening, or improvement (such materials may include culverts, gravel, and pavement).
 - b. Backfill and grade the former road area in a manner that leaves stable surfaces which blend into the surrounding topography and drainages.
 - c. Rip all compacted ground, replace soil, plant seed, and support revegetation as necessary.
 Operator will comply with statements "a" through "c" above.

C4. HOURS OF OPERATION [MCA 82-4-434](3)(m)] & [ARM 17.24.218(1)(d)]

1. In accordance with ARM 17.24.218(1)(d), the DEQ may impose reasonable limits on hours of operation to reduce adverse impacts on residential areas. The Operator must propose hours of operations by checking box "a" or "b" below (thereby adopting the hours stated), or by checking box "c" and providing the required information.
 - a. Permitted hours and activities are as follows:
 - Monday–Friday: 7:00 am–7:00 pm Activities: All permitted activities allowed

or
 - b. Permitted hours and activities are as follows:
 - 24 hours a day, 7 days a week, 365 days a year: Activities: All permitted activities allowed

or
 - c. Permitted hours and activities* are as follows:
 - Mon.–Fri: 7:00 am– 7:00 pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other
 - Saturday: 7:00 am– 7:00 pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other Retail Sales
 - Sunday: _____ am– _____ pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other

Additional information:

C5. MAPPING [MCA 82-4-403(11)(b)] & [ARM 17.24.212(3)] & [ARM 17.24.221]

1. This *Opencut Mining Plan of Operation & Application* must be accompanied by a complete and accurate *Site Map* at a readable scale that depicts the entire permitted boundary.
 - a. An *Area Map* may also be required to show all pertinent features within 1,000 feet of the permit boundary.
 - b. In addition, the Department recommends the Operator supply a *Reclamation Map* identifying what the site will look like after reclamation has been completed.
 - c. The map(s) must be displayed on an aerial background and be attached to this *Plan of Operation & Application*.
 - d. Operators should follow the *Map Guideline* available on the program's website.
 - e. The appropriate check boxes on page 1 must be checked for each map attached.
2. In accordance with the *Map Guideline*, WGS 84 Decimal Degree coordinates defining permit boundaries must be provided on the Program's *Boundary Coordinate Table* and the appropriate box on page 1 must be checked. The Program will not accept boundary coordinates on any other form or in any other format. Boundary coordinates must be provided as necessary to define the following points or line segments:
 - a. Each corner of the proposed permit boundary;
 - b. Each point where the direction of the proposed permit boundary changes;
 - c. The Non-Bonded, and Bond Reduction areas (refer to Boundary Coordinate Table for further information);
 - d. The centerline of any permitted access roads as necessary to show the approximate locations of corners, curves, and

- the start and end points. Once the road is constructed it will no longer need to be staked; and,
 e. The approximate center of the main permit area.

C6. MARKERS [ARM 17.24.218(1)(a)]

1. The following requirements apply to marking the permit boundary:
 - Markers must be in place when the application is received by the DEQ so the site is clearly defined for field inspections. DEQ staff cannot inspect sites that are not marked.
 - Markers should be durable (stout steel or wood posts are recommended), and painted or flagged to be highly visible. Each boundary marker must remain in place until the adjacent permit area is reclaimed and released.
 - Markers must be placed to delineate the physical extent of the following permit areas:
 - Permit (or amendment) boundaries
 - Bonded & Non-Bonded Areas
 - Permitted Access Roads - Once the road is constructed it will no longer need to be staked.
 - Bond Reduction Areas
 - Request to Commence Areas
 - Markers must be placed in corners and along boundary segments and curves, such that the next marker is visible.
2. Unless the site is active farmland, the application for an unmarked site is deficient and cannot be inspected and/or approved until the permit boundary is appropriately marked.
 Operator will comply with C6-1 & C6-2

C7 ADDITIONAL INFORMATION

1. Provide additional mining or site preparation and planning information not addressed above.
Answer:

SECTION D – WATER PROTECTION, MINING & PROCESSING

D1. WATER PROTECTION [MCA 82-4-434(3)(l)] & [ARM 17.24.218(1)(e)] & [ARM 17.24.219(1)(c)(ii)]

1. Operator must:
 - a. Protect on-site and off-site surface water and ground water from adverse changes in quality and quantity that could be caused by Opencut operations.
 - b. Prevent, minimize, or mitigate adverse impacts to on-site and off-site surface and ground water systems and structures that could be caused by Opencut operations.
 - c. Properly establish, use, and reclaim hydrologic structures and systems used for Opencut operations.
 - d. Keep waste and stationary equipment above the seasonal high water level of surface and ground water and dispose of all petroleum, solvent, and chemical wastes in compliance with applicable state laws and rules.
 - e. Manage fuel storage as follows:
 - i. Install or construct secondary containment structures for non-mobile, single-wall, fuel storage tanks in accordance with the current codes adopted by the State Fire Marshall. This requirement applies to such tanks placed and used in and within 300 feet of the permitted area (including permitted access roads).
 - ii. Routinely inspect and maintain tanks, fittings, hoses, filters, and dispensers to prevent leaks and spills.
 - iii. Retrieve, handle, and dispose of spilled fuel and contaminated materials and soil in a lawful manner.
 - iv. Report a fuel spill that reaches state waters or is greater than 25 gallons to the Montana Spill Hotline (406-324-4777). Note: "state waters" includes any surface water or ground water.
 - f. Operator will comply with the DEQ *Spill Management and Reporting Policy* document found on the DEQ's Enforcement website.
 Operator will comply with statements "a" through "f" above and understands they are responsible for any spills that occur at this site.
2. How will equipment at this site be fueled?
 Fueled Off-Site Mobile Fuel Truck Non-Mobile On-Site Fuel Tank: Single Wall* or Double Wall
 Other:
 * If single wall, secondary containment must be provided; see D1-1e above.
3. Indicate below the types of erosion control methods (Best Management Practices [BMPs]) that will be used to ensure sediment does not leave the permitted site.
 Berm Check Dams Erosion Control Blankets Sediment/Detention Ponds Silt Fence

- Site Drains Internally: Describe: Straw Bales Tracking of Slope Vegetated Buffer Strips
 Wattles Other BMPs:

D2. WATER MANAGEMENT & USE [MCA 82-4-434(3)(l)] & [ARM 17.24.218(1)(e)]

1. Water use, diversion and capture.
 - a. Indicate the proposed use(s) of water:
 Asphalt Plant Concrete Batch Plant Crusher Dust Control (i.e. roads, etc.) Pug Milling
 Wash Plant Other:
 - b. Is the water source in or within 300 feet of the main permit area? Yes No
 If No, skip to D2-c.
 If Yes, identify the source of the water to be used and show its location on a map.
 Irrigation Ditch Pit Pond Well Other:
 - c. Will water be stored on-site? Yes No
 If No, skip to D2-d.
 If Yes, what will the water be stored in?
 Detention/Retention Pond Lined Detention/Retention Pond Water Storage Tank
 Other:
 - d. Operator must take all necessary precautions and measures to protect the water rights of other parties.
 Operator Agrees
 - e. Operator has consulted with DNRC and understands the DNRC requirements regarding water rights related to this Opencut operation. Operator has or will obtain the appropriate and applicable water rights to conduct the activities identified in D2-1.
 Operator Agrees: Additional Information (if applicable)
2. Will dewatering be conducted at this site? Yes No
 If No, skip to Section D3.
 If Yes, show the location of all pertinent features on the site map and provide the following information:
 - a. How will the site be dewatered?
 Surface water flow from site via a ditch, drainage channel, etc.
 Pumping from: Pond Pit Wells Other:
 Other:
 - b. What is the maximum rate at which dewatering will be conducted? _____ gallons per minute (gpm)
 - c. What is the lowest elevation to which the water level will be drawn down? _____ feet
 - i. Either attach, or provide below, data and analysis supporting the above water level draw down depth.
 - ii. If dewatering data and analysis is attached, check the appropriate box on page 1.
 If Not, the data and analysis are presented here:
 - d. Dewatering will be conducted during which month(s):
 - e. Where will the water be discharged?
 Pond Pit Ditch Creek Ground Surface Wells Other:

D3. MINING, HAULING AND FACILITIES [ARM 17.24.218(1)(c)]

1. Is the site expected to be worked continuously or intermittently?
 Worked continuously (i.e. year round)
 Worked intermittently (i.e. on occasion when material is needed) – Explain: Market driven
2. Will any of the processing equipment identified in Section A1-8 be moved on-site and off-site as needed, or is it expected to remain on-site during the life of the permit?
 No Processing Equipment Remain on-site Move on-site and off-site as needed
 - a. If “Move on-site and off-site as needed” was checked, identify which processing equipment:
 All Asphalt Plant Concrete Plant Crusher Grizzly Pug Mill Screen Wash Plant
 Other: Scale
3. What type of excavating or hauling equipment will be used to mine this site?
 Backhoe Dozer Drag Line Dredge - Type: Dump/Haul Truck Excavator Loader
 Scraper Skidsteer Other:

4. Operator will:
- Strip and stockpile all soil and overburden separately, prior to conducting any other Opencut activities or disturbing the area.
 - At the first seasonal opportunity, seed all soil and overburden stockpiles that will remain in place for more than two years [ARM 17.24.219(1)(b)].
 - Maintain at least a 10-foot wide buffer stripped of soil and needed overburden along the edges of highwalls.
 Operator will comply with D3-4a through D3-4c
5. Where will Opencut activities begin at this site (e.g. north corner, west corner, southeast corner, center, etc.)?
Opencut activities will begin at: **Activities are ongoing, and will continue from the southeast corner westward and northward within the permit boundaries**
6. Describe the direction of your mining across the site (e.g. north to south, southeast to west then north, etc.):
Answer: Southeast to Northwest
7. Describe any features within the Permitted boundary that will be avoided and will not be disturbed by Opencut activities (ephemeral drainages, streams, existing disturbances, etc.).
 Not applicable (skip to D3-8 below)
Describe:
8. Any slope steeper than 3:1 is considered to be a highwall.
- The maximum length of highwall on-site at any given time will be: **600 linear feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet*.
 - The maximum height of highwall on-site at any given time will be: **60 feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet* and will typically be consistent with the maximum depth of mining (see Section C1-1).
 - If the maximum height of highwall identified in D3-8b above is not identical to the maximum mine depth (i.e. **60**), explain in detail how the site will be mined:
9. If there are no non-bonded areas, skip to Section D3-10 below. If the permit boundary contains non-bonded areas (i.e. Section A1-11 is marked "Yes"):
- Describe where Opencut operations will begin in the proposed non-bonded area(s), once they are bonded (e.g. north corner, west corner, southeast corner, center, etc.):
Answer:
 - Describe in which direction the operation will progress in the proposed non-bonded area(s), once they are bonded (e.g. north to south, southeast to west then north, clockwise from center, etc.):
Answer:
- Note:** Operator must submit a *Request to Commence Operations in Non-Bonded Area* form and obtain approval from the Department before any Opencut activities (i.e. disturbance, stripping, mining, parking, etc.) can be conducted in any non-bonded area(s).
10. Will there be setbacks or buffers within the permit boundary? Yes No
If No, skip to D3-11.
If Yes, check those that apply and provide the setback/buffer distance from the centerline or edge of the feature (whichever is applicable) and show it on the site map:
- River: Buffer = _____ ft.
 - *Ditch: Buffer = _____ ft.
 - Stream/Creek: Buffer = _____ ft.
 - Ephemeral Drainage: Buffer = _____ ft.
 - Wetland: Buffer = **50** ft.
 - *Above Ground Utilities (e.g. power lines, structures, etc.): Buffer = **NA** ft.
 - *Underground Utilities (e.g. gas, oil, fiber optic, etc.): Buffer = _____
 - Other: Buffer = _____ ft.
- Further Explanation (if applicable):**

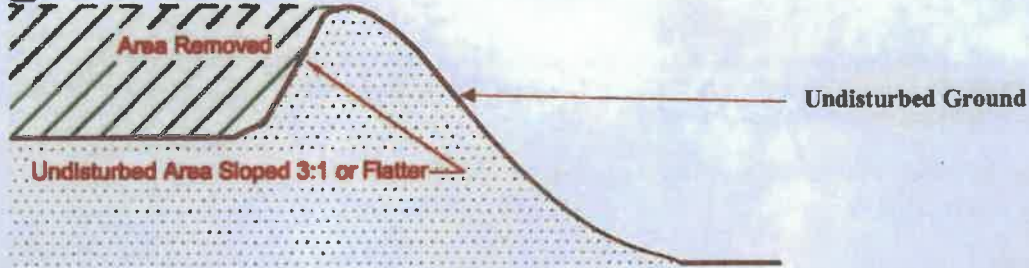
***Note:** In accordance with ARM 17.24.218(1)(h), provide documentation from the utility company, ditch rider, or applicable agency of easements, setback and/or crossing requirements; the maximum slope the company will allow; and any other requirements for activities conducted under, over, or adjacent to its infrastructure (e.g. inspections, safety, excavation, stockpiling, etc.). In accordance with ARM 17.24.221(4)(g), the setbacks or buffer zone must be shown on the site map.

11. Will you mine to the edge of a slope (e.g. knob, hill, ridge, terrace or other topographic feature)? Yes No

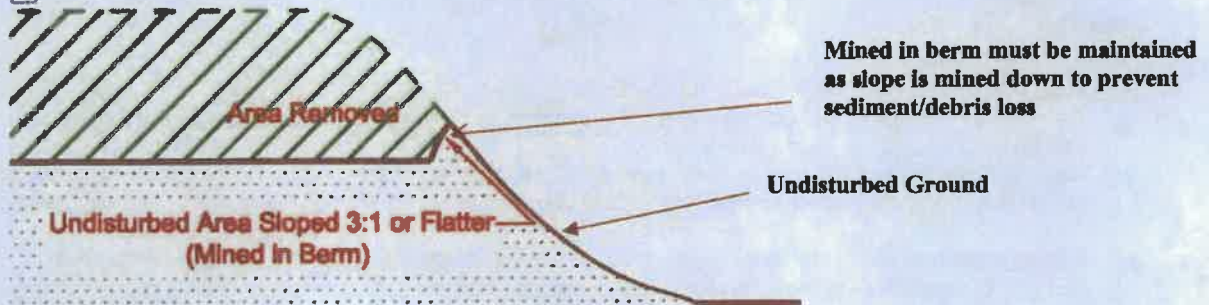
If No, skip to D3-12.

If Yes, Choose the scenario(s) below that best describes your method of mining. If more than one scenario is chosen, provide an explanation of how and where multiple scenarios will be implemented in 11d "Other Scenario-Describe":

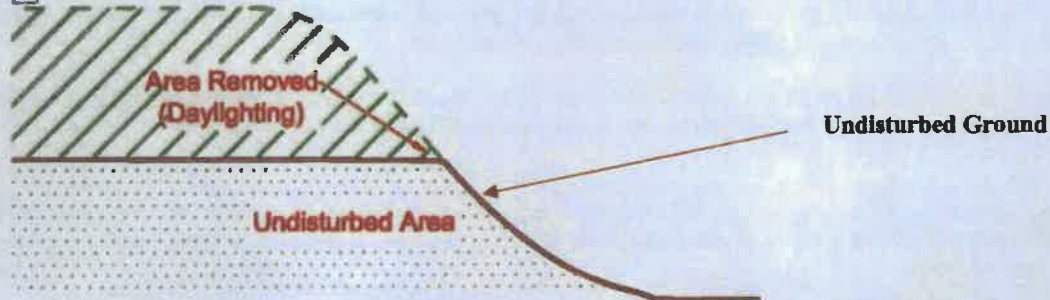
a.



b.



c.



If "c" was chosen, describe how sediment and/or debris will be kept from impacting the slope.

- i. Extreme care will be taken when daylighting to ensure no sediment or debris rolls onto and/or down the slope.
- ii. Erosion control will be set at the edge of the slope or slightly downslope of the edge (within permit boundary) to prevent loss of sediment and debris.
- iii. Other-Describe:

d. Other Scenario-Describe:

12. Will a disturbance be located within the proposed permit boundary (e.g. permitted, existing, historical, Limited Opencut Operation, other, etc.)? Yes No

If No, skip to D3-13.

a. If Yes, provide the quantity of onsite soil currently stockpiled and available for reclamation of the disturbed site:

None or 50000 cubic yards

b. Is the quantity of soil listed in D3-12a adequate to reclaim the disturbed area?

No, skip to D3-12c.

Yes, an adequate quantity of soil is currently stockpiled onsite to successfully reclaim the disturbance with the depth of mine-level and/or facility-level soil identified in Section C2-2 (i.e. 12 inches of mine-level soil) and inches of facility-level soil). The location of these soil stockpiles for the disturbed area is identified on the site

map. Skip to D3-12d

- c. If **No** to D3-12b above, where will the soil come from to adequately reclaim the disturbance with the depth of soil identified in C2-2 (Soil Thickness to be saved for Reclamation)?
- The Operator has averaged the quantity of soil to be saved for reclamation as identified in C2-2 (disturbed & undisturbed) to ensure that the disturbed area and all other areas of the permit are reclaimed with 12 inches of mine-level soil and inches of facility-level soil. This depth of soil was calculated from the volume of existing stockpiled soil (if present) in combination with averaging the amount of soil from undisturbed areas of the permit.
Additional Description (if applicable):
 - Soil will be imported to the site – **Quantity of Soil to be Imported =** _____ **cubic yards.** Ensure this quantity is added to the *Reclamation Bond Spreadsheet's* line item *Cost to Purchase and Place Importation of Soil/Fill* and that it is identical to the quantity identified in this section.
Additional Description (if applicable):
 - Other Explanation:**
- d. Will the disturbed area that is contained within the proposed permit boundary be used for further Opencut operations or will it be reclaimed only? **Reclaimed Only** **Used for further Opencut Operations** **Other-Describe:**

13. Do you plan on permitting an Asphalt plant, Wash Plant or Concrete Plant? **Yes** **No**

If **No**, skip to D3-14.

If **Yes**, complete the following:

- a. **Asphalt Plant**
 → Must be checked in section A1-8 for a new permit or A1-1c for an Amendment.
 → Must remain in compliance with D1-1.
- i. Where will the asphalt plant be set up? **Answer:** _____ **Location must be identified on map.**
- b. **Concrete Plant (Must be checked in section A1-8 for a new permit or A1-1c for an Amendment)**
- i. Where will the concrete plant be set up? **Answer:** _____ **Location must be identified on map.**
- ii. Describe what will be done with wastewater created from the concrete plant. **Answer:** _____
- iii. Where will the truck washouts occur? **Answer:** _____ **Ensure the location(s) are identified on the site map, if located within 300 feet of the permit boundary.**
- iv. Describe how and where return loads and excess or reject product will be handled or stored: **Answer:** _____
- c. **Wash Plant (Must be checked in section A1-8 for a new permit or A1-1c for an Amendment)**
- i. Where will the Wash plant be set up? **Answer:** _____ **Location must be identified on map.**
- ii. How many settling ponds will you have for the wash plant? 1 2 3 4 **Other** _____
Location(s) must be identified on map
- iii. Where will the wash plant obtain its water?
 Onsite Well or Well within 300-feet of permit boundary (Identify location on map)
 Surface Water Source within 300-feet of permit boundary (Identify location on map)
 Source located greater than 300-feet from permitted boundary
 Purchased from source greater than 300-feet from permit boundary
 Other-
- iv. Will the water from the wash plant be recycled back into the wash plant? **Yes** **No**
 If **No**, explain: _____
- v. Operator must show the location of the wash plant and any settling ponds and/or other wash plant features on the map. If a separate map is used to show the wash plant, ensure the "Other" box in #6 on page 1 is checked and list the document.
- vi. If the Operator submits and attaches the Department's Wash Plant Settling Pond Guideline, check the "Other" box in #6 on page 1 and list that document.

14. Is the proposed permit boundary adjacent to, or does it contain a river, stream, creek, intermittent stream, ephemeral drainage, etc., with a defined and/or eroded channel?

Yes **No**

If **No**, skip to Section D4.

If **Yes**, choose one of the below options.

50 foot buffer from channel edge will be maintained (Location must be identified on map).

The Stream/Waterway Guideline will be followed (found on Opencut website). Check the "Other" box in #6 on page 1 and list the document.

Describe and attach applicable documentation:

Other:

D4. SOIL, OVERBURDEN & MINE MATERIAL COMMITMENTS [MCA 82-4-434(3)(c)] & [ARM 17.24.219(1)(b)]

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1. The Operator will comply with the following requirements:

- a. Prior to conducting any Opencut operations in a Mine-Level Area, Facility-Level Area, or Access Road included in the permit, soil must be stripped to the thicknesses identified in Section C2-2, 3 & 4. The only exception is that soil need not be stripped from soil stockpile areas. (**Note:** stripping soil may create low spots that collect water, necessitating the establishment of drainage ways, or the construction of raised roadbeds and work areas.)
- b. The Operator must strip and retain enough overburden, if available, from Mine-Level Areas so that up to an 18-inch thickness of overburden + soil can be replaced for reclamation to rangeland or dryland uses, and up to a 36-inch thickness of overburden + soil can be replaced for reclamation to cropland or irrigated land. At a minimum, the Operator must replace soil and overburden to the thicknesses identified in Section C2-2.
- c. All stripped soil and overburden must be: i) hauled directly to areas prepared for reclamation and re-soiling, or ii) promptly stockpiled and protected from erosion, contamination, compaction, and unnecessary disturbance. At the first seasonal opportunity, the Operator must shape and seed with an approved perennial seed mix, any stockpile that will remain for 2 or more years.
- d. The Operator must not use soil off-site, give it away, or sell it without written approval from the DEQ.
- e. Soil and overburden must be handled separately and the Operator will avoid mixing these materials, or handling them when wet or frozen.
- f. A minimum 10-foot wide buffer zone stripped of soil and needed overburden must be maintained along the edge of highwalls. This practice ensures that soil will not be lost to mining.
- g. Mine material stockpiles must be kept out of drainage bottoms and off of slopes steeper than 3:1. All excavated and/or processed mine material must be: i) removed from the site, ii) buried on-site, or iii) left for the landowner in accordance with the *Landowner Consultation* form and Section E7.
- h. Burn pile residue, metal, plastic, tires, and other wastes must be disposed of off-site and in a lawful manner.
- i. All clean fill (i.e. dirt, sand, fines, gravel, and oversize rock) that cannot, or will not, be buried during final reclamation must be removed from the permit area prior to bond or liability release request.

Operator will comply with statements "a" through "i" above.

D5. ASPHALT & CONCRETE RECYCLING [ARM 17-24-218(1)(g)(i)]

1. **Asphalt Recycling** – Typically, recycling involves accumulating materials containing asphalt, crushing these materials periodically, and stockpiling the resulting crushed asphalt product as-is or blended with other suitable materials. These recycled products are commonly used to surface roads and operations permitted to operate an asphalt plant may also use these as feed into the plant.

Asphalt is considered to have potential to impact water quality. As a result:

- An operation that imports construction or demolition debris containing asphalt must be permitted to store the debris awaiting recycling. **Note:** Imported debris may be a mixture of various materials (e.g. asphalt, concrete, soil, gravel, etc.). However, if the debris contains asphalt, it must be permitted.
- Similarly, if a site permitted to operate an asphalt plant will stockpile asphalt produced on-site (e.g. excess or reject material), the operation must be permitted and bonded for asphalt storage.

- a. Will asphalt be stockpiled at the site? Yes No

If **No**, skip to D5-1b.

If **Yes**, the Operator must comply with the following requirements for stockpiled asphalt:

- i. The maximum amount of asphalt awaiting recycling that will be on-site at any time is _____ cubic yards.
- ii. This maximum value must be used in the *Reclamation Bond Spreadsheet* to calculate the cost to either recycle (i.e. crush) the asphalt, or dispose of it off-site in a lawful manner.
- iii. Asphalt must be stored in the "asphalt stockpile area" shown on the site map.
- iv. Asphalt must be kept out of groundwater and surface water (runoff channels, puddles, ponds, etc.); the only water that should come in contact with the asphalt stockpile is rain and snow.
- v. Imported asphalt must not be buried or otherwise disposed of on-site. During the final reclamation process, on-site asphalt stockpiles must be: a) removed from the site and disposed of in a lawful manner, or b) recycled into useful products which are removed from the site or used on-site to surface roads that are included in the approved postmining land use. In accordance with ARM 17.24.218(1)(g) only onsite generated asphalt that has never left the site can be buried onsite as long as it is buried at least 25 feet above the ordinary high water table and under three feet of clean fill suitable for sustaining the postmining vegetation.

Operator will comply with statements "i" through "v" above.

- b. Will onsite generated asphalt be buried onsite in accordance with ARM 17.24.218(1)(g)? Yes No
 If No, skip to D5-2.

If Yes, the *Landowner Consultation Form, item C* must be checked as "Yes". In addition, MCA 82-4-434(3)(1) requires the Department to protect surface and ground water from deterioration of water quality and quantity that may arise as a result of the Opencut operations. Therefore you must address the below items to bury onsite generated asphalt.

- i. How far below the bottom of the proposed asphalt burial depth is the ordinary high water table located?

Answer: ____ feet. (Buried onsite generated asphalt must be located at least 25 feet above the ordinary high water table.)

- ii. How did you confirm the ordinary high water table in the area you intend to bury the onsite generated asphalt?

Monitoring wells were installed to confirm ordinary high water level (data must be attached and the appropriate box(s) on page 1 checked).

Other:

- iii. Does section C2-2 provide for at least three feet of soil and overburden to be saved for reclamation? Yes No
 If No, where will the three feet of material suitable for sustaining postmining vegetation be obtained?

Answer: (Ensure that the additional fill is bonded for on the *Reclamation Bond Spreadsheet*)

2. **Concrete Recycling** – Hardened concrete is not considered to have potential to impact water quality. As a result, concrete debris from construction or demolition projects may be imported to the site and stockpiled pending recycling or use as mined-area backfill. Similarly, sites permitted to operate a concrete plant may stockpile excess or reject product that becomes hardened on-site.

- a. Will hardened concrete be stored at the site? Yes No

If No, skip to Section D-6.

If Yes, the Operator must comply with the following requirements for hardened concrete:

- i. When concrete is deposited at the site, any protruding metal must be cut off and collected. Any metal exposed during subsequent handling, transfer, crushing, or recycling must promptly be freed and collected. As a result, no protruding metal should be visible at any time. Salvaged metal must periodically be transported off-site for recycling or other lawful disposal.
- ii. Concrete must be stored in the "concrete stockpile area" shown on the site map
- iii. Concrete present at the site during the final reclamation process must be: a) removed from the site and disposed of in a lawful manner, b) recycled into useful products, c) buried on-site under at least 3 feet of overburden and soil suitable for sustaining the postmining vegetation, or d) if the post-mining land use includes a pond, the concrete may be placed below the seasonal low water level to improve the aquatic habitat.

Operator will comply with statements "i" through "iii" above.

Note: If asphalt is present in concrete stockpiles, the site must be permitted for asphalt recycling (see Section D5-1 above.)

D6. MINE MATERIAL BACKFILL [ARM 17.24.218(1)(g)]

1. Are there any planned backfill locations (e.g. to reclaim highwalls that will not be cut and filled during mining, bringing offsite backfill material to the pit, etc.)?

Yes No

If No, skip to Section D7.

If Yes, show the planned backfill locations on the site map and provide the following information:

- a. Where will the backfill come from?

Onsite - Explain:

Offsite-Explain:

- b. Where will the backfill be placed?

Answer: Show backfill placement location(s) on map.

- c. Material type(s) to be used as backfill (check all that apply):

Pit Run Gravel Oversize Rock Reject Fines Backhaul (Clean Fill Only) Other:

- d. Identify the estimated quantity of material needed for backfill on the *Reclamation Bond Spreadsheet* under "Highwall Backfill".

- e. Provide a detailed description of how the backfill will be placed and compacted.

Answer:

D7. REJECT FINES [MCA 82-4-433(1)] & [ARM 17.24.218(1)(g)]

Reject fines are natural or crushed rock that is generally ¼ inch or smaller. Reject fines are usually created from screening product/material. Reject fines are typically pushed back into the pit to act as backfill before replacing the overburden and soil, or the reject fines are hauled off-site.

1. Will reject fines be created at this site?

Yes No

If No, skip to Section D8.

If Yes, proceed to #2 below:

2. How will reject fines be handled at this site? Check all that apply.

a. Reject fines will be hauled off-site before accumulating to 10,000 cubic yards.

b. Reject fines will be periodically placed back into the mine area as operations progress through the life of the permit. Reject fines will be graded and blended and will not be allowed to accumulate to more than 10,000 cubic yards.

c. Reject fines will be stockpiled and used for reclamation at a later date.

i. The maximum quantity of fines to be stockpiled is _____ cubic yards*

*Note: If more than 10,000 cubic yards of stockpiled reject fines will be located onsite, the entire stockpile must be bonded for on the Reclamation Bond Spreadsheet at a rate of \$1.00 per cubic yard. Ensure the Reclamation Bond Spreadsheet is consistent with the quantity entered into this section.

d. Other:

D8. ADDITIONAL IMPACTS [ARM 17.24.217(1)(e)] & [ARM 17.24.218(1)(e)] & [ARM 17.24.218(1)(h)]

1. Indicate the methods and materials you will use to mitigate impacts of the processing equipment listed in Section A1-8 from the neighboring properties.

Berms Buffer zone Dust mitigation Equipment enclosures Fences Paving

Restricted Hours Revegetation Speed limits Vegetative screens

Other:

2. What other man-made features could be affected by Opencut operations?

None Aboveground Utilities (i.e. power lines) Ditches/Irrigation Systems Fences

Roads Underground Utilities Other:

If None, skip to D8-3.

a. What methods and materials will be used to protect, repair, or replace the above features or structures?

Answer:

3. Operator understands that obtaining an Opencut Mining Permit does not relieve the Operator's obligation to comply with any other applicable federal, state, county or local statute, regulation, or ordinance. Therefore, the Operator is responsible for identifying and obtaining any other permits and approvals from other agencies required for the proposed activities. (See "How to Obtain and Comply with an Opencut Mining Permit"). Obtaining an Opencut permit does not necessarily mean that an Operator can legally mine the site without first obtaining permits from other agencies.

Operator Understands

4. Are there additional Opencut operation impacts not addressed in other parts of this Plan? Yes No

If Yes, describe:

D9. ADDITIONAL COMMITMENTS [MCA 82-4-434(3)(g)&(h)] & [MCA 82-4-437(1)&(2)] & [ARM 17.24.218(1)(h)(i)]

1. The Operator will comply with the following requirements:

a. Key personnel and subcontractors involved in Opencut operations must be informed of the requirements of this Plan and must be provided a copy of this Plan. In addition, they must be shown each boundary marker location and informed of their importance.

b. Proper precautions must be taken to prevent wildfires.

c. Appropriate protection must be provided for identified cultural resources that could be affected by Opencut operations. If any other cultural resources are found, the Operator must: i) temporarily halt work, or move to another area, and ii) promptly notify the State Historic Preservation Office (406-444-7715) and the DEQ (406-444-4970).

d. By March 1st of each year, the Operator must complete and return the Annual Progress Report (APR) form that the Program sends early in the year. The Operator must report the requested information regarding mining conducted during the preceding calendar year. In addition, the Operator must calculate the fee for the preceding year's production (per cubic yard of material mined) and submit payment to the DEQ along with the APR.

Operator will comply with statements "a" through "d" above

D10. ADDITIONAL INFORMATION

1. Provide additional water protection, mining and processing information not addressed above.

Answer:

SECTION E – RECLAMATION PLAN

E1. RECLAMATION TIMEFRAME [MCA 82-4-434(3)(k)] & [ARM 17.24.219(1)(f)(i & ii)]

1. Reclamation must be:

- a. Conducted as concurrent with the Opencut operations as feasible and in accordance with this Plan.
- b. Completed on an area no longer needed for Opencut operations within one year after the cessation of such operations.
- c. Completed on an area that the Operator no longer has the right to use for Opencut operations within one year after the termination of such right.
- d. Completed within a specified length of time.

Operator will comply with statements "a" through "d" above

The estimated date of final reclamation should be based on various business and environmental factors, including:

- The estimated demand for mine materials, the expected rate of production, and the volume and grade of permitted mine material.
- The time required to establish productive vegetation comparable to that growing on similar undisturbed land nearby. Typical minimum timeframes for revegetation are:
 - i. At least 2 years to establish vegetation and control noxious weeds on grassland and forest areas.
 - ii. At least 1 year for the first successful harvest on cropland.

Final reclamation of the site is complete when the postmining land use has been achieved, including successful revegetation and noxious weed control.

The estimated Final Reclamation Date is: Month December, Year 2045

Note: If the postmining land use will not be achieved by this date, the Operator must submit an amendment application to extend the final reclamation date. The Department recommends the Operator provide sufficient time to ensure vegetative growth and to avoid an amendment to only change the reclamation date.

E2. POSTMINING LAND USES [MCA 82-4-434(3)(a)] & [ARM 17.24.219(1)(a)]

1. The site will be reclaimed to the postmining land use(s) below. If there is more than one postmining land use, show those areas on a separate reclamation map.

Permitted Access Road(s) Internal Road(s): Length: _____ & Width: _____

Cropland and/or Hayland Rangeland/Pasture

Year-round Pond: Fishery Recreation Wildlife Other:

Seasonal Pond: Purpose- _____ Wetland Seasonal Wetland

Berms Fences Landowner Equipment Storage Area* Landowner Material Stockpile Area

Industrial/Commercial** Residential** Vegetative Screens Other:

*Landowner Equipment Storage Areas must be shown on a map (include approximate acreage) and have a description of why they are to be left (see E-2i below).

**Residential and Industrial/Commercial land uses may require submittal of planning documents and approvals.

Note: If site plans change, the Operator must submit an amendment application to update the postmining land use(s).

2. What facilities and structures will remain after reclamation of the site is completed?

None Concrete Structures Gravel or Paved Surface Area Office Scale Other:

If None, skip to Section E3, otherwise:

i. Describe the purpose of leaving these facilities or structures intact. Answer:

ii. Will the remaining facilities or structures be consistent with the postmining land use? Yes No

If No, this application is deficient and cannot be approved.

E3. PONDS and/or WETLANDS [ARM 17.24.219(1)(b & c)]

1. If Section E2 above does not designate a pond, seasonal pond, or wetland as a postmining land use, skip to Section E4; otherwise proceed to E3-2 below.

2. Are you creating ponds, wetlands or both?
 Ponds Only Wetlands Only Both Ponds and Wetlands
 3. Indicate the number of pond(s) to be constructed:
 None 1 2 3 4 5 Other:
 4. Indicate the number of wetland(s) to be constructed:
 None 1 2 3 4 5 Other:
 5. Indicate the maximum pond and/or wetland depth:
 No Pond 10-feet 15-feet 20-feet 25-feet 30-feet 35-feet 40-feet 45-feet 50-feet
 55-feet Other:
 6. The location(s) of the pond and/or wetland and its final proposed shape are shown on the following map(s):
 Reclamation Map Site Map Other Map:
 7. Indicate the maximum (steepest) slope of the following pond/wetland margin areas:
 Above High Water: 3:1 4:1 5:1 6:1 Other:
 Between High and Low Water: 3:1 4:1 5:1 6:1 Other:
 Below Low Water: 3:1 4:1 5:1 6:1 Other:
- Note:** Proposed slopes steeper than 3:1 may require a slope stability study prepared by a Professional Engineer or other appropriately qualified professional (see section E4-2 below).
8. Indicate below the physical features that will be included with this pond/wetland and show their location on the final reclamation map.
 Boat Ramp Inlets/Bays Islands Peninsulas Submerged habitat features Other:
 9. Operator must attach the following and check the appropriate boxes on page 1:
 - a. A detailed Plan View of the final pond/wetland design, including the above features.
 - b. At least two labeled Cross-Sections and/or a labeled Contour Map showing the bottom of each proposed pond and/or wetland with a contour interval appropriate for the pond/wetland depth. Operator Understands
 10. Will the DEQ's *Pond Guideline* be followed (including variations in pond shape, sinuosity, varying slopes and depths, and recommended wetland vegetation)? Yes No
 If Yes, Check the appropriate box on page 1 and attach the guideline.
 If No, the DEQ must assess whether the postmining pond will constitute a productive land use [MCA 52-4-434(2)]. Therefore, explain in detail how the pond design will achieve a productive postmining land use.
Answer:
 11. Operator understands that all soil taken from the pond or wetland area must be kept onsite for reclamation of that pond or wetland area and cannot be removed or sold until the Department has determined the pond or wetland postmining land use is met, thereby verifying the soil is not needed to reclaim the pond or wetland area.
 Operator Agrees

E4. SITE CLEANUP, GRADING AND RECLAMATION [ARM 17.24.219(1)(c)]

1. The Operator must comply with the following requirements:
 - a. Leave reclaimed surfaces in a stable condition, graded to drain to low areas, and blended into the surrounding topography and drainageways. **Note:** Irregular contours are preferred for livestock and wildlife habitat; areas of unvarying slope should be minimized; and drainageways must be reclaimed similar to surrounding natural conditions.
 - b. Leave reclaimed surfaces with 5:1 or flatter slopes for hayland and cropland, 4:1 or flatter slopes for sandy surfaces, and 3:1 or flatter slopes for other areas (The DEQ may approve steeper slopes on a case by case basis).
 - c. Leave reclaimed surfaces at least 3 feet above the seasonal high water table level for dryland reclamation and at least 3 feet below the seasonal low water table level for pond reclamation (The DEQ may approve seasonal ponds for certain situations).
 - d. Retrieve and properly use, stockpile, or dispose of all refuse and spilled mine materials (e.g. chips, oversize, etc.) found in the main permit area and along access roads as such materials will impair revegetation.
 Operator will comply with statements "a" through "d" above
2. Indicate the grade of the steepest slope that will remain after the site is reclaimed.

3:1 4:1 5:1 6:1 Other:

If a slope of 3:1 or flatter was checked, skip to E4-3.

If the **Other** box was checked above or in E3-7 and the Operator intends to have slopes that are steeper than 3:1, proceed to E4-2a.

a. The Operator must provide a slope stability study prepared by a qualified professional documenting that the slopes will remain stable.

Slope Stability Analysis Attached (Attach the *Slope Stability Analysis* and check the appropriate box on page 1)

Further Description (if applicable):

3. Will the site be graded to blend in with surrounding topography? Yes No

If No, explain in detail how the site will be graded:

4. Will a reclaimed and sloped depression remain? Yes No –Mining will not create a depression

a. If Yes, Where will precipitation/stormwater/snow-melt, etc. concentrate or drain to in the reclaimed depression?

i. Runoff collection area in bottom of depression graded specifically to hold water, thereby not impacting other areas of the depression with ponding or pooling of water.

ii. Location of water collection area is shown on the: Site map Other Map Reclamation Map

iii. Water collection area is $\leq \frac{1}{2}$ acre in size;

Water collection area is $> \frac{1}{2}$ acre in size – Explain why water collection area needs to be greater than $\frac{1}{2}$ acre in size

Other-Describe:

b. If No, Describe where stormwater will concentrate or drain to - water will flow to the (check all that apply):

i. East North Northeast Northwest South Southeast Southwest West

Further Description:

ii. Water will flow offsite via:

Reclaimed drainages, swales, etc. within the permitted boundary Reclaimed slopes

Other-Describe:

c. Other-Describe:

E5. SOIL AND OVERBURDEN SURFACE PREPARATION AND REPLACEMENT [ARM 17.24.219(1)(d)&(e)]

1. Compacted soil and overburden must be tilled to allow air and water movement, root penetration, and the subsurface drainage necessary for plant growth. Will the Operator alleviate compaction by deep-tilling or ripping all compacted surfaces to a depth of at least 12 inches before re-soiling? Yes No

Note: The DEQ recommends the following:

a. Ripping or deep tilling is not required for non-compactable materials such as sand and gravel.

b. Ripper shanks should be spaced about equal to the ripping depth.

c. Rip along contours where possible and when soil and overburden are dry enough to shatter.

d. Protect ripped areas from re-compaction.

If No, explain in detail how you will alleviate overburden and soil compaction, or why you will not:

2. Indicate the method(s) that will be used to limit the presence of large rocks (greater than 4 inches) in replaced soil as their presence may inhibit successful revegetation and agricultural production.

Blading off and removal of large rocks Rolling Screening Other:

E6. REVEGETATION [MCA 82-4-434(3)(i)&(j) & [ARM 17.24.219(1)(b)(ii)&(e)]

1. Operator must comply with the following requirements:

a. Establish vegetation capable of sustaining the designated postmining land use(s).

b. Use certified weed-free seed and comply with local weed district requirements.

c. Seed during the late fall or early spring seeding season (unless otherwise approved) and seed along contours for drill seeding.

d. Ensure that areas seeded or planted to perennial species can be, and are, appropriately protected and managed from the time of seeding or planting through two growing seasons, or until site stabilization and revegetation are achieved, whichever is longer.

e. Revegetation success on non-cropland areas is achieved when vegetation capable of sustaining the designated postmining land use has been established. Revegetation success on cropland areas is achieved when a crop has been harvested from the entire area and the yield is comparable to those of crops grown on similar undisturbed sites under similar growing conditions.

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f. Except for those postmining land uses that do not require vegetation, each surface area of the mined premises that will be disturbed will be revegetated when its use for the Opencut operation is no longer required.

Operator will comply with statements "a" through "f" above

2. The county-approved, site-specific, Noxious Weed Control Plan must:
- Be attached and the appropriate box on page 1 checked.
 - Be followed during the operation, throughout reclamation, and until the Opencut permit is released by the DEQ.

Operator Agrees

3. Will the Operator apply fertilizer, compost, mulch, or other soil amendments? Yes No

If No skip to E6-4.

If Yes: Type of fertilizer to be applied: _____ Rate at which fertilizer will be applied: _____ lbs/acre
 Type of compost to be applied: _____ Rate at which compost will be applied: _____ lbs/acre
 Type of mulch to be applied: _____ Rate at which mulch will be applied: _____ lbs/acre

4. Indicate the methods to be used to relieve soil compaction and prepare the seedbed.

Disking Harrowing Tilling Chiseling Other:

5. The primary method of seeding will be: Drilling Broadcasting*

*Note: Broadcast seeding must be at double the rate used for drilling (i.e. 24 lbs/acre or more)

6. The DEQ's Seed Mix Guideline is available on the program's website.

Will seed mixes described in the seed mix guideline be used? Yes No

If Yes, check the appropriate box on page 1, attach a copy of the guideline, and indicate below which seed mix(s) will be used.

Native Grazing/Pasture Non-Native Grazing/Pasture Native Rangeland (for Moist/Riparian Regions)

Native Rangeland (for Arid Regions) Wetland Seed Mix (for Pond Edges)

If No, in the chart below describe the seed mix species and rates of seeding (pure live seed per acre) that will be used:

SEED TYPE	SEED RATE
Western Wheatgrass	3.5
Green Needlegrass	3.5
Alfalfa	3.0
Timothy	3.0
Red Clover	3.0
Slender Wheatgrass	2.5
TOTAL SEEDING RATE	18.5 pounds pure live seed/acre

Additional Seeding Information:

7. Indicate the measures to be used to manage and protect the site until reclamation vegetation is adequately established.

Noxious Weed Control (mandatory) Fencing (include cost of fencing on the Reclamation Bond Spreadsheet)

No Grazing (Operator should secure written commitment from landowner) Other:

8. Indicate the method(s) or types of erosion control that will be used at this site for final reclamation to inhibit erosion and promote plant growth:

Equipment Tracking (orientated to trap moisture) Erosion Control Blankets Mulch

Seeding/Harrowing along contour Slopes 3:1 or flatter Straw Bales Wattles Other:

E7. MATERIAL REMAINING FOR LANDOWNER [ARM 17.24.218(1)(f)] & [17.24.218(f)(ii)]

1. Does Question B of the Landowner Consultation form indicate that mine material produced at the request of the Landowner will remain at the conclusion of Opencut operations? Yes No

If No, skip to Section E8.

- a. If Yes, does the Operator agree to leave an appropriate amount of soil stockpiled, shaped, and seeded within 100 feet of each remaining mine material stockpile. Yes No

- b. Thickness of soil required to be stripped from the site is 12 inches * _____ acres (estimated number of acres that will remain for the soil stockpile area) = 0 cubic yards of soil that must remain for the landowner stockpile area.

- c. If E7-1a is No, explain in detail why soil will not be stockpiled near the landowner's mineral stockpile(s) as required by ARM 17.24.218(1)(f).

Answer:

- 2. In order for mineral stockpiles to remain, the landowner must be able to access those stockpiles. Therefore, indicate how the remaining mineral stockpiles will be accessed by the landowner.
[] Located adjacent to public road [] Remaining or existing road [] Other:
3. By the time of final reclamation, the Operator must consolidate each type of mine material into a single stockpile and place these at the closest point allowing access. [] Operator Understands
4. Operator has shown the landowner stockpile area and a road to the stockpile area on the appropriate map. [] Yes [] No
The approximate acreage of the landowner's mineral and soil stockpile areas to remain is: ___ acres.

E8. ADDITIONAL INFORMATION

- 1. Provide additional reclamation information not addressed above.

Answer:

SECTION F - RECLAMATION BOND CALCULATION [MCA 82-4-43] & [ARM 17.24.203] & [ARM 17.24.220] & [ARM 17.24.224(2)(c)]

Government Operators: Skip to Section G.

Non-Government Operators:

- 1. Attach a proposed Reclamation Bond Spreadsheet and check the appropriate box on page 1.
2. The purpose of the Reclamation Bond Spreadsheet is to provide a reasonable estimate of the cost for the DEQ to reclaim the site in accordance with the Opencut Mining Plan of Operation & Application at the time of the site's maximum permitted disturbance.
3. Bond is not required to be posted for acreage permitted as Non-Bonded until the acreage is needed for Opencut operations.
4. Operator understands that the Department may adjust the bond yearly. [X] Operator Understands
5. Is there additional information relevant to the Reclamation Bond Spreadsheet that you wish to provide? [] Yes [X] No
If Yes, describe: Reclamation Bond Spreadsheet not required for amendment changing only final reclamation date.

SECTION G - CERTIFICATION [MCA 82-4-432(1)(f)] & [ARM 17.24.222(3)]

Operator affirms it has the legal right to mine the lands described, and that the contents of all attachments to this application become a part of the terms thereof. Operator has read and understands this Opencut Mining Plan of Operation & Application. Operator certifies that the statements, descriptions, and information given are accurate and that the Opencut Mining Plan of Operation & Application and all supporting documents will be followed unless officially amended through the DEQ.

Name (print or type): Stan Hendricksen Title: Owner

Signature: [Handwritten Signature] Date: 12-19-2014

MONTANA WELL LOG REPORT

Form No. 603 R2-89

Well ID# 6739

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Original fields have a grayed background: Record additional information in the REMARKS section.

1. WELL OWNER:

Name Stan Hendrickson
Mailing address P.O. BOX 267
LOLO, MT. 59846

2. WELL LOCATION: List ¼ from smallest to largest

SE ¼ SW ¼, Section 14

Township 11N Range 20E County Missoula

3. PROPOSED USE: Domestic Stock Irrigation

Public water supply Monitoring Well Other:

4. TYPE OF WORK:

New well Deepen existing well Abandon existing well
Method: Cable Rotary Other:

5. WELL CONSTRUCTION DETAILS:

Borehole:
Dia. 6 in. from 0 ft. to 93.5 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

Casing:
Steel: Wall thickness .250 Threaded Welded
Dia. 6 in. from +2 ft. to 98.5 ft.
Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating _____ lbs. Threaded Welded
Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:
Type of perforator used T/C
Size of perforations/slots 5 in. by 5/32 in.
12 no. of perforations/slots from 30.5 ft. to 93.5 ft.
_____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No
Material _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No
Size of gravel Natural
Gravel placed from 96.5 ft. to 93.5 ft.

Packer: Yes No
Type _____ Depth(s) _____

Grout: Material used Bentonite
Depth from 0 ft. to 18 ft. Continuous feed

6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 79.5 ft. below top of casing or
 Closed-in artesian pressure _____ psi.

How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc.

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level. All depth measurements shall be from the top of the well casing. Time of recovery is hours/minutes since pumping stopped.

Air test*
7 gpm with drill stem set at 94 ft. for 1 hours
Time of recovery 9 hrs/min. Recovery water level 79.5 ft.

OR Baller test*

_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*

Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*

_____ gpm for _____ hours
Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG:

Depth, Feet		Material:
From	To	color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	38	Sand & Gravel Lt. Brown
38	41	Hard green rock
41	60	Sand, silt & gravel Lt. brown
60	90	Gray & Tan clay
90	96	Sand & Gravel W/3
96	98.5	Gray clay

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 8-14-02

9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) Eslinger Drilling
Address 897 McWilliams Dr. Corvallis, MT.

Signature [Signature]
Date 8-30-02 License no. 44

Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-8810

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DEQ/EMB

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Id 44M 08:44AM 01 Dec. 01 2009

FRX NO. : 406 961 4157



ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 30004568 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O. BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 30004568 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200212031033

Type of Historical Right:

Max Flow Rate: 7.00

Max Volume: 3.60

Max Acres: 1

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER N		GROUNDWATER WELL		11N20W	23	NESW		MISSOULA	99

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		DOMESTIC		1.00		11N20W	23	NESW		MISSOULA
1		LAWN AND GARDEN		2.50	1.00	11N20W	23	NESW		MISSOULA
1		STOCK		0.10		11N20W	23	NESW		MISSOULA

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DEQUIN

NOTICE OF COMPLETION OF GROUNDWATER DEVELOPMENT

Use this form for completed groundwater developments with a maximum use of 35 GPM not to exceed 10 AC-FT per year.

Filing Fee \$ 125.00

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JUN 02 2008

MONTANA D.N.R.C.
MISSOULA REGIONAL OFFICE
FOR DEPARTMENT USE ONLY

Notice No. 30042316 Basin 76H
Priority Date 6-2-08 Time 11:30 AM PM
Rec'd By CS
Fee Rec'd \$ 125.00 Check No. 8637
Deposit Receipt # 832036
Payor Hendrickson, Stanley C
Refund \$ _____ Date _____

- Go to web site <http://dnrc.mt.gov/wrd/> to learn additional information about the use of this form.
- Your priority is determined by the date of filing. If it is determined this form was improperly filed, your priority date may be changed.
- If your development is within a Controlled Ground Water Area, the regional office will contact you to explain the correct filing requirements.

READ AND ANSWER THE QUESTIONS BELOW TO DETERMINE IF YOU CAN FILE YOUR WATER USE ON THIS FORM.

- A. Yes No My source of water is ground water and it has been put to use.
 - B. Yes No My water use is 35 gallons per minute or less.
 - C. Yes No The total volume used from this development will not exceed 10 acre-feet per year.
- If the answer to all of the above questions is "yes", you can file this form. Complete the information below.

1. NAME Stan Hendrickson 137935
MAILING ADDRESS P.O. Box 267
CITY Lolo STATE MT ZIP 59847
WORK PHONE 406-273-6767 HOME PHONE same CELL PHONE 406-239-5808

2. DIVERSION USED TO OBTAIN GROUNDWATER
 Well - Attach well log, if available
 Developed Spring (Excavation performed at the spring location.)
 Pit/Pond - Dimensions in feet Length _____ Width _____ Depth _____

3. PURPOSE AND PERIOD OF USE - Check the appropriate purposes and provide the period of use.
 Domestic - This purpose includes up to 3 acres of lawn and garden
Used January 1 - December 31 Yes No If no, from _____ to _____
 Irrigation - If the total size of the area that is irrigated is larger than 3 acres, complete this information.
Used April 1 - October 31 Yes No If no, from _____ to _____
 Stock Used January 1 - December 31 Yes No If no, from _____ to _____
 Other - Describe the purpose _____
Used January 1 - December 31 Yes No If no, from _____ to _____

4. POINT OF DIVERSION - Location of Ground water Development
SE 1/4 SE 1/4 SW 1/4 Section 23 Twp 11 N/S Rge 20 E County Missoula Co
Lot _____ Block _____ Tract No. _____ Subdivision Name _____
Government Lot No. _____ COS No. _____
Street or Road Address, including City, State & Zip Code of the Development _____

5. PLACE OF USE
Is the place where water is used the same as the point of diversion? Yes No
If no, enter the land description below.
 Domestic Stock Irrigation Other
_____/14 _____/14 _____/14 Section _____ Twp _____ N/S Rge _____ E/W County Missoula Co
Lot _____ Block _____ Tract No. _____ Subdivision Name _____
Government Lot No. _____ COS No. _____
Street or Road Address, including City, State & Zip Code of the Place of Use _____

6. AFFIDAVIT OF OWNERSHIP OR WRITTEN CONSENT
I have possessory interest in the property where the water has been put to beneficial use and I have the exclusive property rights in the ground water development works
OR
I have attached written consent of the person owning the ground water development works and/or written notification to the land owner pursuant to MCA 85-2-306(1).

The statements appearing here are to the best of my knowledge true and correct.

Appropriator's signature Stan Hendrickson Date: 6-2-08

Date: _____



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WELL LOG REPORT

File No. 2092

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

<p>1. WELL OWNER Name <u>STAN HENDRICKSON</u></p> <p>2. CURRENT MAILING ADDRESS <u>BOX 267</u> <u>LOT 0, MT. 59847</u></p> <p>3. WELL LOCATION SE 1/4 SW 1/4 Section <u>23</u> Township <u>11N</u> Range <u>20W</u> County <u>MISSOULA</u> Gov't Lot _____ or Lot _____ Block _____ Subdivision Name _____ Tract Number _____</p> <p>4. PROPOSED USE: Domestic <input checked="" type="checkbox"/> Stock <input type="checkbox"/> Irrigation <input type="checkbox"/> Other <input type="checkbox"/> specify _____</p> <p>5. TYPE OF WORK: New well <input checked="" type="checkbox"/> Method: Dug <input type="checkbox"/> Bored <input type="checkbox"/> Deepened <input type="checkbox"/> Cable <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Reconditioned <input type="checkbox"/> Rotary <input type="checkbox"/> Jetted <input type="checkbox"/></p> <p>6. DIMENSIONS: Diameter of Hole Dia. <u>6</u> in. from <u>+2</u> ft. to <u>41</u> ft. Dia. _____ in. from _____ ft. to _____ ft. Dia. _____ in. from _____ ft. to _____ ft.</p> <p>7. CONSTRUCTION DETAILS: Casing: Steel Dia. _____ from _____ ft. to _____ ft. Threaded <input type="checkbox"/> Welded <input checked="" type="checkbox"/> Dia. <u>6"</u> from <u>+2</u> ft. to <u>41</u> ft. Type <u>17-2</u> Wall Thickness <u>1/4"</u> Casing: Plastic Dia. _____ from _____ ft. to _____ ft. Weight _____ Dia. _____ from _____ ft. to _____ ft. PERFORATIONS: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Type of perforator used <u>TORCH</u> Size of perforations <u>5</u> in. by <u>5/32</u> in. _____ perforations from <u>33</u> ft. to <u>38</u> ft. _____ perforations from _____ ft. to _____ ft. _____ perforations from _____ ft. to _____ ft. SCREENS: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Manufacturer's Name _____ Type _____ Model No. _____ Dia. _____ Slot size _____ from _____ ft. to _____ ft. Dia. _____ Slot size _____ from _____ ft. to _____ ft. GRAVEL PACKED: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Size of gravel _____ Gravel placed from _____ ft. to _____ ft. GROUTED: To what depth? <u>18</u> ft. Material used in grouting <u>BENTONITE</u></p> <p>8. WELL HEAD COMPLETION: Pitless Adapter <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>9. PUMP (if installed) Manufacturer's name _____ Type _____ Model No. _____ HP. _____</p> <p>10. WELL TEST DATA The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing. All wells under 100 gpm must be tested for a minimum of one hour and provide the following information: a) Air _____ Pump _____ Bailer <input checked="" type="checkbox"/> b) Static water level immediately before testing _____ ft. If flowing, closed-in pressure _____ psi. If flowing, flow controlled by: _____ valve, _____ reducers, other (specify) _____ c) Depth at which pump log for test _____ <u>40</u> _____ d) The pumping rate: _____ gpm. e) Pumping water level _____ <u>30</u> ft. at _____ <u>1</u> hrs. after pumping began.</p>	<p>f) Duration of test: Pumping time <u>1</u> hrs. g) Recovery time <u>15 min</u> hrs. h) Recovery water level _____ ft. at _____ hrs. after pumping stopped. Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form. NOTE: All wells shall be equipped with an access port 1/2 inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.</p> <p>11. WAS WELL PLUGGED OR ABANDONED? Yes _____ No <input checked="" type="checkbox"/> If yes, how? _____</p> <p>12. WELL LOG</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Depth (ft.)</th> <th rowspan="2">Formation</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3</td> <td>SAND AND GRAVEL</td> </tr> <tr> <td>3</td> <td>25</td> <td>SAND AND SLT/DK BROWN</td> </tr> <tr> <td>25</td> <td>41</td> <td>SAND AND GRAVEL</td> </tr> <tr> <td colspan="2" style="text-align: center;">3' PACK</td> <td></td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p style="text-align: center;">ATTACH ADDITIONAL SHEETS IF NECESSARY</p> <p>13. YELLOWSTONE CLOSURE AREA: WATER TEMPERATURE _____</p> <p>14. DATE COMPLETED <u>8/3/95</u></p> <p>15. DRILLER/CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge. Date <u>8/20/95</u> ESLINGER DRILLING & PUMP SERVICE Firm Name <u>897 MC WILLIAMS DRIVE CORVALLIS MT</u> Address Signature <u>Candy Eslinger</u> License No. <u>44</u></p>	Depth (ft.)		Formation	From	To	0	3	SAND AND GRAVEL	3	25	SAND AND SLT/DK BROWN	25	41	SAND AND GRAVEL	3' PACK																																																		
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MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE P.O. BOX 202301 HELENA, MONTANA 59620 - 2301 444-6610



DEPARTMENT COPY
DRILLER: Please give this copy to the well owner to complete reverse side.
OWNER: Complete reverse side and send to DNRC when the well is completed and the water has been used beneficially for the intended purpose.

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DEC 03 2009
DEQ/TEMP

WELL LOG REPORT

File No. 2092

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

152123 113019

1. WELL OWNER
Name STAN HENDRICKSON

2. CURRENT MAILING ADDRESS
BOX 262
LOLC, MT. 59842

3. WELL LOCATION
SE 1/4 S6' 1/4 Section 29
Township 11N NS Range 22N EW County MISSOULA
Gov't Lot _____ or Lot _____ Block _____
Subdivision Name _____
Tract Number _____

4. PROPOSED USE: Domestic Stock Irrigation
Other C specify _____

5. TYPE OF WORK:
New well Method: Dug Bored
Deepened Cable Driven
Reconditioned Rotary Jetted

6. DIMENSIONS: Diameter of Hole
Dia. 6 in. from +2 ft. to 11 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia. _____ from _____ ft. to _____ ft.
Threads Welded Dia. 6" from +2 ft. to 11 ft.
Type 17.2 Wall Thickness 5"
Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
Weight _____ Dia. _____ from _____ ft. to _____ ft.
PERFORATIONS: Yes No
Type of perforator used KOCH
Size of perforations 5 in. by 5/32 in.
_____ perforations from 22 ft. to 19 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

SCREENS: Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

GRAVEL PACKED: Yes No Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

GROUTED: To what depth? 10 ft.
Material used in grouting BRITONITE

8. WELL HEAD COMPLETION:
Pileless Adapter Yes No

9. PUMP (if installed)
Manufacturer's name _____
Type _____ Model No. _____ HP _____

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air _____ Pump _____ Bailer _____
b) Static water level immediately before testing _____ ft. If flowing, closed-in pressure _____ psi. _____ gpm.
Flow controlled by: _____ valve, _____ reducers, _____ other (specify) _____
c) Depth at which pump began for test _____ ft.
d) The pumping rate: _____ gpm.
e) Pumping water level _____ ft. at _____ hrs. after pumping began.

11. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how? _____

12. WELL LOG
Depth (ft.)
From To Formation
0 3 SAND AND GRAVEL
3 25 SAND AND SILT OVER SAND
25 31 SAND AND GRAVEL
PE

13. YELLOWSTONE CLOSURE AREA: WATER TEMPERATURE _____

14. DATE COMPLETED 8/3/05

15. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 8/26/05
Firm Name MINNER BUILDING & CONSTRUCTION
Address 307 W. WILSON ST. HELENA, MT 59601
Signature Andy Estinger License No. 44

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE P.O. BOX 202201 HELENA, MONTANA 59620-2301 444-6610

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1152123

ABRIDGED SUMMARY

ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 30042316 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 30042316 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200806021130

Type of Historical Right:

Max Flow Rate:

Max Volume:

Max Acres:

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER N		GROUNDWATER WELL		11N20W	23	SESESW		MISSOULA	41

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		DOMESTIC				11N20W	23	SESESW		MISSOULA

Geocodes:

Geocode

04197523301040000

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ABRIDGED SUMMARY

ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 110959 00 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 110959 00 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200002151018

Type of Historical Right:

Max Flow Rate: 20.00

Max Volume: 5.98

Max Acres:

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER N		GROUNDWATER WELL		11N20W	23	SESW		MISSOULA	

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		OTHER PURPOSE		5.98		11N20W	23	SESW		MISSOULA

dust control s pit

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DEC 03 2009

DL JAMES

CODEL

Form No. 603 R2/81

063 Miss JUN 23 20

File No. 1286
0047482

WELL LOG REPORT

State law requires that this form be filed by the well owner within 60 days after completion 010923

1. WELL OWNER Name Berney Jones JUN 23 1982

2. CURRENT MAILING ADDRESS 3019 11th St
Missoula, MT. 59801

3. WELL LOCATION County Missoula Range 20
Township N/5 Section 23
Let 4 Block 23

4. PROPOSED USE Domestic Stock Irrigation
Other specify _____

5. DRILLING METHOD cable, _____ bored,
_____ forward rotary, _____ reverse rotary, _____ jetted,
other (specify) _____

6. WELL CONSTRUCTION AND COMPLETION

Size of drilled hole	Size and weight of casing	From (feet)	To (feet)	Perforations		
				Screen	Kind Size	From (feet)
6"	12LB	0	25	5"	17	22
				S101		

7. WHAT IS THE TEMPERATURE OF THE WATER?
Cold Degrees Fahrenheit
 Measured Estimated

8. WATER LEVEL
Static water level 2 feet below land surface
Natural flowing; closed-in pressure _____ psi
Controlled by: _____ valve, _____ reducers,
other, (specify) _____

9. WELL TEST DATA _____ pump _____ bailer
 other, (specify) AIR
Pumping level below land surface:
20 ft. after 4 hrs. pumping 30 gpm
ft. after _____ hrs. pumping _____ gpm

10. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how? _____

11. DATE COMPLETED 6-21-82

12. WELL LOG

Depth (ft.)		Formation
From	To	
0	3	Top Soil
3	25	Sand & Gravel w/b. 3ft Gravel Gravel Pack

(use separate sheet if necessary)

13. DRILLER'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 6-22-82
Firm Name Ravalli Drilling
Address P.O. Box 527, Corvallis
Signature James R. DeField License No. 357

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
32 SOUTH EWING HELENA, MONTANA 59620 449-3962

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attach plates of records

DEPARTMENT COPY

66063 2009

M: DEQUEMB

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063 11N 20W 26 BA Missoula

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JUN 1 1965

Approved Stock Form—State Publishing Co., Helena, Montana—6229

063 11N R 26W

26 BA

County Missoula

Montana Bureau of Mines and Geology

STATE OF MONTANA ADMINISTRATOR OF GROUNDWATER C OFFICE OF STATE ENGINEER

011003

Notice of Completion of Groundwater Appropriation by Means of Well DEVELOPED AFTER JANUARY 1, 1961

(Under Chapter 227, Montana Session Laws, 1961)

Phyllis and/or Tom Valley Ranch Owner Archie J. Holmes Address Florence, Montana

Driller Liberty Drilling Co. Address Missoula, Montana

Date of Notice of appropriation of groundwater None-Filed

Date well started 4/12/65 Date completed 4/14/65

Type of well Drilled Equipment used Cable Tool (Dug, Driven, bored or drilled) (Churn drill, rotary or other)

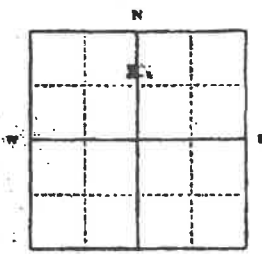
Water use: Domestic Municipal Stock Irrigation Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.



Top of Ground (Elev. above sea level 3211)
25 - 31 Brown clay
31 - 33 Sand & gravel
33 - 35 Sand & gravel
35 - 38 Clean coarse gravel, water
38 - 42 Brown clay
42 - 48 Clean coarse sand & gravel, water
48 - 53 Brown clay
53 - 58 Brown clay
58 - 63 Brown clay
63 - 68 Brown clay
68 - 73 Brown clay
73 - 78 Brown clay
78 - 83 Brown clay

Table with columns: Size of Drilled Hole, Size and Weight of Casing, From (Feet), To (Feet), PERFORATIONS (Hole Size, From (Feet), To (Feet)).



Static Water Level for non-flowing well 33 feet.
Shut-in Pressure for Flowing Well None
Pumping Water Level 25 feet
at 400 gal per minute.
Discharge in gal. per min. of flowing well None-flowing

How Tested Air lift pump
Length of Test 200 hours
Remarks: (Gravel packing, cementing, packers, type of shutoff) 32 water entering well through slots in screen.

Map location of well and place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)
USE-If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

60 acres

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, three copies to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

66096

Driller's License Number

William E. O'Brien
Driller's Signature

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DEQ

Hamilton

11 N 20W 23

M: 5504A

Form No. 202 (7-2-09)

WELL LOG REPORT

File No. 5507

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

086 507

1. WELL OWNER
Name Max G. and Cynthia Bauer, Jr.

2. CURRENT MAILING ADDRESS
P.O. Box 3440, Missoula, MT 59501

3. WELL LOCATION
Township 11 NS Range 20 EW County Missoula
Gov't Lot _____ or Lot _____ Block _____
Subdivision Name _____
Tract Number 3-2 003 4521

4. PROPOSED USE: Domestic Stock Irrigation
Other specify _____

5. TYPE OF WORK:
New well Method: Dug Bored
Deepened Cable Driven
Reconditioned Rotary Jetted

6. DIMENSIONS: Diameter of Hole
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia. _____ from _____ ft. to _____ ft.
Threaded Welded Dia. _____ from _____ ft. to _____ ft.
Type A53B Wall Thickness .250
Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
Weight _____ Dia. _____ from _____ ft. to _____ ft.
PERFORATIONS: Yes No
Type of perforator used _____
Size of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
SCREENS: Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
GRAVEL PACKED: Yes No Size of gravel _____
Gravel placed from _____ ft. to _____ ft.
GROUTED: To what depth? 20 ft.
Material used in grouting _____

8. WELL HEAD COMPLETION:
Pitless Adapter Yes No

9. PUMP (if installed)
Manufacturer's name _____
Type _____ Model No. _____ HP _____

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air _____ Pump _____ Bailer _____
b) Static water level (immediately before testing) _____ ft. If flowing, closed-in pressure _____ psi _____ gpm.
Flow controlled by: _____ valve, _____ reducers, other (specify) _____
c) Depth at which pump is set for test _____ ft.
d) The pumping rate: _____ gpm.
e) Pumping water level _____ ft. at _____ hrs. after pumping began.

11. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how? _____

12. WELL LOG
Depth (ft.)
From To Formation
0 4 soil
4 15 hardpan
15 25 clay
25 45 gravel
45 60 gravel

13. DATE COMPLETED 12/12

14. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 12/12
Signature _____
Firm Name Jacques Drilling Co., Inc.
Address _____
Signature _____ License No. _____

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1820 EAST SIXTH AVENUE HELENA, MONTANA 59620-2301 444-6810

DNRC

223714

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J. C. CUMMINS

M: 126 221

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063 11N 20W 26

MISSOURI

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Form No. 603 R8/83

File No. 1626

WELL LOG REPORT JUN 05 1984

State law requires that this form be filed by the water well driller with the Montana Dept. of Natural Resources & Conservation 01003B

1. WELL OWNER Name Bryce L. Johnson

2. CURRENT MAILING ADDRESS 20350 Old 9th South Florence MT 59733

3. WELL LOCATION County Missoula Township 11 N/S Range 20 E/W Section 26 Block _____ Subdivision _____

8. WATER LEVEL Static water level 21' (feet below land surface) If flowing; closed-in pressure _____ psi _____ gpm Controlled by: _____ valve, _____ reducers, other, (specify) _____

4. PROPOSED USE Domestic Stock Irrigation Other specify _____

9. WELL TEST DATA _____ pump _____ bailer other, (specify) AIR Pumping water level below land surface: 44 ft. after 2 hrs. pumping 135 gpm _____ ft. after _____ hrs. pumping _____ gpm

10. WAS WELL PLUGGED OR ABANDONED? Yes No If yes, how? _____

5. DRILLING METHOD cable, _____ bored, forward rotary, _____ reverse rotary, _____ jetted, other (specify) _____

11. DATE COMPLETED 5/11/84

6. WELL CONSTRUCTION AND COMPLETION

Size of drilled hole	Size and weight of casing	From (feet)	To (feet)	Perforations <input checked="" type="checkbox"/> and/or Screen		
				Kind Size	From (feet)	To (feet)
<u>8"</u>	<u>24#</u>	<u>0</u>	<u>47</u>	<u>5"</u>	<u>32</u>	<u>47</u>
				<u>SIOTS</u>		

12. WELL LOG

Depth (ft.)		Formation
From	To	
<u>0</u>	<u>47</u>	<u>440' - 1300' - 1350' - 1400'</u>
		<u>S.S.P.</u>

(use separate sheet if necessary)

Was casing left open end? Yes No
 Was a packer or seal used? Yes No
 If so, what material _____
 Was the well gravel packed? Yes No
 Was the well grouted? Yes No
 To what depth? 20'
 Material used in grouting PORTLAND CEMENT
 Well head completion: Pitless adapter _____
 _____ Yes No
 Top of casing 12 in. or greater above grade Yes No

13. DRILLER'S CERTIFICATION
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
 Date _____
 Firm Name _____
 Address _____
 Signature _____ License No. _____

7. WHAT IS THE TEMPERATURE OF THE WATER?
45 Degrees Fahrenheit
 Measured Estimated

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION **DNRC** RECEIVED
 32 SOUTH EWING HELENA, MONTANA 59620 449-3962

DEPARTMENT - BUREAU COPY 136278 DEC 03 2009
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 DELOEMBA

11N20W23AC

FORM NO. 908 (1-9-95)

WELL LOG REPORT

File No. 6343

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

1. WELL OWNER
Name Beth Henderson

2. CURRENT MAILING ADDRESS
P.O. Box 864 Lolo, Mt. 59847

3. WELL LOCATION COS#329
 Section 23
 Township 11N N1/4 SW N1/4 NE N1/4 Section
 Range 20W EW County Missoula
 Gov't Lot _____ or Lot _____ Block _____
 Subdivision Name _____
 Tract Number _____

4. PROPOSED USE: Domestic Stock Irrigation
 Other specify _____

5. TYPE OF WORK:
 New well Method: Dug Bored
 Deepened Cable Driven
 Reconditioned Rotary Jetted

6. DIMENSIONS: Diameter of Hole
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
 Casing: Steel Dia. 6" from +2 ft. to 56 ft.
 Threaded Welded Dia. _____ from _____ ft. to _____ ft.
 Type A53B Wall Thickness .250
 Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
 Weight _____ Dia. _____ from _____ ft. to _____ ft.
 PERFORATIONS: Yes No
 Type of perforator used _____
 Size of perforations _____ in. by _____ in.
 _____ perforations from _____ ft. to _____ ft.
 _____ perforations from _____ ft. to _____ ft.
 _____ perforations from _____ ft. to _____ ft.
 SCREENS: Yes No
 Manufacturer's Name _____
 Type _____ Model No. _____
 Dia. _____ Shot size _____ from _____ ft. to _____ ft.
 Dia. _____ Shot size _____ from _____ ft. to _____ ft.
 GRAVEL PACKED: Yes No Size of gravel _____
 Gravel placed from _____ ft. to _____ ft.
 GROUTED: To what depth? _____ ft.
 Material used in grouting Bentonite. Sealed as rec

8. WELL HEAD COMPLETION:
 Pitless Adapter Yes No

9. PUMP (if installed)
 Manufacturer's name _____
 Type _____ Model No. _____ HP _____

10. WELL TEST DATA
 The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
 All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
 a) Air Pump _____ Bailer _____
 b) Static water level immediately before testing _____ ft. If flowing; closed-in pressure _____ psi. _____ gpm.
 Flow controlled by: _____ valve, _____ reducers, _____ other, (specify) _____
 c) Depth at which pump is set for test: _____
 d) The pumping rate: _____ gpm
 e) Pumping water level _____ ft. at _____ hrs. after pumping began.

f) Duration of test: Pumping time 1 hrs.
 g) Recovery time 17.2 hrs.
 h) Recovery water level _____ ft. at 1 hrs. after pumping stopped.
 Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge of least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.
 NOTE: All wells shall be equipped with an access port 1/2 inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

11. WAS WELL PLUGGED OR ABANDONED? Yes No _____
 If yes, how? _____

12. WELL LOG
 Depth (ft.)
 From To Formation
 0 1 soil
 1 5 sand, gravel
 5 58 sand, gravel

13. YELLOWSTONE CLOSURE AREA: WATER TEMPERATURE _____

14. DATE COMPLETED 11-7-95

15. DRILLER/CONTRACTOR'S CERTIFICATION
 This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
 Date 11-22-95
 Jerome's Drilling Co., Inc.
 Firm Name
 P O Box 4845, Missoula, MT 59806
 Address
 Signature Robert Jerome 249 License No. _____

ATTACH ADDITIONAL SHEETS IF NECESSARY

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1520 EAST SIXTH AVENUE P.O. BOX 202301 HELENA, MONTANA 59620 - 2301 444-6610

DNRC

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DEPARTMENT - BUREAU COPY

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11N20W23 CAA
MONTANA WELL LOG REPORT

142413
 Well ID#

Form No. 603 R2-09

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:
 Name RINK SOLI OFFSHORE
 Mailing Address 19400 Hwy 93
Flowertown MT 59733

2. WELL LOCATION: List ¼ from smallest to largest
1/4 NE ¼ SW ¼ Sec 23
 Township 11N Range 20W County Missoula
 Lot _____ Tract/Block _____ Subdivision Name _____
 Well Address _____
 GPS: Yes No
 Latitude _____ Longitude _____
 Enter as reported by GPS locator (+ feet)
 Horizontal datum (NAD83) WGS84

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other: _____

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
 Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:
Borehole:
 Dia. 6 in. from RT ft. to 16 ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.
Casing:
 Steel: Wall thickness 2.50 Threaded Welded
 Dia. 6 in. from _____ ft. to 16 ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Plastic: Pressure Rating _____ lbs. Threaded Welded
 Dia. _____ in. from _____ ft. to _____ ft.
Perforations/Slotted Pipe:
 Type of perforator used Tool
 Size of perforations/slots 1/4 in. by 6 in.
12 no. of perforations/slots from _____ ft. to _____ ft.
 _____ no. of perforations/slots from _____ ft. to _____ ft.
Screens: Yes No
 Material _____
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Gravel Packed: Yes No
 Size of gravel _____
 Gravel placed from _____ ft. to _____ ft.
Packer: Yes No
 Type _____ Depth(s) _____
Grout: Material used Portland
 Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:
 A well test is required for all wells. (See details on well log report cover.)
 Static water level 60 ft. below top of casing or
 Closed-in artesian pressure _____ psi.
 How was test flow measured:
 bucket/stopwatch, weir, flume, flowmeter, etc. _____
 Yellowstone groundwater closure area only - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
 Drawdown is the amount water level is lowered below static level.
 All depth measurements shall be from the top of the well casing.
 Time of recovery is hours/minutes since pumping stopped.

Air test*
45 gpm with drill stem set at 45 ft. for 1 hours
 Time of recovery _____ hrs/min. Recovery water level 6 ft.

OR Baller test*
 _____ gpm with _____ ft. of drawdown after _____ hours
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*
 Depth pump set for test _____ ft.
 _____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*
 _____ gpm for _____ hours
 Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: PE

Depth, Feet		Material: color/rock and type/descriptor (example: blueshale/hard, or brown/gravel/water, or brown/sand/heaving)
From	To	
0	1	Topsoil
1	16	Hard gravel (red)

ADDITIONAL SHEETS ATTACHED
8. DATE WELL COMPLETED: 4-3-00
9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:
 All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
 Name, firm, or corporation (print) Frank J. King
 Address 1200 1st St NW
 Signature _____
 Date 4-7-00 License no. _____

LIN 20W 23 CB
MONTANA WELL LOG REPORT

Form No. 603 (2-99)

Well ID# 2000

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:
Name Scott Garbarguth
Mailing address 19100 Old Highway 93
Biocence Montana 59833

2. WELL LOCATION List it from smallest to largest
Twp 23N Range 20E County Mussouri
Lot 1 Tract/Block Subdivision Name
Well Address _____
GPS: Yes No
Latitude _____ Longitude _____
Elev as reported by GPS locator (± feet) _____
Horizontal datum: NAD83 WGS84

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other:

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
Method: Cable Rotary Other:

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Casing:
Steel: Wall thickness .250 Threaded Welded
Dia. 6" in. from 72 ft. to 100 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Plastic: Pressure Rating _____ lbs. Threaded Welded
Dia. _____ in. from _____ ft. to _____ ft.
Perforations/Slotted Pipe:
Type of perforator used _____
Size of perforations/slots _____ in. by _____ in.
No. of perforations/slots from _____ ft. to _____ ft.
no. of perforations/slots from _____ ft. to _____ ft.
Screens: Yes No
Material _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Gravel Pack: Yes No
Size of gravel _____
Gravel placed from _____ ft. to _____ ft.
Packer: Yes No
Type _____ Depth(s) _____
Grout: Material used _____
Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (See details on well log report cover)
 Static water level _____ ft. below top of casing or
 Closed-in artesian pressure _____ psi.
How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc _____
Yellowstone Controlled Groundwater Area - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing
Time of recovery is hours/minutes since pumping stopped.
Air test*
_____ gpm with drill stem set at _____ ft. for _____ hours.
Time of recovery _____ hrs/min. Recovery water level _____ ft.
OR Baller test*
_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.
OR Pump test*
Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.
OR Flowing Artesian*
_____ gpm for _____ hours
Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: PE

Depth Feet		Material
From	To	color/rock and type descriptor (e.g. blue/shale/mud, or brown/gravel/sand, or brown/sand/shallow)
0'	24'	
24'	33'	Sand & gravel
33'	100'	Gray & yellow clay, Sand & pea gravel seams
		no water encountered

ADDITIONAL SHEETS ATTACHED
8. DATE WELL COMPLETED: 3-30-13
9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Joe's Drilling Co.
Address P.O. Box 10320 Missoula Montana 59809
Signature [Signature]
Date 11-5-13 License no. 2000



Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6610

DEPARTMENT - BUREAU COPY

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207560
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DEQUEMB

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NE Corner of Pasture

MONTANA WELL LOG REPORT

Form No. 902 RS-04

Well ID#

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. This form is to be completed by the driller and filed with M&G within 90 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Record additional information in the REMARKS section.

1. WELL OWNER:
Name: Scott Susan Leibenguth
Mailing address: 19100 Old Hwy 93 S. Florence MT. 59833

2. WELL LOCATION: List 1/4 from smallest to largest.
Section NW 1/4 SW 1/4 Section 23
Township 14N Range 20E County Missoula
Well Name: Blue Hill Pasture

OK

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
Method: Cable Rotary Other

5. WELL CONSTRUCTION DETAILS:

Borehole:
Dia. 6 in. from 6.5 ft. to 8.0 ft.
Dia. in. from ft. to ft.
Dia. in. from ft. to ft.

Casing:
Steel: Wall thickness .250 Threaded Welded
Dia. 6 in. from 7.2 ft. to 8.0 ft.
Dia. in. from ft. to ft.

Plastic: Pressure Rating _____ lb. Threaded Welded
Dia. in. from ft. to ft.

Perforations/Slotted Pipe:
Type of perforator used Hammer
Size of perforations/slots 3/16 in. by 1 in.
5 no. of perforations/slots from 31 ft. to 26 ft.
no. of perforations/slots from ft. to ft.

Screens: Yes No
Material _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No
Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Packer: Yes No
Type _____ Depth(s) _____

Grout: Material used Bentonite
Depth from _____ ft. to _____ ft. OR Continuous feed

8. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 31 ft. below top of casing or
 Closed-in artesian pressure _____ psf

How was test flow measured:
bucket stopwatch, well, flume, flowmeter, etc.

Yellowstone Controlled Groundwater Area - Water Temperature _____
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum:
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.

Art test:
8 gpm with draw down set at 40 ft. for 2 hours
Time of recovery 10 hrs/min. Recovery water level 31 ft.

OR Bailer test:
_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test:
Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian:
_____ gpm for _____ hours
Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the recovery of the well casing.

7. WELL LOG:

Depth, Feet		Material:
From	To	color/rock and type/descriptor (examples: blue/white/hard, or brown/gravel/water, or brown/sand/heaving)
0	1	Soil
1	31	Sand Gravel Boulders
31	36	Blue Clay of Missoula
36	40	Clay toward top of well

ADDITIONAL SHEETS ATTACHED
9. DATE WELL COMPLETED: 4/22/08
REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print): Jones Brothers
Address: Box 1000
Signature: _____
Date: 11/30/08 License no. 600

Montana Bureau of Mines & Geology
The University of Montana
1500 West Park Street
Butte, MT 59701

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MIN 2.00W, 2-5C B
MONTANA WELL LOG REPORT

Form No. 603 (2-94)

Well ID# PE 251

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with MBMG within 90 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For facts that are not applicable, enter NA. Record additional information in the REMARKS section.

1. WELL OWNER:
 Name: Scott, Susan Leibinguth
 Mailing address: 19100 Old Hwy 93 S.
 Flamingo MT 59833

2. WELL LOCATION: List % from smallest to largest
 Township: 11 N 15 E Range: 20 E County: Missoula

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
 Method: Cable Rotary Other

5. WELL CONSTRUCTION DETAILS:
 Borehole:
 Dia. 6 in. from 52 ft. to 80 ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Casing:
 Steel: Well thickness 3/8" Threaded Welded
 Dia. 6 in. from 12 ft. to 80 ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating _____ lbs. Threaded Welded
 Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:
 Type of perforator used: Helke
 Size of perforations/slots: 1/16 in. by 1 in.
5 no. of perforations/slots from 24 ft. to 51 ft.
 _____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No
 Material: _____
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No
 Size of gravel: _____
 Gravel placed from _____ ft. to _____ ft.

Packer: Yes No
 Type: _____ Depth(s): _____

Grout: Material used: Bentonite
 Depth from _____ ft. to _____ ft. OR Continuous lead

8. WELL TEST DATA:
 A well test is required for all wells. (See details on well log report cover.)
 Static water level 33 ft. below top of casing or
 Closed-in artesian pressure _____ psi.
 How was test flow measured:
 _____ buret/topwatch, weir, flume, flowmeter, etc.
 Yellowstone Controlled Groundwater Area - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
 Drawdown is the amount water level is lowered below static level.
 All depth measurements shall be from the top of the well casing.
 Time of recovery is hours/minutes since pumping stopped.

Air test*
 _____ gpm with drill stem set at _____ ft. for _____ hours
 Time of recovery _____ hr/min. Recovery water level _____ ft.

OR Beller test*
 _____ gpm with _____ ft. of drawdown after _____ hours
 Time of recovery _____ hr/min. Recovery water level _____ ft.

OR Pump test*
 Depth pump set for test _____ ft.
 _____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
 Time of recovery _____ hr/min. Recovery water level _____ ft.

OR Flowing Artesian*
 _____ gpm for _____ hours
 Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. The rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: PE

Depth, Feet		Material: color/rock and type/descripter (example blue/shale/hard or brown/gravel/sand, or brown/sand/clay)
From	To	
0	1'	Gravel
1'	24'	Sand, gravel, bentonite
24'	30'	Bentonite
30'	51'	Horizontal sand, bentonite
51'	80'	Bentonite clay

RECEIVED
 Aug 31 2008
 MBMG

ADDITIONAL SHEETS ATTACHED
8. DATE WELL COMPLETED: 4/24/08
9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:
 All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
 Name, firm, or corporation (print): _____
 Address: _____
 Signature: _____
 Date: 4/24/08 License no: 600

Montana Bureau of Mines & Geology
 The University of Montana
 1300 West Park Street
 Butte, MT 59701

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246595
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MONTANA WELL LOG REPORT

Form No. 603 R2-00

Well ID# _____

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 90 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:

Name EARL REIMER

Mailing address 2526 Sunset Ln.

Missoula Mt. 59804

2. WELL LOCATION: List ¼ from smallest to largest

Township 11N Range 20E County Missoula

Section 26

Lot _____ Tract/Blk _____ Subdivision Name _____

Well Address _____

GPS Yes No

Latitude _____ Longitude _____

Error as reported by GPS locator (± feet) _____

Horizontal datum NAD27 WGS84

3. PROPOSED USE: Domestic Stock Irrigation

Public water supply Monitoring Well Other: _____

4. TYPE OF WORK:

New well Deepen existing well Abandon existing well

Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:

Borehole:

Dia. 9 1/2 in. from 0 ft. to 20 ft.

Dia. 7 1/4 in. from 20 ft. to 60 ft.

Dia. _____ in. from _____ ft. to _____ ft.

Casing:

Steel: Wall thickness 3/16 Threaded Welded

Dia. 6 5/8 in. from +2 ft. to 60 ft.

Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating NA lbs. Threaded Welded

Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:

Type of perforator used HOLTE

Size of perforations/slots 1/2 in. by 1/2 in.

24 no. of perforations/slots from 31 ft. to 39 ft.

_____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No

Material _____

Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No

Size of gravel _____

Gravel placed from _____ ft. to _____ ft.

Packer: Yes No

Type _____ Depth(s) _____

Grout: Material used benzene

Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 156 ft. below top of casing or

Closed-in artesian pressure _____ psi.

How was test flow measured:

Duck/Hopman weir, flume, flowmeter, etc _____

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level.

All depth measurements shall be from the top of the well casing.

Time of recovery is hours/minutes since pumping stopped.

Air test*

15 gpm with drill stem set at 40 ft. for 1 hours

Time of recovery 15 hrs/min. Recovery water level 156 ft.

OR Geller test*

_____ gpm with _____ ft. of drawdown after _____ hours

Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*

Depth pump set for test _____ ft.

_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping

Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*

_____ gpm for _____ hours

Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG:

Depth, Feet	Material:	
	From	To
0	3	Soil
3	15	Sand silt
15	45	concrete sand, brown & clay w/ water
45	60	concrete sand w/ water

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M.B.M.G.

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 12/28/06

9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) Schickel Building, Inc.

Address PO Box 445 ALBERTA MT 59210

Signature [Signature]

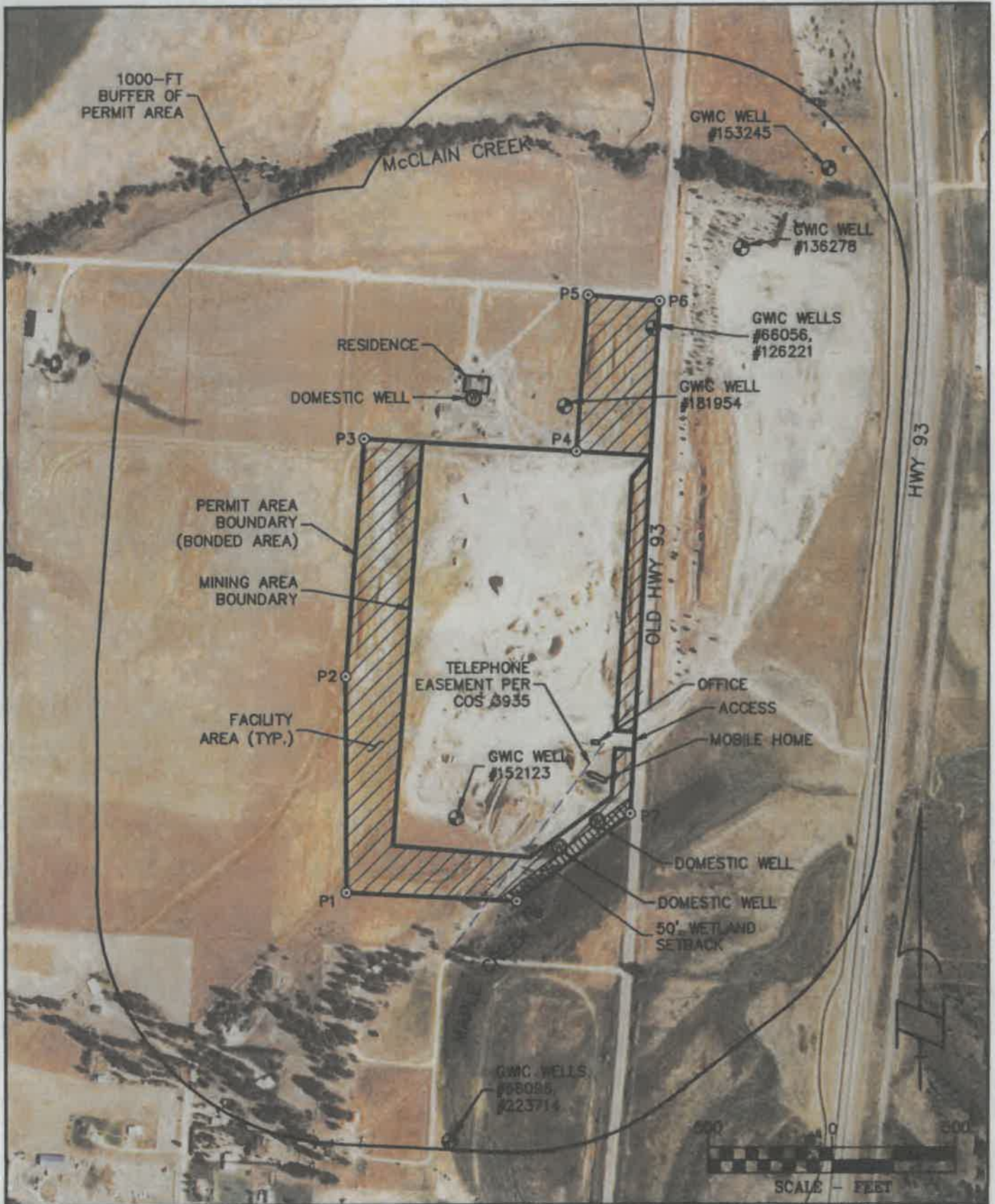
Date 1-15-06 License no. 552

Montana DNRC P.O. BOX 201601 HELENA, MT 59820-1601 444-6610

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MAP 2 - SITE MAP
 OPERATOR NAME: STAN HENDRICKSEN
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

WCGM
GROUP
 ENGINEERING SURVEYING & PLANNING
 111 EAST BROADWAY • MISSOULA, MT 59802
 TEL: 406-543-4444 FAX: 406-543-4444

PROJECT: 14-09-07
 FILE No: 140907sch-01a map.dwg
 FILE PATH:
 \\Vp\proj\140907\01a\01a\140907.dwg
 LAYOUT: layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: CES
 APPROVE: MJS
 DATE: DECEMBER 2014
 SHEET 13/32 (38%)

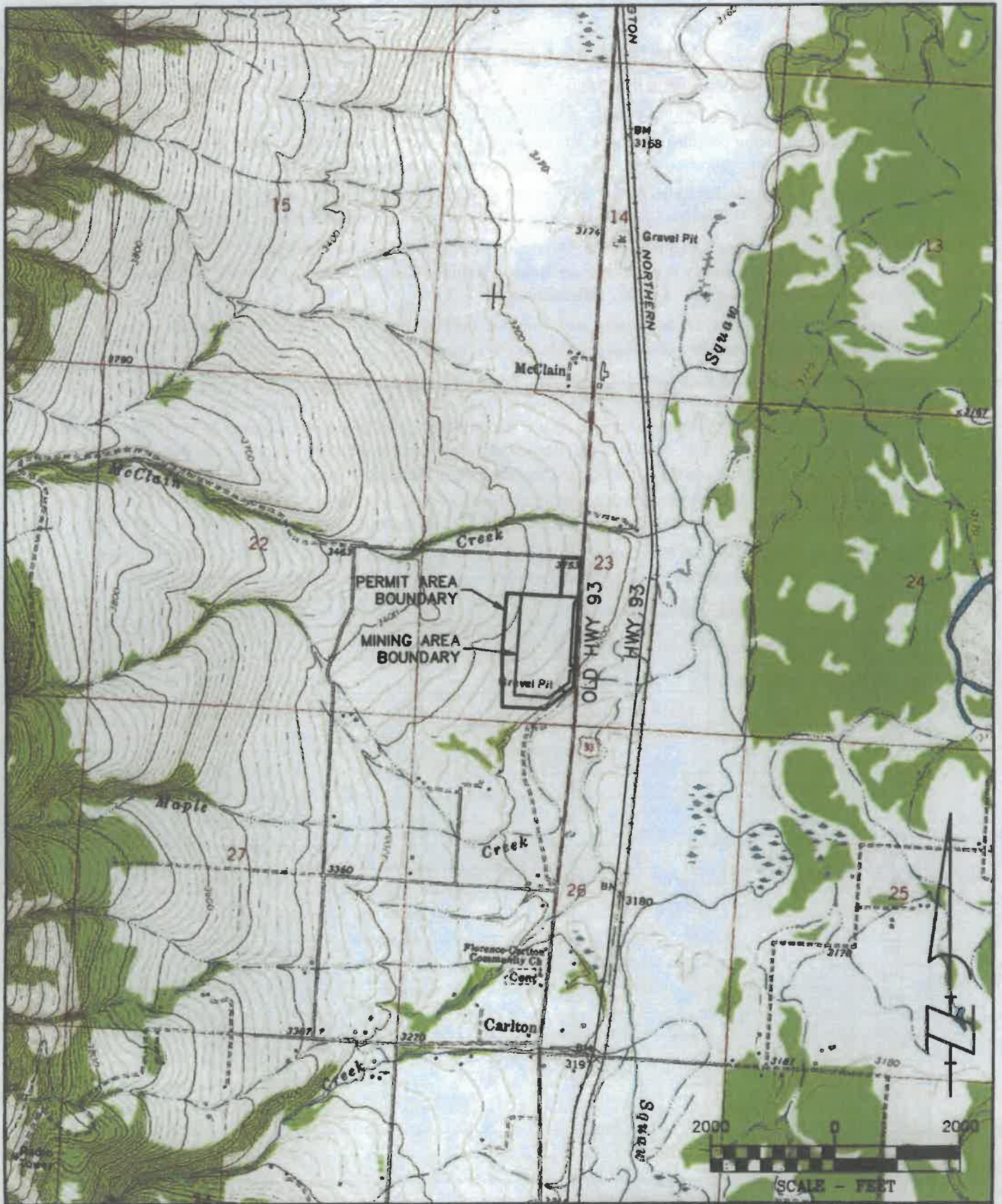


GRAVEL PIT PERMIT BOUNDARY MAP
 OPERATOR NAME: STAN HENDRICKSEN
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

MGM
GROUP
 ENGINEERING SURVEYING & PLANNING
 1111 EAST BROADWAY • MISSOULA, MT 59802
 TEL: 406-738-4111 • FAX: 406-738-3476

PROJECT: 14-09-07
 FILE No: 140907.mxd - gravel pit boundary.dwg
 FILE PATH: \\projects\140907\140907.dwg
 LAYOUT: Layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: GEG
 APPROVE: MJS
 DATE: DECEMBER 2014
 SHEET: 14 OF 1 SHEETS

RECEIVED BY OPENCOAT 12/26/14



MAP 1 - VICINITY MAP
 OPERATOR NAME: STAN HENDRICKSEN
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

MGMI
GROUP
 ENGINEERING SURVEYING PLANNING
 1111 EAST BROADWAY • MISSOULA, MT 59802
 TEL: 406-728-4611 • FAX: 406-728-2676

PROJECT: 14-09-07
 FILE No: 140807ash-velocity map.dwg
 FILE PATH:
 C:\Program Files\AutoCAD 2014\Projects\140807ash-velocity map.dwg
 LAYOUT: Layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: CEG
 APPROVE: MJS
 DATE: DECEMBER 2014
 SHEET: 1 OF 1 SHEETS

RECEIVED BY OPENCUT 12/23/2014

PERMIT BOUNDARY COORDINATES TABLE

USED FOR PERMIT, AMENDMENT, REQUEST TO COMMENCE or RELEASE REQUESTS ONLY

Purpose of this Boundary Coordinate Form: Amendment Application

- 1) Use this form to submit coordinates to delineate a **Permit** or an **Amended Permit** boundary when submitting a **Permit or Amendment** application, **Request to Commence** form or **Release Request** table.
- 2) When providing coordinates for an **Amended Permit** boundary, you must include coordinates that delineate the **entire** proposed new boundary (i.e. existing permitted boundary plus proposed amendment area).
- 3) When submitting a **Release Request**, you must use this spreadsheet to provide coordinates of your existing or proposed "new" permit boundary in addition to the **Release Request Coordinate** table to provide coordinates for the proposed **Bond Reduction** and/or **Acreage Release** area(s).
- 4) If you will have **Bonded** and **Non-Bonded** area, complete the **Non-Bonded Boundary Coordinates** table - **in addition** to the **Permit Boundary Coordinates** table (i.e. this form).
- 5) Use this form to delineate Permitted Access Roads. When delineating permitted access roads, place the coordinates after the boundary coordinates and label them as "Access Road" in the "Description" column.
- 6) Coordinates **must** be in geographic sequence, so that the proposed permit boundary is created by connecting Map ID# P1 to Map ID #P2 to Map ID #P3, etc. The Map ID# for each coordinate must be shown on the site map or a separate BCT map (e.g. P1, P2, P3, etc.). Coordinates must be submitted in **Decimal Degrees** and **WGS 84** datum.
- 7) The "Longitude" column **must** contain negative numbers. Do not put anything but the coordinate in the Lat or Long boxes (i.e. no "N" or "W", etc.). Coordinates should be in this format Latitude 46.58946 & Longitude -112.00480
- 8) Email the completed Microsoft Excel table to: DEQopencut@mt.gov with "Subject" line: **BCT (Operator-Site Name)**. Do **not** include a printed version of this table with the paper application submitted to the Helena office.

Operator Name: Stan Hendricksen

Site Name: Hendricksen Pit

Permit # (if not a new app) 1314 Date: 12/19/2014

MAP ID#	LATITUDE	LONGITUDE	DESCRIPTION (not required)
Center	46.69288	-114.07996	Approximate Center of Site
P1	46.69041	-114.08219	
P2	46.69277	-114.08240	
P3	46.69536	-114.08232	
P4	46.69536	-114.07893	
P5	46.69707	-114.07888	
P6	46.69704	-114.07774	
P7	46.69145	-114.07773	
P8	46.69042	-114.07947	
P9		-	
P10		-	
P11		-	
P12		-	
P13		-	
P14		-	
P15		-	
P16		-	
P17		-	
P18		-	
P19		-	
P20		-	
P21		-	
P22		-	
P23		-	

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
INDUSTRIAL & ENERGY MINERALS BUREAU
PO BOX 200901
HELENA MT 59620-0901
PHONE: 406 444-4970 FAX: 444-1923

Operator: _____

Permit Number: _____
(Provided By The Department)

VERIFICATION OF NOXIOUS WEED CONTROL PLAN

(To be submitted as part of an application for a Mined Land Reclamation Permit)

Stan Hendricksen (operator) has submitted and received approval for a plan to control noxious weeds on land to be disturbed by and permitted for, Opencut Mining operations in the SW 1/4 SW 1/4, Section 23, Township 11N N/S, Range 20W E/W, Missoula County. [See exception below]

Subject land is owned by: Stan Hendricksen
Name

_____ for _____ County Weed District
Name

_____ Date

THIS SECTION TO BE COMPLETED ONLY IF APPLICANT IS UNABLE TO SECURE AN APPROVED NOXIOUS WEED CONTROL PLAN

Applicant affirms that he/she has attempted to secure a noxious weed control plan as indicated above, but that for unspecified reasons, the respective weed district was unavailable for consultation and direction. Applicant further affirms respective weed district was notified but was unable to approve or provide a noxious weed control plan within five (5) working days of notification.

Enclose documentation such as certified mail receipt with copy of letter and/or request to meet, or sworn statement that a weed district representative verbally declined to meet.

Stan Hendricksen
Applicant's Signature

I hereby swear that I did verbally contact the Missoula Co. weed district, on Oct. 13 (date) but said district was unable to provide or approve a Noxious Weed Control Plan within five (5) working days of the aforementioned date.

Julie A. Merritt
Notary
Julie A. Merritt

Julie A. Merritt
Signature

This verification does not exempt the operator from controlling noxious weeds on any lands permitted under the Opencut Mining Act.

JULIE A. MERRITT
Notary Public
State of Montana
Residing at Missoula, MT
My Comm. Expires
January 26, 2011.



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DEC 05 2009
Opencut Mining 10/9/

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October 13, 2009

Weed Control District
2825 Sante Fe Court
Missoula, Mt. 59808

Attention: Bill Otten:

I am sending this DEQ Weed Compliance form to you. If a site evaluation at the Gravel Pit is the next step, please give us a call when you are in the Lolo-Florence area and we can meet with you on site at your convenience.

If it would be more effective, we can get a plan in place for control spraying of knapweed in the spring.

Please give me a call so we can get some plan in effect for the DEQ operation.

Sincerely,

Stan Hendricksen

Stan Hendricksen
Home 406 273 6767
Cell 406 239 5808

2:45 PM 10/13/09

Thanks for your phone
call. I hope to meet
with you on Thursday

RECEIVED

DEC 03 2009

DEQ/IEMS

FAXED with DEQ weed form - 4pp 5:55 10/13/09 RECEIVED BY OPENCUT 10/20/2014

Reclamation Bond Spreadsheet

INSTRUCTIONS: Enter your data in the shaded boxes. See page 3 for detailed instructions.

Operator:	Stan Hendricksen
Site:	Hendricksen Pit
Prepared by:	PBS&J
Date:	4/14/2010

Acresage Breakdown

Mine Area	31.0	acres
Facility Area	19.0	acres
Access Roads		acres
Partial Release Area	0.0	acres
Undisturbed		acres
Total permit area	50.0	

Comments:

Highwall reduction, backfilling, soil and overburden replacement

Highwall cut/fill (describe)	linear feet	height	slope ratio	cubic yards	
	600	80	3:1	30,000	total
			:1	0	30,000

Highwall backfill (describe)					
			:1	0	total
			:1	0	0

Pit backfill (describe)	acres	depth	compaction %	cubic yards	
				0	total
				0	0

mine soil and OB replacement	12	inches soil	6	inches overburden	total	18
facility soil replacement	12	inches soil			total	12
access road soil replacement		inches soil			total	0

ITEM	UNIT	AMOUNT	RATE	TOTAL
highwalls and backfill		30,000	cu yds	
			\$1 per cubic yard	\$30,000
mine area grading		31.0	acres	
			\$200 per acre	\$6,200
mine area ripping		31.0	acres	
			\$100 per acre	\$3,100
mine soil and OB replacement	18	inches	\$135 per inch/per acre	\$75,330
facility area grading		19.0	acres	
			\$100 per acre	\$1,900
facility area ripping		19.0	acres	
			\$100 per inch/per acre	\$1,900
facility soil replacement	12	inches	\$135 per inch/per acre	\$30,780
access road area grading		0.0	acres	
			\$100 per acre	\$0
access road area ripping		0.0	acres	
			\$100 per inch/per acre	\$0
access road soil replacement	0	inches	\$135 per inch/per acre	\$0
seeding or other revegetation		50.0	acres	
			\$200 per acre	\$10,000
fencing			linear ft	
			\$1 per linear foot	\$0
weed control		50.0	acres	
			\$100 per acre	\$5,000
asphalt or concrete recycle pile			cu yds	
			miles	
			\$0.20 per cubic yard/mile	\$0
partially released acres		0.0	acres	
			\$300 per acre	\$0
undisturbed acres		0.0	acres	
			\$0 per acre	\$0
other				\$0
other				\$0

mobilization	3	loads	30.0	miles	\$9.00	per round trip mile	\$810
round trip miles to the town of	Missoula						

DEQ administrative costs - 10% of subtotal \$16,502

Total acreage = 50.0 Per acre rate = \$3,630.44 Total bond = \$181,522

RECEIVED

APR 16 2010

DEQ/EMD

RECEIVED BY OPENCUT 10/20/2014

ADDITIONAL WELL DATA

Use this form only if there is not adequate space in the *Opencut Mining Plan of Operation and Application* to provide the well log information required. Include information obtained from surrounding well logs located within 1,000 feet of the permit boundary.

Note: Well locations within 1,000 feet of the permit boundary must be shown on the *Site Map* or another map attached to the *Opencut Mining Plan of Operation and Application*.

Operator: Stan Hendricksen

Site Name: Hendricksen Pit

Permit # (if an amendment) 8/6/1903

Well I.D. on Site Map	Well Owner	Distance & Direction from Main Permit Area Boundary	Total Well Depth (feet)	Static Water Level (feet)	Use	Log Attached	Comments
244593	Lehenguth Scott and Susan	900' West	80.0	33.0	Domestic	No	Well Log in Previously Approved Application

RECEIVED BY OPENCUT 11/03/2014

TELEPHONE MEMO

DATE: December 17, 2014
TO/FROM: David Smith, Century Link
LOGGED BY: Mike Smith *MJS* 12/18/14
RE: Telephone Utility Lines

I called Mr. Smith to inquire about Century Link utility easements and setbacks for the Hendricksen Pit Property located in Lolo, Montana. Mr. Smith noted that the easements along this route were established, if at all, likely back in the early 1800's and pertained to "open wire" lines running up the Bitterroot Valley. Being so old, no setbacks and slope requirements were likely to exist. Mr. Smith also noted that most all of Century Link's above ground lines in the area were in the process of being removed, as they were no longer needed for service. The lines in this particular area are tentatively scheduled for removal in the winter of 2015, weather and schedule permitting.

NOTE (added 12/18/14) See also December 18, 2014 email from David Smith *MJS*

Michael J. Smith

From: Smith, David R [<mailto:David.Smith3@CenturyLink.com>]
Sent: Thursday, December 18, 2014 11:44 AM
To: Brown, David A
Cc: Michael J. Smith
Subject: RE: Telephone Lines

I would like to add that Centurylink is anticipating removal of the aerial cable and poles in the winter of 2015.

CenturyLink

David R Smith
Engineer II
Missoula District
1515 S 14th W
Missoula, Montana 59801
Office: 406-543-2175
Cell: 406-218-9081
Email: david.smith3@centurylink.com

From: Smith, David R
Sent: Wednesday, December 17, 2014 2:25 PM
To: Brown, David A
Cc: 'MSmith@wgmgroup.com'
Subject: RE: Telephone Lines

Mike,

We can't really provide any in depth easement information here locally.

And yes, Centurylink is in the process of removing the aerial lead along the Old Hwy 93 to Sun Valley Rd.

Thanks, Dave

CenturyLink

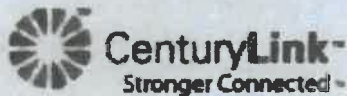
David R Smith
Engineer II
Missoula District
1515 S 14th W
Missoula, Montana 59801
Office: 406-543-2175
Cell: 406-218-9081
Email: david.smith3@centurylink.com

From: Brown, David A
Sent: Wednesday, December 17, 2014 2:06 PM

To: 'Michael J. Smith'
Cc: Smith, David R
Subject: RE: Telephone Lines

I believe Mr. Smith might be able to assist you with that; he is copied on this mail.

Dave Brown
Area Plant Supervisor
Missoula/Bitterroot Valley
1515 S.14th St.W
Missoula, MT 59801
Office: 406-543-2110
Mobile: 406-396-4484
Fax: 406-543-2205
david.brown5@centurylink.com



From: Michael J. Smith [<mailto:msmith@wgmgroup.com>]
Sent: Wednesday, December 17, 2014 2:02 PM
To: Brown, David A
Subject: Telephone Lines

Hello David,

I'm Mike Smith with WGM and I am working on a project that requires me to identify utility easements across a property located in Lolo. I hope that you are the right person to help me with this information. If not please let me know if you have a contact person that may help me. Here is my question:

I am trying to identify any easements, setback requirements, and maximum allowable slopes within the easements for any and all utilities across on near my subject property, which is the Hendricksen Gravel Pit located 18715 to 18745 Old US Highway 93 S in Lolo, MT. I have talked to Stan Hendricksen and he tells me that there are some "old telephone lines that are scheduled to come down" on the east portion of the property.

I got your email address from Jeff Smith here in the WGM office (I apologize for not calling, I don't have your phone number!) and hope you can help me. Please call or email me with any insight you may be able to provide. My office phone number is 406-728-4611, and my cell phone is 406-493-2060. Thank you very much in advance, I look forward to talking with you.

Mike Smith

*Michael J. Smith
Sr. Environmental Scientist*



1111 E. Broadway
Missoula • MT • 59802
E-mail: MSmith@wgmgroup.com
406-728-4611 x 153 • FAX: 406-728-2476

OPERATOR APPLICATION CHECKLIST

Operator: Stan Hendricksen

Site: Hendricksen Pit

INSTRUCTIONS

1. Read the document *How to Obtain and Comply with an Opencut Mining Permit*.
2. Obtain current application forms at <http://www.deq.mt.gov/Opencut/Opencutpermitforms.mcp.x>.
(If outdated forms are received the Operator will be required to resubmit using current forms.)
3. Use the Completeness Checklist below to confirm which documents you need to submit.
4. Use the Acceptability Checklist below to confirm your documents are complete, accurate, and consistent.
5. Submit this checklist and all required application materials to the Opencut Mining Program in Helena.

COMPLETENESS CHECKLIST

All the following documents are required for a complete application, unless an exception listed below applies. Check the boxes at far left to indicate which documents you are submitting. If you believe an exception applies, mark the box at that exception and leave the box at far left empty.

1. **Operator Application Checklist** - This form
2. **Opencut Mining Plan of Operation and Application** for: a) permit or b) amendment (check one)
3. **Support Documents** - Use the checklist on page 1 of the *Opencut Mining Plan of Operation and Application* to verify that all support documents required or referenced in that *Plan* are attached.
Exception: Not required for amendment changing only final reclamation date, hours of operation, or similar procedural aspects that do not alter physical characteristics of site.
4. **Landowner Consultation** - Required for all land on which Opencut operations are proposed, including the main permit area, permitted access roads, and Non-Bonded areas.
Exception: Not required if the Operator is also the Landowner.
Exception: Not required for amendment if not adding acreage and not changing postmining land use.
5. **Zoning Compliance** - Attach copy of any license or permit required by the local governing body.
Exception: Not required to mine bentonite, clay, scoria, peat, or soil.
Exception: Not required for amendment if not adding acreage and not changing postmining land use.
6. **Surface Landowners List**
Exception: Not required for amendment adding less than 50% of the permitted acreage.
7. **Reclamation Bond & Spreadsheet**
Exception: Not required for amendment changing only final reclamation date, hours of operation, or similar procedural aspects that do not alter physical characteristics of site.
Exception: Not required for government operators.

ACCEPTABILITY CHECKLIST

1. **General:** Use the table below to verify that all required documents are filled in completely and consistently.
 - For documents 1-2, select **Yes** or **No** in each choice cell below, as appropriate.
 - For documents 3-7: a) if an exception box above is marked, select **No** for that entire row below; or b) if no exception box is marked (i.e. the document is required), select **Yes** or **No** in each choice cell below, as appropriate

Document	Required* Document	All Required Info Provided	Identical information is provided in each document:					Signed & Dated
			Operator Name	Site Name	Section Township & Range	Total Permit Acreage	Acreage Breakdown	
1 Application Checklist	(Y)	(Y)	(Y/N)	(Y/N)	(N/A)	(N/A)	(N/A)	(N/A)
2 Plan of Operation & Application	(Y)	(Y/N)	(Y/N)	(Y/N)	(Y/N)	(Y/N)	(Y/N)	(Y/N)
3 Support Documents	Y(N)	Y/N	Y/N	Y/N	Y/N	N/A	N/A	Y/N
4 Landowner Consultation	Y(N)	Y/N	Y/N	Y/N	Y/N	N/A	N/A	Y/N
5 Zoning Compliance	Y(N)	Y/N	Y/N	Y/N	Y/N	N/A	N/A	Y/N
6 Surface Landowners List	Y(N)	Y/N	Y/N	Y/N	Y/N	N/A	N/A	Y/N
7 Reclamation Bond & Spreadsheet	Y(N)	Y/N	Y/N	Y/N	Y/N	Y/N	N/A	Y/N

* - All required info is provided; blanks filled-in; boxes checked; or "none" indicated if that is the correct response.

2. Opencut Mining Plan of Operation and Application:

Section A – Application:

- Answers are complete, accurate, and consistent with maps, support documents, and the rest of the application.
- #6 - Section Township & Range includes main permit area, permitted access roads, and Non-Bonded areas.

Section B – Pre-mine Information:

- Answers are complete, accurate, and consistent with maps, support documents, and the rest of the application.
- The water well table in Subsection B9 is completed; a substitute table is not acceptable.

Section C – Site Preparation and Planning:

- Answers are complete, accurate, and consistent with maps, support documents, and the rest of the application.
- Both soil data tables in Subsection C2 are completed; substitute tables are not acceptable.
- Hours of operation in Subsection C4 were developed with consideration of neighboring land uses.
- Maps include Operator name, site name, legal description, bar scale, date of drafting, and north arrow.
- Maps have been double-checked against requirements of the Map Guideline.
- Microsoft Excel Boundary Coordinates Table has been emailed to DEQOpencut@mt.gov.
- The main permit area, permitted access roads, and Non-Bonded areas are marked on the ground.

Section D – Water Protection, Mining & Processing:

- Answers are complete, accurate, and consistent with maps, support documents, and the rest of the application.
- Proposed measures will protect groundwater quality and quantity (Subsections D1 & D2 in particular).
- Proposed measures will protect surface water quality and quantity (Subsections D1 & D2 in particular).
- Proposed measures will prevent significant physical harm to the affected land or adjacent land, structures, improvements, or life forms.
- Noise and visual impacts on residential areas will be minimized to the degree practicable through berms, vegetation screens, and reasonable limits on hours of operation.

Section E – Reclamation Plan:

- Answers are complete, accurate, and consistent with maps, support documents, and the rest of the application.
- All postmining land uses are identified and will constitute a productive use of the site (Subsection E2).
- Descriptions of proposed ponds are complete, thorough, and consistent with maps, support documents, and the rest of the application (Subsection E3).
- Revegetation measures are appropriate for the site (Subsection E6).
- The type and volume of mine material to remain for the Landowner constitutes a productive use of that stockpile area; the material will be accessible by road; and an adequate volume of topsoil will remain for the Landowner to eventually reclaim the stockpile area (Subsection E7).

Section F – Reclamation Bond Calculation:

- The *Reclamation Bond Spreadsheet* is complete, accurate, and consistent with the rest of the application, including the maps.
- If asphalt storage and recycling is proposed in Subsection D5, the *Reclamation Bond Spreadsheet* includes costs for crushing the maximum amount of asphalt debris permitted to be on-site. Not Applicable
- If creation or importation of supplementary soil or overburden is required, the *Reclamation Bond Spreadsheet* includes funds for those purposes. Not Applicable

Section G – Certification:

- The Certification is signed and dated.

3. Bonding (Non-Governmental operators only)

- The Operator Name and Site Name are identical to the names shown on pg. 1 of the *Opencut Mining Plan of Operation and Application*.
- The acreage on the bond is identical to the *Bonded Acres* shown in #A1-11 of the plan/app.
- The bond amount is equal to, or greater than, the *Total Bond* shown on the *Reclamation Bond Spreadsheet*.

Submit this checklist and all required documents to the Program in Helena as one package.

FILED

09/05/2024

Amy McGhee
CLERK

Missoula County District Court
STATE OF MONTANA

By: Latishia lang

DV-32-2024-0000810-OC

Deschamps, Robert L III

2.00

EXHIBIT S

Permit #: 1314

OPENCUT MINING PERMIT

Amendment #: 2

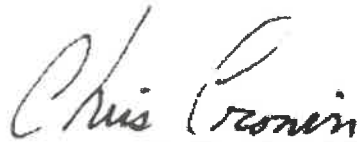
Pursuant to the Opencut Mining Act (MCA Title 82, chapter 4, part 4), the State of Montana, Department of Environmental Quality (DEQ) is authorized to issue Opencut Mining Permits when it finds the requirements of the Act and its implementing rules (ARM Title 17, chapter 24, subchapter 2) can be carried out and will be observed. The Act further authorizes the DEQ to issue permit amendments in accordance with Sections 82-4-422[1], 82-4-432[11], 82-4-434[5], and 82-4-436, MCA.

The DEQ issues this permit to **Stan Hendricksen** (Operator). The permit comprises a total of **50 acres** located in **Section 23, Township 11 N, Range 20 W** in **Missoula County**, Montana, to be known as the **Hendricksen Pit site**. The following provisions apply to this permit:

1. The DEQ approves the Operator's **amendment** application and incorporates it into the permit for all purposes. The Operator is hereby authorized to conduct Opencut operations in compliance with requirements of the permit, Act, and rules.
2. If the Operator violates the permit, Act, or rules the DEQ can take enforcement action which may include the assessment of penalties as specified in MCA 82-4-441.
3. The permit does not relieve the Operator's obligation to: *a)* comply with any other applicable federal, state, county, or local statutes, regulations, or ordinances, and *b)* obtain any other permits, licenses, approvals, etc. required for any part of the operation.
4. The Operator may allow another party to conduct Opencut operations only if the Operator: *a)* retains control over that party's activities and *b)* ensures there are no violations of the permit, Act, and rules. The Operator is accountable for violations at the permit site, even if the violations result from the activities of another person.
5. The Operator shall pay the annual fee on the total amount of materials mined at the site, including materials mined by other parties. The Operator's annual progress report shall indicate the total amount of materials mined.
6. The DEQ can only enforce requirements of the permit, Act, and rules. Therefore, Operator arrangements with another party (including the Landowner) should be stated in a separate written agreement between the two parties.
7. The Operator shall conduct reclamation: *a)* in accordance with the approved plan of operation; *b)* as concurrent with operations as feasible; and *c)* within one year of termination of the right to conduct operations, or the cessation of operations. If reclamation is not completed in the approved timeframe, after 30 days written notice the DEQ may order the Operator to cease operations. If operations do not cease, the DEQ may issue an order to reclaim, institute action to enjoin further operations, and sue for damages.
8. Unless the Operator is a governmental entity, a bond has been posted to ensure the site is reclaimed. If the site is not reclaimed as and when required, the DEQ may pursue forfeiture of the bond. If the bond is cancelled or invalidated, the Operator shall provide a valid bond within 30 days. If not provided, the DEQ may suspend the permit and require the Operator to cease operations.
9. The Operator may apply to amend the permit at any time. If approved, the amendment becomes part of the permit for all purposes. The DEQ may occasionally review the permit and require revisions.
10. The Operator shall allow the DEQ and its representatives to access the site at any time to determine if Opencut operations are being carried out in compliance with the permit, Act, and rules.
11. This permit is effective upon approval below by the DEQ.

NOTE: Due to historical circumstances when the preceding amendment was approved, the current Irrevocable Letter of Credit dated February 13, 2008 identifies a bonded acreage (72) and aggregate amount (\$259,748) that are greater than the current permitted acreage (50) and the bond amount (\$181,522) shown on the current Reclamation Bond Spreadsheet dated April 14, 2010.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY



Opencut Mining Program Supervisor

January 6, 2015

Industrial & Energy Minerals Bureau

Title

Date

EXHIBIT T

APPLICATION FOR ASSIGNMENT OF OPENCUT MINING PERMIT

Instructions:

1. Review the document *How To Obtain And Comply With An Opencut Mining Permit* available at <http://www.deq.mt.gov/opencut/forms/HowToObtain.pdf>.
2. Review the current permit documents. These may be available at <http://searchopencutpermits.mt.gov>. If not, email to DEQOpencut@mt.gov an information request including the current operator name, site name, and permit number.
3. Submit a *Request For Pre-Application Meeting* form if site-specific guidance from a Program scientist is desired.
4. Submit the following documents to the Opencut Mining Program in Helena as one package: a) Application, b) Reclamation Bond Spreadsheet, c) Reclamation bond, d) Amendment application, if required for the permit to meet current requirements or update it for proposed new operations.
5. Ensure the site boundary is marked on the ground (see Step 6, bullet 4 in *How To Obtain And Comply With An Opencut Mining Permit*).
6. All fields below must be completed. Write "none" if that is the correct response.


<p>1. Assignee (party assuming permit)</p> <p>a. Name: <u>Western Materials, LLC</u></p> <p>b. Address: <u>PO Box 4746</u> <u>Missoula, MT 59806-4746</u></p> <p>c. Office Phone: <u>(406) 728-8658</u></p> <p>d. Cell Phone: <u>(406) 360-8939</u></p> <p>e. Email address: <u>kwmtyty@westernexcavating.com</u></p>	<p>2. Person who will be familiar with the Plan of Operation and on-the-ground activities at the site:</p> <p>a. Name: <u>Kevin Mytty</u></p> <p>b. Office Phone: <u>(406) 728-8658</u></p> <p>c. Cell Phone: <u>(406) 360-8939</u></p> <p>d. Email address: <u>kwmtyty@westernexcavating.com</u></p>
<p>3. Assignor name: <u>Stan Hendricksen</u></p>	<p>4. Assignor phone number: <u>(406) 273-6767</u></p>
<p>5. Current permit number: <u>1314</u></p>	<p>6. Current permitted acreage: <u>50</u></p>
<p>7. Site name: <u>Hendricksen Pit</u></p>	<p>8. County: <u>Missoula</u></p>

9. Are the main permit area, access roads included in the permit, and Non-Bonded areas marked on the ground? (See Step 6, bullet 4 in *How To Obtain And Comply With An Opencut Mining Permit*)
- Yes No If No, this application is deficient and will not be processed.

ASSIGNOR CERTIFICATION

Assignor certifies the above information is true and correct. Assignor understands the permit will be transferred to the Assignee upon approval by the Department, and that the Assignee then assumes responsibility for all outstanding permit and site issues.

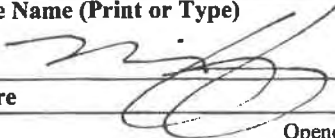
NOTE: The Assignor's bond will be released when this Assignment is approved by the Department.

STAN HENDRICKSEN	OPERATOR
Assignor Name (Print or Type)	Title
	1-12-15
Signature	Date

ASSIGNEE CERTIFICATION

Assignee understands that upon approval of this Assignment by the Department:

- Assignee assumes responsibility for all outstanding permit and site issues.
- Assignee is responsible for compliance with all terms of the permit, including all provisions of the plan of operation.
- The Opencut Mining Program may inspect the site to evaluate the existing permit, and may require submittal of an Amendment application to be processed concurrent with this Assignment application.
- The *Reclamation Bond* includes the cost for the Department to reclaim all previously disturbed land within the permit area.
- Assignee confirms that it has a complete copy of the approved permit and assignment materials.
- The Assignment does not become effective until approved by the Department.

KEVIN MYTTY	MEMBER
Assignee Name (Print or Type)	Title
	January 9 th , 2015
Signature	Date

RECEIVED JAN 23 2015

RECEIVED BY OPENCUT 01/23/2015

Reclamation Bond Spreadsheet

INSTRUCTIONS: Enter your data in the shaded boxes. See page 3 for detailed instructions.

Operator:	Western Materials, LLC
Site:	Hendricksen Pit
Prepared by:	Michael J. Smith, WGM Group, Inc.
Date:	1/9/2015

Total Permitted Acres = 50.0 **acres***
 *Must match the "Total Permitted Acres" in A1-10 of the Opencut Mining Plan of Operation & Application.

Comments:

BONDED ACREAGE BREAKDOWN

Must match the "Bonded Acres" in section A1-11 of the Opencut Mining Plan of Operation & Application.

Mine Area	31.0	acres
Facility Area	19.0	acres
Access Road		acres
Bond Reduction Area		acres
Total Bonded Area =	50.0	acres**

**The Total Bonded Area must be identical to the Bond submitted by the Operator to the Department.

Highwall reduction, backfilling, soil and overburden replacement

Lineal Feet & Height must match section D3-8 of Opencut Mining Plan of Operation & Application

Highwall cut/fill (describe)	linear feet	height	slope ratio	cubic yards	
	600	60	3:1	30,000	total
			:1	0	30,000

Highwall Backfill (e.g. to reclaim highwalls that will not or cannot be cut and filled during mining, etc.)

Description	linear feet	height	slope ratio	cubic yards	
			:1	0	total
			:1	0	0

Mine Material Backfill (e.g. bringing offsite material to the site for backfill, etc.)

Description	acres	depth	compaction %	cubic yards	
				0	total
				0	0

Mine soil replacement	12	inches soil	Overburden Replacement	6	inches OB	total	18
Facility soil replacement	12	inches soil	* Soil and overburden Inches much match section C2-2.				12
Access road soil replacement		inches soil				total	0

ITEM	UNIT	AMOUNT	RATE	TOTAL
Highwalls and backfill		30,000	\$1 per cubic yard	\$30,000
Mine area grading		31.0	\$200 per acre	\$6,200
Mine area ripping		31.0	\$100 per acre	\$3,100
Mine soil and OB replacement	18	31.0	\$135 per inch/per acre	\$75,330
Facility area grading		19.0	\$100 per acre	\$1,900
Facility area ripping		19.0	\$100 per inch/per acre	\$1,900
Facility soil replacement	12	19.0	\$135 per inch/per acre	\$30,780
Access road area grading		0.0	\$100 per acre	\$0
Access road area ripping		0.0	\$100 per inch/per acre	\$0
Access road soil replacement	0	0.0	\$135 per inch/per acre	\$0
Seeding or other revegetation		50.0	\$200 per acre	\$10,000
Fencing	linear ft		\$1 per linear foot	\$0
Weed control		50.0	\$100 per acre	\$5,000
Partially released acres		0.0	\$300 per acre	\$0
Cost to crush onsite asphalt	cu yds		\$4 per cubic yard	\$0
Cost to Purchase and Place Importation of Soil/Fill	cu yds		\$15 per cubic yard	\$0
Cost to Bond for Reject Fines	cu yds		\$1 per cubic yard	\$0
				\$0
				\$0
				\$0

Estimated Mobilization cost to move equipment to the site (DEQ's cost): \$3,000 \$3,000
 Estimated Administration Costs = 10% of total bond cost or \$5,000 (whichever is greater) \$16,721 \$16,721

Total Area Bonded = 50.0 **Rate Per Bonded Acre =** \$3,678.62 **TOTAL BOND =** \$183,931

EXHIBIT U

Permit #: **2681**

OPENCUT MINING PERMIT

Amendment #: **0**

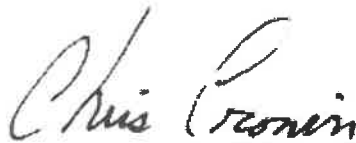
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The DEQ issues this permit to **Western Materials, LLC** (Operator). The permit comprises a total of **50 acres** located in **Section 23, Township 11 N, Range 20 W** in **Missoula County**, Montana, to be known as the **Hendricksen site**.

The following provisions apply to this permit:

1. The DEQ approves the Operator's **assignment** application and incorporates it into the permit for all purposes. The Operator is hereby authorized to conduct Opencut operations in compliance with requirements of the permit, Act, and rules.
2. If the Operator violates the permit, Act, or rules the DEQ can take enforcement action which may include the assessment of penalties as specified in MCA 82-4-441.
3. The permit does not relieve the Operator's obligation to: *a)* comply with any other applicable federal, state, county, or local statutes, regulations, or ordinances, and *b)* obtain any other permits, licenses, approvals, etc. required for any part of the operation.
4. The Operator may allow another party to conduct Opencut operations only if the Operator: *a)* retains control over that party's activities and *b)* ensures there are no violations of the permit, Act, and rules. The Operator is accountable for violations at the permit site, even if the violations result from the activities of another person.
5. The Operator shall pay the annual fee on the total amount of materials mined at the site, including materials mined by other parties. The Operator's annual progress report shall indicate the total amount of materials mined.
6. The DEQ can only enforce requirements of the permit, Act, and rules. Therefore, Operator arrangements with another party (including the Landowner) should be stated in a separate written agreement between the two parties.
7. The Operator shall conduct reclamation: *a)* in accordance with the approved plan of operation; *b)* as concurrent with operations as feasible; and *c)* within one year of termination of the right to conduct operations, or the cessation of operations. If reclamation is not completed in the approved timeframe, after 30 days written notice the DEQ may order the Operator to cease operations. If operations do not cease, the DEQ may issue an order to reclaim, institute action to enjoin further operations, and sue for damages.
8. Unless the Operator is a governmental entity, a bond has been posted to ensure the site is reclaimed. If the site is not reclaimed as and when required, the DEQ may pursue forfeiture of the bond. If the bond is cancelled or invalidated, the Operator shall provide a valid bond within 30 days. If not provided, the DEQ may suspend the permit and require the Operator to cease operations.
9. The Operator may apply to amend the permit at any time. If approved, the amendment becomes part of the permit for all purposes. The DEQ may occasionally review the permit and require revisions.
10. The Operator shall allow the DEQ and its representatives to access the site at any time to determine if Opencut operations are being carried out in compliance with the permit, Act, and rules.
11. This permit is effective upon approval below by the DEQ.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY



Opencut Mining Program Supervisor February 11, 2015

Industrial & Energy Minerals Bureau

Title

Date

EXHIBIT V

OPENCUT MINING PLAN OF OPERATION AND APPLICATION

Operator: Western Materials, LLC

Site Name: Hendricksen Pit

INSTRUCTIONS - How to submit a complete and accurate Plan & Application:

- Before completing this form, read the document *How to Obtain and Comply with an Opencut Mining Permit* available on the program's website.
- Fill in all blanks and provide a detailed answer for each question. Write "None" if that is the correct answer.
- This form includes automated calculations that require Microsoft Word 2007 or newer (Word 2003 requires an update to work correctly). As you enter data into this form, autocalculate fields bounded by a red box will autopopulate. If an **autocalculate field is blank, required information was not entered** into this form and/or may not be needed.
- Opencut Mining Permits are "living" documents, meaning that whenever a permit is amended, the updated information replaces the outdated information. As a result, this form must be filled in completely whether applying for a **Permit** or an **Amendment**.
- The DEQ strongly recommends completing this application form in electronic format. Doing so will make applying for a future amendment much easier. Operators should keep the original electronic files and backup copies. (Note: The DEQ does not retain Operator files in original electronic format, so it is essential that the Operator do so.)
- In the table below, indicate which **Support Documents** are included with this application, and which were included with a previously approved application and do not need to be revised or updated at this time. If you believe you do not need to submit a required support document for "a", "c", or "f" because an exception applies, mark only the *Exception* box for that document.

ID	Included with:		SUPPORT DOCUMENTS	Plan Section
	<i>This Application</i>	<i>Previously Approved Application</i>		
REQUIRED				
a	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Well Logs <i>Exception:</i> <input type="checkbox"/> No wells w/in 1,000 feet of main permit area	B9-2
b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site Map	C5-1
c	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Area Map <i>Exception:</i> <input type="checkbox"/> All required features are on the Site Map	C5-1
d	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boundary Coordinate Table Do <u>not</u> attach paper copy; email to DEQopencut@mt.gov with "Subject" line: BCT(Operator, Site Name)	C5-2
e	<input type="checkbox"/>	<input checked="" type="checkbox"/>	County-Approved Noxious Weed Control Plan	E6-2
f	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reclamation Bond Spreadsheet <i>Exception:</i> <input type="checkbox"/> Government Operator	F
OPTIONAL				
g	<input type="checkbox"/>	<input type="checkbox"/>	Additional Well Data	B9-1
h	<input type="checkbox"/>	<input type="checkbox"/>	Soil Photos	C2-1
i	<input type="checkbox"/>	<input type="checkbox"/>	NRCS Soil Data	C2-1
j	<input type="checkbox"/>	<input type="checkbox"/>	Additional Test Hole Data	C2-1
k	<input type="checkbox"/>	<input type="checkbox"/>	Reclamation Map	C5-1
l	<input type="checkbox"/>	<input type="checkbox"/>	Dewatering Data and Analysis	D2-2
m	<input type="checkbox"/>	<input type="checkbox"/>	Stream/Waterway Guideline	D3-14
n	<input type="checkbox"/>	<input type="checkbox"/>	Monitoring Well Installation Plan	D5-1b
o	<input type="checkbox"/>	<input type="checkbox"/>	Ground Water Monitoring Plan	D5-1b
p	<input type="checkbox"/>	<input type="checkbox"/>	Slope Stability Study	E3-7
q	<input type="checkbox"/>	<input type="checkbox"/>	Pond Plan View	E3-9
r	<input type="checkbox"/>	<input type="checkbox"/>	Pond/Wetland Cross-Sections and/or Bottom Contour Map	E3-9
s	<input type="checkbox"/>	<input type="checkbox"/>	Pond Guideline	E3-10
t	<input type="checkbox"/>	<input type="checkbox"/>	Seed Mix Guideline	E6-6
u	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
v	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
w	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
x	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
y	<input type="checkbox"/>	<input type="checkbox"/>	Other:	
z	<input type="checkbox"/>	<input type="checkbox"/>	Other:	

- Sign and date the certification in Section G.
- Use the *Operator Application Checklist* to confirm the application is complete and accurate. Submit the checklist and all required application materials to the Opencut Mining Program in Helena as one package.

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SECTION A – Application Information

A1.

1. Indicate which of the following is being requested (check one):

- Permit
- Amendment
- Convert Limited Opencut Operation to a Permit

If for a **Permit or Convert Limited Opencut Operation to a Permit**, skip to A1-2 and provide all the information requested in this document.

If for an **Amendment**:

- a. Update all the information requested in this document.
- b. The existing permit number is: 2681
- c. Identify all the purposes of the amendment:
 - Change Reclamation Date
 - Change Post Mining Land Use
 - Change Site Name – Former Site Name was:
 - Change Seed Mix
 - Change Mining Depth
 - Other:
 - Add to permit acreage for:
 - Access Road
 - Facility-Level Area
 - Mine-Level Area
 - Non-Bonded Area
 - Other:
 - Add the following processing equipment:
 - Asphalt Plant
 - Concrete Plant
 - Crusher
 - Grizzly
 - Pug Mill
 - Screen
 - Wash Plant
 - Other:
 - Other: **Change Hours of Operation**

2. Operator Name: Western Materials, LLC
 Site Name: Hendricksen Pit

Address: PO Box 4746
 City: Missoula State: MT Zip Code: 59808-4746
 Office Phone #: 406 728-8658 Cell# 406 360-8939 Fax #: NA Email kwmvtyt@westernexcavating.com

3. Name of the Person who will be familiar with this *Plan of Operation & Application* (must be an owner and/or employee of the company and not a consultant): Kevin Mytty Office Phone #: 406 728-8658 Cell# 406 360-8939

4. Landowner Name: Western Materials, LLC
 Address: PO Box 4746
 City: Missoula State: MT Zip Code: 59808-4746
 Home Phone #: 406 728-8658 Cell# 406 360-8939 Fax #: NA Email: kwmvtyt@westernexcavating.com

Below landowner information filled out only if applicable.

Landowner Name: Stan Hendricksen
 Address: 5985 McClain Creek Rd
 City: Florence State: MT Zip Code: 59833
 Home Phone #: 406-273-6767 Cell# None Fax #: None Email: None

Additional Landowners (if applicable use same format as above): NA

5. County where the proposed site is located: Missoula

6. Legal Description for Main Permit Area, Permitted Access Roads, and Non-Bonded Areas:
 Section(s) 23 & Township 11 North or South Range 20 East or West
 Section(s) & Township North or South Range East or West
 Additional Sections, Township & Range (if applicable use same format as above):

7. What type of materials will be mined from the permit area?
 Bentonite Clay Gravel Peat Sand Scoria Soil

8. What processing equipment will be used in the permit area?
 None Asphalt Plant (answer D3-13a) Concrete Plant (answer D3-13b) Crusher Pug Mill
 Screen Wash Plant (answer D3-13c) Other: Grizzly

9. Estimated Quantity of Mine Material to be Excavated from the Entire Permit Area : 3,000,000 cubic yards.

10. Total Permit Acreage Breakdown (acres must be entered to the nearest TENTH of an acre)

	Existing or New Permit Acres	Amendment Acres (if any)	Total Permitted Acres
Mine – Level Acres	31	0	31.0
Facility – Level Acres	19	0	19.0
Access Road Acres	0	0	0.0
Totals	50.0	0.0	50.0

Note: To ensure that the “Totals” display, use the “Tab” key after entering each acreage amount.

11. Will the permit include any Non-Bonded area at this time? Yes No

If No, skip to Section B below.

If Yes, provide the Non-Bonded Acreage Breakdown below:

	Non-Bonded Acres	Bonded Acres*	Total Permitted Acres**
Mine – Level Acres	0	31.0	31.0
Facility – Level Acres	0	19.0	19.0
Access Road Acres	0	0.0	0.0
Totals	0.0	50.0	50.0

* Must match the “Bonded Acreage Breakdown” column on the Reclamation Bond Spreadsheet as well as the acreage on the bond form submitted to the Department.

** Must match the “Total Permitted Acres” box on the Reclamation Bond Spreadsheet.

- a. Operator understands that Non-Bonded acreage cannot be disturbed for any Opencut operations until the Operator submits a Request to Commence Operations in Non Bonded Area form, a reclamation bond for the non-bonded area, and both are approved by the DEQ.

Operator Understands

SECTION B – PRE-MINE INFORMATION

Note: If a Pre-Application Meeting was conducted by the Department, information from the inspection report can often be used to complete section B.

B1. DIRECTIONS TO SITE

1. Describe in detail how to get from the nearest town or major intersection to the main permit area. Provide directions that can be interpreted and followed by anyone involved with the site, both now and in the future (e.g. identify roads, mileposts, landmarks, and distances; include information on how to obtain keys or combinations for locks).

Answer: The site is located adjacent to old Highway 93 South. From Lolo travel approximately three miles south, turn right onto Rowan Rd, then immediately turn left onto Old Highway 93 South. travel approx. 1.5 miles south. The pit is on the right.

B2. PRIMARY PURPOSE OF THIS SITE

1. What is the primary purpose of this Opencut operation?
 - Long term material source (typically 5 or more years)
 - Short term projects (typically less than 5 years)
 - Public road or construction project*
 - Private road or construction project
 - Other project

* If a public project, please provide the following optional information:

Government entity or agency issuing the contract: _____

Agency Contact Name: _____

Phone #: _____

Agency Project Name: _____

Agency Project Number: _____

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B3. TOPOGRAPHY [MCA 82-4-403(1)(b)]

1. Describe in detail the terrain in and within 1,000 feet of the main permit area (for example: hills, valleys, ridges, drainages, cliffs, and benches).

Answer: The pit floor is level with the old highway and the land surface rises gently to the northwest.

B4. LAND USES [MCA 82-4-403(1)(b)]

1. Indicate current land uses within the proposed main permit area.

Cropland/Hayland Forest/Timberland Industrial/Commercial Oil & Gas Opencut Operation
 Pasture/Rangeland Residential Other:

2. Indicate current land uses within 1,000 feet of the main permit area.

Cropland/Hayland Forest/Timberland Industrial/Commercial Oil & Gas Opencut Operation
 Pasture/Rangeland Residential Other:

B5. STRUCTURES, FACILITIES, & SURFACE DISTURBANCES [MCA 82-4-434(3)(n)] & [ARM 17.24.217(1)(e)]

1. Are there any manmade structures, facilities, or surface disturbances in or within 1,000 feet of the main permit area?

Yes No

If **No**, skip to B6.

If **Yes**, indicate the type of manmade structures, facilities, or surface disturbance(s):

Construction Project Farming Industrial/Commercial Oil & Gas Structures Opencut Operation
 Power Lines or Facilities Residential Roads Underground Utilities Other:

B6. SURFACE WATER FEATURES [ARM 17.24.217(1)(a)]

1. Are there surface water features in the main permit area or within 1,000 feet of the main permit area? Yes No

Note: This includes ground features that may contain water at any time, including seasonal ponds, ephemeral drainages, runoff channels, ditches, floodways, etc.

If **No**, skip to B7.

If **Yes**, indicate the type of surface water features present:

Ephemeral Drainage Irrigation Ditch/Canal Lake/Pond River- Name: Spring
 Stream/Creek - name: McClain Creek and Maple Creek Wetlands Other:

B7. VEGETATION [ARM 17.24.222(1)(a)]

1. Provide a list of the dominant grasses, forbs, shrubs and trees located within the main permit area. If the species are not present in the check boxes below, use the "other" to list them.

Bluebunch Wheatgrass Blue Grama Canada Wildrye Cheatgrass Conifer Cottonwood
 Creeping Juniper Crested Wheatgrass Crop Curly Cup Gumweed Green Needlegrass
 Intermediate Wheatgrass Juniper Kentucky Bluegrass Rubber Rabbit Brush Sagebrush
 Slender Wheatgrass Smooth Brome Sweetclover Willow Winterfat Western Wheatgrass
 Other: Various wheatgrasses, bluegrass, timothy, roses, and quackgrass_

2. Are there Noxious Weeds present within the main permit area? Yes No

If **No**, skip to B8.

If **Yes**, indicate the types of noxious weeds present in the main permit area:

Canada Thistle Dalmatian Toadflax Field Bindweed Houndstongue Leafy Spurge
 Russian Knapweed Spotted Knapweed Tansy ragwort Whitetop Other:

B8. WILDLIFE [ARM 17.24.222(1)(e)]

1. Indicate the fish and wildlife species in and within 1,000 feet of the main permit area.

Antelope Black Bear Coyotes Deer Elk Fish Grizzly Bear Moose Raptors
 Rodents Song Birds Upland Birds Waterfowl Wolves Other:

B9. WATER WELLS [ARM 17.24.217(1)(b)&(c)] & [ARM 17.24.221(5)]

1. In the table below, list the Well I.D., Well Owner, Location, Total Depths, Static Water Levels, and Uses of water wells in and within 1,000 feet of the main permit area.

- Information can be obtained from the Montana Natural Resource Information System (NRIS).
- The guideline *Identifying Well Logs within a Specified Radius* is available on the program's website and describes how to locate wells and download the required logs.
- The DEQ recommends obtaining well information from the Montana Department of Natural Resources and

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Conservation (DNRC), Board of Oil and Gas websites to determine the location of any oil and gas wells in the vicinity of the main permit area.

- Additional information may be available from landowners or by conducting field measurements.
- Well locations must be reasonably accurate. In cases where well locations are unavailable or appear inaccurate, field confirmation may be required.
- Provide depths and static water levels in feet below the ground surface.
- Locations of existing and proposed wells in and within 1,000 feet of the main permit area must be shown and labeled on the Area Map or separate well log location map.
- Well logs in excess of 1,000 feet from the proposed permit boundary can be submitted and shown below if they provide valuable information. If provided, their location must be shown on the area map.
- If there are no wells in and within 1,000 feet of the main permit area, write "None" in the table below and skip to B9-4.

Well I.D. on Site Map	Well Owner	Distance & Direction from Main Permit Area Boundary	Total Well Depth (feet)	Static Water Level (feet)	Use	Log Attached	Comments
66056	Jones, Berney	0' NE corner	25	2	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
66096	Holmes, Archie & Phy	1000' South	83	11	irrigatio n	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
126221	Bauer, Max G Cynthia	0' NE corner	60	5	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
136278	Lambson, Boyd	300' Northeast	42	18	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
152123	Hendricksen Stan	In Permit Area	41	9	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
153245	Henderson Beth	800' Northeast	58	5	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
181954	Scrafford, Kirk	In Permit Area	56	6	irrigatio n	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
207560	Leibenguth Scott	900' West	40	none	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
223714	Reimen Earl	1,000' South	60	15.6	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati
246587	Leibenguth Scott & S	900' West	80	31	domestic	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Log in Previously Approved Applicati

Note: If there are additional wells, attach the Program's *Additional Well Data* form available on the program's website and check the appropriate box on page 1.

2. Attach the above identified Well Logs and check the appropriate box on page 1 **OR** No Well Logs Are Available.
3. Are there wells located within 1,000 feet of the main permit area that are used for public water supply? Yes No
If **Yes**, ensure that the DEQ Source Water Protection Bureau is contacted to determine setbacks and restrictions and incorporate those into this application. **Further Information (if applicable):**
4. Are there any Oil or Gas wells located in or within 1,000 feet of the main permit area? Yes No
If **Yes**, the Operator may be required to provide information about additional wells, buried pipelines, and petroleum release sites that may be present in the vicinity. **Further Information (if applicable):**

B10. ADDITIONAL INFORMATION [ARM 17.24.222(1)]

1. Provide additional pre-mine site characteristics or circumstances not addressed above.
Answer: NA

SECTION C – SITE PREPARATION AND PLANNING

C1. WATER TABLE LEVELS [ARM 17.24.217(1)(c)]

Provide information below for the main permit area.

- The seasonal high water table is the highest level that water typically rises to each year.
 - The seasonal low water table is the lowest level that water typically falls to each year.
1. The estimated maximum depth of mining is: **60 feet below ground surface**
 2. The estimated seasonal high water table level in the main permit area is: **10 feet below ground surface**
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3. The estimated seasonal low water table level in the main permit area is: **15 feet below ground surface**
4. How did you determine the seasonal high & low water table levels?
 Well Logs NRIS Well Data Landowner Observation-Describe:
 Field Observation-Describe: Other:

Seasonal high water table: **10 feet**
 Maximum depth of mining; _ **60 feet**
 Difference =- **50 feet**

- a. If the difference is ≥ 3 proceed to Section C2.
- b. If the difference is ≤ 0 a pond and/or wetland will be left for final reclamation, and Operator must include “pond” or “wetland” as a postmining land use in Section E2-1 and complete Section E3.
- c. If the difference is >0 and <3 it is likely that ground water could occur in some portion of the pit. Therefore, explain how the Operator will maintain a minimum of 3-feet of separation between the seasonal high water table and the reclaimed ground surface (i.e. The Operator will: Backfill the site to maintain a minimum of 3-foot separation of earthen material from ground water; Construct a permanent drainage mechanism; etc).

Explain: PLEASE NOTE: The max depth of mining (60 feet) will occur where the ground surface is approx. 3,270 ft above msl. The water table elevations are measured from the part of the permit where ground surface is at approx. 3,210 ft above msl. Therefore, no groundwater will be encountered.

C2. SOIL AND OVERBURDEN [MCA 82-4-434(3)(c)] & [ARM 17.24.217(1)(d)] & [ARM 17.24.219(1)(b)]

1. **In the table below**, provide soil and overburden thickness data obtained from at least 3 test holes excavated within the proposed permit area (bonded and non-bonded areas). An existing observation point (e.g. road cut, bank, etc.) that exposes both the soil and overburden thickness may be substituted for a test hole. If warranted, due to the size and nature of a site, the DEQ may require the collection of data from additional test holes.
- Saving available soil is critical for successful reclamation, so determining the soil thickness throughout the permit area is very important. Therefore, the DEQ recommends that Operators collect additional soil thickness data from shallow hand-dug holes spaced at a density of at least one hole per acre.
 - Soil is usually darker than overburden, may contain roots, and typically extends deeper than just the top few inches of rich organic matter. The number of roots and degree of darkening decrease with depth. Typically, the boundary between soil and overburden is placed at the lowest point that exhibits darkening. Soil in many areas is rocky, but that does not alter the need to save it for use in reclamation.
 - The DEQ recommends taking sidewall photographs of test holes before backfilling; include a ruler in photos for scale and ensure the photos are clear and good quality. If photos are attached, check the appropriate box on page 1.
 - Soil survey maps and information are available from the Natural Resources Conservation Service. The DEQ recommends that Operators obtain the maps and information for each proposed site and attach copies; ensure the appropriate box on page 1 is checked. Test hole and observation point locations must be shown on the Site or Area Map [ARM 17.24.221(2e)].

Date test pit was dug: **Logged by:** *If test hole is dry answer “none”.

Soil Test Hole I.D. on Map	Soil Thickness (inches)	Overburden Thickness (inches)	Total Pit Depth (ft)	*Depth to Water (ft)	Comments (i.e. very rocky overburden, type of soil, etc.)
N/A					Soil Test Pits were not required at this site in the past.

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Note: If there are additional test holes, attach the Program’s *Additional Test Hole Data* form found on the website and check the appropriate box on page 1.

2. **In the table below**, provide typical soil and overburden thicknesses based on the data collected at the site and soil and overburden thickness to be replaced for reclamation.. **Note:** If overburden is a mine material or will be used as binder, an appropriate quantity must first be saved to satisfy the soil plus overburden replacement thickness requirement described in **Sections C2-3 & C2- 4 and Section D4-1b** (i.e. The Operator must strip and retain enough overburden, if available, from Mine-Level Areas so that up to an 18-inch thickness of overburden + soil can be replaced for reclamation to rangeland or dryland uses, and up to a 36–inch thickness of overburden + soil can be replaced for reclamation to cropland or irrigated land.).

Soil	Typical Soil Thickness (inches)	Soil Thickness (inches) to be Replaced for Reclamation
Mine –Level Area Soil	12	12*
Facility-Level Area Soil		*
Permitted Access Road Soil		*
Overburden	Typical Overburden Thickness (inches)	Overburden Thickness (inches) to be Replaced for Reclamation
Mine-Level Area Overburden	6	6*

- a. If the “Typical Soil Thickness” varies from the “Soil Thickness to be Replaced for Reclamation”, explain why:
- b. Additional Information (if applicable):

3. Operator will strip, stockpile, and save **12** inches of Mine-Level soil, inches of Facility-Level soil and inches of Access Road soil for use in on-site reclamation.*
 - a. The total volume of soil to be stripped, stockpiled and saved for reclamation is **50,013** cubic yards of Mine-Level soil, **0** cubic yards of Facility-Level soil, and **0** cubic yards of Access Road soil (unless road will remain as a postmining land use). **
 - b. Volume of soil in 1 acre: **1,613** cubic yards of Mine-Level soil per acre, **0** cubic yards of Facility-Level soil per acre, and cubic yards of Access Road soil per acre to be stripped, stockpiled and saved for reclamation.
4. Operator will strip, stockpile and save **6** inches of overburden for use in on-site reclamation.*
 - a. The total volume of overburden to be stripped, stockpiled and saved for reclamation is **25,007** cubic yards. **
 - b. Volume of overburden in 1 acre: **807** cubic yards of overburden per acre to be stripped, stockpiled, and saved for reclamation.

* - These soil & overburden thickness values must be used in the Reclamation Bond Spreadsheet.

** - The total volume of soil and overburden to be stockpiled is automatically calculated using the following formula:

Example – For 14 inches of soil on a 12 acre site:

$$\frac{(12 \text{ acres} \times 43,560 \text{ ft}^2) \times (14'' \text{ soil} + 12'' \text{ in one foot})}{27 \text{ ft}^3} = 22,586 \text{ cubic yards of soil to stockpile}$$

C3. ACCESS ROADS [MCA 82-4-403(1)] & [ARM 17.24. 217(a)] & [17.24.218(1)(b)]

1. MCA 82-4-403(1) states a private road (access road) may be included as affected land only with the landowner’s consent.

If question **A** on the *Landowner Consultation* form is marked “**Yes**”, continue with **C3-2** below

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If No, skip to C4.

2. Operator understands that each access road included in the permit must be: 1) appropriately bonded, 2) delineated with coordinates and 3) shown on the Site Map. Operator understands
3. The length and width of the access road to be permitted is: Length: _____ Width: _____
4. Check the appropriate box(s) below to indicate surface water features within 500 feet of permitted access road(s).
 Ephemeral drainage Irrigation Ditch/Canal Lake/Pond River Spring Stream/Creek
 Other:
Describe the direction & distance of surface water feature(s) from the access road:
5. Permitted access road(s) that will not be left at the conclusion of Opencut operations must be reclaimed as follows:
 - a. Remove the materials used for road construction, widening, or improvement (such materials may include culverts, gravel, and pavement).
 - b. Backfill and grade the former road area in a manner that leaves stable surfaces which blend into the surrounding topography and drainages.
 - c. Rip all compacted ground, replace soil, plant seed, and support revegetation as necessary.
 Operator will comply with statements “a” through “c” above.

C4. HOURS OF OPERATION [MCA 82-4-434](3)(m)] & [ARM 17.24.218(1)(d)]

1. In accordance with *ARM 17.24.218(1)(d)*, the **DEQ may impose reasonable** limits on hours of operation to reduce adverse impacts on residential areas. The Operator must propose hours of operations by checking box “a” or “b” below (thereby adopting the hours stated), or by checking box “c” and providing the required information.
 - a. Permitted hours and activities are as follows:
 - Monday–Friday: 7:00 am–7:00 pm Activities: All permitted activities allowed

or
 - b. Permitted hours and activities are as follows:
 - 24 hours a day, 7 days a week, 365 days a year: Activities: All permitted activities allowed

or
 - c. Permitted hours and activities* are as follows:
 - Mon.–Fri: 7:00 am- 7:00 pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other
 - Saturday: 7:00 am- 7:00 pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other Retail Sales
 - Sunday: _____ am- _____ pm Activities:* All Activities Crushing Hauling Loading
 Maintenance Mining Other

Additional information: All activities will normally occur from 7:00 am to 7:00 pm Mon-Fri and only Retail Sales will occur from 7:00 am - 7:00 pm on Saturday. Occasionally, to address the demand for gravel during off hours, (e.g., for projects such as highway resurfacing projects) some projects will occur at night (7:00 pm-7:00 am Mon - Fri). These “Extended-Hours Projects” will include ONLY operation of the asphalt plant, loading of trucks, and delivery of materials. Extended-hours projects will be limited in scope and duration, and will not exceed more than 15 consecutive days with no more than four weeks total of extended-hours projects occurring in any six-month period. At least 30 days will elapse between periods of extended-hours operation. At least 7 days prior to commencement of extended hours operations, Missoula County Commissioners and adjacent property owners within ½ mile of the permit area will be notified and public notice will be published in local newspapers. The operator will also keep and maintain a complete and accurate record of the hours operated. The operator shall submit the record to the department within two work days after receipt of a request from the department.

C5. MAPPING [MCA 82-4-403(1)(b)] & [ARM 17.24.212(3)] & [ARM 17.24.221]

1. This *Opencut Mining Plan of Operation & Application* must be accompanied by a complete and accurate *Site Map* at a readable scale that depicts the entire permitted boundary.
 - a. An *Area Map* may also be required to show all pertinent features within 1,000 feet of the permit boundary.
 - b. In addition, the Department recommends the Operator supply a *Reclamation Map* identifying what the site will look like after reclamation has been completed.
 - c. The map(s) must be displayed on an aerial background and be attached to this *Plan of Operation & Application*.
 - d. Operators should follow the *Map Guideline* available on the program’s website.

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- e. The appropriate check boxes on page 1 must be checked for each map attached.
2. In accordance with the *Map Guideline*, WGS 84 Decimal Degree coordinates defining permit boundaries must be provided on the Program's *Boundary Coordinate Table* and the appropriate box on page 1 must be checked. The Program will not accept boundary coordinates on any other form or in any other format. Boundary coordinates must be provided as necessary to define the following points or line segments:
 - a. Each corner of the proposed permit boundary;
 - b. Each point where the direction of the proposed permit boundary changes;
 - c. The Non-Bonded, and Bond Reduction areas (refer to Boundary Coordinate Table for further information);
 - d. The centerline of any permitted access roads as necessary to show the approximate locations of corners, curves, and the start and end points. Once the road is constructed it will no longer need to be staked; and,
 - e. The approximate center of the main permit area.

C6. MARKERS [ARM 17.24.218(1)(a)]

1. The following requirements apply to marking the permit boundary:
 - Markers must be in place when the application is received by the DEQ so the site is clearly defined for field inspections. DEQ staff cannot inspect sites that are not marked.
 - Markers should be durable (stout steel or wood posts are recommended), and painted or flagged to be highly visible. Each boundary marker must remain in place until the adjacent permit area is reclaimed and released.
 - Markers must be placed to delineate the physical extent of the following permit areas:
 - Permit (or amendment) boundaries
 - Bonded & Non-Bonded Areas
 - Permitted Access Roads - Once the road is constructed it will no longer need to be staked.
 - Bond Reduction Areas
 - Request to Commence Areas
 - Markers must be placed in corners and along boundary segments and curves, such that the next marker is visible.
2. Unless the site is active farmland, the application for an unmarked site is deficient and cannot be inspected and/or approved until the permit boundary is appropriately marked.
 Operator will comply with C6-1 & C6-2

C7 ADDITIONAL INFORMATION

1. Provide additional mining or site preparation and planning information not addressed above.
Answer: NA

SECTION D – WATER PROTECTION, MINING & PROCESSING

D1. WATER PROTECTION [MCA 82-4-434(3)(l)] & [ARM 17.24.218(1)(e)] & [ARM 17.24.219(1)(c)(ii)]

1. Operator must:
 - a. Protect on-site and off-site surface water and ground water from adverse changes in quality and quantity that could be caused by Opencut operations.
 - b. Prevent, minimize, or mitigate adverse impacts to on-site and off-site surface and ground water systems and structures that could be caused by Opencut operations.
 - c. Properly establish, use, and reclaim hydrologic structures and systems used for Opencut operations.
 - d. Keep waste and stationary equipment above the seasonal high water level of surface and ground water and dispose of all petroleum, solvent, and chemical wastes in compliance with applicable state laws and rules.
 - e. Manage fuel storage as follows:
 - i. Install or construct secondary containment structures for non-mobile, single-wall, fuel storage tanks in accordance with the current codes adopted by the State Fire Marshall. This requirement applies to such tanks placed and used in and within 300 feet of the permitted area (including permitted access roads).
 - ii. Routinely inspect and maintain tanks, fittings, hoses, filters, and dispensers to prevent leaks and spills.
 - iii. Retrieve, handle, and dispose of spilled fuel and contaminated materials and soil in a lawful manner.
 - iv. Report a fuel spill that reaches state waters or is greater than 25 gallons to the Montana Spill Hotline (406-324-4777). Note: "state waters" includes any surface water or ground water.
 - f. Operator will comply with the DEQ *Spill Management and Reporting Policy* document found on the DEQ's Enforcement website.
 Operator will comply with statements "a" through "f" above and understands they are responsible for

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any spills that occur at this site.

2. How will equipment at this site be fueled?
 Fueled Off-Site Mobile Fuel Truck Non-Mobile On-Site Fuel Tank: Single Wall* or Double Wall
 Other:
* If single wall, secondary containment must be provided; see D1-1e above.
3. Indicate below the types of erosion control methods (Best Management Practices [BMPs]) that will be used to ensure sediment does not leave the permitted site.
 Berm Check Dams Erosion Control Blankets Sediment/Detention Ponds Silt Fence
 Site Drains Internally: Describe: Straw Bales Tracking of Slope Vegetated Buffer Strips
 Wattles Other BMPs:

D2. WATER MANAGEMENT & USE [MCA 82-4-434(3)(l)] & [ARM 17.24.218(1)(e)]

1. Water use, diversion and capture.
- a. Indicate the proposed use(s) of water:
 Asphalt Plant Concrete Batch Plant Crusher Dust Control (i.e. roads, etc.) Pug Milling
 Wash Plant Other:
- b. Is the water source in or within 300 feet of the main permit area? Yes No
If No, skip to D2-c.
If Yes, identify the source of the water to be used and show its location on a map.
 Irrigation Ditch Pit Pond Well Other:
- c. Will water be stored on-site? Yes No
If No, skip to D2-d.
If Yes, what will the water be stored in?
 Detention/Retention Pond Lined Detention/Retention Pond Water Storage Tank
 Other:
- d. Operator must take all necessary precautions and measures to protect the water rights of other parties.
 Operator Agrees
- e. Operator has consulted with DNRC and understands the DNRC requirements regarding water rights related to this Opencut operation. Operator has or will obtain the appropriate and applicable water rights to conduct the activities identified in D2-1.
 Operator Agrees: Additional Information (if applicable)
2. Will dewatering be conducted at this site? Yes No
If No, skip to Section D3.
If Yes, show the location of all pertinent features on the site map and provide the following information:
- a. How will the site be dewatered?
 Surface water flow from site via a ditch, drainage channel, etc.
 Pumping from: Pond Pit Wells Other:
 Other:
- b. What is the maximum rate at which dewatering will be conducted? _____ gallons per minute (gpm)
- c. What is the lowest elevation to which the water level will be drawn down? _____ feet
i. Either attach, or provide below, data and analysis supporting the above water level draw down depth.
ii. If dewatering data and analysis is attached, check the appropriate box on page 1.
If Not, the data and analysis are presented here:
- d. Dewatering will be conducted during which month(s):
- e. Where will the water be discharged?
 Pond Pit Ditch Creek Ground Surface Wells Other:

D3. MINING, HAULING AND FACILITIES [ARM 17.24.218(1)(c)]

1. Is the site expected to be worked continuously or intermittently?
 Worked continuously (i.e. year round)
 Worked intermittently (i.e. on occasion when material is needed) – Explain: Market driven

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2. Will any of the processing equipment identified in Section A1-8 be moved on-site and off-site as needed, or is it expected to remain on-site during the life of the permit?
 No Processing Equipment Remain on-site Move on-site and off-site as needed
- a. If “Move on-site and off-site as needed” was checked, identify which processing equipment:
 All Asphalt Plant Concrete Plant Crusher Grizzly Pug Mill Screen Wash Plant
 Other:
3. What type of excavating or hauling equipment will be used to mine this site?
 Backhoe Dozer Drag Line Dredge - Type: Dump/Haul Truck Excavator Loader
 Scraper Skidsteer Other:
4. Operator will:
a. Strip and stockpile all soil and overburden separately, prior to conducting any other Opencut activities or disturbing the area.
b. At the first seasonal opportunity, seed all soil and overburden stockpiles that will remain in place for more than two years [ARM 17.24.219(1)(b)].
c. Maintain at least a 10-foot wide buffer stripped of soil and needed overburden along the edges of highwalls.
 Operator will comply with D3-4a through D3-4c
5. Where will Opencut activities begin at this site (e.g. north corner, west corner, southeast corner, center, etc.)?
Opencut activities will begin at: Activities are ongoing, and will continue from the southeast corner westward and northward within the permit boundaries.
6. Describe the direction of your mining across the site (e.g. north to south, southeast to west then north, etc.):
Answer: Southeast to Northwest
7. Describe any features within the Permitted boundary that will be avoided and will not be disturbed by Opencut activities (ephemeral drainages, streams, existing disturbances, etc.).
 Not applicable (skip to D3-8 below)
Describe:
8. Any slope steeper than 3:1 is considered to be a highwall.
a. The maximum **length** of highwall on-site at any given time will be: **3456 linear feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet*.
b. The maximum **height** of highwall on-site at any given time will be: **25 feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet* and will typically be consistent with the maximum depth of mining (see Section C1-1).
c. If the maximum height of highwall identified in D3-8b above is not identical to the maximum mine depth (i.e. **60**), explain in detail how the site will be mined: **Mining operations will be conducted to maintain no more than a 3:1 slope to the edges of the mine boundary, ensuring that space is preserved for stored overburden and berms above the mining area. The relief of the mine area is such that the eastern and southern edges begin lower than the western and northern edges, which allows access to the mine area while maintaining all required slopes. It is understood that the difference in the highwall and maximum mine depth will limit the depth of mining near all mine boundaries, overburden stockpiles and berms.**
9. If there are no non-bonded areas, skip to Section D3-10 below. If the permit boundary contains non-bonded areas (i.e. Section A1-11 is marked “Yes”):
a. Describe where Opencut operations will begin in the proposed non-bonded area(s), once they are bonded (e.g. north corner, west corner, southeast corner, center, etc.):
Answer:
b. Describe in which direction the operation will progress in the proposed non-bonded area(s), once they are bonded (e.g. north to south, southeast to west then north, clockwise from center, etc.):
Answer:
Note: Operator must submit a *Request to Commence Operations in Non-Bonded Area* form and obtain approval from the Department before any Opencut activities (i.e. disturbance, stripping, mining, parking, etc.) can be conducted in any non-bonded area(s).
10. Will there be setbacks or buffers within the permit boundary? Yes No
If No, skip to D3-11.

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If **Yes**, check those that apply and provide the setback/buffer distance from the centerline or edge of the feature (whichever is applicable) and show it on the site map:

- a. **River:** Buffer = _____ ft.
- b. ***Ditch:** Buffer = _____ ft.
- c. **Stream/Creek:** Buffer = _____ ft.
- d. **Ephemeral Drainage:** Buffer = _____ ft.
- e. **Wetland:** Buffer = **50** ft.
- f. ***Above Ground Utilities (e.g. power lines, structures, etc.):** Buffer = _____ ft.
- g. ***Underground Utilities (e.g. gas, oil, fiber optic, etc.):** Buffer = _____
- h. **Other:** Buffer = _____ ft.

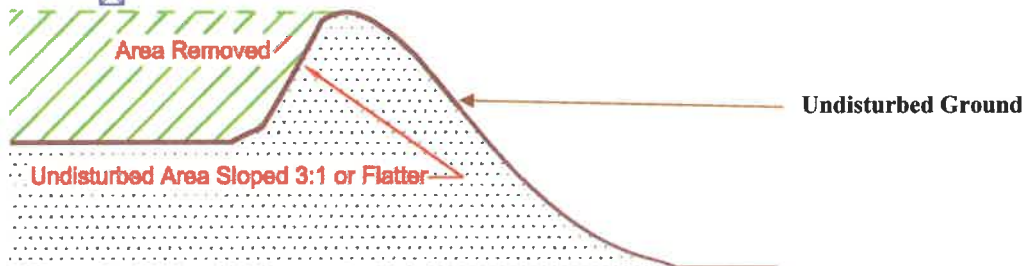
Further Explanation (if applicable): No changes from Previously Approved Application

***Note:** In accordance with ARM 17.24.218(1)(h), provide documentation from the utility company, ditch rider, or applicable agency of easements, setback and/or crossing requirements; the maximum slope the company will allow; and any other requirements for activities conducted under, over, or adjacent to its infrastructure (e.g. inspections, safety, excavation, stockpiling, etc.). In accordance with ARM 17.24.221(4)(g), the setbacks or buffer zone must be shown on the site map.

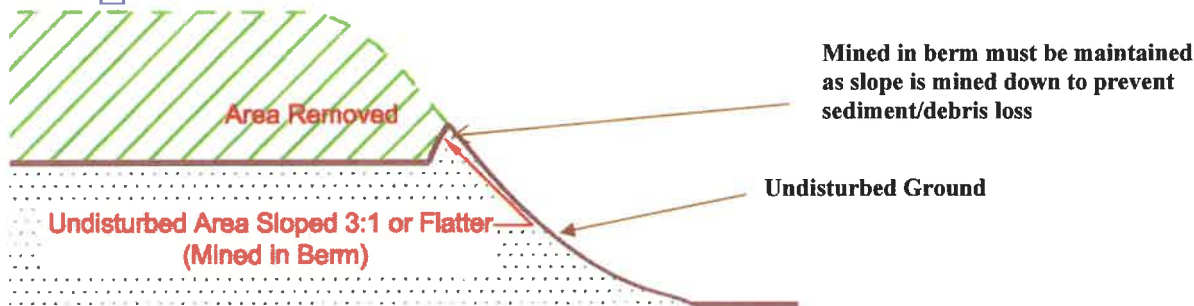
11. Will you mine to the edge of a slope (e.g. knob, hill, ridge, terrace or other topographic feature)? **Yes** **No**
 If **No**, skip to D3-12.

If **Yes**, Choose the scenario(s) below that best describes your method of mining. If more than one scenario is chosen, provide an explanation of how and where multiple scenarios will be implemented in 11d "Other Scenario-Describe":

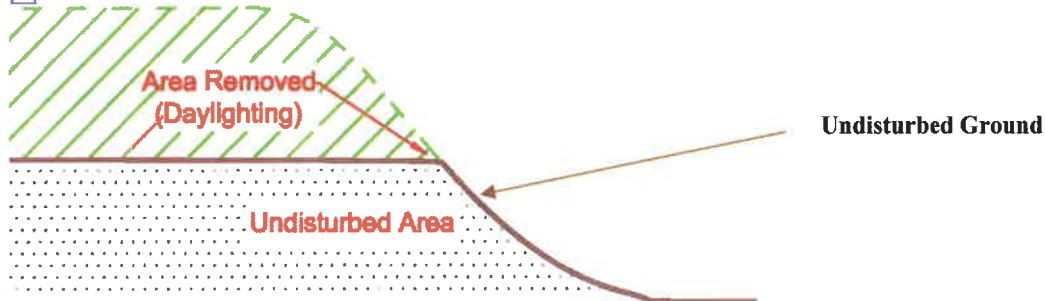
- a.



- b.



- c.



If "c" was chosen, describe how sediment and/or debris will be kept from impacting the slope.

- i. **Extreme care will be taken when daylighting to ensure no sediment or debris rolls onto and/or down the slope.**

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- ii. Erosion control will be set at the edge of the slope or slightly downslope of the edge (within permit boundary) to prevent loss of sediment and debris.
- iii. Other-Describe:

d. Other Scenario-Describe:

12. Will a disturbance be located within the proposed permit boundary (e.g. permitted, existing, historical, Limited Opencut Operation, other, etc.)? Yes No

If No, skip to D3-13.

a. If Yes, provide the quantity of onsite soil currently stockpiled and available for reclamation of the disturbed site:

None or 50000 cubic yards

b. Is the quantity of soil listed in D3-12a adequate to reclaim the disturbed area?

No, skip to D3-12c.

Yes, an adequate quantity of soil is currently stockpiled onsite to successfully reclaim the disturbance with the depth of mine-level and/or facility-level soil identified in Section C2-2 (i.e. 12 inches of mine-level soil) and inches of facility-level soil). The location of these soil stockpiles for the disturbed area is identified on the site map. Skip to D3-12d

c. If No to D3-12b above, where will the soil come from to adequately reclaim the disturbance with the depth of soil identified in C2-2 (Soil Thickness to be saved for Reclamation)?

The Operator has averaged the quantity of soil to be saved for reclamation as identified in C2-2 (disturbed & undisturbed) to ensure that the disturbed area and all other areas of the permit are reclaimed with 12 inches of mine-level soil and inches of facility-level soil. This depth of soil was calculated from the volume of existing stockpiled soil (if present) in combination with averaging the amount of soil from undisturbed areas of the permit.

Additional Description (if applicable):

Soil will be imported to the site – Quantity of Soil to be Imported = cubic yards. Ensure this quantity is added to the Reclamation Bond Spreadsheet's line item Cost to Purchase and Place Importation of Soil/Fill and that it is identical to the quantity identified in this section.

Additional Description (if applicable):

Other Explanation:

d. Will the disturbed area that is contained within the proposed permit boundary be used for further Opencut operations or will it be reclaimed only? Reclaimed Only Used for further Opencut Operations Other-Describe:

13. Do you plan on permitting an Asphalt plant, Wash Plant or Concrete Plant? Yes No

If No, skip to D3-14.

If Yes, complete the following:

a. Asphalt Plant

→ Must be checked in section A1-8 for a new permit or A1-1c for an Amendment.

→ Must remain in compliance with D1-1.

i. Where will the asphalt plant be set up? Answer: Southwest portion of permitted area, see Site Map
Location must be identified on map.

b. Concrete Plant (Must be checked in section A1-8 for a new permit or A1-1c for an Amendment)

i. Where will the concrete plant be set up? Answer: west-southwest portion of permitted area, see Site Map
Location must be identified on map.

ii. Describe what will be done with wastewater created from the concrete plant. Answer: Spraydown water will percolate into subsurface

iii. Where will the truck washouts occur? Answer: Concrete washout - see Site Map Ensure the location(s) are identified on the site map, if located within 300 feet of the permit boundary.

iv. Describe how and where return loads and excess or reject product will be handled or stored: Answer: Concrete washout includes contained area (formed of ecology blocks) where excess product will be temporarily stored. Once full, the excess concrete will be collected and transferred to concrete storage area for recycling.

c. Wash Plant (Must be checked in section A1-8 for a new permit or A1-1c for an Amendment)

i. Where will the Wash plant be set up? Answer: Southern portion of permitted area, see Site Map
Location must be identified on map.

ii. How many settling ponds will you have for the wash plant? 1 2 3 4 Other _____
Location(s) must be identified on map

iii. Where will the wash plant obtain its water?

Onsite Well or Well within 300 –feet of permit boundary (Identify location on map)

Surface Water Source within 300-feet of permit boundary (Identify location on map)

Source located greater than 300-feet from permitted boundary

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- Purchased from source greater than 300-feet from permit boundary
 Other-

- iv. Will the water from the wash plant be recycled back into the wash plant? Yes No
If No, explain:
- v. Operator must show the location of the wash plant and any settling ponds and/or other wash plant features on the map. If a separate map is used to show the wash plant, ensure the "Other" box in #6 on page 1 is checked and list the document.
- vi. If the Operator submits and attaches the Department's Wash Plant Settling Pond Guideline, check the "Other" box in #6 on page 1 and list that document.

14. Is the proposed permit boundary adjacent to, or does it contain a river, stream, creek, intermittent stream, ephemeral drainage, etc., with a defined and/or eroded channel?

Yes No

If No, skip to Section D4.

If Yes, choose one of the below options.

50 foot buffer from channel edge will be maintained (Location must be identified on map).

The Stream/Waterway Guideline will be followed (found on Opencut website). Check the "Other" box in #6 on page 1 and list the document.

Describe and attach applicable documentation:

Other:

D4. SOIL, OVERBURDEN & MINE MATERIAL COMMITMENTS [MCA 82-4-434(3)(c)]&[ARM 17.24.219(1)(b)]

1. The Operator will comply with the following requirements:

- a. Prior to conducting any Opencut operations in a Mine-Level Area, Facility-Level Area, or Access Road included in the permit, soil must be stripped to the thicknesses identified in Section C2-2. 3 & 4. The only exception is that soil need not be stripped from soil stockpile areas. (Note: stripping soil may create low spots that collect water, necessitating the establishment of drainage ways, or the construction of raised roadbeds and work areas.)
- b. The Operator must strip and retain enough overburden, if available, from Mine-Level Areas so that up to an 18-inch thickness of overburden + soil can be replaced for reclamation to rangeland or dryland uses, and up to a 36-inch thickness of overburden + soil can be replaced for reclamation to cropland or irrigated land. At a minimum, the Operator must replace soil and overburden to the thicknesses identified in Section C2-2.
- c. All stripped soil and overburden must be: i) hauled directly to areas prepared for reclamation and re-soiling, or ii) promptly stockpiled and protected from erosion, contamination, compaction, and unnecessary disturbance. At the first seasonal opportunity, the Operator must shape and seed with an approved perennial seed mix, any stockpile that will remain for 2 or more years.
- d. The Operator must not use soil off-site, give it away, or sell it without written approval from the DEQ.
- e. Soil and overburden must be handled separately and the Operator will avoid mixing these materials, or handling them when wet or frozen.
- f. A minimum 10-foot wide buffer zone stripped of soil and needed overburden must be maintained along the edge of highwalls. This practice ensures that soil will not be lost to mining.
- g. Mine material stockpiles must be kept out of drainage bottoms and off of slopes steeper than 3:1. All excavated and/or processed mine material must be: i) removed from the site, ii) buried on-site, or iii) left for the landowner in accordance with the *Landowner Consultation* form and Section E7.
- h. Burn pile residue, metal, plastic, tires, and other wastes must be disposed of off-site and in a lawful manner.
- i. All clean fill (i.e. dirt, sand, fines, gravel, and oversize rock) that cannot, or will not, be buried during final reclamation must be removed from the permit area prior to bond or liability release request.

Operator will comply with statements "a" through "i" above.

D5. ASPHALT & CONCRETE RECYCLING [ARM 17-24-218(1)(g)(i)]

1. **Asphalt Recycling** – Typically, recycling involves accumulating materials containing asphalt, crushing these materials periodically, and stockpiling the resulting crushed asphalt product as-is or blended with other suitable materials. These recycled products are commonly used to surface roads and operations permitted to operate an asphalt plant may also use these as feed into the plant.

Asphalt is considered to have potential to impact water quality. As a result:

- An operation that imports construction or demolition debris containing asphalt must be permitted to store the

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debris awaiting recycling. **Note:** Imported debris may be a mixture of various materials (e.g. asphalt, concrete, soil, gravel, etc.). However, if the debris contains asphalt, it must be permitted.

- Similarly, if a site permitted to operate an asphalt plant will stockpile asphalt produced on-site (e.g. excess or reject material), the operation must be permitted and bonded for asphalt storage.

a. Will asphalt be stockpiled at the site? Yes No

If **No**, skip to D5-1b.

If **Yes**, the Operator must comply with the following requirements for stockpiled asphalt:

- i. The maximum amount of asphalt awaiting recycling that will be on-site at any time is **10000 cubic yards**.
- ii. This maximum value must be used in the *Reclamation Bond Spreadsheet* to calculate the cost to either recycle (i.e. crush) the asphalt, or dispose of it off-site in a lawful manner.
- iii. Asphalt must be stored in the “asphalt stockpile area” shown on the site map.
- iv. Asphalt must be kept out of groundwater and surface water (runoff channels, puddles, ponds, etc.); the only water that should come in contact with the asphalt stockpile is rain and snow.
- v. Imported asphalt must not be buried or otherwise disposed of on-site. During the final reclamation process, on-site asphalt stockpiles must be: **a)** removed from the site and disposed of in a lawful manner, or **b)** recycled into useful products which are removed from the site or used on-site to surface roads that are included in the approved postmining land use. In accordance with ARM 17.24.218(1)(g) only onsite generated asphalt that has never left the site can be buried onsite as long as it is buried at least 25 feet above the ordinary high water table and under three feet of clean fill suitable for sustaining the postmining vegetation.

Operator will comply with statements “i” through “v” above.

b. Will onsite generated asphalt be buried onsite in accordance with ARM 17.24.218(1)(g)? Yes No

If **No**, skip to D5-2.

If **Yes**, the *Landowner Consultation Form, item C* must be checked as “Yes”. In addition, MCA 82-4-434(3)(l) requires the Department to protect surface and ground water from deterioration of water quality and quantity that may arise as a result of the Opencut operations. Therefore you must address the below items to bury onsite generated asphalt.

i. How far below the bottom of the proposed asphalt burial depth is the ordinary high water table located?

Answer: feet. (Buried onsite generated asphalt must be located at least 25 feet above the ordinary high water table.)

ii. How did you confirm the ordinary high water table in the area you intend to bury the onsite generated asphalt?

Monitoring wells were installed to confirm ordinary high water level (data must be attached and the appropriate box(s) on page 1 checked).

Other:

iii. Does section C2-2 provide for at least three feet of soil and overburden to be saved for reclamation? Yes No

If **No**, where will the three feet of material suitable for sustaining postmining vegetation be obtained?

Answer: (Ensure that the additional fill is bonded for on the *Reclamation Bond Spreadsheet*)

2. **Concrete Recycling** – Hardened concrete is not considered to have potential to impact water quality. As a result, concrete debris from construction or demolition projects may be imported to the site and stockpiled pending recycling or use as mined-area backfill. Similarly, sites permitted to operate a concrete plant may stockpile excess or reject product that becomes hardened on-site.

a. Will hardened concrete be stored at the site? Yes No

If **No**, skip to Section D-6.

If **Yes**, the Operator must comply with the following requirements for hardened concrete:

- i. When concrete is deposited at the site, any protruding metal must be cut off and collected. Any metal exposed during subsequent handling, transfer, crushing, or recycling must promptly be freed and collected. As a result, no protruding metal should be visible at any time. Salvaged metal must periodically be transported off-site for recycling or other lawful disposal.
- ii. Concrete must be stored in the “concrete stockpile area” shown on the site map
- iii. Concrete present at the site during the final reclamation process must be: **a)** removed from the site and disposed of in a lawful manner, **b)** recycled into useful products, **c)** buried on-site under at least 3 feet of overburden and soil suitable for sustaining the postmining vegetation, or **d)** if the post-mining land use includes a pond, the concrete may be placed below the seasonal low water level to improve the aquatic habitat.

Operator will comply with statements “i” through “iii” above.

Note: If asphalt is present in concrete stockpiles, the site must be permitted for asphalt recycling (see Section D5-1 above.)

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D6. MINE MATERIAL BACKFILL [ARM 17.24.218(1)(g)]

1. Are there any planned backfill locations (e.g. to reclaim highwalls that will not be cut and filled during mining, bringing offsite backfill material to the pit, etc.)?

Yes No

If **No**, skip to Section D7.

If **Yes**, show the planned backfill locations on the site map and provide the following information:

a. Where will the backfill come from?

Onsite - Explain:

Offsite-Explain:

b. Where will the backfill be placed?

Answer: Show backfill placement location(s) on map.

c. Material type(s) to be used as backfill (check all that apply):

Pit Run Gravel Oversize Rock Reject Fines Backhaul (Clean Fill Only) Other:

d. Identify the estimated quantity of material needed for backfill on the *Reclamation Bond Spreadsheet* under "Highwall Backfill".

e. Provide a detailed description of how the backfill will be placed and compacted.

Answer:

D7. REJECT FINES [MCA 82-4-433(1)]& [ARM 17.24.218(1)(g)]

Reject fines are natural or crushed rock that is generally ¼ inch or smaller. Reject fines are usually created from screening product/material. Reject fines are typically pushed back into the pit to act as backfill before replacing the overburden and soil, or the reject fines are hauled off-site.

1. Will reject fines be created at this site?

Yes No

If **No**, skip to Section D8.

If **Yes**, proceed to #2 below:

2. How will reject fines be handled at this site? Check all that apply.

a. Reject fines will be hauled off-site before accumulating to 10,000 cubic yards.

b. Reject fines will be periodically placed back into the mine area as operations progress through the life of the permit. Reject fines will be graded and blended and will not be allowed to accumulate to more than 10,000 cubic yards.

c. Reject fines will be stockpiled and used for reclamation at a later date.

i. The maximum quantity of fines to be stockpiled is _____ cubic yards*

***Note:** If more than 10,000 cubic yards of stockpiled reject fines will be located onsite, the entire stockpile must be bonded for on the *Reclamation Bond Spreadsheet* at a rate of \$1.00 per cubic yard. Ensure the *Reclamation Bond Spreadsheet* is consistent with the quantity entered into this section.

d. Other:

D8. ADDITIONAL IMPACTS [ARM 17.24.217(1)(e)]&[ARM 17.24.218(1)(e)]&[ARM 17.24.218(1)(h)]

1. Indicate the methods and materials you will use to mitigate impacts of the processing equipment listed in Section A1-8 from the neighboring properties.

Berms Buffer zone Dust mitigation Equipment enclosures Fences Paving

Restricted Hours Revegetation Speed limits Vegetative screens

Other:

2. What other man-made features could be affected by Opencut operations?

None Aboveground Utilities (i.e. power lines) Ditches/Irrigation Systems Fences

Roads Underground Utilities Other:

If **None**, skip to D8-3.

a. What methods and materials will be used to protect, repair, or replace the above features or structures?

Answer:

3. Operator understands that obtaining an Opencut Mining Permit does not relieve the Operator's obligation to comply with any other applicable federal, state, county or local statute, regulation, or ordinance. Therefore, the Operator is responsible for identifying and obtaining any other permits and approvals from other agencies required for the proposed activities. (See "How to Obtain and Comply with an Opencut Mining Permit"). Obtaining an Opencut permit does not necessarily mean that an Operator can legally mine the site without first obtaining permits from other agencies.

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Operator Understands

4. Are there additional Opencut operation impacts not addressed in other parts of this Plan? Yes No
If Yes, describe:

D9. ADDITIONAL COMMITMENTS [MCA 82-4-434(3)(g)&(h)] & [MCA 82-4-437(1)&(2)] & [ARM 17.24.218(1)(h)(i)]

1. The Operator will comply with the following requirements:
 - a. Key personnel and subcontractors involved in Opencut operations **must be informed** of the requirements of this Plan and **must be provided** a copy of this Plan. In addition, they **must be shown** each boundary marker location and informed of their importance.
 - b. Proper precautions must be taken to prevent wildfires.
 - c. Appropriate protection must be provided for identified cultural resources that could be affected by Opencut operations. If any other cultural resources are found, the Operator must: i) temporarily halt work, or move to another area, and ii) promptly notify the State Historic Preservation Office (406-444-7715) and the DEQ (406-444-4970).
 - d. By March 1st of each year, the Operator must complete and return the Annual Progress Report (APR) form that the Program sends early in the year. The Operator must report the requested information regarding mining conducted during the preceding calendar year. In addition, the Operator must calculate the fee for the preceding year's production (per cubic yard of material mined) and submit payment to the DEQ along with the APR.

Operator will comply with statements "a" through "d" above

D10. ADDITIONAL INFORMATION

1. Provide additional water protection, mining and processing information not addressed above.
Answer: Three violations were noted in the May 13, 2016 Violations Letter from Montana DEQ to Western Materials. The first violation was "Failure to maintain a 10-foot buffer stripped of soil from the crest of the highwall." Western Materials has re-established a 10-foot buffer in all required locations at the mine. The second violation was "Unpermitted asphalt and concrete storage." Permitted asphalt and concrete storage are requested in this Application. The Third violation noted was "Exceedance of highwall length specified in the plan." This Application includes a modified Reclamation Bond Spreadsheet that more accurately depicts the actual operations of the pit, including modifying the length and height of the highwall to correspond with site conditions.

SECTION E – RECLAMATION PLAN

E1. RECLAMATION TIMEFRAME [MCA 82-4-434(3)(k)] & [ARM 17.24.219(1)(f)(i & ii)]

1. Reclamation must be:
 - a. Conducted as concurrent with the Opencut operations as feasible and in accordance with this Plan.
 - b. Completed on an area no longer needed for Opencut operations within one year after the cessation of such operations.
 - c. Completed on an area that the Operator no longer has the right to use for Opencut operations within one year after the termination of such right.
 - d. Completed within a specified length of time.

Operator will comply with statements "a" through "d" above

The estimated date of final reclamation should be based on various business and environmental factors, including:

- The estimated demand for mine materials, the expected rate of production, and the volume and grade of permitted mine material.
- The time required to establish productive vegetation comparable to that growing on similar undisturbed land nearby. Typical minimum timeframes for revegetation are:
 - i. At least 2 years to establish vegetation and control noxious weeds on grassland and forest areas.
 - ii. At least 1 year for the first successful harvest on cropland.

Final reclamation of the site is complete when the postmining land use has been achieved, including successful revegetation and noxious weed control.

The estimated Final Reclamation Date is: Month December, Year 2045

Note: If the postmining land use will not be achieved by this date, the Operator must submit an amendment application to extend the final reclamation date. The Department recommends the Operator provide sufficient time to ensure vegetative growth and to avoid an amendment to only change the reclamation date.

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E2. POSTMINING LAND USES [MCA 82-4-434(3)(a)] & [ARM 17.24.219(1)(a)]

1. The site will be reclaimed to the postmining land use(s) below. If there is more than one postmining land use, show those areas on a separate reclamation map.

- Permitted Access Road(s) Internal Road(s): Length: _____ & Width: _____
 Cropland and/or Hayland Rangeland/Pasture
 Year-round Pond: Fishery Recreation Wildlife Other:
 Seasonal Pond: Purpose- _____ Wetland Seasonal Wetland
 Berms Fences Landowner Equipment Storage Area* Landowner Material Stockpile Area
 Industrial/Commercial** Residential** Vegetative Screens Other:

*Landowner Equipment Storage Areas must be shown on a map (include approximate acreage) and have a description of why they are to be left (see E-2i below).

**Residential and Industrial/Commercial land uses may require submittal of planning documents and approvals.

Note: If site plans change, the Operator must submit an amendment application to update the postmining land use(s).

2. What facilities and structures will remain after reclamation of the site is completed?

- None Concrete Structures Gravel or Paved Surface Area Office Scale Other:

If None, skip to Section E3, otherwise:

- i. Describe the purpose of leaving these facilities or structures intact. **Answer:**
 ii. Will the remaining facilities or structures be consistent with the postmining land use? Yes No

If No, this application is deficient and cannot be approved.

E3. PONDS and/or WETLANDS [ARM 17.24.219(1)(b & c)]

1. If Section E2 above does not designate a pond, seasonal pond, or wetland as a postmining land use, skip to Section E4; otherwise proceed to E3-2 below.

2. Are you creating ponds, wetlands or both?

- Ponds Only Wetlands Only Both Ponds and Wetlands

3. Indicate the number of pond(s) to be constructed:

- None 1 2 3 4 5 Other:

4. Indicate the number of wetland(s) to be constructed:

- None 1 2 3 4 5 Other:

5. Indicate the maximum pond and/or wetland depth:

- No Pond 10-feet 15-feet 20-feet 25-feet 30-feet 35-feet 40-feet 45-feet 50-feet
 55-feet Other:

6. The location(s) of the pond and/or wetland and its final proposed shape are shown on the following map(s):

- Reclamation Map Site Map Other Map:

7. Indicate the maximum (steepest) slope of the following pond/wetland margin areas:

- Above High Water: 3:1 4:1 5:1 6:1 Other:
 Between High and Low Water: 3:1 4:1 5:1 6:1 Other:
 Below Low Water: 3:1 4:1 5:1 6:1 Other:

Note: Proposed slopes steeper than 3:1 may require a slope stability study prepared by a Professional Engineer or other appropriately qualified professional (see section E4-2 below).

8. Indicate below the physical features that will be included with this pond/wetland and show their location on the final reclamation map.

- Boat Ramp Inlets/Bays Islands Peninsulas Submerged habitat features Other:

9. Operator must attach the following and check the appropriate boxes on page 1:

- a. A detailed Plan View of the final pond/wetland design, including the above features.
 b. At least two labeled Cross-Sections and/or a labeled Contour Map showing the bottom of each proposed pond and/or wetland with a contour interval appropriate for the pond/wetland depth.

Operator Understands

10. Will the DEQ's *Pond Guideline* be followed (including variations in pond shape, sinuosity, varying slopes and depths, and recommended wetland vegetation)? Yes No

If **Yes**, Check the appropriate box on page 1 and attach the guideline.

If **No**, the DEQ must assess whether the postmining pond will constitute a productive land use [MCA 52-4-434(2)]. Therefore, explain in detail how the pond design will achieve a productive postmining land use.

Answer:

11. Operator understands that all soil taken from the pond or wetland area must be kept onsite for reclamation of that pond or wetland area and cannot be removed or sold until the Department has determined the pond or wetland postmining land use is met, thereby verifying the soil is not needed to reclaim the pond or wetland area.

Operator Agrees

E4. SITE CLEANUP, GRADING AND RECLAMATION [ARM 17.24.219(1)(c)]

1. The Operator must comply with the following requirements:
- Leave reclaimed surfaces in a stable condition, graded to drain to low areas, and blended into the surrounding topography and drainageways. **Note:** Irregular contours are preferred for livestock and wildlife habitat; areas of unvarying slope should be minimized; and drainageways must be reclaimed similar to surrounding natural conditions.
 - Leave reclaimed surfaces with 5:1 or flatter slopes for hayland and cropland, 4:1 or flatter slopes for sandy surfaces, and 3:1 or flatter slopes for other areas (The DEQ may approve steeper slopes on a case by case basis).
 - Leave reclaimed surfaces at least 3 feet above the seasonal high water table level for dryland reclamation and at least 3 feet below the seasonal low water table level for pond reclamation (The DEQ may approve seasonal ponds for certain situations).
 - Retrieve and properly use, stockpile, or dispose of all refuse and spilled mine materials (e.g. chips, oversize, etc.) found in the main permit area and along access roads as such materials will impair revegetation.

Operator will comply with statements "a" through "d" above

2. Indicate the grade of the steepest slope that will remain after the site is reclaimed.

3:1 4:1 5:1 6:1 Other:

If a slope of 3:1 or flatter was checked, skip to E4-3.

If the **Other** box was checked above or in E3-7 and the Operator intends to have slopes that are steeper than 3:1, proceed to E4-2a.

- The Operator must provide a slope stability study prepared by a qualified professional documenting that the slopes will remain stable.
 Slope Stability Analysis Attached (Attach the *Slope Stability Analysis* and check the appropriate box on page 1)
 Further Description (if applicable):

3. Will the site be graded to blend in with surrounding topography? Yes No

If **No**, explain in detail how the site will be graded:

4. Will a reclaimed and sloped depression remain? Yes No – Mining will not create a depression
- If **Yes**, Where will precipitation/stormwater/snow-melt, etc. concentrate or drain to in the reclaimed depression?
 - Runoff collection area in bottom of depression graded specifically to hold water, thereby not impacting other areas of the depression with ponding or pooling of water.
 - Location of water collection area is shown on the: Site map Other Map Reclamation Map
 - Water collection area is \leq 1/2 acre in size;
 Water collection area is $>$ 1/2 acre in size – Explain why water collection area needs to be greater than 1/2 acre in size
 Other-Describe:
 - If **No**, Describe where stormwater will concentrate or drain to - water will flow to the (check all that apply):
 - East North Northeast Northwest South Southeast Southwest West
 Further Description:
 - Water will flow offsite via:
 Reclaimed drainages, swales, etc. within the permitted boundary Reclaimed slopes
 Other-Describe:
 - Other-Describe:

E5. SOIL AND OVERBURDEN SURFACE PREPARATION AND REPLACEMENT [ARM 17.24.219(1)(d)&(e)]

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1. Compacted soil and overburden must be tilled to allow air and water movement, root penetration, and the subsurface drainage necessary for plant growth. Will the Operator alleviate compaction by deep-tilling or ripping all compacted surfaces to a depth of at least 12 inches before re-soiling? Yes No

Note: The DEQ recommends the following:

- a. Ripping or deep tilling is not required for non-compactable materials such as sand and gravel.
- b. Ripper shanks should be spaced about equal to the ripping depth.
- c. Rip along contours where possible and when soil and overburden are dry enough to shatter.
- d. Protect ripped areas from re-compaction.

If **No**, explain in detail how you will alleviate overburden and soil compaction, or why you will not:

2. Indicate the method(s) that will be used to limit the presence of large rocks (greater than 4 inches) in replaced soil as their presence may inhibit successful revegetation and agricultural production.

Blading off and removal of large rocks Rolling Screening Other:

E6. REVEGETATION [MCA 82-4-434(3)(i)&(j) & [ARM 17.24.219(1)(b)(ii)&(e)]

1. Operator must comply with the following requirements:

- a. Establish vegetation capable of sustaining the designated postmining land use(s).
- b. Use certified weed-free seed and comply with local weed district requirements.
- c. Seed during the late fall or early spring seeding season (unless otherwise approved) and seed along contours for drill seeding.
- d. Ensure that areas seeded or planted to perennial species can be, and are, appropriately protected and managed from the time of seeding or planting through two growing seasons, or until site stabilization and revegetation are achieved, whichever is longer.
- e. Revegetation success on non-cropland areas is achieved when vegetation capable of sustaining the designated postmining land use has been established. Revegetation success on cropland areas is achieved when a crop has been harvested from the entire area and the yield is comparable to those of crops grown on similar undisturbed sites under similar growing conditions.
- f. Except for those postmining land uses that do not require vegetation, each surface area of the mined premises that will be disturbed will be revegetated when its use for the Opencut operation is no longer required.

Operator will comply with statements "a" through "f" above

2. The county-approved, site-specific, Noxious Weed Control Plan must:

- a. Be attached and the appropriate box on page 1 checked.
- b. Be followed during the operation, throughout reclamation, and until the Opencut permit is released by the DEQ.

Operator Agrees

3. Will the Operator apply fertilizer, compost, mulch, or other soil amendments? Yes No

If **No** skip to E6-4.

If **Yes**: Type of fertilizer to be applied: _____ Rate at which fertilizer will be applied: _____ lbs/acre
 Type of compost to be applied: _____ Rate at which compost will be applied: _____ lbs/acre
 Type of mulch to be applied: _____ Rate at which mulch will be applied: _____ lbs/acre

4. Indicate the methods to be used to relieve soil compaction and prepare the seedbed.

Disking Harrowing Tilling Chiseling Other:

5. The primary method of seeding will be: Drilling Broadcasting*

*Note: Broadcast seeding must be at double the rate used for drilling (i.e. 24 lbs/acre or more)

6. The DEQ's *Seed Mix Guideline* is available on the program's website.

Will seed mixes described in the seed mix guideline be used? Yes No

If **Yes**, check the appropriate box on page 1, attach a copy of the guideline, and indicate below which seed mix(s) will be used.

Native Grazing/Pasture Non-Native Grazing/Pasture Native Rangeland (for Moist/Riparian Regions)

Native Rangeland (for Arid Regions) Wetland Seed Mix (for Pond Edges)

If **No**, in the chart below describe the seed mix species and rates of seeding (pure live seed per acre) that will be used:

SEED TYPE	SEED RATE
Western Wheatgrass	3.5
Green Needlegrass	3.5

Alfalfa	3.0
Timothy	3.0
Red Clover	3.0
Slender Wheatgrass	2.5
TOTAL SEEDING RATE	18.5 pounds pure live seed/acre

Additional Seeding Information:

7. Indicate the measures to be used to manage and protect the site until reclamation vegetation is adequately established.
 Noxious Weed Control (mandatory) **Fencing** (include cost of fencing on the Reclamation Bond Spreadsheet)
 No Grazing (Operator should secure written commitment from landowner) **Other:**
8. Indicate the method(s) or types of erosion control that will be used at this site for final reclamation to inhibit erosion and promote plant growth:
 Equipment Tracking (orientated to trap moisture) **Erosion Control Blankets** **Mulch**
 Seeding/Harrowing along contour **Slopes 3:1 or flatter** **Straw Bales** **Wattles** **Other:**

E7. MATERIAL REMAINING FOR LANDOWNER [ARM 17.24.218(1)(f)] & [17.24.218(f)(ii)]

1. Does Question B of the *Landowner Consultation* form indicate that mine material produced at the request of the Landowner will remain at the conclusion of Opencut operations? **Yes** **No**
 If **No**, skip to Section E8.
- a. If **Yes**, does the Operator agree to leave an appropriate amount of soil stockpiled, shaped, and seeded within 100 feet of each remaining mine material stockpile. **Yes** **No**
- b. Thickness of soil required to be stripped from the site is 12 inches * _____ acres (estimated number of acres that will remain for the soil stockpile area) = 0 cubic yards of soil that must remain for the landowner stockpile area.
- c. If E7-1a is **No**, explain in detail why soil will not be stockpiled near the landowner’s mineral stockpile(s) as required by ARM 17.24.218(1)(f).
Answer:
2. In order for mineral stockpiles to remain, the landowner must be able to access those stockpiles. Therefore, indicate how the remaining mineral stockpiles will be accessed by the landowner.
 Located adjacent to public road **Remaining or existing road** **Other:**
3. By the time of final reclamation, the Operator must consolidate each type of mine material into a single stockpile and place these at the closest point allowing access. **Operator Understands**
4. Operator has shown the landowner stockpile area and a road to the stockpile area on the appropriate map. **Yes** **No**
 The approximate acreage of the landowner’s mineral and soil stockpile areas to remain is: acres.

E8. ADDITIONAL INFORMATION

1. Provide additional reclamation information not addressed above.
Answer: NA

SECTION F – RECLAMATION BOND CALCULATION [MCA 82-4-43] & [ARM 17.24.203] & [ARM 17.24.220] & [ARM 17.24.224(2)(c)]

Government Operators: Skip to Section G.

Non-Government Operators:

- Attach a proposed *Reclamation Bond Spreadsheet* and check the appropriate box on page 1.
- The purpose of the *Reclamation Bond Spreadsheet* is to provide a reasonable estimate of the cost for the DEQ to reclaim the site in accordance with the *Opencut Mining Plan of Operation & Application* at the time of the site's maximum permitted disturbance. As a result, the estimated costs include equipment mobilization and project administration. The DEQ will review the proposed bond calculation and make a final determination as to the required bond amount.
- Bond is not required to be posted for acreage permitted as Non-Bonded until the acreage is needed for Opencut operations. Prior to commencing any such operations, the Operator must submit a *Request to Commence Operations* in

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Non-Bonded Area form, supporting documents, and post additional bond (if appropriate) on the undisturbed acreage. No activity, including equipment parking, can begin on non-bonded acreage until the *Request to Commence Operations in Non-Bonded Area* form, supporting documents, and bond are approved by the DEQ.

Operator Understands

4. Operator understands that the Department may adjust the bond yearly. **Operator Understands**
5. Is there additional information relevant to the *Reclamation Bond Spreadsheet* that you wish to provide? **Yes** **No**
If **Yes**, describe: **Reclamation Bond Spreadsheet updated and attached to reflect addition of asphalt storage.**

SECTION G – CERTIFICATION [MCA 82-4-432(1)(f)] & [ARM 17.24.222(3)]

Operator affirms it has the legal right to mine the lands described, and that the contents of all attachments to this application become a part of the terms thereof. Operator has read and understands this *Opencut Mining Plan of Operation & Application*. Operator certifies that the statements, descriptions, and information given are accurate and that the *Opencut Mining Plan of Operation & Application* and all supporting documents will be followed unless officially amended through the DEQ.

Name (print or type): Kevin Mytty

Title: Managing Member

Signature: 

Date: July 6, 2016

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ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 30004568 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 30004568 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200212031033

Type of Historical Right:

Max Flow Rate: 7.00

Max Volume: 3.60

Max Acres: 1

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER N		GROUNDWATER WELL		11N20W	23	NESW		MISSOULA	99

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		DOMESTIC		1.00		11N20W	23	NESW		MISSOULA
1		LAWN AND GARDEN		2.50	1.00	11N20W	23	NESW		MISSOULA
1		STOCK		0.10		11N20W	23	NESW		MISSOULA

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DEQUIN

MONTANA WELL LOG REPORT

Form No. 603 R2-89

Well ID# 6739

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. **Optional fields have a grayed background:** Record additional information in the REMARKS section.

1. WELL OWNER:

Name Stan Hendrickson
 Mailing address P.O. BOX 267
LOLO, MT. 59846

2. WELL LOCATION: List ¼ from smallest to largest

SE ¼ SW ¼ Section 14
 Township 11NS Range 20EW County Missoula
 Subdivision Name _____
 Well Address _____
 GPS NGS
 Latitude _____ Longitude _____
 If determined by GPS locator (in feet)
 Horizontal datum: NAD27 WGS84

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other: _____**4. TYPE OF WORK:**

New well Deepen existing well Abandon existing well
 Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:

Borehole:
 Dia. 6 in. from 0 ft. to 98.5 ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Casing:

Steel: Wall thickness .250 Threaded Welded
 Dia. 6 in. from +2 ft. to 98.5 ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating _____ lbs. Threaded Welded
 Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:

Type of perforator used T/C
 Size of perforations/slots 5 in. by 5/32 in.
12 no. of perforations/slots from 90.5 ft. to 95.5 ft.
 _____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No

Material _____
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No

Size of gravel Natural
 Gravel placed from 96.5 ft. to 98.5 ft.

Packer: Yes No
 Type _____ Depth(s) _____

Grout: Material used Bentonite
 Depth from 0 ft. to 18 ft. 6x Continuous feed

6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 79.5 ft. below top of casing or
 Closed-in artesian pressure _____ psi.

How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level.
 All depth measurements shall be from the top of the well casing.
 Time of recovery is hours/minutes since pumping stopped.

Air test*
7 gpm with drill stem set at 94 ft. for 1 hours
 Time of recovery 9 hrs/min Recovery water level 79.5 ft.

OR Bailor test*

_____ gpm with _____ ft. of drawdown after _____ hours
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*

Depth pump set for test _____ ft.
 _____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*

_____ gpm for _____ hours

Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG:

Depth, Feet		Material: color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
From	To	
<u>0</u>	<u>38</u>	<u>Sand & Gravel Lt. Brown</u>
<u>38</u>	<u>41</u>	<u>Hard green rock</u>
<u>41</u>	<u>60</u>	<u>Sand, silt & gravel Lt. brown</u>
<u>60</u>	<u>90</u>	<u>Gray & Tan clay</u>
<u>90</u>	<u>96</u>	<u>Sand & Gravel W/B</u>
<u>96</u>	<u>98.5</u>	<u>Gray clay</u>

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 8-14-02

9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) Ewlinger Drilling
 Address 897 McWilliams Dr. Corvallis, MT.

Signature Andy Ewlinger

Date 8-30-02 License no. 44

Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6810

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DEQ/IEMB: _____



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NOTICE OF COMPLETION OF GROUNDWATER DEVELOPMENT

Use this form for completed groundwater developments with a maximum use of 35 GPM not to exceed 10 AC-FT per year.

Filing Fee \$ 125.00

MONTANA D.N.R.C. MISSOULA REGIONAL OFFICE FOR DEPARTMENT USE ONLY

Notice No. 30042316 Basin 76H
Priority Date 6-2-08 Time 11:30 AM PM
Rec'd By CS
Fee Rec'd \$ 125.00 Check No. 8637
Deposit Receipt # 832036
Payor Hendricksen, Stanley E
Refund \$ Date

- Go to web site http://dnrc.mt.gov/wrd/ to learn additional information about the use of this form.
Your priority is determined by the date of filing. If it is determined this form was improperly filed, your priority date may be changed.
If your development is within a Controlled Ground Water Area, the regional office will contact you to explain the correct filing requirements.

READ AND ANSWER THE QUESTIONS BELOW TO DETERMINE IF YOU CAN FILE YOUR WATER USE ON THIS FORM.

- A. Yes No My source of water is ground water and it has been put to use.
B. Yes No My water use is 35 gallons per minute or less.
C. Yes No The total volume used from this development will not exceed 10 acre-feet per year.
If the answer to all of the above questions is "yes", you can file this form. Complete the information below.

1. NAME Stan Hendricksen 137935
MAILING ADDRESS P.O. Box 267
CITY Lolo STATE MT ZIP 59847
WORK PHONE 406-273-6767 HOME PHONE Same CELL PHONE 406-239-5808

2. DIVERSION USED TO OBTAIN GROUNDWATER
Well - Attach well log, if available
Developed Spring (Excavation performed at the spring location)
Pit/Pond - Dimensions in feet Length Width Depth

3. PURPOSE AND PERIOD OF USE - Check the appropriate purposes and provide the period of use.
Domestic - This purpose includes up to 3 acres of lawn and garden
Used January 1 - December 31 Yes No If no, from to
Irrigation - If the total size of the area that is irrigated is larger than 3 acres, complete this information.
Used April 1 - October 31 Yes No If no, from to
Stock Used January 1 - December 31 Yes No If no, from to
Other - Describe the purpose
Used January 1 - December 31 Yes No If no, from to

4. POINT OF DIVERSION - Location of Ground water Development
SE 1/4 SW 1/4 Section 23 Twp 11 N/S Rge 20 E County Lincoln Co
Lot Block Tract No. Subdivision Name
Government Lot No. COS No.
Street or Road Address, including City, State & Zip Code of the Development

5. PLACE OF USE
Is the place where water is used the same as the point of diversion? Yes No
if no, enter the land description below.
Domestic Stock Irrigation Other
1/4 1/4 Section Twp N/S Rge E/W County Lincoln Co
Lot Block Tract No. Subdivision Name
Government Lot No. COS No.
Street or Road Address, including City, State & Zip Code of the Place of Use

6. AFFIDAVIT OF OWNERSHIP OR WRITTEN CONSENT
I have possessory interest in the property where the water has been put to beneficial use and I have the exclusive property rights in the ground water development works
OR
I have attached written consent of the person owning the ground water development works and/or written notification to the land owner pursuant to MCA 85-2-306(1).

The statements appearing here are to the best of my knowledge true and correct.

Appropriator's signature Stan Hendricksen Date: 6-2-08



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DEC 03 2009
DE JAMES

WELL LOG REPORT

File No. 2092

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

1. WELL OWNER
Name STAN HENDRICKSON

2. CURRENT MAILING ADDRESS
BOX 267
LOLO, MT. 59847

3. WELL LOCATION
SE 1/4 SW 1/4 Section 23
Township 17N NS Range 20W EW County MISSOULA
Gov't Lot _____ or Lot _____ Block _____
Subdivision Name _____
Tract Number _____

f) Duration of test: Pumping time 1 hrs.
g) Recovery time min hrs.
h) Recovery water level _____ ft. at 1 hrs. after pumping stopped.

Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.

NOTE: All wells shall be equipped with an access port 1/2 inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

4. PROPOSED USE: Domestic Stock Irrigation
Other specify _____

11. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how? _____

5. TYPE OF WORK:
New well Method: Dug Bored
Despined Cable Driven
Reconditioned Rotary Jetted

12. WELL LOG

Depth (ft.)		Formation
From	To	
0	3	SAND AND GRAVEL
3	25	SAND AND SILT DARK BROWN
25	41	SAND AND GRAVEL
		3' PACK

6. DIMENSIONS: Diameter of Hole
Dia. 6 in. from + 2 ft. to 41 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia. _____ from _____ ft. to _____ ft.
Threaded Welded Dia. 6" from +2 ft. to 41 ft.
Type 17.2 Wall Thickness 1/8"
Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
Weight _____ Dia. _____ from _____ ft. to _____ ft.

PERFORATIONS: Yes No
Type of perforator used TORCH
Size of perforations 5 in. by 5/32 in.
_____ perforations from 33 ft. to 38 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

SCREENS: Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

GRAVEL PACKED: Yes No Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

GROUTED: To what depth? 18 ft.
Material used in grouting BENTONITE

8. WELL HEAD COMPLETION:
PHess Adapter Yes No

ATTACH ADDITIONAL SHEETS IF NECESSARY

9. PUMP (if installed)
Manufacturer's name _____
Type _____ Model No. _____ HP _____

13. YELLOWSTONE CLOSURE AREA: WATER TEMPERATURE _____

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air _____ Pump _____ Bailor
b) Static water level immediately before testing _____ ft. If flowing; closed-in pressure _____ psf. _____ gpm.
Flow controlled by: _____ valve, _____ reducers, _____ other, (specify) _____
c) Depth at which pump is set for test 40
d) The pumping rate: _____ gpm.
e) Pumping water level _____ ft. at 1 hrs. after pumping began.

14. DATE COMPLETED 8/3/95

15. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 8/20/95
ESLINGER DRILLING & PUMP SERVICE
Firm Name
897 MC WILLIAMS DRIVE CORVALLIS MT.
Address
Signature Judy Eslinger License No. 44

DEPARTMENT COPY
DRILLER: Please give this copy to the well owner to complete reverse side.
OWNER: Complete reverse side and send to DNRC when the well is completed and the water has been used beneficially for the intended purpose.

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DEQ/EMB

ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 30042316 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 30042316 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200806021130

Type of Historical Right:

Max Flow Rate:

Max Volume:

Max Acres:

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER	N	GROUNDWATER WELL		11N20W	23	SESESW		MISSOULA	41

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		DOMESTIC				11N20W	23	SESESW		MISSOULA

Geocodes:

Geocode
04197523301040000

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DEC 03 2009
DEQ/IEMB

ABRIDGED SUMMARY

Today's Date 6/26/2009

THIS ABRIDGED SUMMARY DOES NOT INCLUDE EVERY PIECE OF INFORMATION ABOUT THIS WATER RIGHT

TO REQUEST AN OFFICIAL ABSTRACT WATER RIGHT 76H 110959 00 [CLICK HERE](#)

STATE OF MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9th AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

Water Right Number: 76H 110959 00 **GROUND WATER CERTIFICATE**

Version: 1

Status: ACTV

Priority Date:(yyyymmdd): 200002151018

Type of Historical Right:

Max Flow Rate: 20.00

Max Volume: 5.98

Max Acres:

Owners:

Owner Name	Address 1	Address 2	City	State	Zip Code
HENDRICKSEN STANLEY C	PO BOX 267		LOLO	MT	59847

Sources:

ID	Source Name	Res	Source Type	Means of Div	TR	Sec	QS	GovtLot	County	Well Depth
1	GROUNDWATER N	N	GROUNDWATER WELL		11N20W	23	SESW		MISSOULA	

Uses:

ID	Irrigation Type	Purpose	ClimArea	VolAmt	Acreage	TR	Sec	QS	GovtLot	County
1		OTHER PURPOSE		5.98		11N20W	23	SESW		MISSOULA

dust control pit

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DEC 03 2009
D. J. ...

CODEL

Form No. 603 R2/81

063 Miss.

11N 23W 23

File No. 1286
0047482

WELL LOG REPORT

State law requires that this form be filed with the State within 60 days after completion 010923

1. WELL OWNER Name Berney Jones JUN 23 1982

2. CURRENT MAILING ADDRESS 3019 Tina
Missoula, Mt. 59801

3. WELL LOCATION County Missoula Range 20
Township 11 N Section 23
Lot 4 Block

4. PROPOSED USE Domestic Stock Irrigation
Other specify

5. DRILLING METHOD cable, bored,
 forward rotary, reverse rotary, jetted,
other (specify)

6. WELL CONSTRUCTION AND COMPLETION

Size of drilled hole	Size and weight of casing	From (feet)	To (feet)	Perforations Screen		
				Kind Size	From (feet)	To (feet)
6"	12LB 0	0	25	5"	17	22
				S101		

7. WHAT IS THE TEMPERATURE OF THE WATER?
20 Degrees Fahrenheit
 Measured Estimated

8. WATER LEVEL
Static water level 2 feet below land surface
NATURAL flowing; closed-in pressure _____ psi
Controlled by: _____ valve, _____ reducers,
other, (specify)

9. WELL TEST DATA _____ pump _____ bailer
 other, (specify) Air
Pumping level below land surface:
20 ft. after 4 hrs. pumping 50 gpm
_____ ft. after _____ hrs. pumping _____ gpm

10. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how?

11. DATE COMPLETED 6-21-82

12. WELL LOG

Depth (ft.)		Formation
From	To	
0	3	Top Soil
3	25	Sand & Gravel w/b.
		3ft Gravel Gravel Pack

13. DRILLER'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 6-22-82
Firm Name Ravalli Drilling
Address P.O. Box 527, Corvallis
Signature James R. Dequemb License No. 357

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION DNRG
32 SOUTH EWING HELENA, MONTANA 59620 449-3962

DEPARTMENT COPY

66063 2009
M: DEQUEMB

063 11N 20W 26 BA

Missoula

Approved Stock Form—State Publishing Co., Helena, Montana—1229

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JUN 1 1955

063 11N R. 30E

BA

County, Missoula

LOG

Montana Bureau of Mines and Geology

STATE OF MONTANA

ADMINISTRATOR OF GROUNDWATER
OFFICE OF STATE ENGINEER

011003

Notice of Completion of Groundwater Appropriation by Means of Well DEVELOPED AFTER JANUARY 1, 1952

(Under Chapter 237, Montana Session Laws, 1961)

Owner: Phyllis and/or Sun Valley Ranch
Archie J. Helms Address: Florence, Montana

Driller: Liberty Drilling Co. Address: Missoula, Montana

Date of Notice of appropriation of groundwater: None filed

Date well started: 4/12/63 Date completed: 4/19/63

Type of well drilled: Drilled Equipment used: Cable Tools
(Dug, Driven, bored or drilled) (Churn drill, rotary or other)

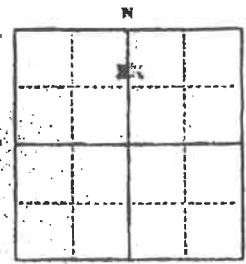
Water use: Domestic Municipal Stock Irrigation
Industrial Drainage Other

Indicate on the diagram the character and thickness of the different strata met with in drilling, such as soil, clay, shale, gravel, rock or sand, etc. Show depth at which water is encountered, thickness and character of water-bearing strata and height to which the water rises in the well.



Top of Ground
(Rev. Above sea level 5211)
Perforation logs
0 - 5 Sand
5 - 10 Sand & gravel
10 - 15 Sand & gravel
15 - 20 Sand & gravel
20 - 25 Sand & gravel
25 - 30 Sand & gravel
30 - 35 Sand & gravel
35 - 40 Sand & gravel
40 - 45 Sand & gravel
45 - 50 Sand & gravel
50 - 55 Sand & gravel
55 - 60 Sand & gravel
60 - 65 Sand & gravel
65 - 70 Sand & gravel
70 - 75 Sand & gravel
75 - 80 Sand & gravel
80 - 85 Sand & gravel
85 - 90 Sand & gravel
90 - 95 Sand & gravel
95 - 100 Sand & gravel

Size of Drilled Hole	Size and Weight of Casing	From (Feet)	To (Feet)	PERFORATIONS		
				Kind and Size	From (Feet)	To (Feet)
8"	2 3/8" OD X .328	11'	64'	7" OD Shop-made bellows solid bottom	63'	83'



Static Water Level for non-flowing well _____ feet.
Shut-in Pressure for Flowing Well _____ feet.
Pumping Water Level _____ feet
at _____ gal. per minute.
Discharge in gal. per min. of flowing well _____
non-flowing

How Tested: air lift pump
Length of Test: one hour
Remarks: (Gravel packing, cementing, packers, type of shutoff) water entering well through slots in screens.

Locality location of well on place of use, if possible. Each small square represents 40 acres.

(Continue on reverse side)

USE—If used for irrigation, industrial, drainage or other. Explain, state number of acres and location or other data (i.e.: Lot, Block and Addition).

60 acres

Show exact depth of bottom.

Bottom of hole: 85'

This form to be prepared by driller, and three copies to be filed by the owner with the County Clerk and Recorder in the county in which the well is located, tissue copy to be retained by driller.

Please answer all questions. If not applicable, so state, otherwise the form will be returned.

66096

Driller's License Number

William E. Osburn
Driller's Signature

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DEC 3 2009
DEQ

Hamilton

11 N 20W 23

MISSOULA

Form No. 888 (1-7-88)

WELL LOG REPORT

File No. 3078

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

DBG 507

1. WELL OWNER
Name Max G. and Cynthia Bauer, Jr.

2. CURRENT MAILING ADDRESS
P.O. Box 3449, Missoula, MT 59501

3. WELL LOCATION
Township 11 N/S Range 20 EW County Missoula
Gov't Lot _____ or Lot _____ Block _____
Subdivision Name _____
Tract Number 3-11 004 5524

4. PROPOSED USE: Domestic Stock Irrigation
Other specify _____

5. TYPE OF WORK:
New well Method: Dug Bored
Deepened Cable Driven
Reconditioned Rotary Jetted

6. DIMENSIONS: Diameter of Hole
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

7. CONSTRUCTION DETAILS:
Casing: Steel Dia. 4" from 2 ft. to 60 ft.
Threaded Welded Dia. _____ from _____ ft. to _____ ft.
Type 4530 Wall Thickness .250
Casing: Plastic Dia. _____ from _____ ft. to _____ ft.
Weight _____ Dia. _____ from _____ ft. to _____ ft.
PERFORATIONS: Yes No
Type of perforator used _____
Size of perforations _____ in. by _____ in.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

SCREENS: Yes No
Manufacturer's Name _____
Type _____ Model No. _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

GRAVEL PACKED: Yes No Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

GRAOUTED: To what depth? 20 ft.
Material used in grouting acrylonitrile

8. WELL HEAD COMPLETION:
Pitless Adapter Yes No

9. PUMP (if installed)
Manufacturer's name _____
Type _____ Model No. _____ HP _____

10. WELL TEST DATA
The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing.
All wells under 100 gpm must be tested for a minimum of one hour and provide the following information:
a) Air _____ Pump _____ Boiler _____
b) Static water level immediately before testing _____ ft. if flowing; closed-in pressure _____ psi. _____ gpm.
Flow controlled by: _____ valve, _____ reducers, _____ other, (specify) _____
c) Depth at which pump is set for test _____ ft.
d) The pumping rate: _____ gpm.
e) Pumping water level _____ ft. at _____ hrs. after pumping began.

f) Duration of test: Pumping time 20 hrs
g) Recovery time _____ hrs.
h) Recovery water level _____ ft. at _____ hrs. after pumping stopped.
Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form.
NOTE: All wells shall be equipped with an access port 1/2 inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.

11. WAS WELL PLUGGED OR ABANDONED? Yes No
If yes, how? _____

12. WELL LOG
Depth (ft.)
From To Formation

0	4	soil
4	15	sand, saturated
15	25	sand, gravel
25	45	soil
45	60	gravel, sand, water

ATTACH ADDITIONAL SHEETS IF NECESSARY

13. DATE COMPLETED 12/1/92

14. DRILLER/CONTRACTOR'S CERTIFICATION
This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date 3/30/92
Firm Name _____
Address _____
Signature _____ License No. _____

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
1820 EAST SIXTH AVENUE HELENA, MONTANA 59620-2301 444-6610

DNRC

223714

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DEPARTMENT—BUREAU COPY

063 11N 20W 26

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Form No. 603 R8/83

File No. 1626

WELL LOG REPORT JUN 05 1984

State law requires that this form be filed by the water well driller within 60 days after completion 010038 MONTANA DEPT OF NATURAL RESOURCES & CONSERVATION

1. WELL OWNER Name Boyd L. ANDERSON

2. CURRENT MAILING ADDRESS 20350 Old 90 South Florence, MT 59535

3. WELL LOCATION County Missouri County Township 11 N/S Range 20 E/W Section 26

4. PROPOSED USE Domestic [] Stock [] Irrigation [x] Other [] specify

5. DRILLING METHOD forward rotary [x] cable, bored, reverse rotary, jetted, other (specify)

6. WELL CONSTRUCTION AND COMPLETION Table with columns: Size of drilled hole, Size and weight of casing, From (feet), To (feet), Perforations and/or Screen, Kind Size, From (feet), To (feet). Includes handwritten data for 8" casing and 5" screen.

Was casing left open end? [x] Yes [] No
Was a packer or seal used? [] Yes [x] No
Was the well gravel packed? [] Yes [x] No
Was the well grouted? [x] Yes [] No
To what depth? 20'
Material used in grouting NATURAL
Well head completion: Pitless adapter [] Yes [x] No
Top of casing 12 in. or greater above grade [x] Yes [] No

7. WHAT IS THE TEMPERATURE OF THE WATER? 45 Degrees Fahrenheit [] Measured [x] Estimated

8. WATER LEVEL Static water level 21 feet below land surface
If flowing; closed-in pressure psi
Controlled by: valve, reducers, other (specify)

9. WELL TEST DATA pump baller other (specify) AIR
Pumping water level below land surface: 44 ft. after 2 hrs. pumping 1.0 gpm

10. WAS WELL PLUGGED OR ABANDONED? Yes [] No [x] If yes, how?

11. DATE COMPLETED 5/31/84

12. WELL LOG Table with columns: Depth (ft.) From, To, Formation. Includes handwritten data for 0 to 47 feet depth.

13. DRILLER'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge.
Date
Firm Name
Address
Signature License No.

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION DNRRC 32 SOUTH EWING HELENA, MONTANA 59620 449-3862

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DEPARTMENT - BUREAU COPY

11N20W23AC

11/8/95

FORM NO. 903 OF 9-89

WELL LOG REPORT

File No. 6343

State law requires that the Bureau's copy be filed by the water well driller within 60 days after completion of the well.

1. WELL OWNER Name <u>Bath Henderson</u>	f) Duration of test: Pumping time <u>1</u> hrs. g) Recovery time <u>1 1/2</u> hrs. h) Recovery water level <u>10</u> ft. at <u>1</u> hrs. after pumping stopped.									
2. CURRENT MAILING ADDRESS <u>P.O. Box 864 LoLo, Mt. 59847</u>	Wells intended to yield 100 gpm or more shall be tested for a period of 8 hours or more. The test shall follow the development of the well, and shall be conducted continuously at a constant discharge at least as great as the intended appropriation. In addition to the above information, water level data shall be collected and recorded on the Department's "Aquifer Test Data" form. NOTE: All wells shall be equipped with an access port 1/2 inch minimum or a pressure gauge that will indicate the shut-in pressure of a flowing well. Removable caps are acceptable as access ports.									
3. WELL LOCATION <u>COS#329</u> <u>1/4 SW 1/4 NE 1/4 Section 23</u> Township <u>11N</u> N1/2 Range <u>20W</u> E/W County <u>Missoula</u> Gov't Lot _____ or Lot _____, Block _____ Subdivision Name _____ Tract Number _____	11. WAS WELL PLUGGED OR ABANDONED? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how? _____									
4. PROPOSED USE: Domestic <input checked="" type="checkbox"/> Stock <input type="checkbox"/> Irrigation <input type="checkbox"/> Other <input type="checkbox"/> specify _____	12. WELL LOG Depth (ft.) From To Formation									
5. TYPE OF WORK: New well <input checked="" type="checkbox"/> Method: Dug <input type="checkbox"/> Bored <input type="checkbox"/> Deepened <input type="checkbox"/> Cable <input type="checkbox"/> Driven <input checked="" type="checkbox"/> Reconditioned <input type="checkbox"/> Rotary <input checked="" type="checkbox"/> Jetted <input type="checkbox"/>	<table border="1"> <tr><td>0</td><td>1</td><td>well</td></tr> <tr><td>1</td><td>5</td><td>sand, gravel</td></tr> <tr><td>5</td><td>58</td><td>sand, gravel</td></tr> </table>	0	1	well	1	5	sand, gravel	5	58	sand, gravel
0	1	well								
1	5	sand, gravel								
5	58	sand, gravel								
6. DIMENSIONS: Diameter of Hole Dia. _____ in. from _____ ft. to _____ ft. Dia. _____ in. from _____ ft. to _____ ft. Dia. _____ in. from _____ ft. to _____ ft.	ATTACH ADDITIONAL SHEETS IF NECESSARY									
7. CONSTRUCTION DETAILS: Casing: Steel Dia. <u>5"</u> from <u>+2</u> ft. to <u>58</u> ft. Threaded <input type="checkbox"/> Welded <input checked="" type="checkbox"/> Dia. _____ from _____ ft. to _____ ft. Type <u>A53B</u> Well Thickness <u>.250</u> Casing: Plastic Dia. _____ from _____ ft. to _____ ft. Weight _____ Dia. _____ from _____ ft. to _____ ft. PERFORATIONS: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Type of perforator used _____ Size of perforations _____ in. by _____ in. _____ perforations from _____ ft. to _____ ft. _____ perforations from _____ ft. to _____ ft. _____ perforations from _____ ft. to _____ ft. SCREENS: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Manufacturer's Name _____ Type _____ Model No. _____ Dia. _____ Slot size _____ from _____ ft. to _____ ft. Dia. _____ Slot size _____ from _____ ft. to _____ ft. GRAVEL PACKED: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Size of gravel _____ Gravel placed from _____ ft. to _____ ft. GROUTED: To what depth? _____ ft. Material used in grouting <u>Bentonite. Sealed as required by rule 136-21-354.</u>										
8. WELL HEAD COMPLETION: Pitless Adapter <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13. YELLOWSTONE CLOSURE AREA: WATER TEMPERATURE _____									
9. PUMP (if installed) Manufacturer's name _____ Type _____ Model No. _____ HP _____	14. DATE COMPLETED <u>11-7-95</u>									
10. WELL TEST DATA The information requested in this section is required for all wells. All depth measurements shall be from the top of the well casing. All wells under 100 gpm must be tested for a minimum of one hour and provide the following information: a) Air <input checked="" type="checkbox"/> Pump _____ Baile <input type="checkbox"/> b) Static water level immediately before testing _____ ft. If flowing: closed-in pressure _____ psi. _____ gpm. Flow controlled by: _____ valve, _____ reducers, _____ other, (specify) _____ c) Depth at which pump is set for test _____ d) The pumping rate: <u>30</u> gpm e) Pumping water level _____ ft. at _____ hrs. after pumping began.	15. DRILLER/CONTRACTOR'S CERTIFICATION This well was drilled under my jurisdiction and this report is true to the best of my knowledge. Date <u>11-22-95</u> <u>Jecome's Drilling Co; Inc.</u> Firm Name <u>P O Box 4845, Missoula, MT 59806</u> Address <u>Robert Jecome 249</u> Signature License No.									
MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION 1520 EAST SIXTH AVENUE P.O. BOX 202301 HELENA, MONTANA 59620 - 2301 444-6610										

152123 RECEIVED
 M:153 DEB 03 2009
 DEQ/EMB

11N 20 W 23 CAA
MONTANA WELL LOG REPORT

142413

Form No. 603 R2-99

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:

Name Kirk Ellison
Mailing address 19400 Hwy 93
Flower Mts 1217 55233

2. WELL LOCATION: List 1/4 from smallest to largest

N 1/4 1/4 NE 1/4 SW 1/4, Section 33
Township 11N S Range 20E N County Musselshell
Lot _____ Tract/Blk _____ Subdivision Name _____
Well Address _____
GPS Yes No
Latitude _____ Longitude _____
Error as reported by GPS locator (\pm feet) _____
Horizontal datum: NAD83 WGS84

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other: _____

4. TYPE OF WORK: New well Deepen existing well Abandon existing well
Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:

Borehole:
Dia. 6 in. from RT ft. to 16 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Casing:
Steel: Wall thickness 120 Threading Threaded Welded
Dia. 6 in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Plastic: Pressure Rating _____ lbs. Threaded Welded
Dia. _____ in. from _____ ft. to _____ ft.
Perforations/Slotted Pipe:
Type of perforator used Touch
Size of perforations/slots 1/4 in. by 6 in.
12 no. of perforations/slots from _____ ft. to _____ ft.
_____ no. of perforations/slots from _____ ft. to _____ ft.
Screens: Yes No
Material:
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Gravel Packed: Yes No
Size of gravel _____
Gravel placed from _____ ft. to _____ ft.
Packer: Yes No
Type _____ Depth(s) _____
Grout: Material used Pneumite
Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (See details on well log report cover.)

Static water level 6 ft. below top of casing or
 Closed-in artesian pressure _____ psi.
How was test flow measured:
bucket/stopwatch, weir, flume, flowmeter, etc
Yellowstone groundwater closure area only - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.

Air test*
45 gpm with drill stem set at 4 ft. for 1 hours
Time of recovery _____ hrs/min. Recovery water level 6 ft.

OR Baller test*
_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*
Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*
_____ gpm for _____ hours
Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: PE

Depth, Feet		Material:
From	To	color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
<u>0</u>	<u>1</u>	<u>Topsoil 1' thick</u>
<u>1</u>	<u>16</u>	<u>Dark brown sand 15'</u>

ADDITIONAL SHEETS ATTACHED
8. DATE WELL COMPLETED: 4-3-00

9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Paul J. Hing
Address PO Box 10000, Helena, MT 59612
Signature _____
Date 4-7-00 License no. _____



T1N 20W 23 CB
MONTANA WELL LOG REPORT

Form No. 602 (2-03)

Well ID# 6006

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:
Name Scott Leibenauth
Mailing address 19100 Old Highway 93 Highway
Flourco Montana 59233

2. WELL LOCATION List it from smallest to largest
T₁N R₂₀W S₂₃
Township 11NWS Range 20E County MUSKOGEE
Lot _____ Tract/Blk _____ Subdivision Name _____
Well Address _____
GPS: Yes No
Latitude _____ Longitude _____
Elev. as reported by GPS (elevation in feet) _____
Horizontal datum: NAD83 WGS84

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other:

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. _____ in. from _____ ft. to 100' ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.
Casing:
Steel: Wall thickness .250" Threaded Welded
Dia. 6" in. from +2' ft. to 40' ft.
Dia. _____ in. from _____ ft. to _____ ft.
Plastic: Pressure Rating _____ lbs. Threaded Welded
Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:
Type of perforator used _____
Size of perforations/slots _____ in. by _____ in.
_____ no. of perforations/slots from _____ ft. to _____ ft.
_____ no. of perforations/slots from _____ ft. to _____ ft.
Screens: Yes No
Material _____
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Gravel Packed: Yes No
Size of gravel _____
Gravel placed from _____ ft. to _____ ft.
Packer: Yes No
Type _____ Depth(s) _____
Grout: Material used _____
Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (See details on well log report cover)
 Static water level _____ ft. below top of casing or
 Closed-in artesian pressure _____ psi.
How was test flow measured:
_____ buckets/stopwatch, weir, flume, flowmeter, etc
Yellowstone Controlled Groundwater Area - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.
Air test*
_____ gpm with drill stem set at _____ ft. for _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.
OR Baller test*
_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.
OR Pump test*
Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*
_____ gpm for _____ hours
Flow controlled by _____
*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG: PE

Depth Feet		Material
From	To	color/rock and type/descriptor (example: blue/silt/clay, or brown/gravel/sand, or brown/sand/heaving)
0	2'	
2'	19'	Sand & Gravel
19'	100'	Gray & brwn clay. Sand & (no gravel) seams
		no water encountered

ADDITIONAL SHEETS ATTACHED
8. DATE WELL COMPLETED: 6-30-03
9. REMARKS:

10. DRILLER/CONTRACTOR'S CERTIFICATION:
All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.
Name, firm, or corporation (print) Jordan's Drilling Co
Address P.O. Box 10020 Missoula Montana 59808
Signature Randy Ketch
Date 11-5-03 License no. 500

Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6610
DEPARTMENT - BUREAU COPY
RECEIVED
207560
DEC 03 2009
207560
DEQ/EMB

NE Corner of Pasture

11N 20W 23 CE

MONTANA WELL LOG REPORT

Form No. M-27 (2-84)

Well ID#

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with MDMG within 90 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Record additional information in the REMARKS section.

1. WELL OWNER:
Name: Scott, Susan Leibanguth
Mailing address: 19100 Old Hwy 93 S.
Florence MT. 59833

2. WELL LOCATION: List it from smallest to largest:
NW 1/4 SW 1/4, Section 23
Township: 11N Range: 20W County: Missoula
OK

Well depth: 11600 Old Hwy 93 S.
Casing: Yes No
Screens: Yes No

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other

4. TYPE OF WORK:
 New well Deepen existing well Abandon existing well
Method: Cable Rotary Other

5. WELL CONSTRUCTION DETAILS:
Borehole:
Dia. 6 in. from 6.5 ft. to 80 ft.
Dia. _____ in. from _____ ft. to _____ ft.
Dia. _____ in. from _____ ft. to _____ ft.

Casing:
Steel: Wall thickness .250 Threaded Welded
Dia. 6 in. from +2 ft. to 80 ft.
Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating _____ lbs. Threaded Welded
Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:
Type of perforator used: Halte
Size of perforations/slots: 3/16 in. by 1 in.
5 no. of perforations/slots from 37 ft. to 26 ft.
 no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No
Material:
Dia. _____ Slot size _____ from _____ ft. to _____ ft.
Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No
Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Packer: Yes No
Type _____ Depth(s) _____

Grout: Material used Bentonite
Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:
A well test is required for all wells. (See details on well log report cover.)
 Static water level 31 ft. below top of casing or
 Closed-in artesian pressure _____ ps.
How was test flow measured:
buckets/slop/whatch. well, tube, flowmeter, etc _____

Voluntary Controlled Groundwater Area - Water Temperature _____ °F
 AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum.
Drawdown is the amount water level is lowered below static level.
All depth measurements shall be from the top of the well casing.
Time of recovery is hours/minutes since pumping stopped.

Air test:
8 gpm with drill stem set at 40 ft. for 2 hours
Time of recovery 10 hrs/min Recovery water level 31 ft.

OR Bailer test:
_____ gpm with _____ ft. of drawdown after _____ hours
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test:
Depth pump set for test _____ ft.
_____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian:
_____ gpm for _____ hours
Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the response of the well casing.

7. WELL LOG: PE

Depth, Feet		Material: color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/teasing)
From	To	
0	1'	Soil
1'	31'	Sand Gravel Bentonite
31'	80'	Root Base of bentonite
36'	80'	Clay Gravel Low Water

RECEIVED

AUG 21 2008

M.B.M.G.

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 7/22/08

9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print): Tedman Industries
Address: Box 20455
Signature: _____
Date: 11/20/08 License no.: 602

Montana Bureau of Mines & Geology
The University of Montana
1800 West Park Street
Butte, MT 59701

BUREAU OF MINES COPY

MEMO ID# DEC 03 2009
246587
DEC 03 2009
246587

MONTANA WELL LOG REPORT

Form No. 809 R2-04

Well ID# NR 757

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. This form is to be completed by the driller and filed with MBMG within 90 days of completion of the work. Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. ~~Other fields may be used as background.~~ Record additional information in the REMARKS section.

1. WELL OWNER:

Name Scott, Susan Leibmigh
 Mailing address 19100 Old Hwy 93 S.
Flamingo MT. 59833

2. WELL LOCATION: List N from smallest to largest

OK
 NW 1/4 SW 1/4, Section 23
 Township 11N Range 20E County Missoula
 Well depth: 80
 Well casing: 80
 Personal use Public Other Other Other

3. PROPOSED USE: Domestic Stock Irrigation
 Public water supply Monitoring Well Other:

4. TYPE OF WORK:

New well Deepen existing well Abandon existing well
 Method: Cable Rotary Other:

5. WELL CONSTRUCTION DETAILS:

Borehole:
 Dia. 6 in. from 63 ft. to 80 ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Dia. _____ in. from _____ ft. to _____ ft.
 Casing:
 Steel: Wall thickness .350 Threaded Welded
 Dia. 6 in. from 12 ft. to 80 ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating _____ lbs. Threaded Welded
 Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:
 Type of perforator used Helico
 Size of perforations/slots 7/16 in. by 1 in.
5 no. of perforations/slots from 24 ft. to 81 ft.
 _____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No
 Material _____
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No
 Size of gravel _____
 Gravel placed from _____ ft. to _____ ft.

Peeler: Yes No
 Type _____ Depth(s) _____

Grout: Material used Bentonite
 Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 33 ft. below top of casing or
 Closed-in artesian pressure _____ psi.

How was test flow measured:
 bucket/stopwatch, w/g. flume, flowmeter, etc _____

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level.
 All depth measurements shall be from the top of the well casing.
 Time of recovery is hours/minutes since pumping stopped.

Air test:
 _____ gpm with drill stem set at 50 ft. for 5 hours
 Time of recovery 51 hrs/min. Recovery water level 33 ft.

OR Baller test*

_____ gpm with _____ ft. of drawdown after _____ hours
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test*

Depth pump set for test _____ ft.
 _____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian*

_____ gpm for _____ hours
 Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG:

PE

Depth, Feet		Material;
From	To	color/rock and type/description (example blue/shale/hard, or brown/gravel/sand, or brown/sand/clay)
0	1'	Soil
1'	29'	Sand Gravel
29'	71'	Blended
71'	80'	Hardened Sand Gravel
80'	80'	Clay

RECEIVED

Aug 21 2008

MBMG

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 4/24/08

9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) Professional Drilling Co.
 Address Box 1000, Missoula, MT 59801
 Signature [Signature]
 Date 4/24/08 License no. 600

Montana Bureau of Mines & Geology
 The University of Montana
 1300 West Park Street
 Butte, MT 59701

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246595
DEC 03 2009

246595
DEC 03 2009

11N 20W 26 BA
MONTANA WELL LOG REPORT

Form No. 603 R2-00

Well ID# _____

This log reports the activities of a licensed Montana well driller and serves as the official record of work done within the borehole and casing and describes the amount of water encountered. **This form is to be completed by the driller and filed with DNRC within 60 days of completion of the work.** Acquiring Water Rights is the well owner's responsibility and is not accomplished by the filing of this report.

Well log information is stored in the Groundwater Information Center at the Montana Bureau of Mines and Geology (Butte) and water right information is stored in the Water Rights Bureau records (Helena).

For fields that are not applicable, enter NA. Optional fields have a grayed background. Record additional information in the REMARKS section.

1. WELL OWNER:

Name EARL REIMER
 Mailing address 2526 SUNSET LA.
MISSOULA MT. 59804

2. WELL LOCATION:

List ¼ from smallest to largest
 _____ ¼ _____ ¼ NE ¼ NW ¼, Section 26
 Township 11N Range 20E County MISSOULA
 Lot _____ Tract/Blk _____ Subdivision Name _____
 Well Address _____
 GPS Yes No
 Latitude _____ Longitude _____
 Error as reported by GPS locator (± feet) _____
 Horizontal datum: NAD27 WGS84

3. PROPOSED USE:

Domestic Stock Irrigation
 Public water supply Monitoring Well Other: _____

4. TYPE OF WORK:

New well Deepen existing well Abandon existing well
 Method: Cable Rotary Other: _____

5. WELL CONSTRUCTION DETAILS:

Borehole:
 Dia. 9 1/2 in. from 0 ft. to 20 ft.
 Dia. 7 1/4 in. from 20 ft. to 60 ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Casing:
 Steel: Wall thickness 2 1/2 Threaded Welded
 Dia. 6 3/4 in. from 12 ft. to 60 ft.
 Dia. _____ in. from _____ ft. to _____ ft.

Plastic: Pressure Rating NA lbs. Threaded Welded
 Dia. _____ in. from _____ ft. to _____ ft.

Perforations/Slotted Pipe:

Type of perforator used HOLTE
 Size of perforations/slots 1/4 in. by 1/2 in.
24 no. of perforations/slots from 31 ft. to 39 ft.
 _____ no. of perforations/slots from _____ ft. to _____ ft.

Screens: Yes No

Material _____
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.
 Dia. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel Packed: Yes No

Size of gravel _____
 Gravel placed from _____ ft. to _____ ft.

Paeker: Yes No

Type _____ Depth(s) _____

Grout: Material used SCANTON
 Depth from _____ ft. to _____ ft. OR Continuous feed

6. WELL TEST DATA:

A well test is required for all wells. (See details on well log report cover.)

Static water level 15.6 ft. below top of casing or
 Closed-in artesian pressure _____ psi.

How was test flow measured:
 Buckets/stopwatch weir, flume, flowmeter, etc

Yellowstone Controlled Groundwater Area - Water Temperature _____ °F

AQUIFER TEST DATA FORM ATTACHED

Test - 1 hour minimum

Drawdown is the amount water level is lowered below static level.
 All depth measurements shall be from the top of the well casing.
 Time of recovery is hours/minutes since pumping stopped.

Air test:
15 gpm with drill stem set at 40 ft. for 1 hours
 Time of recovery 15 hrs/min. Recovery water level ASL

OR Geller test:

_____ gpm with _____ ft. of drawdown after _____ hours
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Pump test:

Depth pump set for test _____ ft.
 _____ gpm pump rate with _____ ft. of drawdown after _____ hrs pumping
 Time of recovery _____ hrs/min. Recovery water level _____ ft.

OR Flowing Artesian:

_____ gpm for _____ hours
 Flow controlled by _____

*During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

7. WELL LOG:

Depth, Feet		Material
From	To	color/rock and type/descriptor (example: blue/shale/hard, or brown/gravel/water, or brown/sand/heaving)
0	3	Soil
3	15	SAND SILT
15	45	COARSE SANDY GRAVEL & CLAY w/ water
45	60	COARSE SAND w/ water
RECEIVED		
FEB 02 2006		
M.B.M.G.		

ADDITIONAL SHEETS ATTACHED

8. DATE WELL COMPLETED: 12/28/05

9. REMARKS: _____

10. DRILLER/CONTRACTOR'S CERTIFICATION:

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name, firm, or corporation (print) SULLIVAN DRILLING INC.

Address PO BOX 445 ALBERTA MT 59212

Signature [Signature]

Date 1-15-06 License no. 552



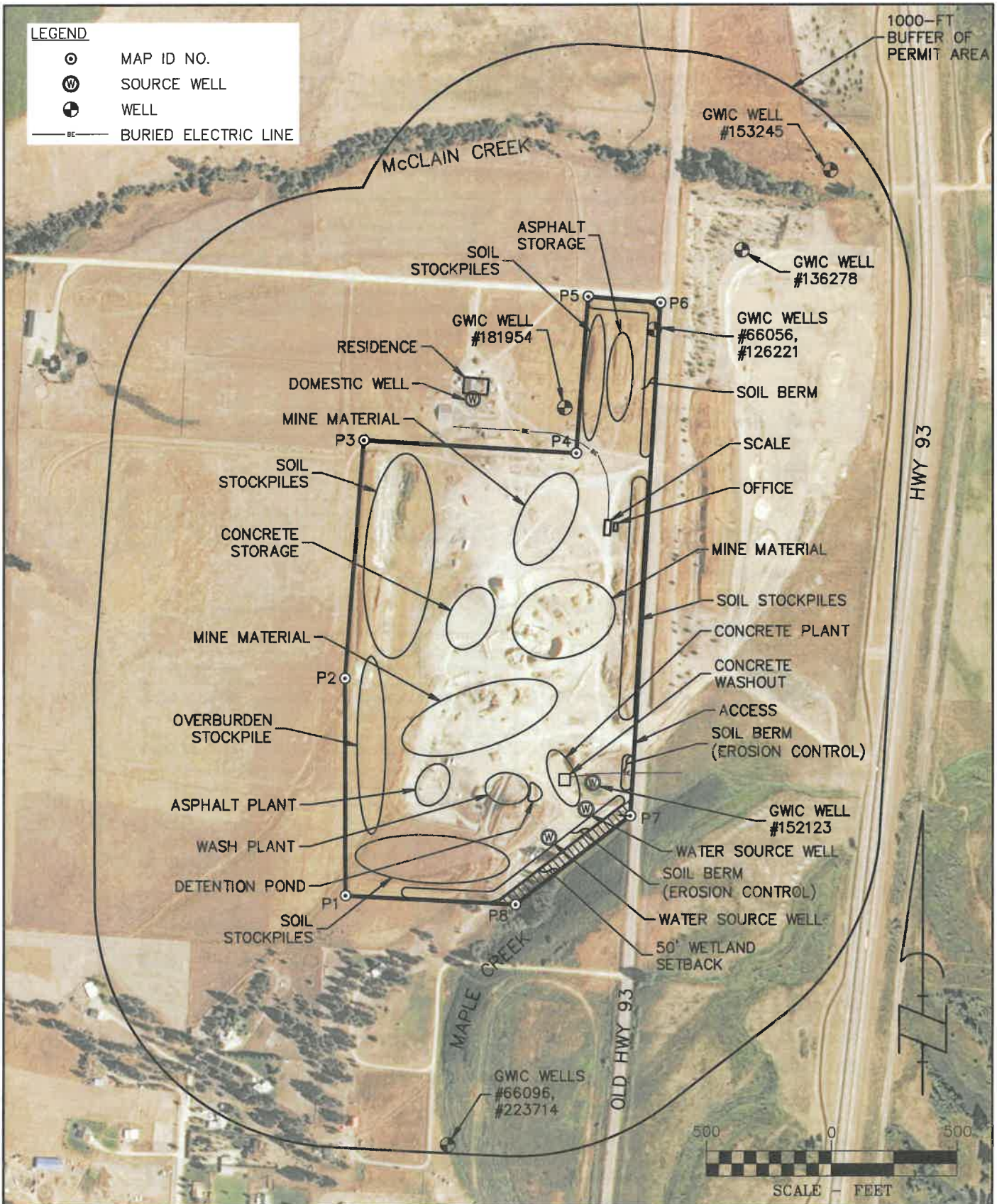
Montana DNRC P.O. BOX 201601 HELENA, MT 59620-1601 444-6610

MSMG ID#

DEPARTMENT - BUREAU COPY

DEC 03 2009
 223 DEC
 223714

LEGEND	
⊙	MAP ID NO.
⊙	SOURCE WELL
⊙	WELL
—BE—	BURIED ELECTRIC LINE




MAP 2 - SITE MAP
 OPERATOR NAME: WESTERN MATERIALS, LLC
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

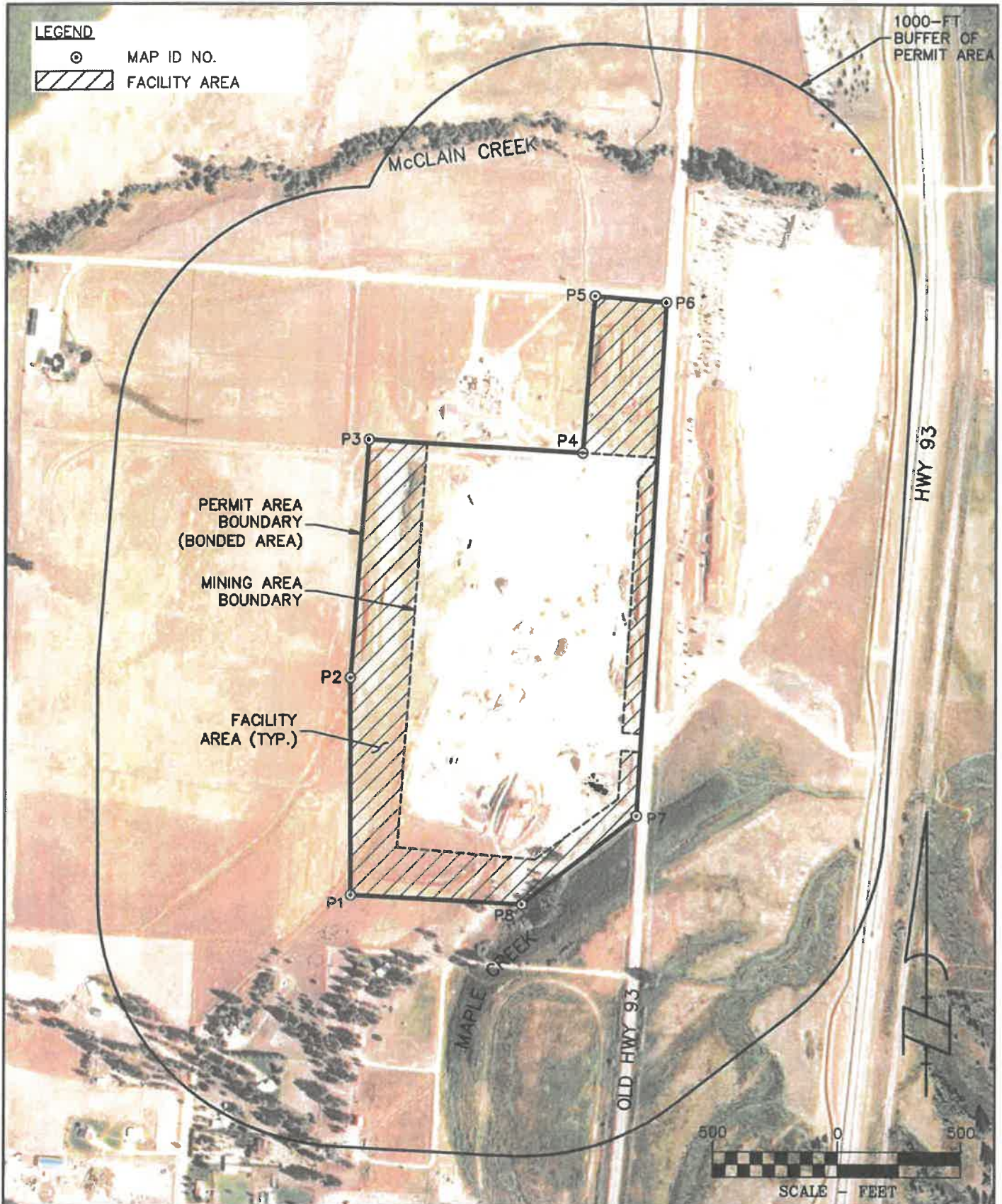
WGM GROUP
 ENGINEERING • SURVEYING • PLANNING
 1111 EAST BROADWAY • MISSOULA, MONTANA 59702
 TEL: 406-728-4611 • FAX: 406-728-2476

PROJECT: 14-09-07
 FILE No: 140907exh-site map.dwg
 FILE PATH: \\Projects\140907\CAD Data\Exhibits
 LAYOUT: Layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: CEG
 APPROVE: MJS
 DATE: JUNE / 2016
 SHEET: 1 OF 1 SHEETS

LEGEND

- ⊙ MAP ID NO.
-  FACILITY AREA

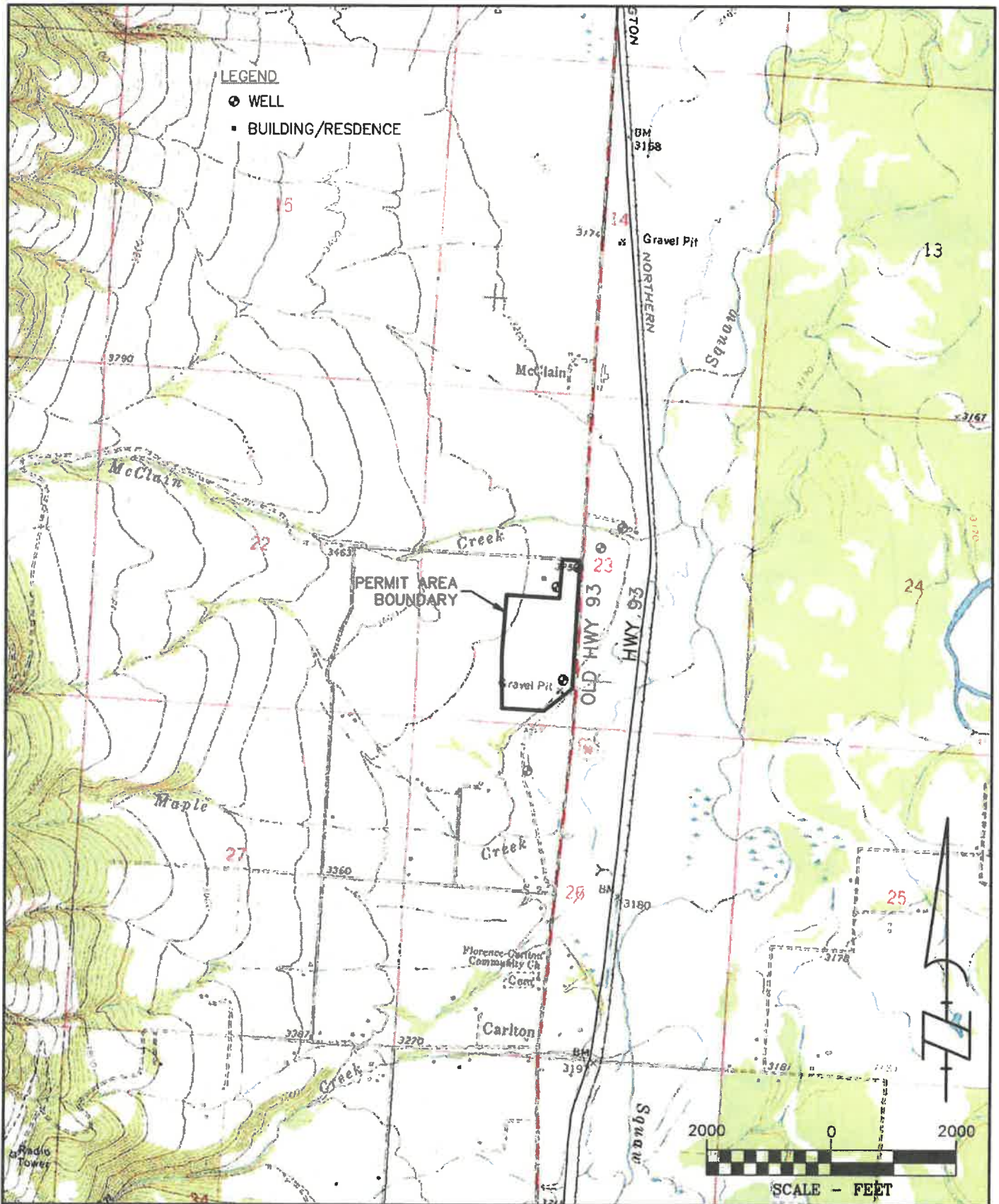
1000-FT
BUFFER OF
PERMIT AREA



MAP 3 - SITE MAP - BOUNDARIES
 OPERATOR NAME: WESTERN MATERIALS, LLC
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

WGM
GROUP
 ENGINEERING • SURVEYING • PLANNING
 1111 EAST BROADWAY • MISSOULA, MT 59802
 TEL: 406-728-4611 • FAX: 406-728-2476

PROJECT: 14-09-07
 FILE No: 140907ash-site map-bndry.dwg
 FILE PATH:
 Project\140907\140907ash-bndry.dwg
 LAYOUT: Layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: CEG
 APPROVE: MJS
 DATE: JUNE 2016
 SHEET 1 OF 1 SHEETS



MAP 1 - AREA MAP
 OPERATOR NAME: WESTERN MATERIALS, LLC
 MINE NAME: HENDRICKSEN GRAVEL PIT
 LOCATED IN THE SW 1/4 OF SECTION 23,
 T. 11 N., R. 20 W., P.M., M.
 MISSOULA COUNTY, MONTANA

WGM
GROUP
 ENGINEERING • SURVEYING • PLANNING
 1111 EAST BROADWAY • MISSOULA, MT 59802
 TEL: 406-728-4611 • FAX: 406-728-2476

PROJECT: 14-08-07
 FILE No: 140807axb-vicinity map.dwg
 FILE PATH:
 R:\Projects\140807\140807axb\vicinity map.dwg
 LAYOUT: Layout1
 SURVEYED: ---
 DESIGN: ---
 DRAFT: CEG
 APPROVE: MUS
 DATE: JUNE 2016
 SHEET: 1 OF 1 SHEETS

OPERATOR PROPOSED PERMIT BOUNDARY COORDINATES TABLE

Purpose of this Boundary Coordinate Table: Amendment Application

- 1) Use this form to submit coordinates to delineate the **Operator Proposed Permit Boundary**.
- 2) If delineating multiple Permit Boundaries, use separate **Operator Proposed Permit Boundary** tables to delineate each Permit Boundary.
- 3) When providing coordinates for an **Amended** Permit boundary, you must include coordinates that delineate the *entire* new Operator Proposed Permit Boundary (i.e. one proposed boundary that encompasses both the existing permitted boundary and proposed amendment area).
- 4) If **Bonded** and **Non-Bonded** area is present, complete the **Operator Proposed Non-Bonded Boundary Coordinate** table **in addition** to this form.
- 5) All boundaries are created automatically by a computer program, therefore
 - All coordinates **must** be in geographic sequence, so that the Operator Proposed Permit Boundary is created by connecting Map ID #P1 to Map ID #P2 to Map ID #P3, etc.
 - The last Map ID # in the BCT would connect to the first Map ID# to complete the boundary.
 - The Map ID# for each coordinate (e.g. P1, P2, P3 etc.) must be shown on the site map.
 - Coordinates must be submitted in **Decimal Degrees** and **WGS 84** datum and include a negative longitude to plot in Montana.
- 6) **Do Not** provide coordinates for any other features (e.g. screen, test holes, asphalt plant, etc.)
Do Not leave blank rows in between coordinates in the BCT. Providing coordinates for additional features or leaving spaces will result in a boundary that cannot be drawn and the BCT will be deemed incomplete and/or deficient
- 7) Only put numerical coordinates in the Latitude or Longitude boxes (i.e. no "N" or "W"), or this BCT will not be accepted. Coordinates must be in decimal degree format and provided to the fifth decimal point.
 Example: Latitude 46.58946 & Longitude -112.00480.
- 8) Email the completed Microsoft Excel table to: DEQopencut@mt.gov with "Subject" line: **BCT (Operator-Site Name)**. Do **not** include a printed version of this table with the paper application submitted to the Program's Helena office.

Operator Name: Western Materials LLC

Site Name: Hendricksen Pit

Permit # (if not a new app) 2681 **Date:** 6/9/2016

MAP ID#	LATITUDE	LONGITUDE (must be negative)	DESCRIPTION (not required)
P1	46.69041	-114.08219	
P2	46.69277	-114.08240	
P3	46.69536	-114.08232	
P4	46.69536	-114.07893	
P5	46.69707	-114.07888	
P6	46.69704	-114.07774	
P7	46.69145	-114.07773	
P8	46.69042	-114.07947	
P9		-	
P10		-	
P11		-	
P12		-	
P13		-	
P14		-	
P15		-	
P16		-	
P17		-	
P18		-	

RECEIVED VIA ELECTRONIC FTS 06/08/2016

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
INDUSTRIAL & ENERGY MINERALS BUREAU
PO BOX 200901
HELENA MT 59620-0901
PHONE: 406 444-4970 FAX: 444-1923

Operator: _____
Permit Number: _____
(Provided By The Department)

VERIFICATION OF NOXIOUS WEED CONTROL PLAN

(To be submitted as part of an application for a Mined Land Reclamation Permit)

Stan Hendricksen (operator) has submitted and received approval for a plan to control noxious weeds on land to be disturbed by and permitted for, Opencut Mining operations in the SW 1/4 SW 1/4, Section 23, Township 11N N/S, Range 20W E/W, Missoula County. [See exception below]

Subject land is owned by: Stan Hendricksen
Name

_____ for _____ County Weed District
Name

Signature Date

THIS SECTION TO BE COMPLETED ONLY IF APPLICANT IS UNABLE TO SECURE AN APPROVED NOXIOUS WEED CONTROL PLAN

Applicant affirms that he/she has attempted to secure a noxious weed control plan as indicated above, but that for unspecified reasons, the respective weed district was unavailable for consultation and direction. Applicant further affirms respective weed district was notified but was unable to approve or provide a noxious weed control plan within five (5) working days of notification.

Enclose documentation such as certified mail receipt with copy of letter and/or request to meet, or sworn statement that a weed district representative verbally declined to meet.

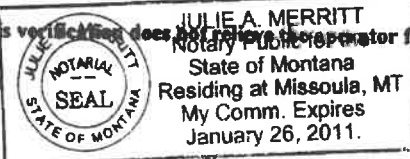
Stan Hendricksen
Applicant's Signature

I hereby swear that I did verbally contact the Missoula Co. weed district, on Oct. 13 (date) but said district was unable to provide or approve a Noxious Weed Control Plan within five (5) working days of the aforementioned date.

Julie A. Merritt
Notary
Julie A. Merritt

Julie A. Merritt
Signature

This verification does not release the operator from controlling noxious weeds on any lands permitted under the Opencut Mining Act.


JULIE A. MERRITT
Notary Public
State of Montana
Residing at Missoula, MT
My Comm. Expires
January 26, 2011.

RECEIVED
Opencut Mining 10/9/09
DEC 03 2009
MISSOULA

Reclamation Bond Spreadsheet

INSTRUCTIONS: Enter your data in the shaded boxes. See page 3 for detailed instructions.

Operator: Western Materials, LLC
Site: Hendricksen Pit
Prepared by: Michael J. Smith, WGM Group, Inc.
Date: 6/7/2015

Total Permitted Acres = 50.0 acres*

*Must match the "Total Permitted Acres" in A1-10 of the Opencut Mining Plan of Operation & Application.

Comments:

BONDED ACREAGE BREAKDOWN

Must match the "Bonded Acres" in section A1-11 of the Opencut Mining Plan of Operation & Application.

Mine Area 31.0 acres
 Facility Area 19.0 acres
 Access Road _____ acres
 Bond Reduction Area _____ acres
Total Bonded Area = 50.0 acres**

**The Total Bonded Area must be identical to the Bond submitted by the Operator to the Department.

Highwall reduction, backfilling, soil and overburden replacement

Lineal Feet & Height must match section D3-8 of Opencut Mining Plan of Operation & Application

Highwall cut/fill (describe)	linear feet	height	slope ratio	cubic yards	
	3,456	25	3:1	30,000	total
			:1	0	30,000

Highwall Backfill (e.g. to reclaim highwalls that will not or cannot be cut and filled during mining, etc.)

Description	linear feet	height	slope ratio	cubic yards	
			:1	0	total
			:1	0	0

Mine Material Backfill (e.g. bringing offsite material to the site for backfill, etc.)

Description	acres	depth	compaction %	cubic yards	
				0	total
				0	0

Mine soil replacement	12	inches soil	Overburden Replacement	6	inches OB	total	18	
Facility soil replacement	12	inches soil	* Soil and overburden inches much match section C2-2.				total	12
Access road soil replacement		inches soil				total	0	

ITEM	UNIT	AMOUNT	RATE	TOTAL	
Highwalls and backfill		30,000 cu yds	\$1 per cubic yard	\$30,000	
Mine area grading		31.0 acres	\$200 per acre	\$6,200	
Mine area ripping		31.0 acres	\$100 per acre	\$3,100	
Mine soil and OB replacement	18	inches	\$135 per inch/per acre	\$75,330	
Facility area grading		19.0 acres	\$100 per acre	\$1,900	
Facility area ripping		19.0 acres	\$100 per inch/per acre	\$1,900	
Facility soil replacement	12	inches	\$135 per inch/per acre	\$30,780	
Access road area grading		0.0 acres	\$100 per acre	\$0	
Access road area ripping		0.0 acres	\$100 per inch/per acre	\$0	
Access road soil replacement	0	inches	\$135 per inch/per acre	\$0	
Seeding or other revegetation		50.0 acres	\$200 per acre	\$10,000	
Fencing		linear ft	\$1 per linear foot	\$0	
Weed control		50.0 acres	\$100 per acre	\$5,000	
Partially released acres		0.0 acres	\$300 per acre	\$0	
Cost to crush onsite asphalt		10000.0 cu yds	\$4 per cubic yard	\$40,000	
Cost to Purchase and Place Importation of Soil/Fill		cu yds	\$15 per cubic yard	\$0	
Cost to Bond for Reject Fines		cu yds	\$1 per cubic yard	\$0	
				\$0	
				\$0	
				\$0	
Estimated Mobilization cost to move equipment to the site (DEQ's cost):			\$3,000	\$3,000	
Estimated Administration Costs = 10% of total bond cost or \$5,000 (whichever is greater)			\$20,721	\$20,721	
Total Area Bonded =	50.0	Rate Per Bonded Acre =	\$4,558.62	TOTAL BOND =	\$227,931

LANDOWNER CONSULTATION

This form is required to apply for an Opencut Mining permit or an amendment to: *a)* add acreage, an asphalt plant, or a concrete plant; *b)* change the postmining land use; or *c)* extend the reclamation date [MCA 82-4-432(2)(d); ARM 17.24.206].

OPERATOR SECTION: All fields must be completed.

Operator: Western Materials, LLC

Site: Hendricksen Pit

County: Missoula

Section 23 Township 11 N or S Range 20 E or W and Section _____ Township N or S Range E or

W

The person signing below represents that (check one box):

I am an officer or an employee of the Operator and I am duly authorized to bind the Operator, which is a corporation, limited partnership, limited liability company, or other corporate entity in good standing and authorized to do business in Montana, and in this capacity I acknowledge and certify that:

Or

I am the Operator and I acknowledge and certify that:

- 1) The Operator consents to and acknowledges that the DEQ and its representatives may access the site to inspect the permit area at any reasonable time, and that while the DEQ attempts to provide reasonable notice of an inspection to the operator when practicable under the circumstances, inspections may be conducted without prior notice as necessary to determine whether Opencut operations are being conducted in compliance with the permit, Act, and rules [82-4-422(1)(d) and 425, MCA] & [ARM 17-24-206(2)(f) and 206(3)].
- 2) The Operator shall complete reclamation: *a)* in accordance with the approved Plan of Operation and as concurrent with operations as feasible; *b)* within one year of the cessation of operations or the termination of the right to conduct operations; and *c)* no later than the permitted final reclamation date.

By:


Signature

Brandon Bowman

Legibly print or type name

Construction Manager

Title

June 23, 2016

Date

IMPORTANT: If the Operator is the Landowner, do not complete the Landowner section below, UNLESS the proposed site is located in Sage Grouse Habitat. If the site is in Sage Grouse Habitat, section E must be completed and signed by the Landowner.

LANDOWNER SECTION: All fields must be completed. A private road may be included as affected land only with the landowner's consent [MCA 82-4-403(1)].

A. Does the Landowner want the Operator to permit an access road(s) (i.e. existing or proposed non-public road that connects an Opencut operation to a public access)?

Not applicable: The site will be accessed from the immediately adjacent public road.

No: The landowner does not want an access road included in the permit.

Yes and: Access road will be reclaimed at final reclamation or Access road will remain at final reclamation

If the access road will remain at final reclamation, describe the length, width, and location of each permitted road to be left:

Road 1 - Length: _____ feet Width: _____ feet, Location must be identified on the site map and reclamation map.

Road 2 - Length: _____ feet Width: _____ feet, Location must be identified on the site map and reclamation map.

B. Does the Landowner want stockpile(s) of mine material left at the conclusion of Opencut operations? No Yes

Note: *a)* mine material must be left in a location that will be accessible by road; *b)* the total volume of mine material left is typically 10,000 cubic yards or less (to help ensure it can be consumed and the site reclaimed within 5-10 years); and *c)* once consumed, the Landowner is responsible for reclaiming the area using a soil stockpile left by the Operator for that purpose.

If Yes, as per ARM 17.24.219(1)(b), describe the type and volume of mine material(s) to be left:

1. Type of mine material(s) to be left: Gravel Sand Other: _____

2. Total volume of mine material to be left in cubic yards: _____

3. If the total is more than 10,000 cubic yards, identify potential local uses consistent with it being consumed within 5-10 years: _____

C. Does the Landowner consent to allow the burial of onsite generated asphalt on their land within the permitted boundaries?

No Yes (in accordance with ARM 17.24.219(1)(b))

If Yes, refer to section D7-1 of the Opencut Mining Plan of Operation and Application.

LANDOWNER SECTION (Continued):

D. Landowner acknowledges and affirms the following:

1. The Operator is applying for a permit to conduct operations in accordance with: *a)* the Opencut Mining Act (Title 82, chapter 4, part 4, MCA); *b)* its implementing rules (ARM Title 17, chapter 24, subchapter 2); and *c)* the site-specific Plan of Operation.
2. The Landowner: *a)* owns the land and all its earthen materials; *b)* has been consulted by the Operator about the proposed Plan of Operation; and *c)* understands the Montana Department of Environmental Quality (DEQ) may require the Operator to revise that Plan before the permit or amendment is approved.
3. If the DEQ approves the permit, the following will apply to the permit area:
 - a. The Operator will have the exclusive right to conduct Opencut operations.
 - b. The Operator may allow another party to conduct permitted Opencut operations only if the Operator retains control over that party's activities and the Operator remains responsible for any violations that may occur.
 - c. The Landowner may not authorize Opencut operations by another party until that party obtains the Operator's permission.
4. The DEQ can enforce requirements of the Act, rules, and permit. Any other arrangements or understandings between the Landowner and Operator are private matters that should be stated in a separate written agreement between those two parties.
5. DEQ personnel have the right to access the site to inspect the permit area at any reasonable time. The Operator and DEQ's agents or contractors have the right to access the site to complete reclamation in accordance with the Plan of Operation.
6. The Operator may request Phase 1 or Phase 2 release of the permit once the site or a portion of it has been reclaimed according to the Plan of Operation. DEQ will notify the Operator and the Landowner of its decision regarding each release request.
7. DEQ typically releases a site reclaimed to cropland after one successful crop; a site reclaimed to perennial vegetation is typically released after two complete growing seasons or when revegetation is established, whichever is longer.
8. It is the Landowner's responsibility to disclose this form to any purchaser of the site prior to closing and to advise the purchaser of the status of the Opencut Mining permit.
9. If a pond remains at final reclamation, it may be the landowner's responsibility to obtain a water right from the DNRC if one is required.

E. The following must be filled out for sites located in Sage Grouse Habitat:

If the site is in Sage Grouse habitat designated by Executive Orders 12-2015 and 21-2015, and any part of the proposed permit area is privately owned, the private Landowner acknowledges that he/she:

- Has knowledge of the Montana Sage Grouse Habitat Conservation Program letter contained in the Opencut permit application, and understands the letter provides recommendations for reclamation of this site to maintain sage grouse populations and habitat so Montana can manage its own lands, wildlife, and economy, and a listing under the Endangered Species Act will not be warranted.
- Understands Executive Order 12-2015 stipulates that:
 - Reclamation should re-establish native grasses, forbs, and shrubs to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community and replace sage grouse habitat to the degree conditions allow.
 - Landowners should be consulted on the desired plant mix on private land and have the option of deciding whether the site will be reclaimed with the recommended sage grouse seed mix or an alternate seed mix.

Landowner chooses the following seed mix:

Recommended seed mix for sage grouse habitat Alternate seed mix as chosen in Section E6-4 of the application

Landowner (print or type): Stan Hendricksen

Address: 5985 McClain Creek Road

City: Lolo

State: MT

Zip: 59847

Phone#: 406-273-6767

Cell Phone# (optional): None

Email (optional): None

Landowner Signature: 

Date: June 23, 2016

FILED

09/05/2024

Amy McGhee
CLERK

Missoula County District Court
STATE OF MONTANA

By: Latishia lang

DV-32-2024-0000810-OC

Deschamps, Robert L III

3.00

EXHIBIT W

Opencut #: **2681**

OPENCUT MINING PERMIT

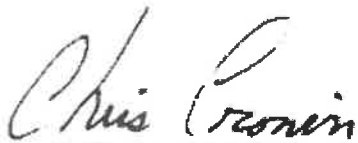
Amendment #: **3**

Pursuant to the Opencut Mining Act (MCA Title 82, chapter 4, part 4), the State of Montana, Department of Environmental Quality (DEQ) is authorized to issue Opencut Mining Permits when it finds the requirements of the Act and its implementing rules (ARM Title 17, chapter 24, subchapter 2) can be carried out and will be observed. The Act further authorizes the DEQ to issue permit amendments in accordance with Sections 82-4-422[1], 82-4-432[11], 82-4-434[5], and 82-4-436, MCA.

The DEQ issues this **permit** to **Western Materials, LLC** (Operator). The permit comprises a total of **50.0 acres** located in **Missoula County**, Montana, to be known as the **Hendricksen site**. The following provisions apply to this permit:

1. The DEQ approves the Operator's **amendment** application and incorporates it into the permit for all purposes. The Operator is hereby authorized to conduct Opencut operations in compliance with requirements of the permit, Act, and rules.
2. If the Operator violates the permit, Act, or rules the DEQ can take enforcement action which may include the assessment of penalties as specified in MCA 82-4-441.
3. The permit does not relieve the Operator's obligation to: *a)* comply with any other applicable federal, state, county, or local statutes, regulations, or ordinances, and *b)* obtain any other permits, licenses, approvals, etc. required for any part of the operation.
4. The Operator may allow another party to conduct Opencut operations only if the Operator: *a)* retains control over that party's activities and *b)* ensures there are no violations of the permit, Act, and rules. The Operator is accountable for violations at the permit site, even if the violations result from the activities of another person.
5. The Operator shall pay the annual fee on the total amount of materials mined at the site, including materials mined by other parties. The Operator's annual progress report shall indicate the total amount of materials mined.
6. The DEQ can only enforce requirements of the permit, Act, and rules. Therefore, Operator arrangements with another party (including the Landowner) should be stated in a separate written agreement between the two parties.
7. The Operator shall conduct reclamation: *a)* in accordance with the approved plan of operation; *b)* as concurrent with operations as feasible; and *c)* within one year of termination of the right to conduct operations, or the cessation of operations. If reclamation is not completed in the approved timeframe, after 30 days written notice the DEQ may order the Operator to cease operations. If operations do not cease, the DEQ may issue an order to reclaim, institute action to enjoin further operations, and sue for damages.
8. Unless the Operator is a governmental entity, a bond has been posted to ensure the site is reclaimed. If the site is not reclaimed as and when required, the DEQ may pursue forfeiture of the bond. If the bond is cancelled or invalidated, the Operator shall provide a valid bond within 30 days. If not provided, the DEQ may suspend the permit and require the Operator to cease operations.
9. The Operator may apply to amend the permit at any time. If approved, the amendment becomes part of the permit for all purposes. The DEQ may occasionally review the permit and require revisions.
10. The Operator shall allow the DEQ and its representatives to access the site at any time to determine if Opencut operations are being carried out in compliance with the permit, Act, and rules.
11. This permit is effective upon approval below by the DEQ.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY



Opencut Mining Program Supervisor

July 11, 2016

Industrial & Energy Minerals Bureau

Title

Date

EXHIBIT X

Opencut #: **2681**

OPENCUT MINING PERMIT

Amendment #: **4**

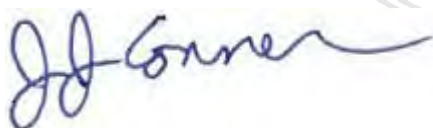
Pursuant to the Opencut Mining Act (MCA Title 82, chapter 4, part 4), the State of Montana, Department of Environmental Quality (DEQ) is authorized to issue Opencut Mining Permits when, on the basis of the information set forth in the application and an evaluation of the proposed opencut operations, it finds the requirements of the Act and its implementing rules (ARM Title 17, chapter 24, subchapter 2) can be carried out and will be observed. The Act further authorizes DEQ to issue permit amendments in accordance with Sections 82-4-422[1], 82-4-432[11], 82-4-434[5], 82-4-436, and 82-4-439[2], MCA.

DEQ issues this **permit** to **Western Materials, LLC** (Operator). The permit comprises a total of **66.0 acres** located in **Missoula County**, Montana, to be known as the **Hendricksen site**.

The following provisions apply to this permit:

1. DEQ approves the Operator’s **amendment** application and incorporates it into the permit for all purposes. The Operator is hereby authorized to conduct Opencut operations in compliance with requirements of the permit, Act, and rules.
2. If the Operator violates the permit, Act, or rules DEQ can take enforcement action which may include the assessment of penalties as specified in 82-4-441 MCA.
3. The permit does not relieve the Operator’s obligation to: *a)* comply with any other applicable federal, state, county, or local statutes, regulations, or ordinances, and *b)* obtain any other permits, licenses, approvals, etc. required for any part of the operation.
4. The Operator may allow another party to conduct Opencut operations only if the Operator: *a)* retains control over that party’s activities and *b)* ensures there are no violations of the permit, Act, and rules. The Operator is accountable for violations at the permit site, even if the violations result from the activities of another person.
5. The Operator shall pay the annual fee on the total amount of materials mined at the site, including materials mined by other parties. The Operator’s annual progress report shall indicate the total amount of materials mined.
6. DEQ can only enforce requirements of the permit, Act, and rules. Therefore, Operator arrangements with another party (including the Landowner) should be stated in a separate written agreement between the two parties.
7. The Operator shall conduct reclamation: *a)* in accordance with the approved plan of operation; *b)* as concurrent with operations as feasible; and *c)* within one year of termination of the right to conduct operations, or the cessation of operations. If reclamation is not completed in the approved timeframe, after 30 days written notice DEQ may order the Operator to cease operations. If operations do not cease, DEQ may issue an order to reclaim, institute action to enjoin further operations, and sue for damages.
8. Unless the Operator is a governmental entity, a bond has been posted to ensure the site is reclaimed. If the site is not reclaimed as and when required, DEQ may pursue forfeiture of the bond. If the bond is cancelled or invalidated, the Operator shall provide a valid bond within 30 days. If not provided, DEQ may suspend the permit and require the Operator to cease operations.
9. The Operator may apply to amend the permit at any time. If approved, the amendment becomes part of the original permit for all purposes. DEQ is authorized to review the permit and require revisions as specified in 82-4-435 MCA.
10. The Operator shall allow DEQ and its representatives to access the site at any time to determine if Opencut operations are being carried out in compliance with the permit, Act, and rules.
11. This permit is effective upon approval below by DEQ and expires **December 31, 2045**.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY



Opencut Mining Unit Coordinator

May 20, 2021

Coal & Opencut Mining Bureau

Title

Date

SPILL MANAGEMENT AND REPORTING POLICY

I. CONTAINMENT AND CLEANUP

All releases or spills of hazardous or deleterious substances or other wastes, regardless of size, must be properly and expeditiously managed, contained, and removed to protect public health and the environment. This policy is written to provide guidance on when and how to report spills. This policy is intended to assist in the implementation of the following Montana laws and the administrative rules adopted thereunder: Comprehensive Environmental Cleanup and Responsibility Act (§75-10-701, *et seq.*, MCA); Hazardous Waste Act (§75-10-401, *et seq.*, MCA); Solid Waste Management Act (§75-10-201, *et seq.*, MCA); Underground Storage Tank Act (§75-11-501, *et seq.*, MCA); and the Water Quality Act (§75-5-101, *et seq.*, MCA).

II. NOTIFICATION REQUIREMENTS

Petroleum releases from regulated aboveground storage tanks (AST), underground storage tanks (UST) or petroleum storage tanks (PST) must be reported to DEQ within 24 hours of being detected as required by ARM 17.56, Subchapter 5. DEQ must be notified of releases of greater than 25 gallons of petroleum from an AST, UST or PST. Petroleum releases less than 25 gallons in volume must be contained and cleaned up within 24 hours. If cleanup cannot be completed within 24 hours, owners and operators must report the release to DEQ. DEQ maintains a leak line for reporting releases from an AST, UST or PST at 800-457-0568. Outside normal business hours, releases must be reported to the DES Duty Officer 24-hour phone number at (406) 324-4777. Releases must be reported to a live person - voice mails are not adequate notification.

All other releases and spills should be reported immediately to the state's Disaster and Emergency Services (DES) Duty Officer 24-hour phone number: (406) 324-4777. In addition to the following reporting requirements, notification(s) may be required by permits issued by state, federal or local government agencies. **Notification to the National Response Center (NRC) may also be required. NRC can be reached at 800-424-8802. DES or DEQ are not responsible for notifying the NRC.**

A. The following types of spills **must** be reported:

- Releases or spills of hazardous substances in amounts that meet or exceed the reportable quantities in *40 CFR Part 302*.
- Spills, overfills, and suspected releases from underground storage tanks and petroleum storage tanks. *ARM 17.56.501, et seq.*
- Releases or spills of any materials that would lower the quality of groundwater below water quality standards. *ARM 17.30.1045.*

B. The following types of spills **should** be reported:

- Spills that enter or may enter state water or a drainage that leads directly to surface water;
- Spills that cause sludge or emulsion beneath the surface of the water, stream banks or shorelines;
- Spills that cause a film, "sheen," or change the color of the water, stream banks or shorelines; or
- Spills of twenty-five (25) gallons or more of any petroleum product such as: crude oil, gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil; produced water, injection water, salt water or combination thereof; and derivatives of mineral, animal, or vegetable oils.

For additional information:

Montana Department of Environmental Quality
Enforcement Division
Phone (406) 444-0379 Fax (406) 444-1923

For Office Use Only

Payor WGM Group Payment No. 80185 Payment Amt \$ 750.00 Date 8/28/20

OPENCUT MINING PLAN OF OPERATION AND APPLICATION

Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

INSTRUCTIONS - How to submit a complete and accurate Plan & Application:

1. Before completing this form, **verify you are using the most recent version** and read the help information available on the Opencut Mining Section’s website at <http://deq.mt.gov/Mining/opencut>.
2. Fill in all blanks and provide a detailed answer for each question. Write “None” if that is the correct answer.
3. This form includes automated calculations that require Microsoft Word 2010 or newer. As data is entered into this form, auto calculate fields will auto populate (tab out of each field to ensure they auto calculate). Autocalculate fields contain **red** text. If an autocalculate field is blank, either: a) the required information was not entered, or b) the blank field does not pertain to your application.
4. Opencut Mining Permits are “living” documents, meaning that whenever a permit is amended, the updated information replaces the outdated information. As a result, this form must be filled in completely for a **Permit** or an **Amendment**.
5. The Department of Environmental Quality (DEQ) strongly recommends completing this application form in electronic format. Doing so will make applying for a future amendment much easier. Operators should keep the original electronic files and backup copies.
6. Operator is required to submit all **Required Support Documents**, unless the exception box is appropriately checked. If the **Existing Approved Form Attached** box is checked, the Operator is required to submit a copy of the previously approved form with the amendment application. If permitted after 2010, the previously approved documents can be found on the Opencut website at <http://deq.mt.gov/Mining/opencut> (click on the “Search Opencut Permits” tab).
7. Ensure all additional support documents submitted have the same name or title shown in the “Support Documents” section. Include a Cover Letter with the application materials that lists the names of all “Other” support documents submitted.
8. Sign and date the certification in Section G.
9. Submit all required application materials to the Opencut Mining Section in Helena as one package.

ID	SUPPORT DOCUMENTS	
	Required	REQUIRED SUPPORT DOCUMENTS
a	<input checked="" type="checkbox"/>	<input type="checkbox"/> \$1,500 Non-Refundable Fee for a Permit application or for an Amendment application if the application date is >10 years from the date of the last permit/amendment approval; or <input checked="" type="checkbox"/> \$750 Non-Refundable Fee for an Amendment application if the application date is < 10-years from the date of the last permit/amendment approval. Make checks payable to Montana Department of Environmental Quality <input checked="" type="checkbox"/> This application was submitted electronically and the check is in the mail.
b	<input type="checkbox"/>	Consultation with DNRC on Sage Grouse <i>Exception:</i> <input checked="" type="checkbox"/> Opencut site not located in Core, General Habitat, or Interconnectivity Sage Grouse Areas: https://sagegrouse.mt.gov <i>Exception:</i> <input type="checkbox"/> Amendment is not changing the existing permit boundary; therefore, no new sage grouse consultation is needed.
c	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> SHPO Consultation (no Class III required) or <input type="checkbox"/> SHPO Concurrence Attached
d	<input checked="" type="checkbox"/>	Well Logs <i>Exception:</i> <input type="checkbox"/> No Wells within 1,000 feet of permit area
e	<input checked="" type="checkbox"/>	Soil Photos <i>Exception:</i> <input type="checkbox"/> Amendment with no new acreage being added.
f	<input checked="" type="checkbox"/>	Site Map
g	<input checked="" type="checkbox"/>	Area Map
h	<input checked="" type="checkbox"/>	Reclamation Map
i	<input checked="" type="checkbox"/>	Location Map
j	<input checked="" type="checkbox"/>	Boundary Coordinate Table <i>Exception:</i> <input type="checkbox"/> Amendment is not changing the existing permitted boundaries.
k	<input checked="" type="checkbox"/>	Weed Board Notification of Opencut Operation
l	<input checked="" type="checkbox"/>	Reclamation Bond Spreadsheet <i>Exception:</i> <input type="checkbox"/> Government Operator
m	<input checked="" type="checkbox"/>	Landowner Consultation (ARM 17.24.206) Existing approved forms are acceptable for an Amendment not adding acreage, an asphalt or concrete plant, not changing the postmining land use, and not extending the reclamation date.

n	<input checked="" type="checkbox"/>	Zoning Compliance (ARM 17.24.223) Existing approved forms are acceptable for an Amendment not adding acreage, not changing the postmining land use, and not adding an asphalt or concrete plant. <i>Exception:</i> <input type="checkbox"/> Not required for applications mining bentonite, clay, scoria, peat, or soil only.
o	<input type="checkbox"/>	Surface Landowners List (MCA 82-4-432(2)(e) & (6)(b)) <i>Exception:</i> <input checked="" type="checkbox"/> Not required for amendment adding less than 50% of the permitted acreage.
p	<input checked="" type="checkbox"/>	Fuel Guideline for Spill Prevention & Management Worksheet <i>Exception:</i> <input type="checkbox"/> Not required if no on-site fuel storage and/or no mobile fueling on-site.
q	<input checked="" type="checkbox"/>	Determining Depth to Groundwater Worksheet <i>Exception:</i> <input type="checkbox"/> Amendment not adding acreage or increasing mine depth <i>Exception:</i> <input type="checkbox"/> Not required if no water feature would remain for final reclamation and there is no chance of a public meeting (Opencut reserves the right to require this form if water could be encountered, or if Opencut disagrees with the high and low water table levels identified in Section C1 of this application).
r	<input checked="" type="checkbox"/>	Bond (MCA 82-4-433) (Original Paper Bond must be Received by Opencut before permit can be issued.) <i>Exception:</i> <input type="checkbox"/> Government Operator <i>Exception:</i> <input type="checkbox"/> The submitted Reclamation Bond Spreadsheet does not require a higher bond.
ADDITIONAL SUPPORT DOCUMENTS (as required)		
	Included	
s	<input checked="" type="checkbox"/>	Additional Well Data
t	<input type="checkbox"/>	Dewatering Data and Analysis
u	<input checked="" type="checkbox"/>	Easement/Setback Documentation
v	<input type="checkbox"/>	Groundwater Monitoring Plan
w	<input type="checkbox"/>	Pond/Wetland Cross-Sections and/or Contour Map
x	<input type="checkbox"/>	Pond & Wetland Design Worksheet
y	<input type="checkbox"/>	Seed Mix Guideline
z	<input type="checkbox"/>	Slope Stability Analysis
aa	<input type="checkbox"/>	Stream/Waterway Worksheet
bb	<input checked="" type="checkbox"/>	Wash Plant Settling Pond Guideline
cc	<input type="checkbox"/>	Water Resources Assessment/Hydrogeologic Assessment
dd	<input type="checkbox"/>	Other:
ee	<input type="checkbox"/>	Other:
ff	<input type="checkbox"/>	Other:
gg	<input type="checkbox"/>	Other:
hh	<input type="checkbox"/>	Other:
ii	<input type="checkbox"/>	Other:

Additional support documents must be clearly named or titled to be consistent with the names or titles above.

SECTION A – APPLICATION INFORMATION

A1. General Information [MCA 82-4-432 & 82-4-403(6)] & [ARM 17.24.218]

1. Indicate which of the following is being requested (check one):

Permit Amendment Convert Limited Opencut Operation to a Permit

Reclamation Only (No further Opencut activities would occur, except reclamation): Complete Sections A1-1 through A1-8, A1-12, , A2, Section E, and provide a Reclamation Map and a Boundary Coordinate Table. The Department may also require the Operator to provide detailed site-specific conditions and reclamation plans, including but not limited to information for sections C2, C3 and D6.

For a Permit or to Convert Limited Opencut Operation to a Permit, skip to A1-3 and complete the remainder of this document. For an Amendment, proceed below:

2. For an Amendment:

a. Update all the information in this document.

b. The existing Opencut number is: **2681**

c. Identify all the purposes of the amendment:

Change Reclamation Date

Change Postmining Land Use

Change Site Name – Former Site Name was:

Note: If site name is changed, all forms must be revised

accordingly (i.e. zoning, landowner, etc.)

- Change Seed Mix
- Change Mining Depth
- Add Fuel Storage
- Add Acreage
- Add the following processing equipment:
 - None Asphalt Plant (answer D7-1a) Concrete Plant Overland Conveyor Crushing Equipment
 - Pug Mill Screen Wash Plant Other:
- Change the Hours of Operation
- Change Landowner(s) – Previous Landowner’s Name: **Stan Hendricksen**
- Other:

3. Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

Final Reclamation Date auto-populated from Section E1-1: **December 2045**

Operator Address: PO Box 4746
 City: Missoula State: MT Zip Code: 59808-4746
 Office Phone # 406-728-8658 Cell # _____ Operator/Business Email: _____

4. Site Contact Name: John Kappes Site Contact Email: jkappes@westernexcavating.com Cell # 406-728-1400
 Note: All official correspondence will be sent to the Business email. The site contact name would be copied on emails.

5. **Western Materials, LLC** requests that correspondence also be emailed to the consultant for this application (if not applicable proceed to #6).
 Consultant Name: Michael Smith, PE, WGM Group, Inc. Consultant Email: msmith@wgmgroup.com

6. Landowner 1 Name: Western Materials, LLC
 Address: PO Box 4746
 City: Missoula State: MT Zip Code: 59808-4746
 Phone #: 406-728-8658 Optional Additional Contact Information (e.g. email, other phone #): _____
If there is an additional landowner, provide contact information below; otherwise leave blank.
 Landowner 2 Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone #: _____ Optional Additional Contact Information (e.g. email, other phone #): _____
 Additional Landowners (if applicable, use the space provided and use same format as above):

7. County where the proposed site is located: Missoula

8. Legal Description (Includes Permit Area, Access Roads, and Non-Bonded Areas):
 Section(s) 23 & _____ Township 11 North or South Range 20 East or West
 Section(s) _____ & _____ Township _____ North or South Range _____ East or West
 Additional Sections, Township & Range (if applicable use same format as above): _____

9. What type of materials will be mined from the permit area?
 Bentonite Clay Gravel Peat Sand Scoria Soil
 Mixtures including any of the above substances (i.e. borrow material)
 Additional Information:

10. What processing equipment could be used in the permit area?
 None Asphalt Plant (answer D7-1a) Concrete Plant (answer D7-1b) Conveyor
 Crushing Equipment Pug Mill Screen Wash Plant (answer D7-1c)
 Other: **Grizzly**

11. Estimated quantity of mine material to be excavated and removed from the entire permit area:
3,750,000 cubic yards

12. Total Permit Acreage Breakdown (acreages must be entered to the nearest **TENTH** of an acre, and must match the acreages created by the Boundary Coordinate Table).

	Existing or New Permit Acres	Amendment Acres (if any)	Total Permitted Acres
a. Bonded Acres*	50.0	16.0	66.0
b. Non-Bonded Acres**			0.0
c. Bonded Access Road Acres***			0.0
Totals	50.0	16.0	66.0

Note: To ensure that the "Totals" display, use the Tab key after entering each acreage amount.

- a. *Although Government Operators do not "bond," they would fill in this row to display entire permitted acreage.
- b. **Government Operators cannot have non-bonded acres and would not fill in this row.
- c. ***Complete only if Landowner Consultation form states an access road would be permitted.

13. Private Operators Proposing to Permit Non-Bonded Area:

If Non-Bonded acreage is proposed, the Operator agrees not to disturb any Non-Bonded acreage for any Opencut purpose until: a) the Operator submits a Request to Modify Bonded Acreage form with appropriate attachments and a reclamation bond, and b) the DEQ provides written approval of the request.

A2. ADDITIONAL INFORMATION [MCA 82-4-432(1) & 82-4-434(2)] & [ARM 17.24.222]

- 1. If applicable, provide additional application information not addressed above.
Answer: None

SECTION B – PRE-MINE INFORMATION

Note: If a Pre-Application Meeting was conducted by the DEQ, information from the Inspection Report can typically be used to complete portions of Section B.

B1. DIRECTIONS TO SITE [ARM 17.24.221(6)]

- 1. Describe in detail how to get from the nearest town or public road intersection to the permit area. Provide directions that can be interpreted and followed by anyone viewing the Location Map for the site, both now and in the future (e.g. identify roads, mileposts, landmarks, and distances; include information on how to obtain keys or combinations for locks). Label the nearest town of public road intersection on the Location Map.
Answer: The site is located adjacent to old Highway 93 South. From Lolo travel approximately three miles south, turn right onto Rowan Road, then immediately turn left onto Old Highway 93 South. Travel approx. 1.5 miles south. The pit is on the right.

B2. TOPOGRAPHY [MCA 82-4-403(1)(b)]

- 1. Describe in detail the terrain in and within 1,000 feet of the permit area (e.g. hills, valleys, ridges, drainages, cliffs, and benches).
Answer: The permit area includes an active Opencut mining operation. The local terrain includes McClain Creek and pastureland to the north, mostly pastureland with some residences in gradually rising elevations to the west, an area of approximately 12 residences in a sparsely wooded area to the southwest, unoccupied open land and Highway 93 to the east at lower elevations, and generally open land to the southeast.

B3. LAND USES [MCA 82-4-403(1)(b)]

- 1. Indicate current land uses within the permit area.
 Cropland/Hayland Forest/Timberland Industrial/Commercial Oil/Gas
 Opencut Operation Pasture/Rangeland Residential Other: Please note that the residence in the area to be amended will be abandoned and the building will be removed when that area is ready to be mined. Additionally, the current drainfield that serves the residence will be properly abandoned and removed so that opencut operations can proceed in that area. All soils affected by the drainfield will be excavated and properly disposed of. The utility line to the building will also be removed.
- 2. Indicate current land uses within 1,000 feet of the permit area.
 Cropland/Hayland Forest/Timberland Industrial/Commercial Oil/Gas
 Opencut Operation Pasture/Rangeland Residential Other:

B4. STRUCTURES, FACILITIES, & SURFACE DISTURBANCES [MCA 82-4-434(2)(n)] & [ARM 17.24.218(1)]

- 1. Identify the manmade structures, facilities, or surface disturbances within the permit area.
 None Construction Project Farming Fences Industrial/Commercial

- Oil/Gas Structures or Pipelines Opencut Operation Overhead Power Lines or Facilities
 Residential Roads Underground Utilities (e.g. electrical, fiber optic, water, sewer, phone, etc.)
 Other:

Note: See additional requirements in Section D4 for utilities and infrastructure.

2. Identify the manmade structures, facilities, or surface disturbances within 1,000 feet of the permit area.
 None Construction Project Farming Fences Industrial/Commercial
 Oil/Gas Structures or Pipelines Opencut Operation Overhead Power Lines or Facilities
 Residential Railroad Roads Underground Utilities (e.g. electrical, fiber optic, water, sewer, phone, etc.)
 Other:

B5. SURFACE WATER FEATURES [ARM 17.24.218(1) & 17.24.221]

1. Identify any surface water features within the permit area.
Note: This includes features that may contain water at any time, including seasonal ponds, ephemeral drainages, runoff channels, ditches, floodways, etc. See Section D4 for additional Plan requirements for water features.

- None Ephemeral Drainage Irrigation Ditch/Canal Lake/Pond River- Name:
 Spring Stream/Creek - name: Wetlands Other:

2. Identify any surface water features within 1,000 feet of the permit area.
Note: This includes features that may contain water at any time, including seasonal ponds, ephemeral drainages, runoff channels, ditches, floodways, etc.

- None Ephemeral Drainage Irrigation Ditch/Canal Lake/Pond River- Name:
 Spring Stream/Creek - name: McClain Creek and Maple Creek Wetlands Other:

B6. VEGETATION [ARM 17.24.219(h) & 17.24.222]

1. Provide a list of the dominant grasses, forbs, shrubs and trees located within the permit area. If the species are not indicated in the check boxes below, check the "Other" box and list them.
 Basin Wildrye Big Bluestem Bluebunch Wheatgrass Blue Grama Canada Wildrye
 Cheatgrass Conifer Cottonwood Creeping Juniper Crested Wheatgrass Crop
 Curlycup Gumweed Green Needlegrass Idaho Fescue Indian Ricegrass
 Intermediate Wheatgrass Juniper Kentucky Bluegrass Needle & Thread Grass
 Prairie Junegrass Prairie Sandreed Rough Fescue Rubber Rabbitbrush Sagebrush
 Sedges/Rushes Sideoats Grama Slender Wheatgrass Smooth Brome Sweetclover
 Thickspike Wheatgrass Willow Western Wheatgrass Other: Various bluegrass, timothy, roses, and quackgrass

2. Identify the Noxious Weeds present within the permit area.
If the species are not indicated in the check boxes below, check the "Other" box and list them.
 None Canada Thistle Dalmatian Toadflax Field Bindweed Houndstongue Knapweed
 Leafy Spurge Tansy Ragwort Whitetop Sulfur Cinquefoil Tamarisk (Salt Cedar)
 Other:

B7. WILDLIFE [MCA 82-4-402(2) & 82-4-403(13) & 82-4-434(2)] & [ARM 17.24.219 & 17.24.222]

1. Indicate the fish and wildlife species in and within 1,000 feet of the permit area.
 Antelope Black Bear Coyotes Deer Elk Fish Fox Grizzly Bear Moose
 Raptors Rodents Sage Grouse Song Birds Upland Birds Waterfowl Wolves
 Other:
2. **Sage Grouse Consultation** - If sage grouse was checked above and the proposed permit boundary is in core area, general habitat, or connectivity habitat, the area is regulated by the Montana Sage Grouse Habitat Conservation Program. To determine whether this site is located in sage grouse habitat, click on the below link to visit the Montana Sage Grouse Habitat Conservation Program <https://sagegrouse.mt.gov>.
- a. The permit boundary is located:
 Outside of Sage Grouse Habitat (If "Outside of Sage Grouse Habitat" or permitted prior to Sage Grouse Executive order, skip to B8)
 Within Core Area Within General Habitat Within Connectivity Habitat
- Recommendations from the Sage Grouse Program must be addressed in the proper sections of this application (i.e. hours of operation, seed mix, etc.).
 Additional Information:

B8. WELLS (water, oil, gas, etc.) [ARM 17.24.218(1)(g) & 17.24.221]

- I. In the table below, list the required information for wells in and within 1,000 feet of the permit area.
- Information and well logs can be obtained from the Ground Water Information Center (GWIC) at <http://mbmggwic.mtech.edu> or by using the “Mapping DEQ’s Data” found at <http://deq.mt.gov/Mining/opencut> (click on the “Mapping DEQ’s Data” tab).
 - The DEQ recommends obtaining well information from the Montana Department of Natural Resources and Conservation (DNRC), and Board of Oil and Gas websites to determine the location of any oil and gas wells in the vicinity of the permit area.
 - Additional information may be available from landowners or by conducting field measurements.
 - Provide depths and static water levels in feet below the ground surface for all attached water wells.
 - Well locations must be reasonably accurate. In cases where well locations are unavailable or appear inaccurate, field confirmation may be required.
 - Locations of existing and proposed wells in and within 1,000 feet of the permit area must be shown and labeled on the Area Map or if more appropriate a separate Well Location Map.
 - Well logs in excess of 1,000 feet from the proposed permit boundary can be submitted and shown below if they provide relevant information. If provided, well locations must be shown on the appropriate map.
 - If there are no wells in and within 1,000 feet of the permit area, write “None” in the table below and skip to B8-3.

* Use these codes to fill in the “Use” Column below: D = Domestic, Ind = Industrial, I = Irrigation, L = Lawn & Garden M = Monitoring, P = Public, S = Stock, O = Other

Well Information Table

Well I.D. on Map	GWIC ID#	Well Owner	Distance & Direction from Permit Boundary	Total Well Depth (feet)	Static Water Level (feet)	*Use	Comments
W1	213515 (198765)	HENDRIC KSEN STAN	IN PERMIT AREA	159	112	D	GWIC ID 198765 DEEPENED BY GWIC ID 213515
W2	66056	JONES BERNEY	0' NE	25	2	D	GWIC LOCATION-NOT ABLE TO FIELD VERIFY
W3	66096	HOLMES ARCHIE AND PHYLLIS	900' S	83	11	I	
W4	153245	HENDERS ON BETH	800' NE	58	5	D	
W5	152123	HENDRIC KSEN STAN	IN PERMIT AREA	41	9	D	
W6	207560	LEIBENG UTH SCOTT	900' W	40	0	D	
W7	223714	REIMEN EARL	900' S	60	15.6	D	
W8	246587	LEIBENG UTH SCOTT & SUSAN	200' W	80	31	D,I	LOCATION APPROX. PER NOTE ON WELL REPORT
W9	246595	LEIBENG UTH SCOTT & SUSAN	900' W	80	34	D,I	
W10	263608	DEIBERT STEVE & MELISSA	900' S	98	34	D	

Note: If there are additional wells check the appropriate box on page 2 and attach the Opencut Mining Section’s *Additional Well Data* form. Start the form with “W11” under the “Well I.D. on Map” column. The form is found here: <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab).

2. Attach the above identified Well Logs to this application and check the appropriate box on page 1.
3. Are there Public Water Supply wells located within 100 feet of the permit area that are used for public water supply?
 Yes No
 If **Yes**, contact the DEQ Source Water Protection Program at 406-444-5546 to determine setbacks and restrictions and incorporate those into this application. **Further Information (if applicable):**

B9. ADDITIONAL INFORMATION [MCA 82-4-432(1) & 82-4-434(2)] & [ARM 17.24.222]

1. If applicable, provide additional pre-mine site characteristics or circumstances not addressed above.
Answer: Please note that for wells more than 500 ft from the permit boundary, information from the GWIC database is used to determine well locations. All wells within the permit area and within 500 ft of the permit area are located with actual locations to the greatest extent possible. Also note that the wells used in the application to determine groundwater levels and characteristics are those within the permit boundary, thus allowing maximum precision.

SECTION C – SITE PREPARATION AND PLANNING

C1. WATER TABLE LEVELS [ARM 17.24.218(1)(g)]

Complete and attach the *Determining Depth to Groundwater Worksheet* found here: <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab), check the appropriate box on page 2, and provide information below as determined by the *Determining Depth to Groundwater Worksheet*. Note: Seasonal high water levels may be influenced by irrigation and ditches and must be accounted for when determining groundwater elevations.

- The seasonal high water table is the highest level that water typically rises to each year.
 - The seasonal low water table is the lowest level that water typically falls to each year.
1. The maximum depth of mining is: **65 feet below ground surface**
 2. The seasonal high water table level is: **109 feet below ground surface**
 3. The seasonal low water table level is: **115 feet below ground surface**
 4. Water levels were determined by the following method(s):
 Determining Depth to Groundwater Worksheet (check box on page 2 and attach) **Other: Well logs/onsite wells.**
Please note that maximum depth of mining and depth to groundwater are measured from the location of maximum mining depth in the proposed pit boundaries; actual depth of mining will vary based on local topography and geology. An approximately 30-foot thick clay lens exists above the local aquifer (see well logs W1 and W15). Mining activity (downward) will cease if the clay layer is encountered. This will maintain safe distances from groundwater. No clay will be mined.

Seasonal high water table:	109.0 feet
Maximum depth of mining:	65.0 feet
Difference =	44.0 feet

- a. If the difference is ≥ 3 proceed to [Section C2](#).
- b. If the difference is ≤ 0 , a pond and/or wetland will be left for final reclamation. **Western Materials, LLC** must include “pond” or “wetland” as a postmining land use in [Section E2-2](#), as well as complete [Section E3](#) & the *Pond & Wetland Design Worksheet*.
- c. If the difference is >0 and <3 , soil could become saturated or ground water could occur in some portions of the pit. Therefore, explain how **Western Materials, LLC** will maintain a minimum of 3 feet of separation between the seasonal high water table and the reclaimed ground surface (e.g. The Operator will: backfill the site to maintain a minimum 3 feet of earthen material between water and the reclaimed ground surface; construct a permanent drainage mechanism; etc.):
 Western Materials, LLC would cease mining at or above the high water table and use on-site materials to backfill to ensure that a minimum of 3 feet of material is maintained above the seasonal high water table for final reclamation. No water feature would remain for final reclamation.
 Other/Additional Information:

C2. SOIL AND OVERBURDEN [MCA 82-4-403(14) & 82-4-434(2)(c)] & [ARM 17.24.218(c-d) & 17.24.220(2)(b)]

1. **In the table below**, provide soil and overburden thickness data obtained from test holes excavated within the proposed permit area (bonded and non-bonded areas). **Western Materials, LLC** is required to provide no less than three test holes spaced representatively to describe proposed permit areas of less than nine acres, and one test hole per each three-acre area for proposed permit areas of nine acres or more, with a maximum of 20 representatively spaced test holes for proposed permit areas that exceed 60 acres, or as otherwise approved by the DEQ.
 - **Clear, labeled photos showing the top three feet of the soil profile with a visible scale must be provided to the**

DEQ for each test hole. Soil photos must be labeled with the *Soil Test Hole ID* (see below table) and corresponding locations must be shown on the Site Map [ARM 17.24.221(3)]. Label the soil photos and Site Map with the proper *Test Hole I.D.* as provided in the table in Section C2-2 of the application (i.e. T1, T2, T3, etc.). Applications submitted with poor photos not meeting the soil guideline would be deemed incomplete.

- Test holes must be of sufficient depth to measure the thicknesses of soil and overburden (minimum of 3 feet deep).
- Exposures of the soil and overburden profile, such as a roadcut, may be used in lieu of a test hole, as long as 3 feet of the profile is exposed and clear photos are taken.
- The soil is usually darker than overburden, may contain roots, and typically extends deeper than just the top few inches of rich organic matter. The number of roots and degree of darkening typically decrease with depth. Soil is the “growth media” that allows for successful revegetation. Soil in many areas is rocky, but that does not preclude the need to save it for use in reclamation.
- For tips on proper identification of soil depths and taking photos that will be accepted by the Opencut Mining Section, refer to the *Soil Guideline* found at: <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab)
- NRCS soil data can be used as a reference but does not replace onsite soil data.

2. Date test pits were dug: 4/12/17

Logged by: Emily Clark

Soil Test Hole I.D. on Map	Soil Thickness (inches)	Overburden Thickness (inches)	Total Depth of Test Hole (ft)	Water encountered in Test Hole? (ft)	Optional Info (e.g. soil and overburden type, texture, or structure, rock content, root description, etc.)
T1	9	0	3.8	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T2	19	0	3.4	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T3	16	0	3.9	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T4	20	0	3.5	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T5	19	0	3.3	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T6				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T7				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T8				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T9				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T10				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T11				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T12				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T13				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	

T14				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T15				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T16				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T17				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T18				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T19				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	
T20				<input type="checkbox"/> No <input type="checkbox"/> Yes-Depth to water =	

3. If the minimum number of required test holes were not dug for this site, then explain in detail why not:
No test pits were required when the original permit was issued, so no test pit logs from the existing area are included. However, the original permit stated 12" of soil and 6" of overburden. Therefore, that data from the original permit as well as the new data from the above listed test pits was used to calculate a weighted average for the site, given the respective acreage of the original permit and the new amendment addition. The DEQ has noted that the soil photo used for Test Pit 1 may (incorrectly) appear to be from a disturbed area. The area around the test pit appears to be disturbed because the area on the property where this test pit was excavated is not maintained and has been used in the past for storage of miscellaneous vehicles and other items, and the area had scarce vegetation at the time the test pit was excavated.

Note: This application may be found deficient if test holes do not meet the specifications described in C2-1 above, the *Soil Guideline*, and ARM 17.24.218(1)(c).

4. **In the table below**, provide soil and overburden thicknesses to be stripped and salvaged for reclamation to the nearest inch. If available, up to 24 inches of soil and overburden must be stripped, salvaged and replaced for reclamation. The soil to be stripped, salvaged and replaced for reclamation must include the **top** 24 inches of the soil profile.
Note: If overburden is a mine material or will be used as binder, an appropriate quantity must first be stripped and salvaged to satisfy the soil plus overburden replacement thickness requirement (24 inches cumulative).

Soil	Average Soil Thickness to be Stripped, Salvaged, Replaced for Reclamation (inches)
Permit Area Soil	13
Permitted Access Road Soil	0
Overburden	Average Overburden Thickness to be Stripped, Salvaged and Replaced for Reclamation (inches)
Permit Area Overburden	5
Total Soil & Overburden thickness to be Replaced for Reclamation (up to 24 inches required if available).	<u>18</u>

Note: Depending on the additional surface area created from Opencut mining, the actual soil depths replaced for reclamation may vary slightly from the amount noted above.

- a. Use this section to provide custom information pertaining to soil replacement (if applicable):

None

- b. If the average depth of **soil** at this site is 24 inches or less, skip to C3. If the average depth of **soil** at this site is greater than 24 inches, explain what will be done with the excess soil:
- Soil in excess of 24 inches will be stripped, salvaged and replaced for final reclamation.
 - Soil in excess of 24 inches will not be saved for final reclamation, but will leave the site. **Western Materials, LLC** understands they must strip, salvage and replace the top 24 inches of soil for final reclamation.
 - Other: Explain

C3. EXISTING SITE CONDITIONS [ARM 17.24.221(3)]

1. Is an existing disturbance located within the proposed permit boundary (e.g. permitted, unpermitted, historical, Limited Opencut Operation, etc.)? **Yes** **No**
If **No**, skip to C4. If **Yes**, Check the appropriate boxes below.
- a. All soil and overburden was stripped and salvaged from the disturbed area and remains on site.
The location of the soil and overburden stockpiles must be identified on the Site Map.
Additional Description (if applicable): None
- b. Soil and overburden from the disturbed area has been lost and/or removed from the site.
The following quantity of soil **cubic yards** will be imported to the site to ensure the previously disturbed area is reclaimed to the productive postmining land use identified in this permit. Ensure the quantity stated in this section is added to the *Reclamation Bond Spreadsheet's* line item *Cost to Import, Purchase and Place Soil* and that it is identical to the quantity identified here.
Additional Description (if applicable):
- c. Soil from the area to be permitted would be used to reclaim the existing disturbance, and the soil identified in section C2-4 has been averaged to account for reclamation of both the existing disturbance and the undisturbed area.
- d. Will the disturbed area that is contained within the proposed permit boundary be used for further Opencut operations or will it be reclaimed only? **Reclaimed Only** **Used for further Opencut Operations**
Additional Description (if applicable): None

C4. ACCESS ROADS [MCA 82-4-403(1) & 82-4-431(2)(c)] & [ARM 17.24.202(1); 17.24.206(2); 17.24.218(1); 17.24.219(1)(e); & 17.24.221]

1. Access road(s) must meet the requirements of the Opencut Act and rules and be consistent with the Landowner Consultation form signed by the landowner.

C5. HOURS OF OPERATION [MCA 82-4-434(2)(m)] & [ARM 17.24.218(1)(f)]

1. The **DEQ may impose reasonable** limits on hours of operation to reduce adverse impacts on residential and Sage Grouse areas. **Western Materials, LLC** must propose hours of operation by checking box "a", "b" or "c" below (thereby adopting the hours stated), or by checking box "d" and providing the required information.
2. DEQ will assess the site conditions and may restrict the hours of operation on a case by case basis. If residential areas are within ½ mile of the proposed Opencut operation (with the potential exception of the landowner's residence), DEQ may require Option "a." Alternatively, the operator could obtain a signed letter from each residence stating alternative proposed hours of operation are acceptable.

Note: Equipment start-up and warmup is part of operations and can only occur within the below designated hours of operation. Equipment startup can occur for maintenance.

- a. Permitted hours and activities are as follows:
- Monday-Friday 7 am to 7 pm - Activities: All permitted activities allowed
 - Saturday 8 am to 5 pm - Activities: Maintenance only
- Temporary Extended Hours: The above restricted hours of operation apply unless adjacent property owners and residents are notified of temporary extended hours for public works projects. Temporary extended hours are 24 hours a day, 7 days a week, Monday through Saturday. Extended hours must not exceed 30 consecutive working days, with no more than 30 days of extended hours in any six-month period. At least 30 days must elapse between periods of extended hours.
- Prior to commencing temporary extended hours, **Western Materials, LLC** must:
- Notify in writing the adjacent property owners and residents within ½-mile of the permit area;
 - Notify in writing the County Commissioners;
 - Publish notice of the extended days and hours of operation in the local newspaper at least seven days prior to commencing operations within the extended hours; and

- Keep and maintain a complete and accurate record of the hours operated. **Western Materials, LLC** shall submit the record to the department within two work days after receipt of a request from the department.
- b. Permitted hours and activities are as follows:
- Monday–Friday: 7:00 am-7:00 pm - Activities: All permitted activities allowed.
- c. Site is located in Sage Grouse Core, General Habitat, or Interconnectivity area, and the permitted hours of operation are restricted to those stipulated in the attached Montana Sage Grouse Habitat Conservation Program’s letter. Check the box for this section and “d” below and enter the required Sage Grouse hours.
- d. Permitted hours and activities are as follows:
- Mon–Fri: **7:00** am- **7:00** pm Activities: All Activities Crushing Hauling Loading Maintenance Mining Other:
 - Saturday: **7:00** am- **7:00** pm Activities: All Activities Crushing Hauling Loading Maintenance Mining Other: Retail Sales
 - Sunday: _____ am- _____ pm Activities: All Activities Crushing Hauling Loading Maintenance Mining Other:

Additional information: All activities will normally occur from 7:00 am to 7:00 pm Mon-Fri and only Retail Sales will occur from 7:00 am - 7:00 pm on Saturday. Occasionally, to address the demand for gravel during off hours, (e.g., for projects such as highway resurfacing projects) some projects will occur at night (7:00 pm-7:00 am Mon - Fri). These “Extended-Hours Projects” will include ONLY operation of the asphalt plant, loading of trucks, and delivery of materials. Extended-hours projects will be limited in scope and duration, and will not exceed more than 15 consecutive days with no more than four weeks total of extended-hours projects occurring in any six-month period. At least 30 days will elapse between periods of extended-hours operation. At least 7 days prior to commencement of extended hours operations, Missoula County Commissioners and adjacent property owners within ½ mile of the permit area will be notified and public notice will be published in local newspapers. The operator will also keep and maintain a complete and accurate record of the hours operated. The operator shall submit the record to the department within two work days after receipt of a request from the department.

C6. MAPPING [MCA 82-4-403(1)(b)] & [ARM 17.24.221]

1. The Site, Area, Reclamation and Location Maps must meet the requirements of the Opencut Mining Act, associated rules, and Map Guideline. The Map Guideline can be found here: <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab).

C7. MARKERS [ARM 17.24.218(1)(a)]

1. The site must be marked in accordance with the Opencut Mining Act and associated rules.

C8. ADDITIONAL INFORMATION [MCA 82-4-432(1) & 82-4-434(2)] & [ARM 17.24.222]

1. If applicable, provide additional site preparation and planning information not addressed above.
Answer: None

SECTION D – WATER PROTECTION, MINING & PROCESSING

D1. WATER PROTECTION [MCA 82-4-434(2)(l)] & [ARM 17.24.218(1)]

1. **Western Materials, LLC** must:
 - a. Protect on-site and off-site surface water and ground water from adverse changes in quality and quantity that could be caused by Opencut operations.
 - b. Prevent, minimize, or mitigate adverse impacts to on-site and off-site surface and ground water systems and structures that could be caused by Opencut operations.
 - c. Properly establish, use, and reclaim hydrologic structures and systems used for Opencut operations.
 - d. Keep waste and stationary equipment above the seasonal high-water level of surface and ground water and dispose of all petroleum, solvent, and chemical wastes in compliance with applicable state laws and rules.
 - e. **Western Materials, LLC** has reviewed and will comply with the current DEQ *Spill Management and Reporting Policy* document found on the DEQ’s Enforcement website.
2. **Western Materials, LLC** has consulted DEQ Water Protection Bureau (WPB) and will obtain all required Montana

Pollutant Discharge Elimination System (MPDES) permits including but not limited to:

- Authorization under the Stormwater Industrial General Permit (a.k.a. Stormwater Industrial (SWI) or Multi-Sector General Permit (MSGP), and/or
- Authorization under the Sand and Gravel General Permit (required for pit dewatering or process water discharges off-site into a state water).

All BMPs would be installed, maintained, and operated in accordance with the MSGP issued by the Water Protection Bureau and/or other requirements of the Water Protection Bureau to prevent the discharge of pollutants to a state water.

- a. Determine if a Storm Water Permit or Sand and Gravel General Permit is required for your Opencut operation by reviewing the “Water Protection Bureau Permitting Guide: Sand and Gravel Operations” located at this link <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab), and by contacting the Montana Department of Environmental Quality’s Water Protection Bureau at (406) 444-5546.

Date WPB was Contacted for the proposed Site: November 14, 2019 by WGM Group on behalf of Western Materials

Indicate which of the below permits may be required from the Montana Department of Environmental Quality’s Water Protection Bureau:

None Storm Water Permit Sand and Gravel General Permit Other:

D2. FUEL DISPENSING & FUEL STORAGE [MCA 82-4-434(2)] & [ARM 17.24.218(1)(i)]

1. **Western Materials, LLC** agrees to manage fuel as follows:

- a. Routinely inspect and maintain fuel tanks, guard posts, secondary containment, fittings, piping, hoses, filters, and dispensers to prevent leaks and spills. The Department recommends using the *Aboveground Storage Tanks Self-Inspection Checklist* available from the Petroleum Tank Release Compensation Board at: <http://deq.mt.gov/Portals/112/DEQAdmin/PET/Documents/Forms/StorageTankChecklist.pdf>.
- b. Retrieve, handle, and dispose of spilled fuel and contaminated materials and soil in a lawful manner.
- c. Report a fuel spill of any quantity that reaches state waters or is greater than 25 gallons to the Montana Spill Hotline (406-324-4777). Note: “State waters” as defined in 75-5-103, MCA is defined as follows:
 “State waters” means a body of water, irrigation system, or drainage system, either surface or underground.

2. **Will there be stationary fuel storage on-site, mobile fueling on-site, or any type of on-site fueling?** Yes No

If No, skip to Section D3.

Note: In accordance with ARM 17.24.218(1)(i), off-site fuel storage and fueling must be conducted in accordance with current codes adopted by the state fire marshal.

If Yes, **Western Materials, LLC** must fill out and attach the *Fuel Guideline for Spill Prevention & Management Worksheet* and check the appropriate box on page 1.

3. Additional Information (if applicable):

A new double-wall fuel storage tank is proposed for the site. This tank is equipped with secondary containment and will exist on a concrete pad with retaining walls for additional (tertiary) containment measures. A Spill Prevention, Control, and Countermeasures (SPCC) plan will be maintained for this tank and a copy will remain onsite.

D3. WATER MANAGEMENT & USE [MCA 82-4-434(2)(l)] & [ARM 17.24.218(1)(g, h & i)] & [ARM 17.24.219(1)(b)]

1. Indicate the proposed use(s) of water:

Asphalt Plant Concrete Batch Plant Dust Control (e.g. roads, crusher, etc.) Pug Milling
 Wash Plant Other:

a. Is the water source within 300 feet of the permit area? Yes No

If No, skip to D3-1b.

If Yes, identify the source of the water to be used and show its location on a map.

Irrigation Ditch Pit Pond Well Other:

b. Will water be stored on-site? Yes No

If No, skip to D3-1c.

If Yes, what will the water be stored in?

Detention/Retention Pond Lined Detention/Retention Pond Water Storage Tank
 Other:

c. **Western Materials, LLC** has consulted with DNRC and understands the requirements regarding water rights and ground water development related to this Opencut operation. **Western Materials, LLC** has or will obtain the appropriate and applicable water rights to conduct the activities identified in D3-1.

d. **Western Materials, LLC** must take all necessary precautions and measures to protect the water rights of other parties.

Western Materials, LLC Agrees: Additional Information (if applicable):

2. Will dewatering be conducted at this site? Yes No

If No, skip to Section D4.

If Yes, ensure the appropriate boxes in Section D1-2 above are checked indicating the permit required from the DEQ Water Protection Bureau. Show the location of all pertinent features related to dewatering on the Site Map and provide the following information.

a. Describe how the site will be dewatered:

Surface water flow from site via a ditch, drainage channel, etc.

Pumping from: Pond Pit Wells Other:

Other:

b. Where will the water be discharged?

Pond Pit Ditch Creek River Ground Surface Wells Wetland

Other:

c. Additional Information (if applicable):

D4. SETBACKS, EASEMENTS, & PROHIBITED AREAS [MCA 82-4-434(2)] & [ARM 17.24.218(1)(h-k) & 17.24.221]

1. The Opencut Act states that the DEQ cannot accept a plan of operation unless the plan provides that surface water and ground water will be given appropriate protection, consistent with state law, from deterioration of water quality and quantity that may arise as a result of the Opencut operation [MCA 82-4-434 (2)(1)].

Will Opencut operations be conducted within a waterway (e.g. ephemeral drainage, river, stream/creek, pond/lake, wetland or other surface water feature)? Yes No

If No, skip to D4-2.

If Yes, complete the *Stream/Waterway Worksheet* to guide **Western Materials, LLC** through the requirements of the Opencut Mining Act. The *Stream/Waterway Worksheet* is found here <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab).

Attach the *Stream/Waterway Worksheet* and required criteria to this application and check the appropriate box on page 2.

2. Are there utilities, infrastructure, improvements, or easements within the proposed Opencut boundary?

Note: Features outside the permit boundary that have easements that extend within the permit boundary would require documentation. These features may include transmission lines, pipelines, ditches, etc.

Yes No

If No, skip to D4-3.

If Yes, show the utilities, infrastructure, improvements or easements and/or required setbacks on the Site Map and/or Area Map, and complete “a” and “b” below:

a. The width of required setbacks or easements within or adjacent to the proposed Opencut boundary are as follows:

Ditch: Setback/Easement = _____ ft.

Above Ground Utilities (e.g. power lines, poles, structures, etc.): Setback/Easement = 20 ft.

Underground Utilities (e.g. gas, oil, fiber optic, etc.): Setback/Easement = 10 ft.

Road: Setback/Easement = _____ ft.

Other: Setback/Easement = _____ ft.

Further Explanation (if applicable):

b. **Western Materials, LLC** must provide documentation from the dominant estate holding the easement (e.g. utility company, ditch rider, agency, private individual, etc.) describing its requirements. Check the appropriate box below and on page 2, and attach the documentation.

Easement holder has requirements for a setback or easement and documentation is attached. These may include: **a)** the required setback; **b)** crossing requirements; **c)** maximum ground slope allowed; and **d)** any other requirements for activities conducted under, over, or adjacent to the easement or the infrastructure it contains (e.g. inspections, safety, excavation, stockpiling, etc.).

Easement holder has no requirements for a setback or easement and documentation is attached.

3. Are there drainages, waterways, or other areas within or adjacent to the proposed permit boundary where Opencut operations would be prohibited, and from which a setback or buffer would be required [ARM 17.24.218(1)(h & j)]? Yes No

If No, skip to D5.

If Yes, check those that apply, provide the buffer/setback distance from the edge of the feature, and show its location on the Site Map:

a. **Ephemeral Drainage: Setback from edge of defined channel = _____ ft.**

b. **River: Setback from edge of defined channel = _____ ft.**

- c. **Stream/Creek:** Setback from edge of defined channel = _____ ft.
- d. **Pond/Lake:** Setback from high water mark = _____ ft.
- e. **Wetland:** Setback from wetland = **150 ft.**
- f. **Other:** _____ Setback = _____ ft.

Further Explanation (if applicable):

4. Is the site or a portion of the site located within the floodplain or floodway? Click the following link to view the FEMA Flood Map Service: <https://msc.fema.gov/portal/home>.

Yes No

If No, skip to D5-1.

If Yes, provide a letter, permit, or other document from the local county floodplain administrator stating whether there are requirements, restrictions, etc., for this site and update this application as necessary to be consistent with any requirements.

D5. MINING DESCRIPTION [MCA 82-4-434(2)] & [ARM 17.24.218(1)]

1. Is the site expected to be worked continuously or intermittently?

Worked continuously (i.e. year round)

Worked intermittently (i.e. on occasion when material is needed)

Additional information (if needed): **Market driven**

2. Will any of the processing equipment identified in Section A1-10 be moved on-site and off-site as needed, or is it expected to remain on-site during the life of the permit?

No Processing Equipment **Remain on-site** **Move on-site and off-site as needed**

Additional Information:

3. Will processing equipment be stationary or move with the highwall as mining progresses across the site?

No Processing Equipment.

Mobile processing equipment checked in A1-10 and mine material stockpiles would remain in one general location throughout the life of the permit (location is identified on Site Map).

Mobile processing equipment checked in A1-10 and mine material stockpiles would move with mining activity (i.e. migrate with the highwall).

Further Explanation (if applicable):

Other:

4. Typically, the following excavating or hauling equipment is used on-site:

Backhoe, Dozer, Dump/Haul Truck, Excavator, Loader, Scraper and Skidsteer.

If applicable, identify any other equipment that may be used on-site:

Drag Line **Dredge - Type:** **Other:**

5. Opencut Operation Mining Direction:

- a. Describe where Opencut operations would begin at this site (e.g. north corner, west corner, southeast corner, existing disturbance, etc.):

Opencut activities will begin at: Existing disturbance

- b. Describe the direction that Opencut operations would progress across the site over time (e.g. north to south, southeast to west then north, etc.):

Opencut activities will progress: First towards southwest from existing disturbance and then northward from existing disturbance within the permit boundaries

6. If there are no non-bonded areas, skip to Section D5-7 below. If the permit boundary contains non-bonded areas:

- a. Describe where Opencut operations will begin in the proposed non-bonded area(s), once they are bonded (e.g. north corner, west corner, southeast corner, center, disturbance, etc.):

Answer:

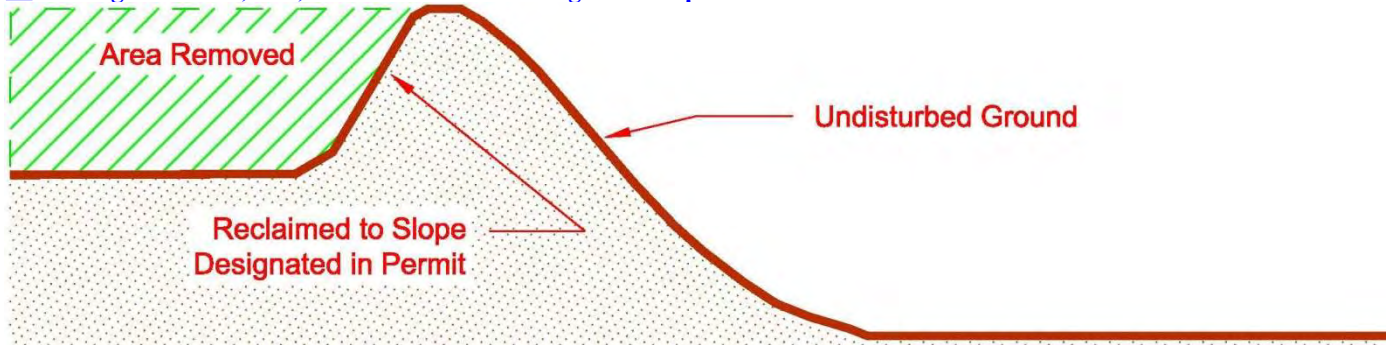
- b. Describe in which direction the Opencut operation will progress in the proposed non-bonded area(s), once they are bonded (e.g. north to south, southeast to west then north, clockwise from center, etc.):

Answer:

Note: Western Materials, LLC must submit a *Request to Modify Bonded Acreage* and obtain written approval from the DEQ before any Opencut activities (i.e. disturbance, stripping, mining, parking, etc.) can be conducted in any non-bonded area(s).

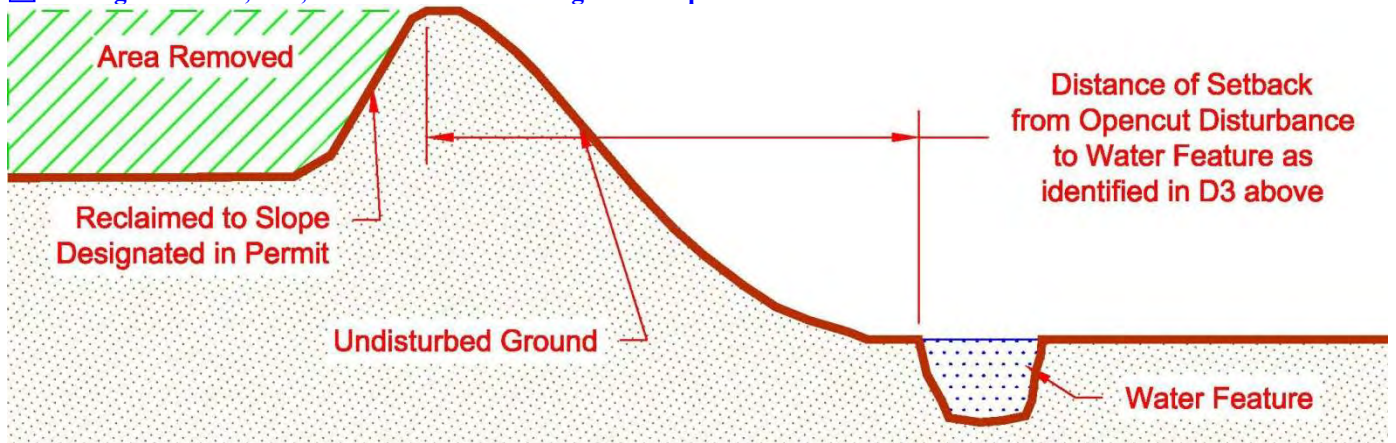
7. Choose all scenarios below that best describe the method of mining across the entire site. If none of the scenarios depict how the site would be mined, complete "7j" below with a detailed explanation.

a. Mining a Terrace, Hill, or Plateau near the Edge of a Slope



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

b. Mining a Terrace, Hill, or Plateau near the Edge of a Slope and near a Water Feature



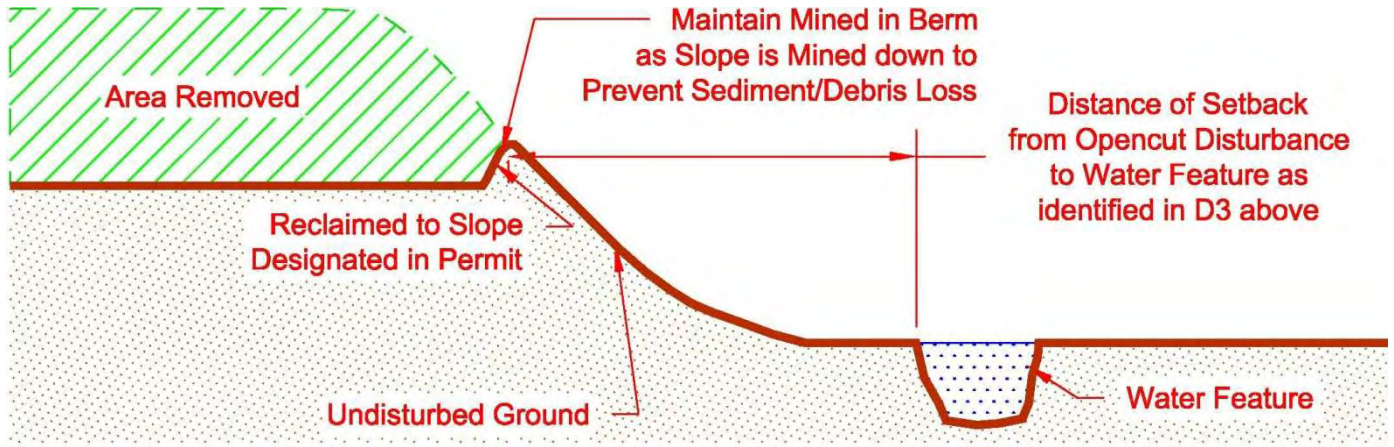
This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

c. Mining a Terrace, Hill, or Plateau near the Edge of a Slope



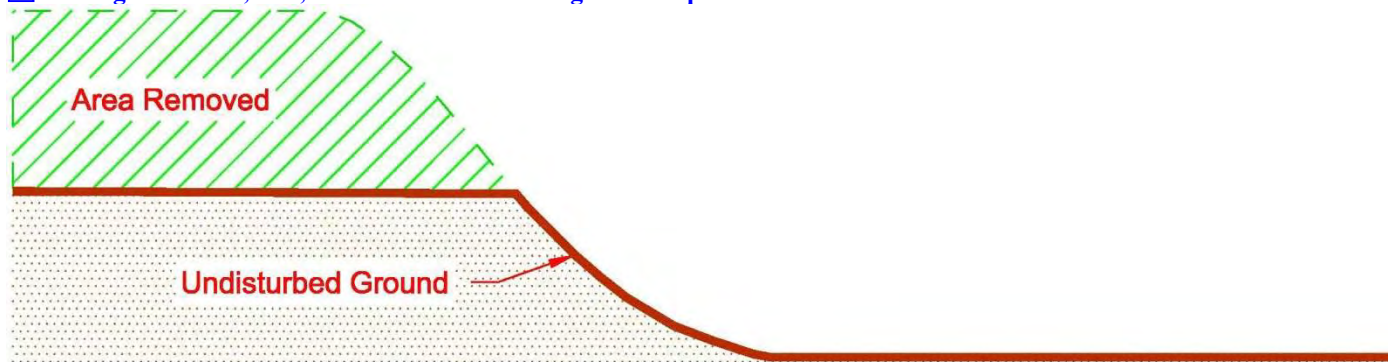
This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

d. Mining a Terrace, Hill, or Plateau near the Edge of a Slope and near a Water Feature



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

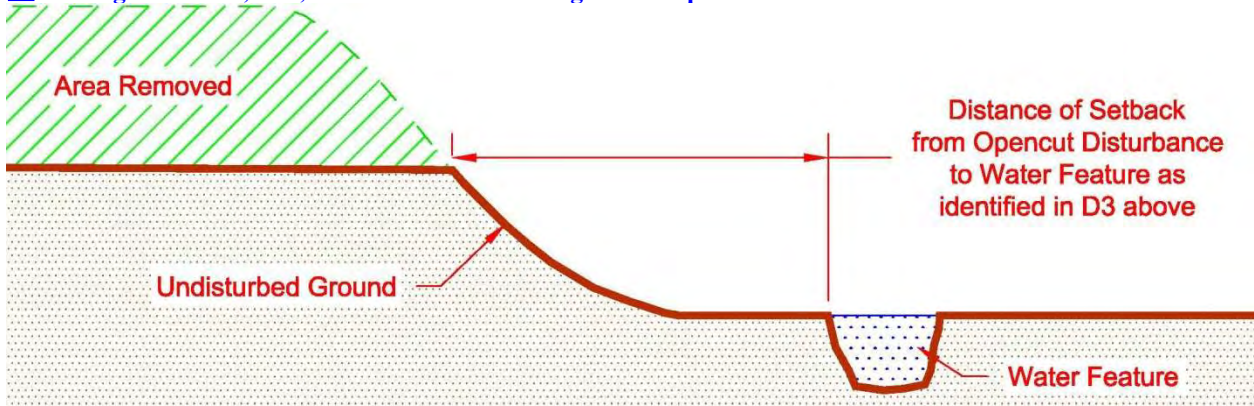
e. Mining a Terrace, Hill, or Plateau near the Edge of a Slope



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

i. This mining method requires **Western Materials, LLC** to ensure that no sediment or debris erodes or is pushed down the slope. **Western Materials, LLC** would implement, as necessary, erosion control measures at the edge of the slope or slightly downslope (within permit boundary) to prevent loss of sediment and debris.

f. Mining a Terrace, Hill, or Plateau near the Edge of a Slope and near a Water Feature



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

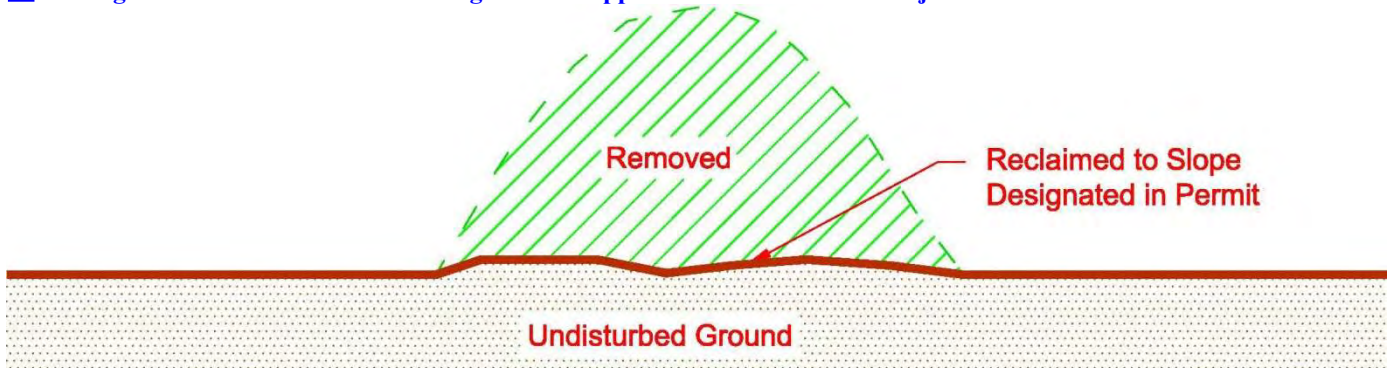
This mining method requires **Western Materials, LLC** to ensure that no sediment or debris erodes or is pushed down the slope. **Western Materials, LLC** would implement, as necessary, erosion control measures at the edge of the slope or slightly downslope (within permit boundary) to prevent loss of sediment and debris.

g. Mining a Relatively Flat Area to Create a Depression



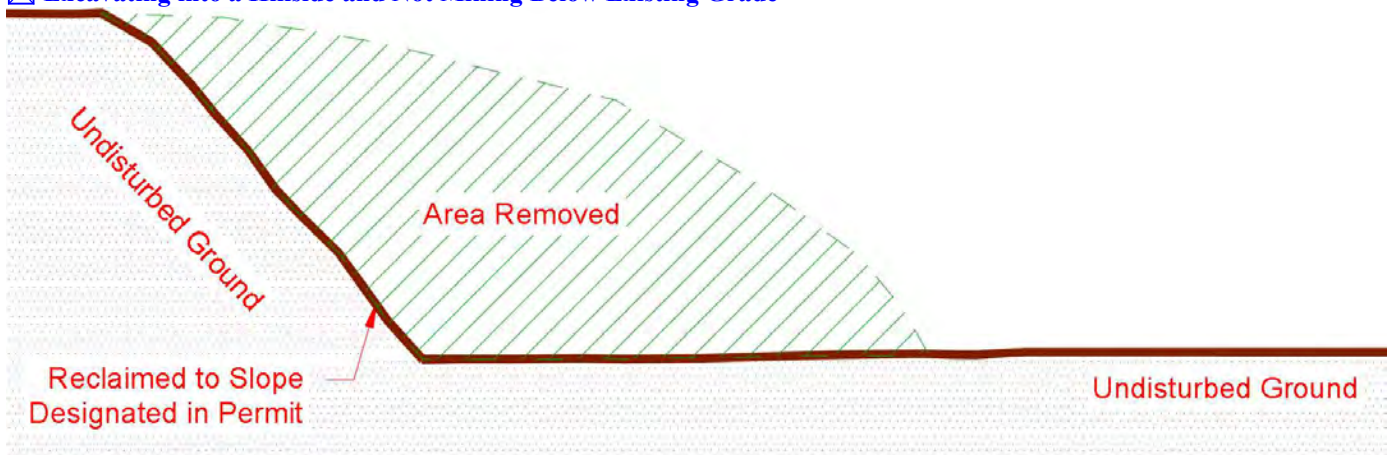
This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

h. Mining a Hill or Knob and Reclaiming it to the Approximate Elevation of Adjacent Ground



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information:

i. Excavating into a Hillside and Not Mining Below Existing Grade



This mining method would be implemented at or near the following locations within the permitted boundary (check all that apply) All North South West East Northwest Northeast Southwest Southeast
Additional Information: **The higher elevations of the pit represented in this scenario are to the west and north, the lowest points are to the south east. The east side of the site has been mined down to the same elevation as Old Hwy 93.**

j. Other Scenario
Describe:

8. Any slope steeper than 3:1 with a height of 5 feet or greater, present for any length of time, is considered to be a highwall. Will this site have highwalls? No Yes If Yes, skip to D5-8b.

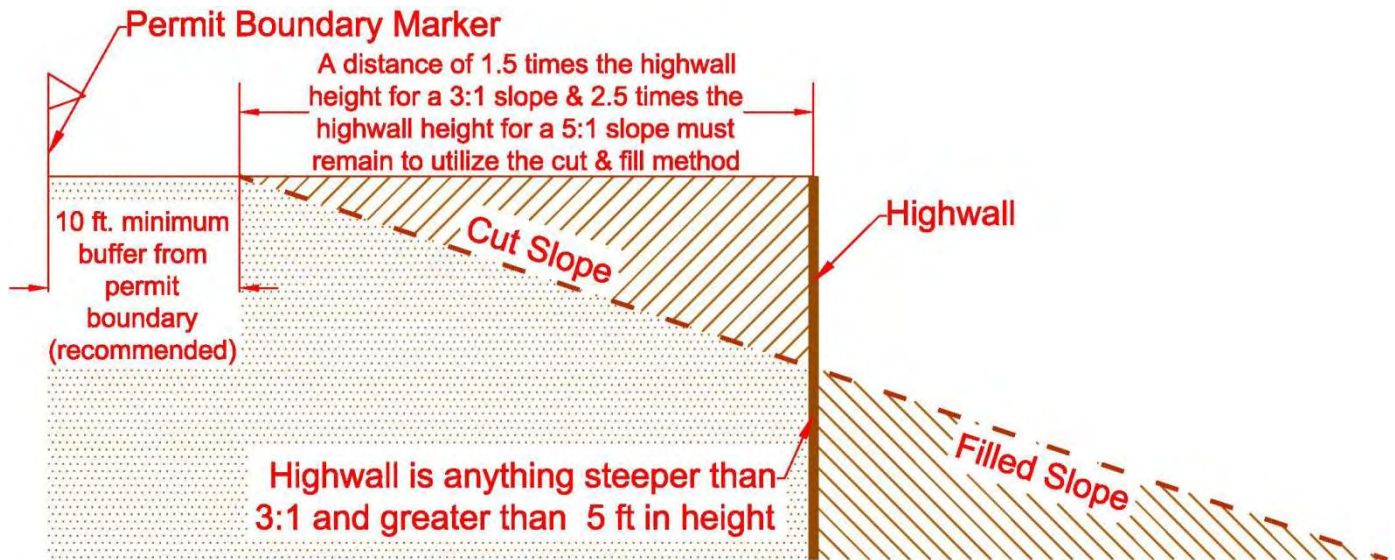
a. If No, explain in detail how this site will be mined without ever creating a highwall on-site. Note that mining without a highwall is not typical and is difficult to achieve.

Answer:

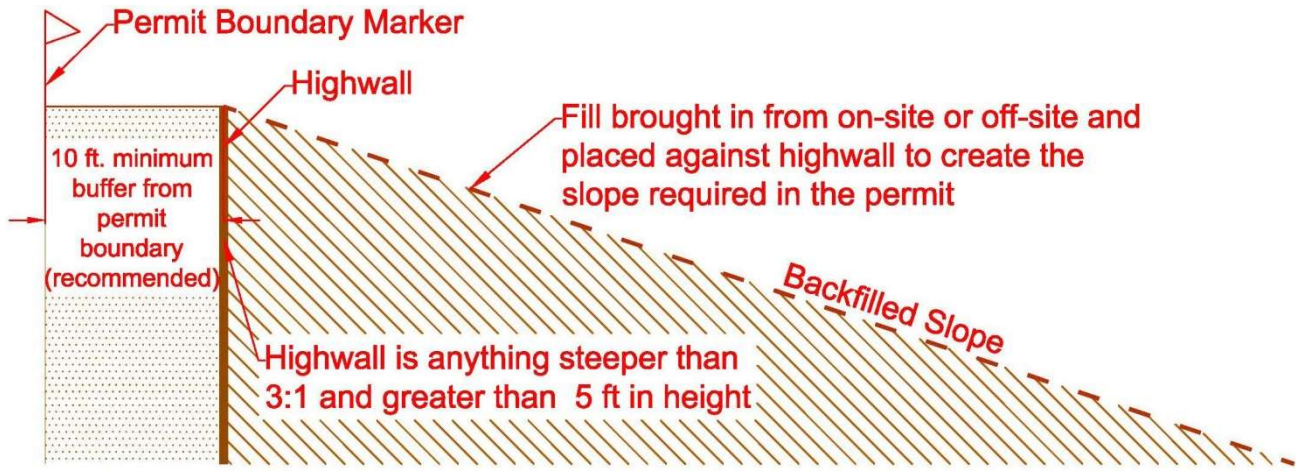
b. If Yes,

- i. The maximum **length** of highwall on-site at any given time will be: **5000 linear feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet*.
- ii. The maximum **height** of highwall on-site at any given time will be: **25 feet**. **Note:** This number must be used on the *Reclamation Bond Spreadsheet* and will typically be consistent with the maximum depth of mining (see [Section C1-1](#)).
 - iii. If the maximum height of highwall identified in D5-8 above is not identical to the maximum mine depth identified in C1-1 (i.e. **65**), explain in detail how the site will be mined: **Mining operations will be conducted to maintain no more than a 3:1 slope to the edges of the mine boundary, ensuring that space is preserved for stored overburden and berms above the mining area. The relief of the mine area is such that the eastern and southern edges begin lower than the western and northern edges, which allows access to the mine area while maintaining all required slopes. It is understood that the difference in the highwall and maximum mine depth will limit the depth of mining near all mine boundaries, overburden stockpiles and berms.**
- iv. Choose the highwall scenario below that best depicts how this site will be mined:

- **Cut & Fill Scenario** (complete Highwall section on *Reclamation Bond Spreadsheet*)
 - **Western Materials, LLC** understands that choosing this scenario requires that a buffer of unmined area be kept between the highwall and the permit/bonded boundary. Therefore, **Western Materials, LLC** will maintain an adequate buffer to allow for cut-and-fill to be conducted.
 - **NOTE:** It is recommended that if the cut-and-fill scenario is to be used, the maximum advanced position of the highwall be clearly marked on the ground with durable markers to ensure enough material remains in place for slope reduction.



- **Backfill Scenario for areas where the Cut & Fill Method is not an Option** (Complete Section D6 – Mine Material Backfill)



D6. MINE MATERIAL BACKFILL [ARM 17.24.218(1) & 17.24.219]

1. If “Backfill Scenario” was chosen in D5-8(a) or if any mine area backfill locations are planned (e.g. using material to raise the level of the pit floor to accomplish the reclamation plan), complete this section. If not, skip to Section D7.

- Highwall Backfill* Mine Area Backfill**

Show the planned backfill location(s) on the Site Map or Reclamation Map and provide the following information:

a. Describe where the backfill material will come from:

On-site – Describe:

Off-site- Describe:

b. Material type(s) to be used as backfill (check all that apply):

Pit Run Gravel Oversize Rock Reject Fines Backhaul (Clean Fill Only)

Other:

*Highwall Backfill: **Western Materials, LLC** must identify the linear feet, height, and slope of highwall to be backfilled on the *Reclamation Bond Spreadsheet* under “Highwall Backfill.” Additionally, **Western Materials, LLC** must bond for transport/placement cost for the quantity of material to be placed against the highwall for backfill under the “Backfill Transport/Placement” cost line item (\$2/cy for on-site generated backfill and \$15/cy for off-site generated backfill).

Mine Area Backfill: **Western Materials, LLC must identify the acreage, depth, and compaction percentage on the *Reclamation Bond Spreadsheet* under “Mine Area Backfill.” Additionally, **Western Materials, LLC** must bond for transport/placement cost for the quantity of material to be placed on-site for backfill under the “Backfill Transport/Placement” cost line item (\$2/cy for on-site generated backfill and \$15/cy for off-site generated backfill).

D7. FACILITIES [MCA 82-4-434] & [ARM 17.24.218(1)(e), ARM 17.24.218(1)(i) & 17.24.219(1)(b)]

1. If an Asphalt Plant, Wash Plant, or Concrete Plant was checked in A1-2c or A1-10 above, complete this section. If **Not**, skip to D7-2.

a. Asphalt Plant – If stationary or near a water feature, identify the specific or general location on the Site Map.

→ Must be checked in section A1-10 for a new permit and A1-2c for an Amendment

→ Must remain in compliance with D1-1.

i. Where will the asphalt plant be set up?

Answer: Southwest portion of the permitted area; refer to Site Map.

ii. A small amount of asphalt waste generated from daily startup and shutdown of the asphalt plant is expected; therefore, a maximum of 300 cubic yards of asphalt can be located onsite, near the asphalt plant. However, the asphalt waste must be removed when the asphalt plant is removed from the site, unless the site is permitted and bonded to store asphalt onsite.

iii. Describe additional restrictions or commitments on location of asphalt plant (placement away from water, residences, etc.)

b. Concrete Plant - If stationary, or near a water feature, identify the specific or general location on the Site Map.

→ Must be checked in section A1-10 for a new permit and A1-2c for an Amendment

i. Where will the concrete plant be set up?

Answer: West-southwest portion of permitted area; refer to Site Map.

ii. Describe what will be done with wastewater created from the concrete plant.

Western Materials, LLC will dispose of wastewater in an off-site location, greater than 300 feet from the

permitted boundary, and in an area that would not impact surface or ground water.

Western Materials, LLC will dispose of wastewater on-site or within 300 feet of the permitted boundary, and in an area that would not impact surface or ground water (location must be shown on Site Map).

Other: Describe:

iii. Where will truck washouts occur?

Western Materials, LLC will conduct truck washouts in an off-site location, located greater than 300 feet from the permitted boundary, and in an area that would not impact surface or ground water.

Western Materials, LLC will conduct truck washouts on-site in or within 300 feet of the permitted boundary, and in an area that would not impact surface or ground water (location must be shown on Site Map).

Other: Describe:

iv. Describe how and where return loads and excess or reject product will be handled or stored. If on-site or within 300 feet of the permitted boundary, show the location on the Site Map.

Concrete will be poured into casts to make products

Concrete will be poured on-site and buried under 3 feet of material suitable for sustaining the postmining land use.

Other: Concrete washout includes contained area (formed of ecology blocks) where excess product will be temporarily stored. Once full, the excess concrete will be collected and transferred to concrete storage area for recycling.

c. **Wash Plant** - If stationary, or near a water feature, identify the specific or general location on the Site Map.

→ Must be checked in section A1-10 for a new permit and A1-2c for an Amendment

i. Where will the wash plant be set up?

Answer: Southern portion of permitted area, see Site Map.

ii. How many settling ponds will be used for the wash plant? 1 2 3 4

Other _____

iii. What will the approximate depth of the settling pond(s) be? **Answer: 12 feet**

iv. Will settling pond(s) be lined? No Yes

If Yes, type of liner:

v. Where will the wash plant obtain its water?

On-site well or well within 300 feet of permit boundary (Identify location on Site Map)

Surface water source within 300 feet of permit boundary (Identify location on Site Map)

Source located greater than 300 feet from permitted boundary

Other:

vi. Will the water from the wash plant be recycled back into the wash plant? Yes No

If **No**, explain:

vii. **Western Materials, LLC** must show the location of the wash plant and any settling ponds or other wash plant features on the Site Map.

viii. If **Western Materials, LLC** attaches the Opencut Mining Section's *Wash Plant Settling Pond Guideline*, check the appropriate box on page 2.

2. Will salt or a salt mixed with product be stored on-site? Yes No

If **No**, skip to D8.

If **Yes**, complete the following:

a. Show the proposed salt material stockpile(s) on the Site Map.

b. Indicate the maximum quantity of salt or salt product that would be stored on-site: **2,000 cubic yards**

c. Describe how salt materials would be stored on-site:

Storage Pad: Asphalt Pad Concrete Pad Other Impermeable Surface – Describe:

Cover: Enclosed Structure Roof Only Tarp Other Cover – Describe:

Other Storage Method:

d. Describe the measures to be taken to protect on and off-site surface water and ground water from deterioration of water quality due to salt storage per 82-4-434(2)(l), MCA & ARM 17.24.218(1)(h).

Answer: All drainage from the asphalt pad will flow into a secondary concrete or lined catch basin for evaporation.

D8. ASPHALT & CONCRETE RECYCLING [ARM 17.24.206; 17.24.219(1)(b); & 17.24.221(3)]

1. **Asphalt Recycling** – Typically, recycling involves accumulating materials containing asphalt, crushing these materials periodically, and stockpiling the resulting crushed asphalt product as is or blending it with other suitable materials. These recycled products are commonly used to surface roads, and operations permitted to operate an asphalt plant may also use these as feed into the plant.

Asphalt is considered to have the potential to impact water quality. As a result:

- An operation that imports materials containing asphalt must be permitted to store the debris awaiting recycling.

Note: Imported debris may be a mixture of various materials (e.g. asphalt, concrete, soil, gravel, etc.). However, if

the debris contains asphalt, it must be permitted as asphalt storage.

- Similarly, if a site permitted to operate an asphalt plant will stockpile asphalt produced on-site (e.g. excess or reject material), the operation must be permitted and bonded for asphalt storage.

- a. Will asphalt or materials containing asphalt be stockpiled at the site? Yes No

If **No**, skip to D8-1b.

If **Yes**, **Western Materials, LLC** must comply with the following requirements for stockpiled asphalt:

- i. The maximum amount of asphalt or material containing asphalt awaiting recycling that will be on-site at any time is 10,000 cubic yards.
- ii. This maximum value must be used in the *Reclamation Bond Spreadsheet* to calculate the cost to either recycle (i.e. crush) the asphalt, or dispose of it off-site in a lawful manner.
- iii. Asphalt must be stored in the “asphalt stockpile area” shown on the Site Map.
- iv. Asphalt must be kept out of ground water and surface water (runoff channels, puddles, ponds, etc.); the only water that should come in contact with the asphalt stockpile is rain and snow.
- v. Imported asphalt must not be buried or otherwise disposed of on-site. During the final reclamation process, on-site asphalt stockpiles must be: **a)** removed from the site and disposed of in a lawful manner, or **b)** recycled into useful products which are removed from the site or used on-site to surface roads that are included in the approved postmining land use. Only on-site generated asphalt that has never left the site can be buried on-site as long as it is buried at least 25 feet above the ordinary high water table and under 3 feet of clean fill material suitable for sustaining the postmining vegetation.

- b. Will on-site generated asphalt be buried on-site? Yes No

If **No**, skip to D8-2.

If **Yes**, item C of the *Landowner Consultation Form* must be checked “Yes.” In addition, § 82-4-434(2)(l), MCA requires the DEQ to protect surface and ground water from deterioration of water quality and quantity that may arise as a result of the Opencut operations. The Opencut Mining Section may require that a ground water monitoring plan and monitoring well installation plan be designed to protect ground water. Therefore, the below items must be addressed to bury on-site generated asphalt.

- i. What is the distance between the bottom of the proposed buried asphalt and the ordinary high water table?
Answer: ____ feet. (Buried on-site generated asphalt must be located at least 25 feet above the ordinary high water table.)
- ii. How was the elevation of the ordinary high water table on-site confirmed?
 Monitoring wells were installed to confirm ordinary high water level (data must be attached and the *Monitoring Well Installation Plan* on page 2 must be checked).
 Other:
- iii. Where will the required 3 feet of material suitable for sustaining postmining vegetation be obtained?
Answer: (Ensure that the additional fill is bonded for on the *Reclamation Bond Spreadsheet*)

2. **Concrete Recycling** – Hardened concrete is not considered to have potential to impact water quality. As a result, concrete debris from construction or demolition projects may be imported to the site and stockpiled pending recycling or used as mined-area backfill. Similarly, sites permitted to operate a concrete plant may stockpile excess or reject product that becomes hardened on-site.

- a. Will hardened concrete be stored at the site? Yes No

If **No**, skip to Section D-9.

If **Yes**, **Western Materials, LLC** must comply with the following requirements for hardened concrete:

- i. When concrete is deposited at the site, any protruding metal must be cut off and collected. Any metal exposed during subsequent handling, transfer, crushing, or recycling must promptly be freed and collected. As a result, no protruding metal should be visible at any time. Salvaged metal must periodically be transported off-site for recycling or other lawful disposal.
- ii. Concrete must be stored in the “concrete stockpile area” shown on the Site Map.
- iii. Concrete present at the site during the final reclamation process must be **a)** removed from the site and disposed of in a lawful manner, **b)** recycled into useful products, or **c)** buried on-site under at least 3 feet of clean fill material suitable for sustaining the postmining vegetation.

Note: If asphalt is present in concrete stockpiles, the site must be permitted for asphalt recycling (refer to [Section D8-1](#) above.)

D9. REJECT FINES [ARM 17.24.219]

1. Reject fines are natural or crushed rock that is generally ¼ inch or smaller. Reject fines are usually created from screening

product/material. Reject fines are typically pushed back into the pit to act as backfill before replacing the overburden and soil, or they are hauled off-site.

2. Will reject fines be created at this site?

Yes No

If **No**, skip to [Section D10](#).

If **Yes**, how will reject fines be handled at this site? Check all that apply:

- a. **Reject fines will be hauled off-site before accumulating to 10,000 cubic yards.**
- b. **Reject fines will be periodically placed back into the mine area as operations progress through the life of the permit. Reject fines will not be allowed to accumulate to more than 10,000 cubic yards.**
- c. **Reject fines will be stockpiled and used for reclamation at a later date.**
 - i. The maximum quantity of fines to be stockpiled is _____ cubic yards*

***Note:** If more than 10,000 cubic yards of stockpiled reject fines will be located on-site, the entire stockpile must be bonded for on the *Reclamation Bond Spreadsheet* at a rate of \$1.00 per cubic yard. Ensure the *Reclamation Bond Spreadsheet* is consistent with the quantity entered in this section.
- d. **Other:**

D10. SOIL, OVERBURDEN, & MINE MATERIAL COMMITMENTS [*MCA 82-4-434(2)(c)*] & [*ARM 17.24.218(1)(c-d)* & *17.24.219(1)(c)* & *17.24.220(2)(b)*]

1. **Western Materials, LLC** will comply with the following requirements:

- a. Prior to conducting any Opencut operations, soil and overburden must be stripped separately to the average thicknesses identified in [Section C2-4](#). (**Note:** Stripping soil may create low spots that collect water, necessitating the establishment of drainage ways, or the construction of raised roadbeds and work areas.)
- b. **Western Materials, LLC** must strip, stockpile, save and replace all soil (and overburden if sufficient soil is unavailable) to a minimum depth of 24 inches or to another depth approved in writing by the DEQ and record the average thicknesses of soil to be replaced in [Section C2-4](#).
- c. All stripped soil and overburden must be: i) hauled directly to areas prepared for reclamation and re-soiling, or ii) promptly stockpiled and protected from erosion, comingling, contamination, compaction, and unnecessary disturbance. At the first seasonal opportunity, **Western Materials, LLC** must shape and seed, with an approved perennial seed mix, any stockpile that will remain for 2 or more years.
- d. Designate all soil and overburden stockpiles with signage that is legible, visible, and placed so that equipment operators and inspectors may readily identify the type of stockpile being worked for the life of the stockpile.
- e. **Western Materials, LLC** must not haul soil off-site, give it away, or sell it without written approval from the DEQ.
- f. Soil and overburden must be handled separately and **Western Materials, LLC** will avoid mixing these materials, or handling them when wet or frozen. Overburden must be stockpiled only on areas where soil has been stripped to the required depth. Soil may be stockpiled on stripped or unstripped areas.
- g. A minimum 10-foot wide buffer zone stripped of soil and needed overburden must be maintained along the crest (edge) of highwalls. This practice helps to ensure that soil will not be lost to mining. Highwalls are defined in D5-8.
- h. Soil, overburden, and mine material stockpiles must be kept out of drainage bottoms and off of slopes steeper than 3:1. All excavated and/or processed mine material must be: i) removed from the site, ii) buried on-site, or iii) left for the landowner in accordance with the *Landowner Consultation* form and [Section E7](#).
- i. Burn pile residue, building demolition debris, metal, plastic, tires, and other wastes must be disposed of off-site and in a lawful manner, unless otherwise stated in the permit.
- j. All clean fill (i.e. dirt, sand, fines, gravel, and oversize rock) that cannot, or will not, be buried during final reclamation must be removed from the permit area prior to bond or liability release request, with the exception of materials left for the landowner.

D11. ADDITIONAL IMPACTS [*MCA 82-4-434(2)(m)*] & [*ARM 17.24.218(1)(f & k)*]

- 1. Are there residences within 1,000 feet of the permit boundary? **Yes** **No**
- 2. Indicate the methods and materials that would be used to mitigate impacts of the processing equipment listed in [Section A1-10](#) from the neighboring properties.
 - Berms** **Buffer zones** **Dust mitigation** **Equipment enclosures** **Fences** **Paving**
 - Restricted Hours** **Revegetation** **Speed limits** **Vegetative screens**
 - Other/Additional Information: Soil Stockpiles on southern boundary act as berms to protect residences from impacts.**

D12. ADDITIONAL COMMITMENTS [MCA 82-4-434(3)(g)&(h) & MCA 82-4-437] & [ARM 17.24.214 & 17.24.218(1)(l)]

1. **Western Materials, LLC** understands that obtaining an Opencut Mining Permit does not relieve **Western Materials, LLC's** obligation to comply with any other applicable federal, state, county, or local statute, regulation, or ordinance. Therefore, **Western Materials, LLC** is responsible for identifying and obtaining any other permits and approvals from other agencies required for the proposed activities (Refer to "How to Obtain and Comply with an Opencut Mining Permit" on the Opencut website). Obtaining an Opencut permit does not necessarily mean that an Operator can legally mine the site without first obtaining permits from other agencies.
2. **Western Materials, LLC** will comply with the following requirements:
 - a. Key personnel and subcontractors involved in Opencut operations **must be informed** of the requirements of this Plan and **must be provided** a copy of this Plan. In addition, they **must be shown** each boundary marker location and informed of the importance of the markers.
 - b. Proper precautions must be taken to prevent wildfires.
 - c. Appropriate protection must be provided for identified cultural resources that could be affected by Opencut operations. If any other cultural resources are discovered, **Western Materials, LLC** must: i) temporarily halt work, or move to another area, and ii) promptly notify the State Historic Preservation Office (406-444-7715).
 - d. By March 1st of each year, **Western Materials, LLC** must complete and return the Annual Production Report (APR) form that the Opencut Mining Section sends early in the year. **Western Materials, LLC** must report the requested information regarding mining conducted during the preceding calendar year. In addition, **Western Materials, LLC** must calculate the fee for the preceding year's production (per cubic yard of material mined) and submit payment to the DEQ along with the APR.

D13. ADDITIONAL INFORMATION [MCA 82-4-432(1) & 82-4-434(2)] & [ARM 17.24.222]

1. If applicable, provide additional water protection, mining, and processing information not addressed above.
Answer: None

SECTION E – RECLAMATION PLAN

E1. RECLAMATION TIMEFRAME [MCA 82-2-431(10) & (11); 82-4-434(2)(k); 82-4-434(3) & (4)] & [ARM 17.24.219(1)]

1. Reclamation must be:
 - a. Completed in accordance with this Plan and as concurrent with the Opencut operations as feasible.
 - b. Completed on an area no longer needed for Opencut operations within one year after the cessation of such operations.
 - c. Completed on an area that **Western Materials, LLC** no longer has the right to use for Opencut operations within one year after the termination of such right.
 - d. Completed by the Term of the Permit (final reclamation date) that **Western Materials, LLC** specifies below.
 - e. **Western Materials, LLC** must specify the final reclamation date based on various business and environmental factors, including:
 - i. The estimated demand for mine materials, the expected rate of production, and accessible material reserves.
 - ii. The time required to establish productive vegetation comparable to that growing on similar undisturbed land nearby. Typical minimum timeframes for revegetation are:
 - At least 2 additional years to establish vegetation and control noxious weeds on grassland and forest areas.
 - At least 1 additional year for the first successful harvest on cropland.
 - f. Final reclamation of the site is complete when the postmining land use has been achieved, including successful revegetation or crop harvest, and noxious weed control. Therefore, DEQ recommends that **Western Materials, LLC** be sure to allow sufficient time for successful vegetative growth, thereby avoiding the need to submit an amendment application requesting only to extend the final reclamation date.
 - g. **Final Reclamation Date is: Month December, Year 2045**
 - h. **Western Materials, LLC** certifies that the reclamation date chosen fits the operator's production and business needs.

Note:

- If **Western Materials, LLC** will not be able to achieve the postmining land use by this date, an amendment application must be submitted to extend the final reclamation date. Such an application must be submitted well in advance of the reclamation date to allow time for processing and approval of the amendment.
- If the final reclamation date passes before **Western Materials, LLC** achieves the postmining land use, the permit would no longer be valid. The operator would subsequently be required to cease all Opencut activities and enter into an agreement with the DEQ Enforcement Program to either reclaim the site to the permitted postmining land use or re-permit the site.
- The expiration or termination of a permit does not relieve **Western Materials, LLC** from the obligation to conduct

reclamation as required by the plan of operation or the liability for costs of reclamation exceeding the amount of the bond.

E2. POSTMINING LAND USES [MCA 82-4-434(1) & (2)] & [ARM 17.24.219(1)(a)]

1. The site will be reclaimed to the postmining land use(s) below. Show all postmining land uses on the Reclamation Map.

- Permitted Access Road(s): Length _____ Width _____
- Internal Road(s): Length _____ Width _____
- Cropland, Rangeland and/or Pasture (cropland requires 5:1 or flatter slopes for reclamation & Rangeland and/or Pasture require 3:1 slopes or flatter for final reclamation)
- Year-round Pond: Fishery Livestock Recreation Wildlife Other:
- Seasonal Pond: Purpose- _____ Wetland Seasonal Wetland
- Berms Fences Landowner Equipment Storage Area*
- Landowner Material Stockpile Area*
- Industrial/Commercial** Residential** Vegetative Screens Other:

*Landowner Equipment Storage Areas & Landowner Material Stockpile Areas must be shown on the Reclamation Map (include approximate acreage).

**Residential and Industrial/Commercial land uses may require submittal of planning documents and approvals.

Western Materials, LLC understands that all soil taken from residential or industrial/commercial areas must be kept on site for reclamation and cannot be removed or sold until the DEQ has determined the postmining land use has been met, thereby verifying the soil is not needed to reclaim the area, or other remaining areas. This verification is achieved when Western Materials, LLC submits a Phase I or Phase II release request, the site is inspected, and the release request is approved.

Note: If site plans change, Western Materials, LLC must submit an amendment application to update the postmining land use(s).

2. What facilities and structures will remain after reclamation of the site is completed?

- None Concrete Structures Gravel or Paved Surface Area Office Scale
- Other:

i. Describe the purpose of leaving these facilities or structures intact.

Answer:

E3. PONDS AND WETLANDS [MCA 82-4-434(1) & (2)] & [ARM 17.24.219(1) & 17.24.221(5)]

1. If Section E2 above does not designate a pond, seasonal pond, or wetland as a postmining land use, skip to Section E4; otherwise, proceed to E3-2 below.
2. As a water feature would remain, complete the Pond and Wetland Design Worksheet, check the appropriate box on page 2, and include the worksheet with the application submittal. The Pond and Wetland Design Worksheet can be found here: <http://deq.mt.gov/Mining/opencut> (click on the "Forms" tab).
3. Western Materials, LLC understands that all soil taken from the pond or wetland area must be kept on-site for reclamation and cannot be removed or sold until the DEQ has determined the postmining land use has been met, thereby verifying the soil is not needed to reclaim the pond or wetland area, or other remaining areas. This verification is achieved when Western Materials, LLC submits a Phase I or Phase II release request, the site is inspected, and the release request is approved.
4. Western Materials, LLC has consulted with DNRC and understands the requirements regarding water rights and ground water development related to reclaiming to the postmining land uses identified in E2-1. The DNRC water right flow chart can be accessed here: <http://deq.mt.gov/Mining/opencut>.
Additional Information (if applicable):

E4. SITE CLEANUP, GRADING AND RECLAMATION [ARM 17.24.219(1) & 17.24.221(5)]

1. Western Materials, LLC must comply with the following requirements:
 - a. Leave reclaimed surfaces in a stable condition, graded to drain to low areas where applicable, and blended into the surrounding topography and drainageways. Note: Irregular contours are preferred for livestock and wildlife habitat; areas of unvarying slope should be minimized; and drainageways must be reclaimed similar to surrounding natural conditions.
 - b. Leave reclaimed surfaces with 5:1 or flatter slopes for hayland and cropland, 4:1 or flatter slopes for sandy surfaces, and 3:1 or flatter slopes for other areas (The DEQ may approve steeper slopes on a case by case basis).
 - c. Leave reclaimed surfaces at least 3 feet above the seasonal high water table level for dryland reclamation and at least 3 feet below the seasonal low water table level for pond reclamation (The DEQ may approve seasonal ponds for certain situations).

- d. Retrieve and properly use, stockpile, or dispose of all refuse and spilled mine materials (e.g. chips, oversize, etc.) found in the permit area and along access roads as such materials will impair revegetation.
2. Indicate the grade of the steepest slope that would remain after the site is reclaimed.
3:1 4:1 5:1 6:1 Other:

Note: This reclamation slope ratio must be used on the *Reclamation Bond Spreadsheet*.

If a slope of 3:1 or flatter was checked, skip to E4-3.

If the **Other** box was checked above and **Western Materials, LLC** intends to have slopes steeper than 3:1, address the following:

Western Materials, LLC must provide a slope stability study prepared by a professional engineer licensed in accordance with Title 37, chapter 67, part 3, MCA, or a geologist with five years of post-graduate academic or professional work experience in the field of soil or rock mechanics, documenting that the slopes will remain stable [ARM 17.24.219 (c)].

- Slope Stability Analysis Attached (check the appropriate box on page 2)
Further Description (if applicable):

3. Will the site be graded to blend in with surrounding topography? Yes No
 If **No**, explain in detail how the site will be graded:

4. Would a water collection area remain for final reclamation?
Yes No

a. If **Yes**, where will precipitation/stormwater/snow-melt, etc. concentrate or drain to in the reclaimed depression?

- i. Seasonal or year-round wetland or pond (applicable postmining land use must be checked in E2).
 ii. Runoff collection area(s) in bottom of depression graded specifically to collect any runoff, thereby not impacting other areas of the site with ponding or pooling of water.
 • Approximate location of water collection area(s) must be shown on the **Reclamation Map**
 Water collection area is $\leq \frac{1}{2}$ acre in size;
 Water collection area is $> \frac{1}{2}$ and ≤ 1 acre in size – Explain why water collection area needs to be greater than $\frac{1}{2}$ acre in size
 iii. Other-Describe:

b. If **No**, describe where stormwater will concentrate or drain to, i.e. water will flow to the (check all that apply):

- i. Water would infiltrate into the ground East North Northeast Northwest South
Southeast Southwest West
Further Description:
 ii. Water will flow off-site via:
Reclaimed drainages, swales, etc. within the permitted boundary Reclaimed slopes
Other-Describe:

Note: ARM 17.24.221(5) requires that the Reclamation Map contain arrows depicting the anticipated direction of water flow across the reclaimed site.

E5. SOIL AND OVERBURDEN SURFACE PREPARATION AND REPLACEMENT

[ARM 17.24.202(14) & 17.24.219(1)(g)]

1. Compacted soil and overburden must be tilled to allow air and water movement, root penetration, and the subsurface drainage necessary for plant growth. Will **Western Materials, LLC** alleviate compaction by deep-tilling or ripping all compacted surfaces to a depth of at least 12 inches before re-soiling? Yes No

Note: The DEQ recommends the following:

- a. Ripping or deep tilling is not required for non-compactable materials such as sand and gravel.
 b. Ripper shanks should be spaced about equal to the ripping depth.
 c. Rip along contours where possible and when soil and overburden are dry enough to shatter.
 d. Protect ripped areas from recompaction.

If **No**, explain in detail how overburden and soil compaction would be alleviated, or explain why relieving compaction would not be necessary:

2. Indicate the methods to be used to relieve soil compaction and prepare the seedbed.
Chiseling Disking Harrowing Packing Other:

3. **Western Materials, LLC** will limit the presence of large rocks that are not characteristic of the soil prior to disturbance and may inhibit successful revegetation and agricultural production. Method(s) that will be used include:
Blading Off and Removal of Large Rocks Rock Picker Rolling Screening Hand Picking Other:

E6. REVEGETATION [MCA 82-4-431(2)(c) & 82-4-434(2)] & [ARM 17.24.218(1)(j) & 17.24.219(1)(h)]

1. **Western Materials, LLC** must comply with the following requirements:
 - a. Establish vegetation capable of sustaining the designated postmining land use(s).
 - b. Use certified weed-free seed and comply with local weed district requirements.
 - c. Seed during the late fall or early spring seeding season (unless otherwise approved) and seed along contours for drill seeding.
 - d. Ensure that areas seeded or planted to perennial species can be, and are, appropriately protected and managed from the time of seeding or planting through two growing seasons, or until site stabilization and revegetation are achieved, whichever is longer.
 - e. Revegetation success on non-cropland areas is achieved when vegetation capable of sustaining the designated postmining land use has been established. Revegetation success on cropland areas is achieved when a crop has been harvested from the entire area and the yield is comparable to those of crops grown on similar undisturbed sites under similar growing conditions.
 - f. Except for those postmining land uses that do not require vegetation, each surface area of the site that will be disturbed will be revegetated when its use for the Opencut operation is no longer needed.
 - g. **Western Materials, LLC** must attach the Opencut Mining Section’s *Weed Board Notification of Opencut Operation* form that **Western Materials, LLC** has submitted to the weed board in the county or counties in which the proposed operation is located and check the appropriate box on page 1.
2. Will **Western Materials, LLC** apply fertilizer, compost, mulch, or other soil amendments? Yes No
3. The primary method of seeding will be: Drilling* Broadcasting**

*Sagebrush seed cannot be drill seeded and must be broadcast at the rates identified in the sagebrush seed mix. Grass and forb seeds in a sagebrush seed mix can be drill seeded.

**Broadcast seeding must be at double the rate used for drilling (i.e. 24 lbs/acre or more).
4. The DEQ’s *Seed Mix Guideline* is available on the Opencut Mining Section’s website at <http://deq.mt.gov/Mining/opencut> (click on the “Forms” tab).
 Will seed mixes described in the Seed Mix Guideline be used for final reclamation? Yes No
 If **No**, complete the table below with a custom seed mix.
 If **Yes**, check the appropriate box on page 2, attach a copy of the guideline, and indicate below which seed mix(es) would be used.
 - Native Grazing/Pasture Non-Native Grazing/Pasture
 - Native Rangeland (for moist/riparian regions)
 - Native Rangeland (for arid regions) Wetland Seed Mix (for pond edges or wetland areas)

OR

Cropland seed mix designated by Landowner at time of reclamation

OR

Recommended Seed Mixes for Sage Grouse Habitat

If the site is in general, core, or interconnectivity sage grouse habitat, **Western Materials, LLC** must choose the appropriate seed mix below, unless the landowner has requested an alternate seed mix (refer to the Landowner Consultation form).

Northern Region Central & Southeastern Regions Southwestern and South Central Regions

In the table below, describe the seed mix species and rates of seeding (pure live seed per acre) that will be used:

SEED TYPE	SEED RATE
Western Wheatgrass	3.5
Green Needlegrass	3.5
Alfalfa	3.0
Timothy	3.0
Red Clover	3.0
Slender Wheatgrass	2.5
TOTAL SEEDING RATE	18.5 pounds pure live seed/acre

Additional Seeding Information (if applicable):

5. Indicate the measures to be used to manage and protect the site until reclamation vegetation is established.
- Noxious Weed Control** (mandatory) **Fencing** (include cost of fencing on the *Reclamation Bond Spreadsheet*)
 No Grazing (**Western Materials, LLC** should secure written commitment from landowner)
 Other:
6. Indicate the method(s) or types of erosion control Best Management Practices (BMPs) that would be used at this site during reclamation to inhibit erosion and promote plant growth. **Western Materials, LLC** must maintain the below checked erosion control BMP's during reclamation to protect water quality and prevent sediment from leaving the site (as needed):
- Equipment Tracking** (orientated to trap moisture and break water flow) **Erosion Control Blankets** **Mulch**
 Seeding/Harrowing Along Contour **Slopes 5:1 or Flatter** **Straw Bales**
 Vegetated Buffer Strip **Wattles** **Other:**

E7. MATERIAL REMAINING FOR LANDOWNER [ARM 17.24.203(5); 17.24.206; 17.24.219(1)(b); & 17.24.221(5)(c)]

1. Does Question B of the *Landowner Consultation* form indicate that mine material will remain at the conclusion of Opencut operations; or, if the landowner is the Operator, will mine material remain at the conclusion of Opencut operations?
 Yes **No**
If **No**, skip to [Section E8](#).
2. The following requirements apply to leaving mine material for the landowner at the conclusion of Opencut operations:
- Landowner mine materials must be left in a single location that will be accessible by road. If the landowner stockpile is not adjacent to an existing public road, the road to the stockpile must be shown on the Reclamation Map.
 - Landowner mine material stockpiles must be segregated into piles of similar types and grades.
 - Landowner mine material stockpiles must be located in the area designated on the Reclamation Map.
 - **Western Materials, LLC** must leave the quantity of soil necessary to reclaim the stockpile area within 100 feet of the mine material stockpile to remain for the landowner.
 - Thickness of soil required to be stripped from the site is **13 inches** * _____ acres (estimated number of acres that will be occupied by the soil stockpile area) = **0 cubic yards of soil that must remain for the landowner material stockpile area.**

E8. ADDITIONAL INFORMATION [MCA 82-4-432(1) & 82-4-434(2)] & [ARM 17.24.222]

1. If applicable, provide additional reclamation information not addressed above.
Answer: None

SECTION F – RECLAMATION BOND CALCULATION [MCA 82-4-433] & [ARM 17.24.203 & ARM 17.24.220]

Government Operators: Skip to [Section G](#).

Non-Government Operators:

1. Attach a proposed *Reclamation Bond Spreadsheet* and check the appropriate box on page 1.
2. The purpose of the *Reclamation Bond Spreadsheet* is to provide a reasonable estimate of the cost for the DEQ to reclaim the site in accordance with the *Opencut Mining Plan of Operation & Application* at the time of the site's maximum permitted disturbance. As a result, the estimated costs include equipment mobilization and project administration. The DEQ will review the proposed bond calculation and make a final determination as to the required bond amount.
3. Bond is not required to be posted for government operators or for acreage permitted as Non-Bonded until the acreage is needed for Opencut operations. Prior to commencing any such operations, **Western Materials, LLC** must submit a *Request to Modify Bonded Acreage* form, supporting documents, and post additional bond (if appropriate) on the undisturbed acreage. No Opencut activities, including equipment parking, can begin on non-bonded acreage until the *Request to Modify Bonded Acreage* form, supporting documents, and bond are approved in writing by the DEQ.
4. **Western Materials, LLC** understands that the DEQ may adjust the bond yearly.
5. Provide additional information relevant to the *Reclamation Bond Spreadsheet* if applicable:

Proceed to Section G – Certification and ensure it is fully completed

SECTION G – CERTIFICATION [MCA 82-4-432(1)(e)] & [ARM 17.24.222(3)]

The person signing below represents that (check one box):

I am an officer or an employee of **Western Materials, LLC** and I am duly authorized to bind the Operator identified on page 1 of the *Opencut Mining Plan of Operations & Application* as a corporation, limited partnership, limited liability company, or other corporate entity in good standing and authorized to do business in Montana, and in this capacity I acknowledge and certify that:

Or

I am the Operator identified on page 1 of the *Opencut Mining Plan of Operation & Application* and I acknowledge and certify that:

- 1) The attachments that follow my signature are incorporated into and enforceable as part of the *Opencut Mining Plan of Operation & Application*;
- 2) **Western Materials, LLC** has the legal right to conduct Opencut operations in the permit area described in the *Opencut Mining Plan of Operation & Application*;
- 3) **Western Materials, LLC** consents to and acknowledges that the DEQ and its representatives may access the site to inspect the permit area at any reasonable time, and that while the DEQ attempts to provide reasonable notice of an inspection to **Western Materials, LLC** when practicable under the circumstances, inspections may be conducted without prior notice as necessary to determine whether Opencut operations are being conducted in compliance with the permit, Act, and rules [82-4-422(1)(d) and 425, MCA] & [ARM 17-24-206(3)].
- 4) I have read and understand all the information, representations, terms, requirements, and conditions set forth in *Opencut Mining Plan of Operation & Application*;
- 5) The information, representations, and statements provided or acknowledged in the *Opencut Mining Plan of Operation & Application* are, to the best of my knowledge and belief, true and correct; and,
- 6) **Western Materials, LLC** agrees to abide by and comply with the Opencut Mining Act, Montana Code Annotated sections 82-4-401 through 82-4-446, and Administrative Rules of Montana 17.24.201 through 17.24.226, and all representations, terms, requirements, and conditions set forth in the *Opencut Mining Plan of Operation & Application* and the *Opencut Mining Permit* approved by the DEQ, and communicate the same to any contractor or supervisor who directs Opencut operations under authority of the *Opencut Mining Permit*.

By:

Signature



John Kappes

Legibly print or type name

General Manager - Western Materials, LLC

Title

February 23, 2021

Date

MONTANA WELL LOG REPORT

Other Options

[Go to GWIC website](#)

[Plot this site in State Library Digital Atlas](#)

[Plot this site in Google Maps](#)

[View scanned well log \(2/4/2009 11:16:57 AM\)](#)

This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Site Name: HENDRICKSON STAN
GWIC Id: 198765

(OLD W1)

Section 1: Well Owner(s)
1) HENRICKSON, STAN (MAIL)
PO BOX 267
LOLO MT 59846 [08/14/2002]

Section 2: Location

Township 11N	Range 20W	Section 14	Quarter Sections SE¼ SW¼
County MISSOULA			Geocode

Latitude 46.705791	Longitude -114.080517	Geomethod TRS-SEC	Datum NAD83
Ground Surface Altitude	Ground Surface Method	Datum	Date

Addition	Block	Lot
-----------------	--------------	------------

Section 3: Proposed Use of Water
DOMESTIC (1)

Section 4: Type of Work
Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date
Date well completed: Wednesday, August 14, 2002

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	98.5	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	98.5	6	0.250			STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
90.5	95.5	6			5X5/32 T/C PERFS

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	18	CONT FED BENTONITE	
96.5	98.5	NATURAL GRAVEL PACK	

Section 7: Well Test Data

Total Depth: 98.5
Static Water Level: 79.5
Water Temperature:

Air Test *

7 gpm with drill stem set at 94 feet for 1 hours.
Time of recovery 0.15 hours.
Recovery water level 79.5 feet.
Pumping water level _ feet.

** During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.*

Section 8: Remarks

Section 9: Well Log

Geologic Source

Unassigned

From	To	Description
0	38	SAND AND GRAVEL LT BROWN
38	41	HARD GREEN ROCK
41	60	SAND SILT AND GRAVEL LT BROWN
60	90	GRAY AND TAN CLAY
90	96	SAND AND GRAVEL W/B
96	98.5	GRAY CLAY

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: ESLINGER DRILLING & PUMP SERVICE
License No: WWC-44
Date Completed: 8/14/2002

MONTANA WELL LOG REPORT

Other Options

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This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

W3

Site Name: HOLMES ARCHIE AND PHYLLIS
GWIC Id: 66096

Section 7: Well Test Data

Total Depth: 83
Static Water Level: 11
Water Temperature:

Section 1: Well Owner(s)

1) HOLMES, ARCHIE/PHYLLIS (MAIL)
SUN VALLEY RANCH
FLORENCE MT 59833 [04/19/1965]

Air Test *

450 gpm with drill stem set at feet for 6 hours.
Time of recovery hours.
Recovery water level feet.
Pumping water level 26 feet.

Section 2: Location

Township	Range	Section	Quarter Sections
11N	20W	26	NE¼ NW¼
County			Geocode

MISSOULA		Geomethod	Datum
Latitude	Longitude	TRS-SEC	NAD83
46.687773	-114.080292		
Ground Surface Altitude	Ground Surface Method	Datum	Date
3201			
Addition	Block	Lot	

* During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

Section 3: Proposed Use of Water

IRRIGATION (1)

Section 8: Remarks

Section 4: Type of Work

Drilling Method: CABLE
Status: NEW WELL

Section 9: Well Log

Geologic Source

112ALVM - ALLUVIUM (PLEISTOCENE)

Section 5: Well Completion Date

Date well completed: Monday, April 19, 1965

Section 6: Well Construction Details

There are no borehole dimensions assigned to this well.

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-1.8	64	8				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
63	83	8			7 INCH HOMEMADE

Annular Space (Seal/Grout/Packer)

There are no annular space records assigned to this well.

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: LIBERTY DRILLING & PUMP CO
License No: WWC-52
Date Completed: 4/19/1965

MONTANA WELL LOG REPORT

Other Options

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This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Site Name: HENDERSON BETH
GWIC Id: 153245

W4

Section 1: Well Owner(s)

1) HENDERSON, BETH (MAIL)
PO BOX 864
LOLO MT 59847 [11/07/1995]

Section 2: Location

Township	Range	Section	Quarter Sections
11N	20W	23	SW¼ NE¼
County		Geocode	

MISSOULA

Latitude	Longitude	Geomethod	Datum
46.698578	-114.075116	TRS-SEC	NAD83
Ground Surface Altitude	Ground Surface Method	Datum	Date

Addition	Block	Lot
----------	-------	-----

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 5: Well Completion Date

Date well completed: Tuesday, November 7, 1995

Section 6: Well Construction Details

There are no borehole dimensions assigned to this well.

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	58	6				STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
58	58	6			OPEN BOTTOM *

Annular Space (Seal/Grout/Packer)

From	To	Description	Cont. Fed?
0	0	BENTONITE	

Section 7: Well Test Data

Total Depth: 58
Static Water Level: 5
Water Temperature:

Air Test *

30 gpm with drill stem set at _ feet for _ hours.
Time of recovery _ hours.
Recovery water level _ feet.
Pumping water level _ feet.

* During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

Section 8: Remarks

JEROMES FILE NO: 6343

Section 9: Well Log

Geologic Source

111ALVM - ALLUVIUM (HOLOCENE)

From	To	Description
0	1	SOIL
1	5	SAND & GRAVEL
5	58	SAND & GRAVEL

Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: JEROMES DRILLING CO
License No: WWC-249
Date Completed: 11/7/1995

MONTANA WELL LOG REPORT

Other Options

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This well log reports the activities of a licensed Montana well driller, serves as the official record of work done within the borehole and casing, and describes the amount of water encountered. This report is compiled electronically from the contents of the Ground Water Information Center (GWIC) database for this site. Acquiring water rights is the well owner's responsibility and is NOT accomplished by the filing of this report.

Site Name: LEIBENGUTH SCOTT
GWIC Id: 207560

Section 1: Well Owner(s)

1) LEIBENGUTH, SCOTT (MAIL)
19100 OLD HIGHWAY 93 SOUTH
FLORENCE MT 59833 [06/30/2003]

W6

Section 7: Well Test Data

Total Depth: 40
Static Water Level:
Water Temperature:

Unknown Test Method *

Yield _ gpm.
Pumping water level _ feet.
Time of recovery _ hours.
Recovery water level _ feet.

Section 2: Location

Township 11N **Range** 20W **Section** 23 **Quarter Sections** NW¼ SW¼
County **Geocode**

MISSOULA

Latitude 46.694938 **Longitude** -114.085869 **Geomethod** TRS-SEC **Datum** NAD83
Ground Surface Altitude **Ground Surface Method** **Datum** **Date**

* During the well test the discharge rate shall be as uniform as possible. This rate may or may not be the sustainable yield of the well. Sustainable yield does not include the reservoir of the well casing.

Addition **Block** **Lot**

Section 8: Remarks

NO WATER ENCOUNTERED

Section 3: Proposed Use of Water

DOMESTIC (1)

Section 4: Type of Work

Drilling Method: ROTARY
Status: NEW WELL

Section 9: Well Log

Geologic Source

Unassigned

Section 5: Well Completion Date

Date well completed: Monday, June 30, 2003

Section 6: Well Construction Details

Borehole dimensions

From	To	Diameter
0	100	6

Casing

From	To	Diameter	Wall Thickness	Pressure Rating	Joint	Type
-2	40	6	0.250		WELDED	STEEL

Completion (Perf/Screen)

From	To	Diameter	# of Openings	Size of Openings	Description
40	100	6			OPEN HOLE

Annular Space (Seal/Grout/Packer)

There are no annular space records assigned to this well.

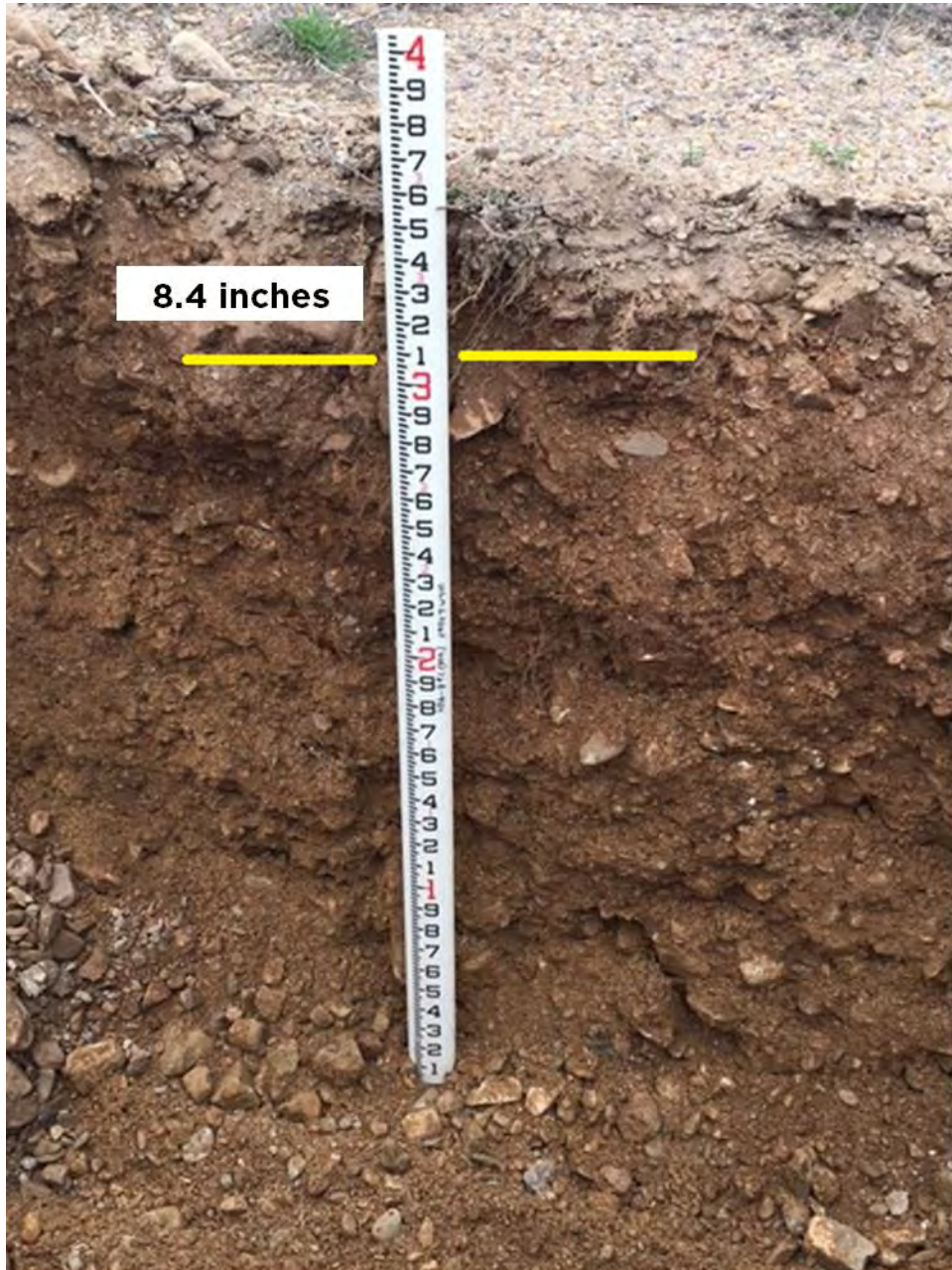
Driller Certification

All work performed and reported in this well log is in compliance with the Montana well construction standards. This report is true to the best of my knowledge.

Name:
Company: JEROMES DRILLING CO
License No: WWC-600
Date Completed: 6/30/2003

OPERATOR: WESTERN MATERIALS, LLC
SITE: HENDRICKSEN PIT

SOIL TEST PIT PHOTOS
TAKEN ON 4/12/17



TEST PIT 1

LOCATION: 46.696162, -114.07975
SOIL THICKNESS: 8.4 INCHES
OVERBURDEN THICKNESS: 0 INCHES

OPERATOR: WESTERN MATERIALS, LLC
SITE: HENDRICKSEN PIT

SOIL TEST PIT PHOTOS
TAKEN ON 4/12/17

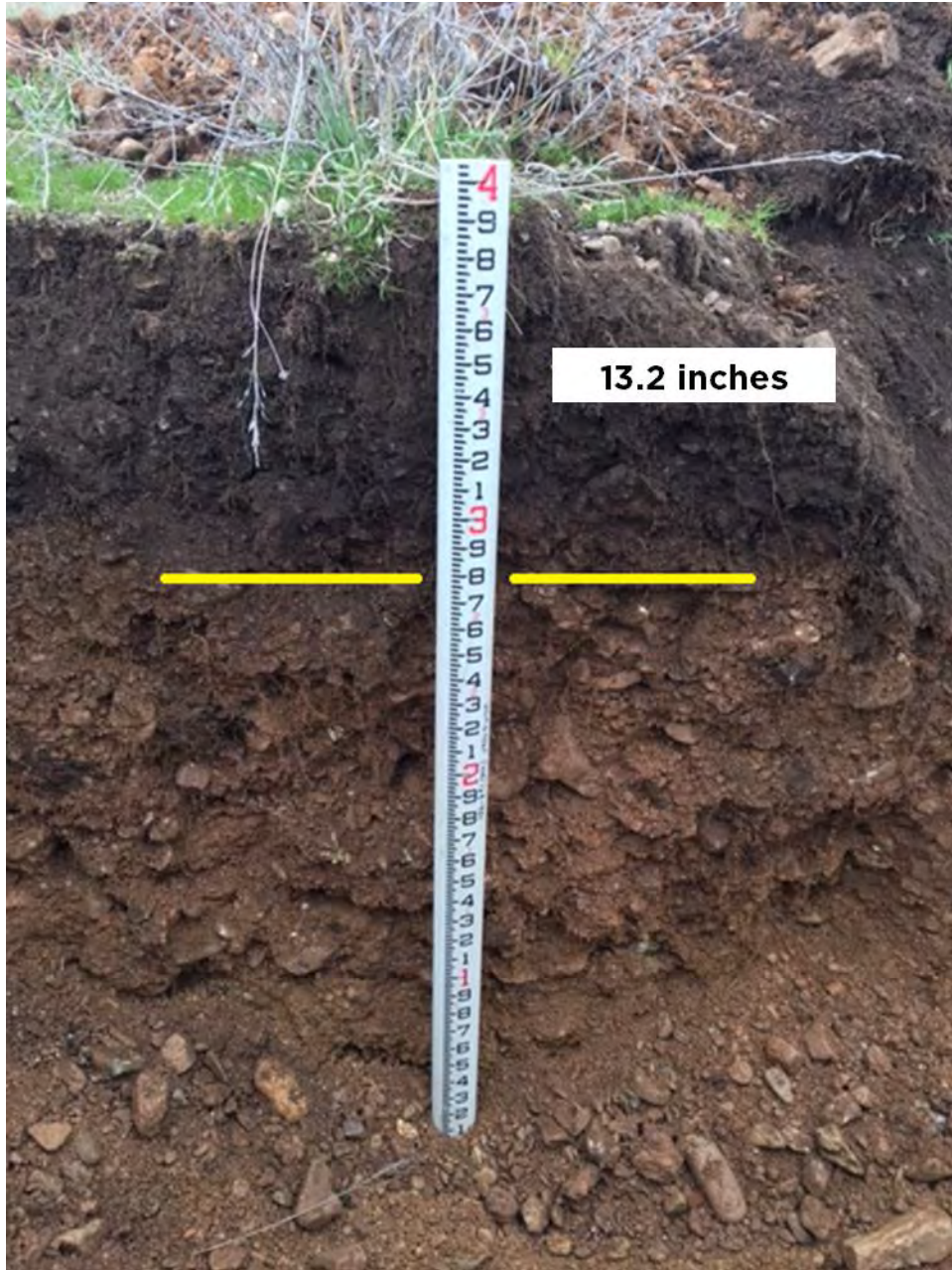


TEST PIT 2

LOCATION: 46.696595, -114.08004
SOIL THICKNESS: 16.8 INCHES
OVERBURDEN THICKNESS: 0 INCHES

OPERATOR: WESTERN MATERIALS, LLC
SITE: HENDRICKSEN PIT

SOIL TEST PIT PHOTOS
TAKEN ON 4/12/17

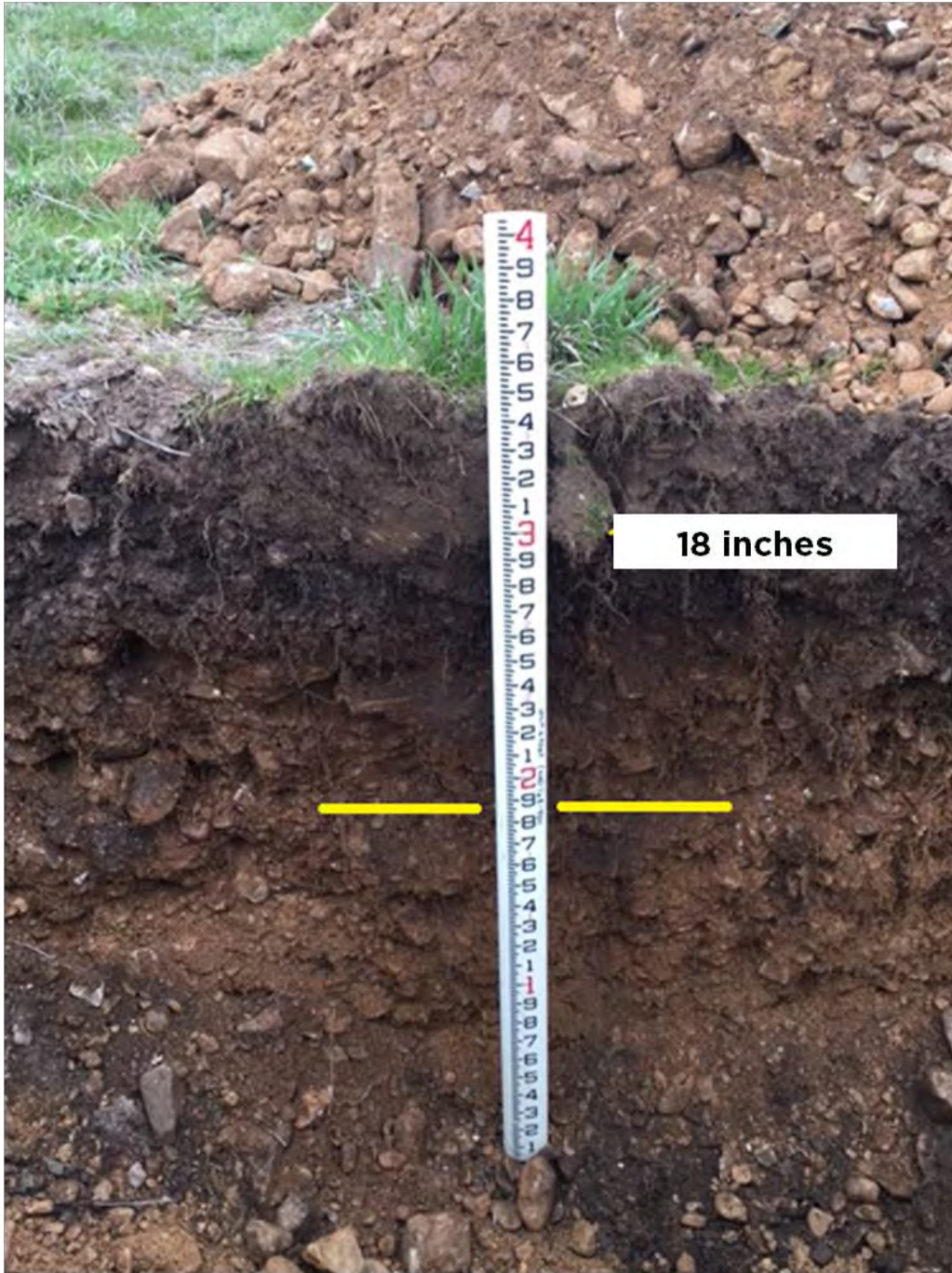


TEST PIT 3

LOCATION: 46.695997, -114.081115
SOIL THICKNESS: 13.2 INCHES
OVERBURDEN THICKNESS: 0 INCHES

OPERATOR: WESTERN MATERIALS, LLC
SITE: HENDRICKSEN PIT

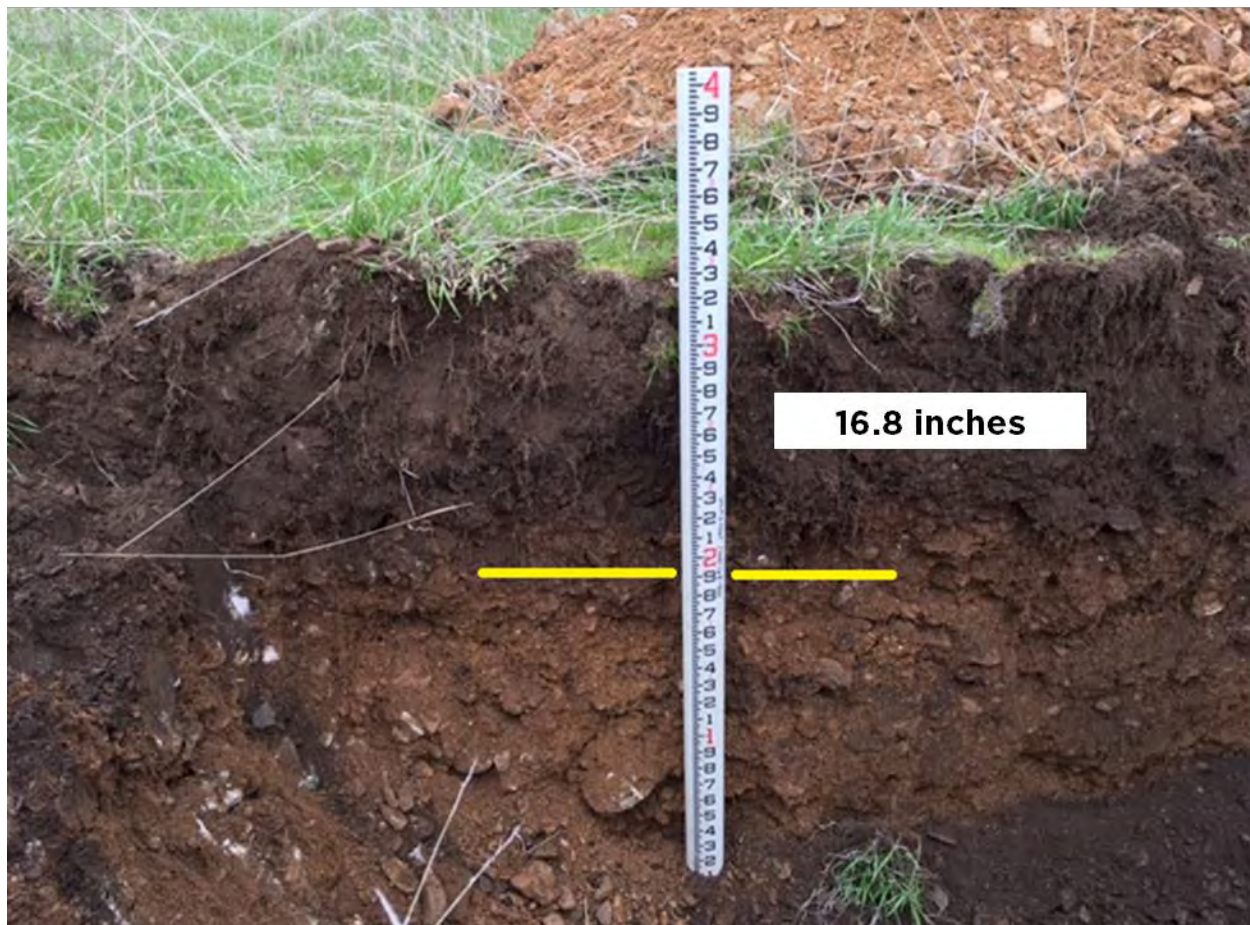
SOIL TEST PIT PHOTOS
TAKEN ON 4/12/17



TEST PIT 4
LOCATION: 46.69633, -114.080925
SOIL THICKNESS: 18 INCHES
OVERBURDEN THICKNESS: 0 INCHES

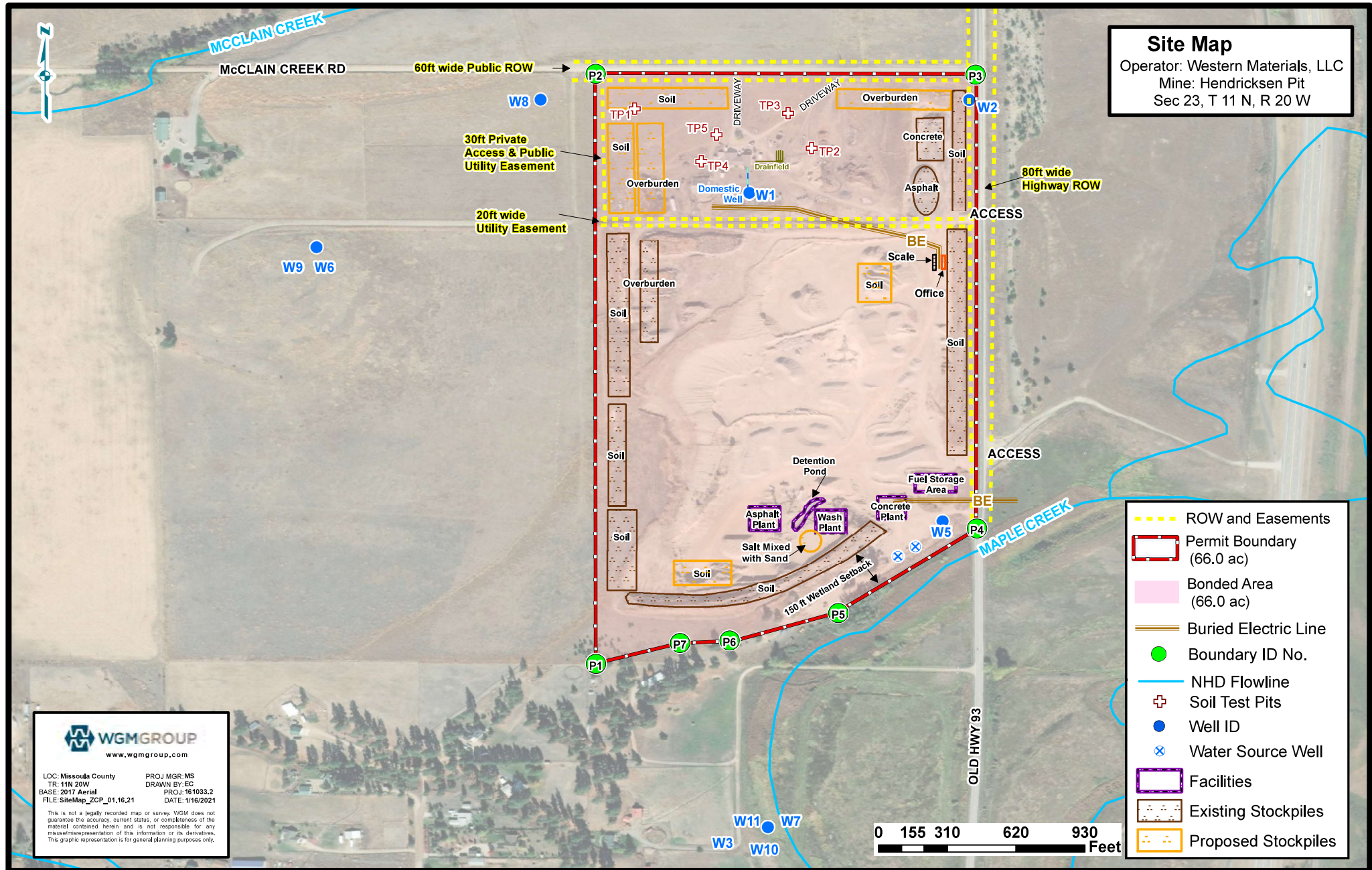
OPERATOR: WESTERN MATERIALS, LLC
SITE: HENDRICKSEN PIT

SOIL TEST PIT PHOTOS
TAKEN ON 4/12/17



TEST PIT 5

LOCATION: 46.696648, -114.081937
SOIL THICKNESS: 16.8 INCHES
OVERBURDEN THICKNESS: 0 INCHES



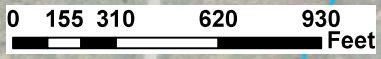
Site Map
 Operator: Western Materials, LLC
 Mine: Hendricksen Pit
 Sec 23, T 11 N, R 20 W

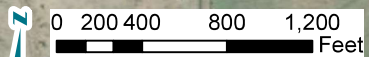
- ROW and Easements
- Permit Boundary (66.0 ac)
- Bonded Area (66.0 ac)
- Buried Electric Line
- Boundary ID No.
- NHD Flowline
- + Soil Test Pits
- Well ID
- ⊗ Water Source Well
- Facilities
- Existing Stockpiles
- Proposed Stockpiles

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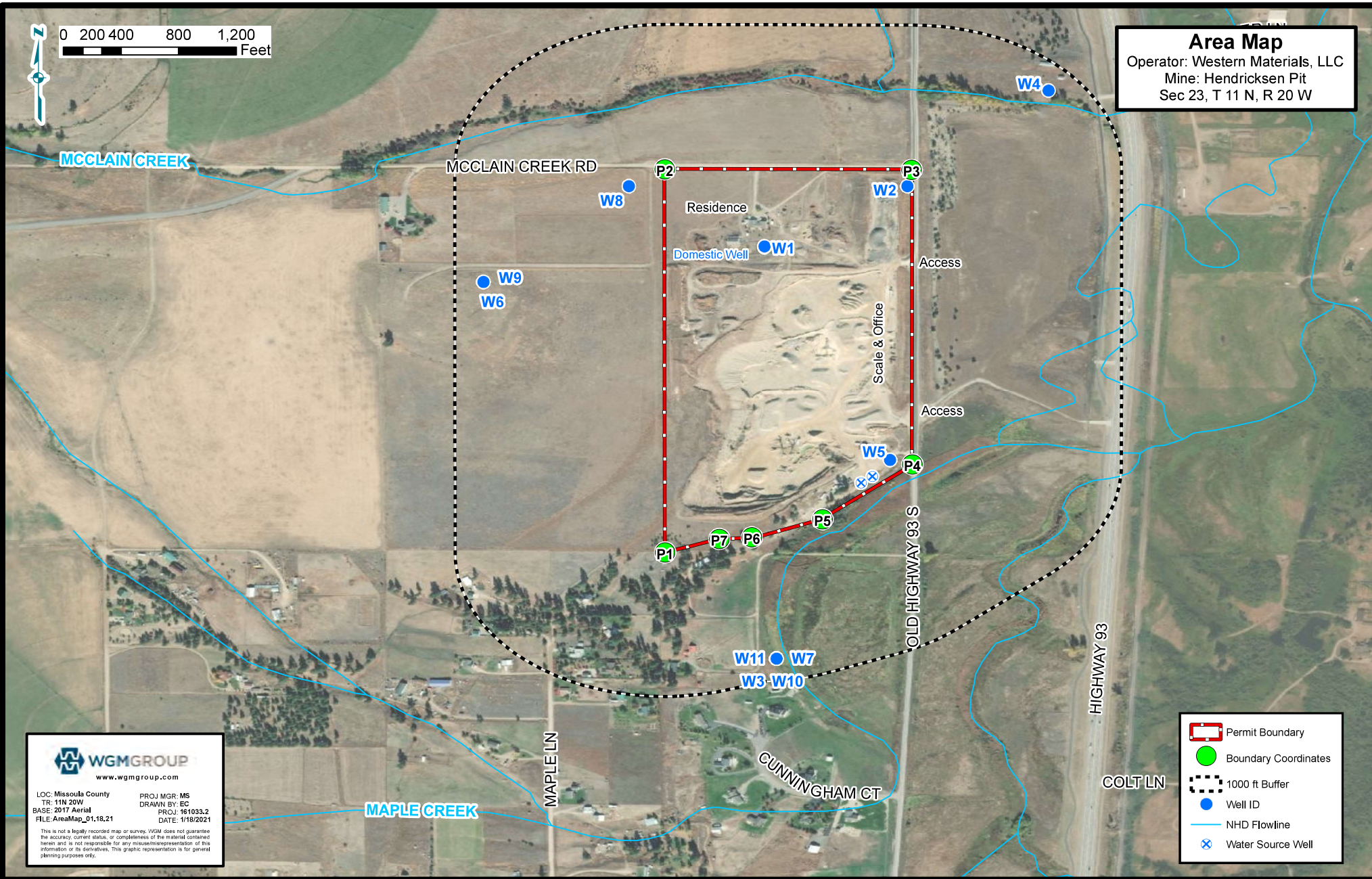
LOC: Missoula County PROJ MGR: MS
 TR: 11N 20W DRAWN BY: EC
 BASE: 2017 Aerial PROJ: 161033.2
 FILE: SiteMap_ZCP_01.16.21 DATE: 1/16/2021

This is not a legally recorded map or survey. WGM does not guarantee the accuracy, current status, or completeness of the material contained herein, and is not responsible for any misrepresentation of this information or its derivatives. This graphic representation is for general planning purposes only.





Area Map
 Operator: Western Materials, LLC
 Mine: Hendricksen Pit
 Sec 23, T 11 N, R 20 W



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LOC: Missoula County PROJ MGR: MS
 TR: 11N 20W DRAWN BY: EC
 BASE: 2017 Aerial PROJ: 161033.2
 FILE AreaMap_01,18,21 DATE: 11/8/2021

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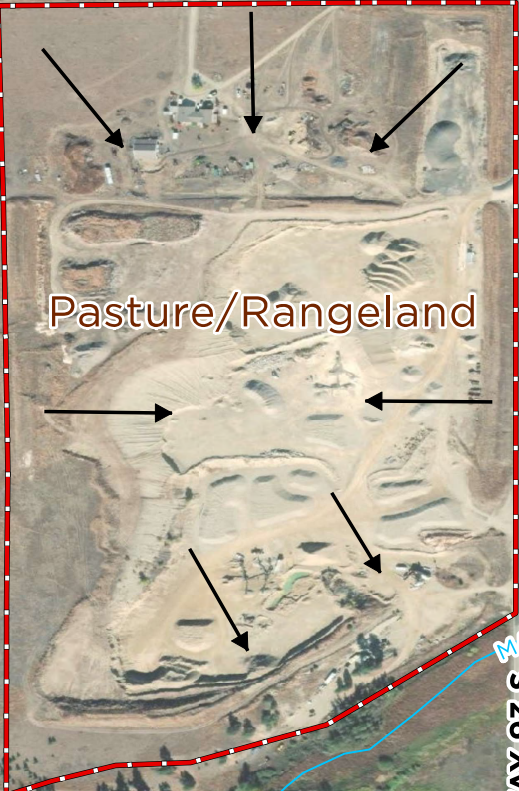
- Permit Boundary
- Boundary Coordinates
- 1000 ft Buffer
- Well ID
- NHD Flowline
- Water Source Well



Reclamation Map
 Operator: Western Materials, LLC
 Mine: Hendricksen Pit
 Sec 23, T 11 N, R 20 W

MCCLAIN CREEK RD

MCCLAIN CREEK



HIGHWAY 93

MAPLE CREEK

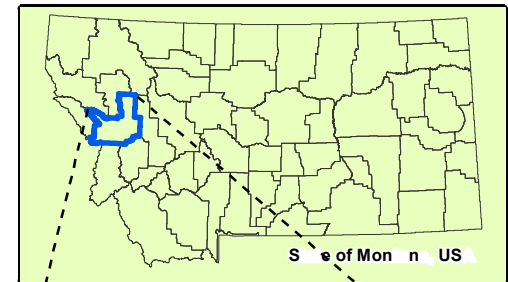
OLD HIGHWAY 93 S

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LOC: Missoula County PROJ MGR: MS
 TR: 11N 20W DRAWN BY: EC
 BASE: 2019 Aerial PROJ: 161033.2
 FILE: ReclamationMap DATE: 1/7/2021

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Permit Boundary
 Surface Water Flow Direction



Location M
 Operator: Western Materials, LLC
 Mine: Hendricksen Pit
 Sec 23, T 11 N, R 20 W

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Missoula County MS
 11N 20W EC
 2018 Aerial 14-10-33
 01_LocationMap.mxd 02/23/2021

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POINTS ARE VALID

OPERATOR PROPOSED PERMIT BOUNDARY COORDINATES TABLE

Purpose of this Boundary Coordinate Table: Amendment Application

- 1) Use this form to submit coordinates to delineate the **Operator Proposed Permit Boundary**.
- 2) If delineating multiple Permit Boundaries, use separate **Operator Proposed Permit Boundary** tables to delineate each Permit Boundary.
- 3) When providing coordinates for an **Amended** Permit boundary, you must include coordinates that delineate the *entire* new Operator Proposed Permit Boundary (i.e. one proposed boundary that encompasses both the existing permitted boundary and proposed amendment area).
- 4) If **Bonded** and **Non-Bonded** area is present, complete the **Operator Proposed Non-Bonded Boundary Coordinate** table **in addition** to this form.
- 5) All boundaries are created automatically by a computer program, therefore;
 - All coordinates **must** be in geographic sequence, so that the Operator Proposed Permit Boundary is created by connecting Map ID #P1 to Map ID #P2 to Map ID #P3, etc.
 - The last Map ID # in the BCT would connect to the first Map ID# to complete the boundary.
 - The Map ID# for each coordinate (e.g. P1, P2, P3 etc.) must be shown on the site map.
 - Coordinates must be submitted in **Decimal Degrees** and **WGS 84** datum and include a negative longitude to plot in Montana.
- 6) **Do Not** provide coordinates for any other features (e.g. screen, test holes, asphalt plant, etc.).
Do Not leave blank rows in between coordinates in the BCT. Providing coordinates for additional features or leaving spaces will result in a boundary that cannot be drawn and the BCT will be deemed incomplete and/or deficient.
- 7) Only put numerical coordinates in the Latitude or Longitude boxes (i.e. no "N" or "W"), or this BCT will not be accepted. Coordinates must be in decimal degree format and provided to the fifth decimal point.
 Example: Latitude 46.58946 & Longitude -112.00480.
- 8) Email the completed Microsoft Excel table to: DEOopenicut@mt.gov with "Subject" line: **BCT (Operator-Site Name)**. Do **not** include a printed version of this table with the paper application submitted to the Program's Helena office.

Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

Permit # (if not a new app) 2681 **Date:** 2/11/2021

MAP ID#	LATITUDE	LONGITUDE (must be negative)	DESCRIPTION (not required)
	46.68979	-114.08242	
	46.69708	-114.08242	
	46.69707	-114.07772	
	46.69147	-114.07771	
	46.69042	-114.07942	
	46.69008	-114.08076	
	46.69005	-114.08138	
		-	
		-	
		-	
		-	

WEED BOARD NOTIFICATION OF OPENCUT OPERATION

In accordance with the Opencut Mining Act and its implementing Rules (ARM 17.24.218(j)(iii)), an Operator applying for an Opencut Mining Permit must:

Complete this form;

Submit it to the weed board in the county or counties in which the proposed Opencut operation is located; and,

Attach a copy to the Opencut Mining Permit application submitted to the Montana Department of Environmental Quality (DEQ).

All fields must be completed and a Location Map must be attached.

In accordance with ARM 17.24.221, the **Location Map** may be on an aerial or topo base, and must show the site location in relation to the nearest town, city, or major intersection and be sufficient to allow the public to locate the proposed site.

The map must also provide:

Operator name

Site name

Legal description of the proposed permit area (Section, Township, and Range)

Bar scale

North arrow

Date of drafting

Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

County: Missoula

OPERATOR CERTIFICATION: The person signing below certifies that: a Location Map meeting the requirements of ARM 17.24.221 was attached; and the form and map were submitted to the weed board in the county or counties in which the proposed Opencut operation is located.

Printed Name: John Kappes

Title: General Manager

Signature: 

Date: 8/19/2020

Reclamation Bonds

INSTRUCTIONS Enter your data in the shaded boxes. See page 3 for detailed instructions.

Operator	Western Materials, LLC
Site	Hendricksen Pit
Redeveloper	Michael J. Smith, WGM Group, Inc.
Date	2/10/2021

Permitted Acres Acres

*Must match the "Total Permitted Acres" in A1-12 of the Opencut Mining Plan of Operation & Application.

Comments

ODD CR R DO

Must match the "Acreage Breakdown" in section A1-12 of the Opencut Mining Plan of Operation & Application.

Bonded	<input type="text" value="66.0"/>	Acres
Phase I Release Bonded Area	<input type="text" value=""/>	Acres
Non-Bonded	<input type="text" value="0.0"/>	Acres
Access Road	<input type="text" value=""/>	Acres
Total Bonded	<input type="text" value="66.0"/>	Acres

**The Total Bonded Area must be identical to the acreage on the Bond submitted by the Operator to the Department.

Lineal Feet & Height must match section D4-8 of Opencut Mining Plan of Operation & Application, and reclamation slope ratio must match section E4-2

Highwall Backfill Reference Section D

Description	Lineal Feet	Height	Reclamation Slope Ratio	Cubic Yards	Total
Highwall	5000	25	3:1	43,403	0
			:1	0	43,403

Highwall Backfill Reference Section D - Covers cost of grading & sloping fill material along highwall face to create the permitted slope. Must also complete **Highwall Backfill Reference Section D** line item below.

Description	Linear Feet	Height	Reclamation Slope Ratio	Cubic Yards	Total
			:1	0	0
			:1	0	0

Mine Backfill Reference Section D Covers the cost of placing backfill material in the pit or to raise the level of the pit floor. Must also complete **Highwall Backfill Reference Section D** line item below.

Description	Acres	Depth	Compaction %	Cubic Yards	Total
				0	0
				0	0

Mine soil replacement	<input type="text" value="13"/>	inches soil	Overburden Replacement	<input type="text" value="5"/>	inches OB	total	18
Access road soil replacement	<input type="text" value=""/>	inches soil	Overburden Replacement	<input type="text" value=""/>	inches OB	total	0

* Soil and overburden inches must match section C2-4.

ITEM	UNIT	AMOUNT	RATE	TOTAL
Highwall Cut/Fill		43,403	\$1 per cubic yard	\$43,403
Highwall Backfill & Mine Area Backfill		0	\$1.50 per cubic yard	\$0
Backfill Transport/Placement Cost-Onsite \$2cy, offsite \$15cy		0	<input type="text" value=""/>	\$0
Bonded area grading		66.0	\$100 per acre	\$6,600
Bonded area ripping		66.0	\$100 per acre	\$6,600
Bonded soil and OB replacement	<input type="text" value="18"/>	66.0	\$1.25 per cubic yard	\$199,650
Access road area grading		0.0	\$100 per acre	\$0
Access road area ripping		0.0	\$100 per acre	\$0
Access road soil replacement	<input type="text" value="0"/>	0.0	\$1.25 per cubic yard	\$0
Seeding or other revegetation		66.0	\$600 per acre	\$39,600
Weed control		66.0	\$100 per acre	\$6,600
Fencing			\$1.40 per linear foot	\$0
Cost to crush onsite asphalt		10000	\$4 per cubic yard	\$40,000
Cost to import, purchase and place soil			\$18 per cubic yard	\$0
Cost to bond for reject fines			\$1 per cubic yard	\$0
				\$0
				\$0
				\$0
Total =				\$342,453

Indirect Reclamation costs to DEQ (Mob/DeMob, Contingency, Engineering, Overhead, & Project Management) = 25% up to \$1,000,000 bond and 20% for a bond over \$1,000,000. Minimum Bond Amount is \$25,000 \$85,613

Total Area Bonded = Rate Per Bonded Acre = **Total**

LANDOWNER CONSULTATION

This form is required for **all** applicants applying for an Opencut Mining permit **or** for an amendment that will: add acreage, an asphalt plant, or a concrete plant; change the postmining land use; or extend the reclamation date [MCA 82-4-432(2)(d); ARM 17.24.206].

OPERATOR SECTION: All fields must be completed.

Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

County: Missoula

Section 23 Township 11 **N** or **S** **Range 20** **E** or **W** **and Section** _____ **Township** **N** or **S** **Range** _____ **E** or

W Additional legal description if necessary: _____

The person signing below represents that (*check one box*):

I am an officer or an employee of the Operator and I am duly authorized to bind the Operator, which is a corporation, limited partnership, limited liability company, or other corporate entity in good standing and authorized to do business in Montana, and in this capacity I acknowledge and certify that:

Or

I am the Operator and I acknowledge and certify that:

- 1) The Operator consents to and acknowledges that the DEQ and its representatives may access the site to inspect the permit area at any reasonable time, and that while the DEQ attempts to provide reasonable notice of an inspection to the operator when practicable under the circumstances, inspections may be conducted without prior notice as necessary to determine whether Opencut operations are being conducted in compliance with the permit, Act, and rules [82-4-422(1)(d) and 425, MCA] & [ARM 17-24-206(2)(f) and 206(3)].
- 2) The Operator shall complete reclamation: in accordance with the approved Plan of Operation and as concurrent with operations as feasible; within one year of the cessation of operations or the termination of the right to conduct operations; and no later than the permitted final reclamation date.

By: _____
Signature 

John Kappes
Legibly print or type name

General Manager - Western Materials, LLC
Title

8/7/2020
Date

LANDOWNER SECTION: All fields must be completed. A private road may be included as affected land only with the landowner's consent [MCA 82-4-403(1)].

A. Does the Landowner want the Operator to permit an access road(s) (i.e. existing or proposed non-public road that connects an Opencut operation to a public access)?

Not applicable: The site will be accessed from the immediately adjacent public road.

No: The landowner does not want an access road included in the permit.

Yes and: **Access road will be reclaimed at final reclamation** or **Access road will remain at final reclamation:**

Access Road 1 **Width:** _____ feet, Location must be identified on the site map and reclamation map.

Access Road 2 **Width:** _____ feet, Location must be identified on the site map and reclamation map.

B. Does the Landowner want stockpile(s) of mine material left at the conclusion of Opencut operations? **No** **Yes**

Note: mine material must be left in a location that will be accessible by road; the total volume of mine material left is typically 10,000 cubic yards or less (to help ensure it can be consumed and the site reclaimed within 5-10 years); and once consumed, the Landowner is responsible for reclaiming the area using a soil stockpile left by the Operator for that purpose.

If **Yes**, as per ARM 17.24.219(1)(b), describe the type and volume of mine material(s) to be left:

1. Type of mine material(s) to be left: **Gravel** **Sand** **Other:** _____

2. Total volume of mine material to be left in **cubic yards:** _____

3. If the total is more than 10,000 cubic yards, identify potential local uses consistent with it being consumed within 5-10 years: _____

C. Does the Landowner consent to allow the burial of onsite generated asphalt on their land within the permitted boundaries?

No **Yes** (in accordance with ARM 17.24.219(1)(b))

If **Yes**, refer to section D7-1 of the Opencut Mining Plan of Operation and Application.

LANDOWNER SECTION (Continued):

D. Landowner acknowledges and affirms the following:

1. The Operator is applying for a permit to conduct operations in accordance with: the Opencut Mining Act (Title 82, chapter 4, part 4, MCA); its implementing rules (ARM Title 17, chapter 24, subchapter 2); and the site-specific Plan of Operation.
2. The Landowner: owns the land and the legal rights to all its earthen materials are owned or have been obtained; has been consulted by the Operator about the proposed Plan of Operation; and understands the Montana Department of Environmental Quality (DEQ) may require the Operator to revise that Plan before the permit or amendment is approved.
3. If the DEQ approves the permit, the following will apply to the permit area:
 - a. The Operator will have the exclusive right to conduct Opencut operations.
 - b. The Operator and future assignees (party assuming the permit) may allow another party to conduct permitted Opencut operations only if the Operator retains control over that party's activities and the Operator remains responsible for any violations that may occur.
 - c. The Landowner may not authorize Opencut operations by another party until that party obtains the Operator's permission.
4. The DEQ can enforce requirements of the Act, rules, and permit. Any other arrangements or understandings between the Landowner and Operator are private matters that should be stated in a separate written agreement between those two parties.
5. DEQ personnel have the right to access the site to inspect the permit area at any reasonable time. The Operator and DEQ's agents or contractors have the right to access the site to complete reclamation in accordance with the Plan of Operation.
6. The Operator may request Phase 1 or Phase 2 release of the permit once the site or a portion of it has been reclaimed according to the Plan of Operation. DEQ will notify the Operator and the Landowner of its decision regarding each release request.
7. DEQ typically releases a site reclaimed to cropland after one successful crop; a site reclaimed to perennial vegetation (i.e. rangeland and/or pasture) is typically released after two complete growing seasons or when revegetation is established, whichever is longer.
8. It is the Landowner's responsibility to disclose this form to any purchaser of the site prior to closing and to advise the purchaser of the status of the Opencut Mining permit.
9. If a pond remains at final reclamation, it may be the landowner's responsibility to obtain a water right from the DNRC if one is required.

E. The following must be filled out for sites located in Sage Grouse Habitat:

If the site is in Sage Grouse habitat designated by Executive Orders 12-2015 and 21-2015, and any part of the proposed permit area is privately owned, the private Landowner acknowledges that he/she:

Has knowledge of the Montana Sage Grouse Habitat Conservation Program letter contained in the Opencut permit application, and understands the letter provides recommendations for reclamation of this site to maintain sage grouse populations and habitat so Montana can manage its own lands, wildlife, and economy, and a listing under the Endangered Species Act will not be warranted.

Understands Executive Order 12-2015 stipulates that:

Reclamation should re-establish native grasses, forbs, and shrubs to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community and replace sage grouse habitat to the degree conditions allow.

Landowners should be consulted on the desired plant mix on private land and have the option of deciding whether the site will be reclaimed with the recommended sage grouse seed mix or an alternate seed mix.

Landowner chooses the following seed mix:

Recommended seed mix for sage grouse habitat Alternate seed mix as chosen in Section E6-4 of the application

F. LANDOWNER SIGNATURE:

Landowner Name (print or type): Western Materials, LLC c/o John Kappes, General Manager

Address: 2800 Reserve St

City: Missoula State: MT Zip: 59801-7627

Phone#: 406-523-5069 Cell Phone# (optional): _____

Email (optional): jkappes@westernexcavating.com

Landowner Signature: _____  _____ Date: 8/7/2020

ZONING COMPLIANCE

In accordance with Opencut Mining Act sections 82-4-431(8) & 432(2)(b), sand and gravel operations must meet applicable local zoning regulations. As a result, this form is required unless the Operator is proposing to mine **bentonite, clay, scoria, peat, or soil.**

In accordance with section 17.24.223 of the rules implementing the Act, this form is required for a sand or gravel operation to apply for a **permit or an amendment adding acreage, changing the postmining land use or adding an asphalt or concrete plant.**

OPERATOR SECTION: All fields must be completed.

Operator Name: Western Materials, LLC

Site Name: Hendricksen Pit

County: Missoula

Section(s) 23 & **Township** 11 **North** or **South** **Range** 20 **East** or **West**

Section(s) & **Township** **North** or **South** **Range** **East** or **West**

LOCAL GOVERNING BODY SECTION: Complete all items unless so directed by *italics* below.

In accordance with section 82-4-432(2)(b) of the Opencut Mining Act and section 17.24.223 of the rules implementing the Act, **the local governing body having jurisdiction over the area to be mined must certify that the proposed mine site and Plan of Operation comply with applicable local zoning regulations** adopted under MCA Title 76, Chapter 2. The certification must be submitted on this DEQ form.

1. The Operator has provided the local governing body with a site map, location map and a Plan of Operation for the proposed sand and gravel operation identified above: **Yes** or **No** If **No**, this form is not acceptable.

2. Check **one** box:

a. Site is **not** zoned.

b. Site is **zoned** and **does not comply** with local zoning regulations.; therefore, **no Opencut operations can occur**. Site is zoned as: _____

c. Site is **zoned** and local zoning regulations **do not require** a local license or permit for the proposed Opencut operations. Site is zoned as: _____

d. Site is **zoned** and local zoning regulations **require** a local license or permit for the proposed Opencut operations. Site is zoned as: ZD 40

Local zoning regulations require the following license or permit: Approved Zoning Compliance Permit.: LZ20038317

The application cannot be deemed complete until a copy of the local license or permit for the proposed operation is submitted to the Department.

CERTIFICATION BY LOCAL GOVERNING BODY:

Name of Local Governing Body: Missoula County - Community and Planning Services

Official's Name (print legibly): Matt Heimel

Title: Planner II

Signature: 

Date: 8/4/20

FUEL GUIDELINE FOR SPILL PREVENTION & MANAGEMENT WORKSHEET

The Opencut Act states that the Department cannot accept a plan of operation unless the plan provides that: the Opencut operation will be conducted to avoid fires; that procedures will be implemented to prevent significant physical harm to the affected land or adjacent land, structures, improvements, or life forms; and that surface water and ground water will be given appropriate protection, consistent with state law, from deterioration of water quality and quantity that may arise as a result of the Opencut operation (82-4-434(2), MCA). This guideline provides the basic requirements that ensure a plan of operation is acceptable for Opencut operations that have storage of fuel, regulated petroleum products, or on-site fueling operations.

A. SITE SPECIFIC INFORMATION

1. **Operator Name:** Western Materials, LLC
2. **Site Name:** Hendricksen Pit
3. **Opencut Number (if permitted):** 2681
4. **Describe how fuel will be stored or dispensed at this site (check all that apply and display location(s) on site map):**

- Mobile Fueling from Tank Vehicle**
 On-Site Fuel Tank: **Single Wall or** **Double Wall**
 Designated fueling area (display on site map)
 Other: _____

5. If required, the Operator should prepare a Spill Prevention, Control and Countermeasure Plan (SPCC Plan). See Section G below.

B. GENERAL

Opencut operations with fuel storage or on-site equipment fueling have the potential for fires and for leaks, spills, and overfills that could contaminate surface water, groundwater, and soil. Human caused fires have become an increasingly significant issue in Montana and the Western United States. Petroleum releases that result in expensive cleanup costs and fines equate to a preventable loss of money from an Opencut mine operation. The information in this guideline is designed to:

- Ensure operators have incentives to improve fuel storage and fueling facilities in order to minimize the likelihood of accidental releases (75-11-301(6), MCA);
- Safeguard and reduce the risk of harm to human health and the environment by preventing spills (82-4-402(2) and 82-4-434(2), MCA);
- Ensure compliance with the codes adopted by the State Fire Marshal for fuel tank storage and fuel dispensing facilities (International Fire Code, Section 5704-Storage and Section 2304-Dispensing Operations adopted in ARM 23.12.402); and
- Ensure an Operator's eligibility for reimbursement up to \$1 million to assist with cleanup and damages caused by an accidental release when fully compliant with the Petroleum Tank Release Compensation (PTRC) Board requirements that pertain to the prevention and mitigation of a petroleum release (75-11-308, MCA and ARM 17.58.326(1)).

Meeting all provisions of the International Fire Code (IFC) that are applicable to stationary above-ground storage tanks should ensure compliance with Applicable Rules Governing the Operating and Management of Petroleum Storage Tanks (ARM 17.58.326), and thereby result in an Operator's eligibility for spill reimbursement. Also, meeting all provisions of the IFC would minimize the risk of fires and the risk of spills from fuel tanks and fuel dispensing, thereby reducing or eliminating potential liability of an Operator.

C. STORAGE

The following storage provisions apply to fixed aboveground storage tanks (ASTs) and to portable tanks with capacity greater than 660 gallons:

1. Protection from vehicle impacts by installation of properly constructed and spaced posts or approved physical barriers.
2. Secondary containment designed to contain spill of largest vessel with:
 - a. Containment wall having minimum 4.6 inches of freeboard, and
 - b. An audible or visual alarm signal for 90% of tank capacity; OR
 - c. Impermeable secondary containment.
3. Resting on the ground or foundations made of concrete, masonry, piling, or steel designed to:
 - a. Minimize the possibility of uneven settling, and
 - b. Minimize corrosion in any part of the tank resting on the foundation.

D. DISPENSING

The following dispensing provisions apply to fixed ASTs and to portable tanks with capacity greater than 660 gallons:

1. An accessible emergency disconnect switch is properly located within 20 to 100 feet to stop the transfer of fuel to the dispensers.
2. Dispensing devices are protected against physical damage and collision damage by secure bolted mounting on a concrete island 6 inches or more in height.
3. Dispensing hoses for gasoline and diesel are equipped with emergency breakaway device to retain liquids.
4. If dispensing hoses are attached to a hose-retrieving mechanism a breakaway device is located between the nozzle and the point of attachment.

E. PIPING

If any tanks have a piping system (e.g. between tanks and asphalt plant) or an underground line connection, then additional requirements apply. See the AST Piping section of the Self-Inspection Checklist. If there is an underground line connected to an AST, registration with DEQ is required at: <http://deq.mt.gov/Land/ust/notificationregist>.

F. SELF-INSPECTION CHECKLIST

The Operator must routinely inspect and maintain fuel tanks to prevent leaks and spills (ARM 17.24.218(1)(i)(ii)). The Department strongly recommends that Operators use the Self-Inspection Checklist to ensure compliance for all ASTs, piping and fuel dispensing at Opencut sites. If an AST is found to be out of compliance at the time a release is discovered, then eligibility for spill reimbursement is denied. If a spill occurs when the site is compliant with all items on the checklist, then an Operator should be eligible for financial assistance with the cleanup and damages caused by an accidental tank release. ASTs are either fully ineligible or eligible for reimbursement up to \$1 million.

The AST checklist is included below and is available from the Petroleum Tank Release Compensation (PTRCB) at:

<http://deq.mt.gov/Portals/112/DEQAdmin/PET/Documents/Forms/StorageTankChecklist.pdf>.

1. How will ASTs be routinely inspected and maintained to prevent leaks and spills at the site:

- PTRCB AST Self-Inspection Checklist
- Operator AST Self-Inspection Checklist
- Other (Describe):

G. SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

If a facility has cumulative above-ground storage capacity of 1,320 gallons or more of regulated liquids, then for water protection, an Operator may be required to prepare and implement a SPCC Plan. It is the Operator's responsibility to determine if the on-site storage of regulated liquids (fuel, asphalt binder, oil, etc.) at the site requires an SPCC Plan. Eligibility for compensation from the PTRC Board is based on, to the extent required, whether an SPCC Plan has been prepared and implemented when the EPA regulation 40 CFR 112.3 is applicable to petroleum tanks at the site.

The National Asphalt Pavement Association has environment, health & safety publications available that may assist in developing an SPCC Plan to ensure compliance: <https://store.asphalt pavement.org/>. Guidance from the EPA and acceptable SPCC formats can be found at: <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spill-prevention-control-and-countermeasure-17>.

If a professional scientist or engineer would be of service, a list of consultants that conduct work in Montana is available at the following link: <http://deq.mt.gov/Land/Lust/consultantlist>.

H. MOBILE FUELING

Mobile fueling from tank vehicles into fuel tanks of motor vehicles or equipment at gravel pits is allowed in accordance with IFC Section 5706.2.8. A tank vehicle, by IFC definition has a mounted or integral cargo tank that is used for transporting fuel and includes self-propelled vehicles and full trailers and semitrailers. Tank vehicles shall not be used as storage tanks (IFC Section 5704.2.2). Fuel dispensing from tank vehicles shall be conducted not less than 50 feet from structures or combustible storage. The following mobile fueling provisions apply to dispensing fuel from tank vehicles:

1. The tank vehicle's specific function is that of supplying fuel to motor vehicle fuel tanks.
2. The dispensing hose does not exceed 100 feet in length.
3. The dispensing nozzle is an *approved* type.
4. The dispensing hose is properly placed on an *approved* reel or in a compartment provided before the tank vehicle is moved.
5. Signs prohibiting smoking or open flames within 25 feet of the vehicle or the point of refueling are prominently posted on the tank vehicle.
6. Electrical devices and wiring in areas where fuel dispensing is conducted are in accordance with NFPA 70.
7. Tank vehicle-dispensing equipment is operated only by designated personnel who are trained to handle and dispense motor fuels.
8. Provisions are made for controlling and mitigating unauthorized discharges.

Petroleum Tank Release Compensation Board

Aboveground Storage Tank

Self-Inspection Checklist

		Tank #	Tank#	Tank#	Tank #	Tank #
1	Is the aboveground storage tank (AST) temporary or permanently removed from service? (If yes, notification to the State Fire Marshal's office is required)	YES NO	YES NO	YES NO	YES NO	YES NO
2	Is there an underground line connected to the aboveground storage tank? (If yes, registration with DEQ is required.)	YES NO	YES NO	YES NO	YES NO	YES NO
3a	(i) Is the aboveground tank protected from vehicle impacts by posts constructed of steel not less than 4 inches in diameter and concrete filled? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
	(ii) Are the guard posts spaced not more than 4 feet between posts on center? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
	(iii) Are the guard posts set not less than 3 feet deep in a concrete footing of not less than 15-inches in diameter? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
	(iv) Are the guard posts set with the top of the posts not less than 3 feet above the ground? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
	(v) Are the guard posts located not less than 3 feet from the protected object? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
3b	Or is the tank protected by a physical barrier at least 36 inches in height and can resist a force of 12,000 pounds applied 36 inches above the adjacent ground surface? (ARM 17.58.326(1)(a)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
4	Is the secondary containment of the outdoor storage area designed to contain a spill of the largest vessel? (ARM 17.58.326(1)(a)(v))	YES NO	YES NO	YES NO	YES NO	YES NO
5	Does the aboveground tank secondary containment wall have at least 4.6 inches of freeboard? (ARM 17.58.326(1)(a)(v))	YES NO	YES NO	YES NO	YES NO	YES NO
6a	Does the aboveground tank have an audible or visual alarm signal to notify the person filling the tank the fluid level has reached 90 percent of tank capacity no later than December 31, 2013? (ARM 17.58.326(1)(a)(vi)(A))	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A
6b	Or does the tank have a petroleum impermeable secondary containment designed in accordance with the International Fire Code no later than December 31, 2013? (ARM 17.58.326(1)(a)(vi)(B))	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A
7	Is the metal tank welded, riveted and caulked, bolted, or constructed using a combination of these methods? (ARM 17.58.326(1)(b)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
8	Is the aboveground tank resting on the ground or on a foundation made of concrete, masonry, piling, or steel? (ARM 17.58.326(1)(b)(ii))	YES NO	YES NO	YES NO	YES NO	YES NO
9	Is the aboveground tank foundation designed to minimize the possibility of uneven settling of the tank and to minimize corrosion in any part of the tank resting on the foundation? (ARM 17.58.326(1)(b)(iii))	YES NO	YES NO	YES NO	YES NO	YES NO
10	If required by 40 Code of Federal Regulations, Section 112.3, do you have a Spill Prevention, Control and Countermeasure Plan? (ARM 17.58.326(1)(e))	YES/ NO/ Not Required				

Petroleum Tank Release Compensation Board

Aboveground Storage Tank

Self-Inspection Checklist

		Tank #	Tank#	Tank#	Tank #	Tank #
AST Piping						
1	Is the piping maintained liquid tight? (ARM 17.58.326(1)(b)(iv))	YES NO	YES NO	YES NO	YES NO	YES NO
2	Is the piping joint liquid tight and welded, flanged, threaded or mechanically attached? (ARM 17.58.326(1)(b)(v))	YES NO	YES NO	YES NO	YES NO	YES NO
3	Are the threaded aboveground joints made with a suitable thread sealant or lubricant? (ARM 17.58.326(1)(b)(vi))	YES NO	YES NO	YES NO	YES NO	YES NO
4	Is the aboveground piping system subject to external corrosion protected? (ARM 17.58.326(1)(b)(vii)), (ARM 17.58.326(1)(c)(ii))	YES NO	YES NO	YES NO	YES NO	YES NO
5	Is the piping in contact with the soil properly engineered, installed and corrosion protected? (ARM 17.58.326(1)(c)(i))	YES NO	YES NO	YES NO	YES NO	YES NO
6	Is the aboveground piping substantially supported and protected against physical damage? (ARM 17.58.326(1)(d)(x)(A))	YES NO	YES NO	YES NO	YES NO	YES NO
Dispensers						
1	Is the tank provided with an accessible emergency disconnect switch in an approved location to stop the transfer of fuel to the dispensers in the event of a fuel spill or other emergency? (ARM 17.58.326(1)(a)(ii))	YES NO	YES NO	YES NO	YES NO	YES NO
2	Is the emergency disconnect switch for exterior fuel dispenser located within 100 feet of, but not less than 20 feet from the fuel dispensers? (ARM 17.58.326(1)(a)(ii))	YES NO	YES NO	YES NO	YES NO	YES NO
3	Are the dispensing devices protected against physical damage by mounting on a concrete island six inches or more in height? (ARM 17.58.326(1)(a)(iii))	YES NO	YES NO	YES NO	YES NO	YES NO
4	Are the dispensing hoses for gasoline and diesel equipped with a listed emergency breakaway device designed to retain liquid on both sides of the breakaway point? (ARM 17.58.326(1)(a)(iv))	YES NO	YES NO	YES NO	YES NO	YES NO
5	If the dispensing hoses are attached to a hose-retrieving mechanism, do they have a breakaway located between the hose nozzle and the point of attachment of the retrieval mechanism to the hose? (ARM 17.58.326(1)(a)(iv))	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A	YES NO N/A
6	Are the dispensing devices mounted on concrete islands and securely bolted in place and protected against collision damage? (ARM 17.58.326(1)(c)(iii))	YES NO	YES NO	YES NO	YES NO	YES NO
Comments:						

DETERMINING DEPTH TO GROUNDWATER WORKSHEET

The Opencut Mining Act (Act) requires that a Plan of Operation (Plan) provide appropriate protection of surface and groundwater quality and quantity. This document provides direction for Operators regarding methods to establish depth to seasonal high groundwater levels within the proposed permit boundary, as required by ARM 17.24.218(1)(g). Additionally, if it is determined that Opencut operations would result in a surface water feature for a postmining land use, the Plan would include a pond and/or wetland design and follow the requirements of the *Pond Guideline* in addition to this worksheet.

This form includes automated calculations that require Microsoft Word 2010 or newer. As you enter data into this form, auto calculate fields will auto populate (tab out of each field to ensure they auto calculate). Autocalculate fields contain red text. If an autocalculate field is blank, either: a) the required information was not entered, or b) the blank field does not pertain to your application.

A. SITE SPECIFIC INFORMATION

1. Operator Name: **Western Materials, LLC**
2. Site Name: **Hendricksen Pit**
3. Opencut Number (if permitted): **2681**
4. Proposed Maximum Depth of Mining (must be identical to mine depth in permit/amendment application): **65** feet below ground surface

B. DETERMINING IF A WATER RESOURCE ASSESSMENT BY AN EXPERT IS REQUIRED

This section will help to determine if the Operator would be required to follow the *Groundwater Guideline*. Opencut recommends that the Operator request a Pre-Application meeting by completing the following form: <http://deq.mt.gov/Mining/opencut>. A Pre-Application meeting request prompts an Opencut scientist to contact the Operator to set up an onsite meeting to discuss the specifics of the site and help to determine if the Operator would need to follow the *Groundwater Guideline*. Note that this section must be completed regardless of whether a Pre-Application meeting took place.

Check the box or boxes that apply to the proposed site:

1. Following a Pre-Application Meeting, the Opencut Inspection Report states that the Operator must follow the *Groundwater Guideline*.
 Yes No NA (explain under additional information below)
Additional Information (if applicable): **Pre-Application meeting was not requested due to available data.**
2. There are 10 or more surface landowners within ½ mile of the proposed Opencut permit boundary and Opencut operations would occur into groundwater Yes No
Additional Information (if applicable):
3. Water Wells are located downgradient and within 1,000 ft. of the proposed Opencut site and Opencut operations would occur into groundwater? Yes No
Additional Information (if applicable):

4. There is a public water supply well within 1,000 feet of the proposed permit boundary and operations would occur into groundwater? Yes No

Additional Information (if applicable):

If **Yes** to any of the above, refer to the *Groundwater Guideline* and complete the requirements for a *Water Resources Assessment* prior to submittal of an Opencut application. The DEQ *Groundwater Guideline* also outlines requirements for groundwater monitoring and reporting at sites where monitoring is required.

C. DETERMINING DEPTH TO GROUNDWATER

The following information assists in:

- Determining and designing appropriate postmining land uses within the proposed permit boundary;
- Identifying the potential for impacts to surface and/or groundwater resources; and
- Determining if a *Water Resources Assessment* would be required prior to submittal/approval of an Opencut application.

The following estimated depths to groundwater are considered preliminary and would be reviewed by Opencut. Ensure documentation submitted supporting estimated groundwater levels is complete, accurate and conclusive as Opencut reserves the right to refute information included in this form if it is not accurately documented.

1. Choose the method(s) below (minimum of one method must be chosen) that were used to determine seasonal high water levels for this site:

- a. **Elevation of Nearby Surface Water:** The elevation of nearby surface water for ponds and potholes, etc., may provide supporting evidence of groundwater elevation if those features are created from groundwater. This method works best for nearby water features that were created by Opencut operations, or if there are prairie potholes containing surface water. This method requires accurate elevation data that establishes the elevation of surface water in existing nearby ponds and/or potholes, as well as the lowest elevation within the proposed permit boundary. It is recommended the elevation data be obtained by surveying the identified features/locations, although other forms of obtaining elevation information may be acceptable if adequate documentation is provided. (i.e. topographic maps, etc.) Provide the following information:

- i. Surface water feature(s) used to determine groundwater levels must be identified and labeled with their elevation on the Area Map and Site Map (if applicable).
- ii. Enter the lowest elevation of the proposed mine site (i.e. actual surveyed, or other acceptable means of determining pre-disturbance elevation) where mining would occur to the proposed mining depth stated in A-4 above (i.e. **65** feet) and the *Opencut Mining Plan of Operation and Application*.

Lowest Elevation where mining would occur to depth stated in A-4 above = feet

Note: If mining to the depth stated in A-4 above would not occur throughout the entire site, explain in detail here where and to what depth mining would occur at this site:

- iii. Elevation of nearest applicable (most representative/closest) surface water feature (i.e. prairie potholes, wetlands, springs, etc.):

feet - **Date Surveyed** (if applicable): **Water Feature (name, type):**

- iv. Elevation of lowest proposed mining depth (Lowest elevation at site, part ii, minus Maximum depth of mining, part A-4) - **65** feet
- v. Is the elevation of the lowest proposed mining depth (- **65** feet) lower in elevation or within three feet of the Groundwater Elevation (i.e. elevation of nearby surface water, part iii) (**0** feet)? If - **65** feet - **0** feet = - **65** feet \leq 3 feet then check “Yes” Yes No

If **Yes**, choose the appropriate water feature postmining land use in Section E of the Opencut Mining Plan of Operation and Application. Check the appropriate box on page 2 of the Plan of Operation. Follow and complete the requirements of the *Pond and Wetland Design Worksheet*. Proceed to Section C below.

If **No**, check the appropriate box on page 2 of the *Opencut Mining Plan of Operation and Application* and include this document and all supporting documentation with your application.

vi. Additional information:



- b. **Well Logs & GWIC Well Data:** Information can be used for existing wells within 1,000 feet of the permit boundary. If no wells are located within 1,000 feet, well data from existing wells further than 1,000 feet from the boundary may be used if they are applicable to the proposed site. In most cases, the wells that are located closest to the site and at the same approximate elevation are the most representative. All well log information used as a basis for water level estimates must also be listed on the Well Information Table in the “Wells” section of the application and the corresponding well logs must be submitted with the permit application. Well logs can be accessed from the “Mapping DEQ’s Data” site located here: <http://deq.mt.gov/Mining/opencut> (click on Mapping DEQ’s Data) tab. Wells displayed online are frequently located incorrectly, so the operator must “ground truth” the actual well locations to ensure applicability of the well log. The actual location of each well used to support the groundwater depth estimates must be displayed on the Area Map.

The Operator must use the closest and most applicable wells when determining seasonal high and low water depths. Up to three wells can be used to determine groundwater depth.

	Well I.D. on Map	Static Water Level (feet)	Ground Elev. of Well	Lineal ft from Permit BNDRY	Water Elevation
Well #1	W1	112	3294.5	0	3,183 feet
Well #2	W6	9	3191.9	0	3,183 feet
Well #3				0	0 feet

- i. Enter the lowest elevation of the proposed mine site (i.e. actual surveyed, or other acceptable means of determining pre-disturbance elevation) where mining would occur to the proposed mining depth stated in A-4 above (i.e. **65** feet) and the *Opencut Mining Plan of Operation and Application*.

Lowest Elevation where mining would occur to depth stated in A-4 above = **3294.5** feet

- ii. Well #1: Lowest elevation of proposed mine site (**3,295** feet) – mining depth (**65** feet) = a mining elevation of **3,230** feet. **3,230** feet - **3,183** feet = **47** feet.

If **47** feet ≤ 3 feet, then check “Yes” Yes No

- iii. Well #2: Lowest elevation of proposed mine site (**3,295** feet) – mining depth (**65** feet) = a mining elevation of **3,230** feet. **3,230** feet - **3,183** feet = **47** feet.

If **47** feet ≤ 3 feet, then check “Yes” Yes No

- iv. Well #3: Lowest elevation of proposed mine site (**3,295** feet) – mining depth (**65** feet) = a mining elevation of **3,230** feet. **3,230** feet - **0** feet = **3,230** feet.

If **3,230** feet ≤ 3 feet, then check “Yes” Yes No

If **Yes**, to any of the above choose an appropriate water feature postmining land use in Section E of the *Opencut Mining Plan of Operation and Application*, check the appropriate box on page 2, follow and complete the requirements of the *Pond and Wetland Design Worksheet* and proceed to Section C below.

If **No**, check the appropriate box on page 2 of the *Opencut Mining Plan of Operation and Application* and include a copy of this document and all supporting documentation with the application.

v. Additional information:

Topography within the permit boundaries rises over 100' from the southeast to the northwest across the site. The ground elevation of the added acreage is higher than the highest point in the previously approved permit. Section C1-4 of the Plan of Operations has been modified to reflect these changes. Additionally, local well logs indicate the presence of an approximately 30-foot thick clay layer that is assumed to act as an aquitard above the local aquifer. Mining activity (downward) will cease if the clay layer is encountered. This will maintain safe distances from groundwater. No clay will be mined.

- c. **Groundwater Observation/Monitoring Wells:** Groundwater observation/monitoring wells provide a viable method for determining the elevation of groundwater as well as for taking water samples. Refer to **Appendix A – Groundwater Observation Well Installation and Measuring Procedures** for the requirements to allow the use of this method of determining depth to groundwater. Ensure all data and measurements supporting the below information is provided with the application (i.e. Appendix A and other supporting data). Provide the following information:
- i. The estimated seasonal low water table level measurement (furthest from ground surface, deepest): feet.
 - ii. The estimated seasonal high-water table level measurement (closest to ground surface, shallowest): feet.
 - iii. Estimated seasonal high water table level measurement (0 feet) minus (-) proposed maximum mining (65 feet) depth = (- 65 feet)
Is this number (- 65 feet) \leq 3 feet? **Yes** **No**

If **Yes**, choose the appropriate water feature postmining land use in Section E of the Opencut Mining Plan of Operation and Application, check the appropriate box on page 2, follow and complete the requirements of the *Pond Guideline* and proceed to Section C below.

If **No**, check the appropriate box on page 2 of the *Opencut Mining Plan of Operation and Application* and include a copy of this document and all supporting documentation with the application.

iv. Additional information:

- d. **Test Hole Observation:** Field observations by the operator, such as test pit information, may be acceptable in support of groundwater level estimates. Choose the method used at the proposed site and results below:
- i. **Groundwater or evidence of groundwater was observed in onsite test holes.** Provide complete test hole information in the permit application supporting the seasonal high and low groundwater estimates.
 1. Choose the appropriate water feature postmining land use in Section E of the Opencut Mining Plan of Operation and Application, follow and complete the requirements of the *Pond and Wetland Design Worksheet* and proceed to Section C below.
Additional information:
 - ii. **Groundwater or evidence of groundwater was not observed in onsite test holes.**
 1. Check the appropriate box on page 2 of the *Opencut Mining Plan of Operation and Application*, and include a copy of this document and the required report summarizing test pit results with the application.

The following criteria must be met and included in the report to substantiate groundwater estimates based on this method:

- a. A minimum of 2-test pits must be located in low areas of the site and the test pits must be completed to a minimum of three feet deeper than the proposed maximum mining depth, and rationale and justification for the selected soil test pit locations must be provided.
- b. Test pits must be located and spaced to provide representative data for the entire proposed permit area, and must include the lowest elevations within the site.
- c. Hire a professional soils expert to conduct a detailed soil profile of each test pit, specifically looking for indications of water (i.e. mottling, redoximorphic features, gleying, water, etc.).
- d. Provide a report summarizing the results and describing how the seasonal high and low water levels were determined. Include a description of topography and how it interacts with the test pit locations and other pertinent supporting information. Complete the Soil Test hole table located in Section C of the permit application.

*Note that this method is only applicable to sites where the groundwater flows through clay or soil and not gravel.

Additional information:

e. **Other Methods to Determine Seasonal High and Low Water Levels (explain):**

NOTE: It is the Operator's responsibility to demonstrate compliance with the water assessment and protection requirements of the Act and Rules. Providing a conclusive and appropriate basis for estimated groundwater levels is required for an application to be determined complete and/or to have meaningful review by DEQ Opencut. Understanding that additional information may be required ahead of time at a specific site, potentially including a *water resources assessment* and/or groundwater monitoring as described in this document and the *round water guideline*, gives the Operator an opportunity to gather the required data prior to submitting a permit application.

APPENDIX A - GROUNDWATER OBSERVATION WELL INSTALLATION AND MEASURING PROCEDURES

The Operator may be required to provide data identifying the existing water levels through the installation of observation wells and a consistent measurement of those wells in order to accurately determine the postmining land use(s). The observation well plan must be prepared by a competent professional for Opencut to review and include the information listed below. Field data must be accompanied by the names and addresses of the parties that collected and analyzed the data, and must include a description of the methodologies used to gather and analyze the data [ARM 17.24.222(2)].

The plan must include:

Observation well plan to determine actual seasonal high and low water levels within the proposed permit boundary.

Installation of a minimum of three (3) groundwater observation wells at the lowest elevations of the site. Refer to “Where to Install” and “Installation Process” sections below for more detailed information.

Measurement of groundwater for a sufficient period of time to determine a peak and a sustained decline in the groundwater level. Refer to the Observation Schedule below for further guidance.

A report summarizing observation results including a description of topography, a map showing well locations, well logs, a table summarizing groundwater data collected, and actual seasonal high and low groundwater levels based on the collected data. The report must include total precipitation for the previous year and snowpack equivalent compared to the 30-year historical average. The results must be submitted for analysis and review with the application and prior to permit approval.

Observation Schedule

Observation wells must be installed before or during the time when groundwater levels are highest. This is typically during spring runoff and/or during the irrigation period, but may also occur at some other time during the year. Observation measurements must be made weekly or more frequently during the appropriate periods of suspected high groundwater. Observation measurements must be made at a minimum of once a week for a minimum of four weeks when groundwater is at its highest to accurately determine high groundwater level. More complex sites must include at least two weeks of observation measurements prior to and two weeks of observation measurements after the groundwater peak. Failure to meet these criteria would likely result in the Opencut Section rejecting the results. The applicant is encouraged to submit a Pre-Application Meeting Request to seek guidance on any groundwater observation well plan and installation prior to implementing the plan or submitting a permit application. The monitoring and measurements of the observation wells must be completed by a qualified site evaluator such as a soil scientist, professional engineer, hydrogeologist, or geologist who has experience and knowledge on how to properly take and record measurements from an observation well.

Surface water levels may be indicative of the groundwater levels that could peak several weeks after spring runoff and the irrigation season.

Local conditions may indicate that there is more than one geologic horizon that can become seasonally saturated. Observation wells must be installed to the depth of mining and preferably three feet deeper than the proposed mining depth. The wells should be placed in, but not extended through, the horizon that is to be monitored.

The Opencut Section may refuse to accept seasonal high groundwater data when the total precipitation for the previous year, defined as May 1 of the previous year to April 30 of the current year, if April 1 snowpack equivalent, measured at the nearest officially recognized observation station, is more than 25 percent below the 30-year historical average. This is based upon the definition of drought conditions created by the National Drought Mitigation Center. The Opencut Section may consider soil morphology and data from nearby groundwater observation sites with similar soil, geology, and proximity to streams or irrigation ditches, if available, to determine seasonal high groundwater elevation during periods of drought.

Where to Install

The observation wells must be installed in locations representative of typical groundwater conditions at the site. At least two of the wells should be in low lying areas of the site and the wells should be spread out to represent conditions across the site. Larger sites or sites with highly variable conditions and/or topography may require the installation of additional wells. Opencut may require additional observation wells if the wells installed by the Operator are not installed properly and/or are not in locations considered representative of the site.

Installation Process

The following criteria must be met for installed observation wells:

The observation wells must be installed vertically into a dug or drilled hole.

A slotted water well pipe should be used that is wide enough in diameter to install a measuring device.

The slotted water well pipe must be installed a minimum of three feet deeper than the proposed mining depth.

Slotted pipe (PVC is the most common material) with slot sizes between 0.04 and 0.10 inches wide is suggested. Slots should be horizontal and spaced at intervals less than or equal to 0.5 inches. Refer to ARM 36.21.650 for additional information on casing perforations. Alternate well materials are acceptable if they meet the requirements of ARM 36.21.640 (DNRC well casing requirements).

The pipe must be perforated from 1 foot below the ground surface to 3 feet below the proposed maximum mining depth.

The casing must be unperforated 1 foot below the ground surface to the top of the observation well. The observation well must extend at least 2 feet above the ground surface.

The top of the observation well must be sealed with a watertight cap.

The area around the well must be backfilled with native material to 1 foot below the ground surface.

The observation well must be sealed in such a manner that prevents surface runoff from running along the outside of the well casing. The well should be sealed from 1 foot below the ground surface to slightly above grade to allow for subsidence and to maintain a positive ground slope away from the well casing. The material used to seal the well can be either fine-grained material or bentonite.

Each observation well should be flagged to facilitate locating the well and labeled with a well number, operator name, and site name.

Measuring Procedures

Lower a measuring tape or stick to the water level and measure the distance from the water level to the top of the pipe (refer to example on last page). Water levels should be measured to the nearest inch. A plunking

device or electronic water sensor can also be used. Data should be submitted in a similar form to that of the example.

Measure the distance from the top of the pipe to the natural ground surface (B distance) (refer to example). Then measure the distance from the top of the pipe to the water level (A distance) (refer to example). Subtract B from A. This value equals the actual separation between the water table and the natural ground surface.

Decommissioning

If observation wells were installed deeper than 10 feet below the proposed mine depth, the operator may be required to follow the standards in ARM 36.21.810.

Ground Water Observation Results

Monitored By: _____

Location: _____

Section _____ Township _____ Range _____ Lot # _____

Observation Well # _____

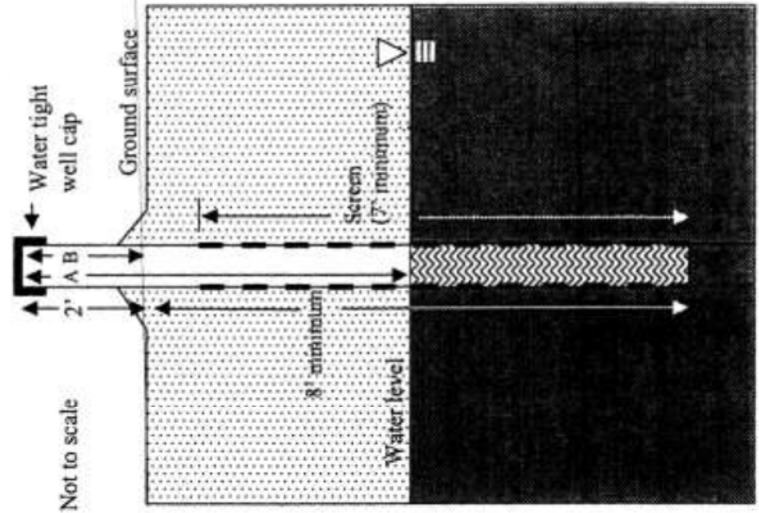
A = Distance to top of casing to the ground water level in pipe (inches).
 Note: If the observation pipe is dry, enter the total depth measured and "dry" in this column.

B = Distance from top of casing to the natural ground surface (inches).

Ground Water Observation Well Design

Date	Time	A (inches)	B (inches)	A-B (inches)

Other Location Information:



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Additional Well Data (7/19-v2) – Page 1 of 1

3935

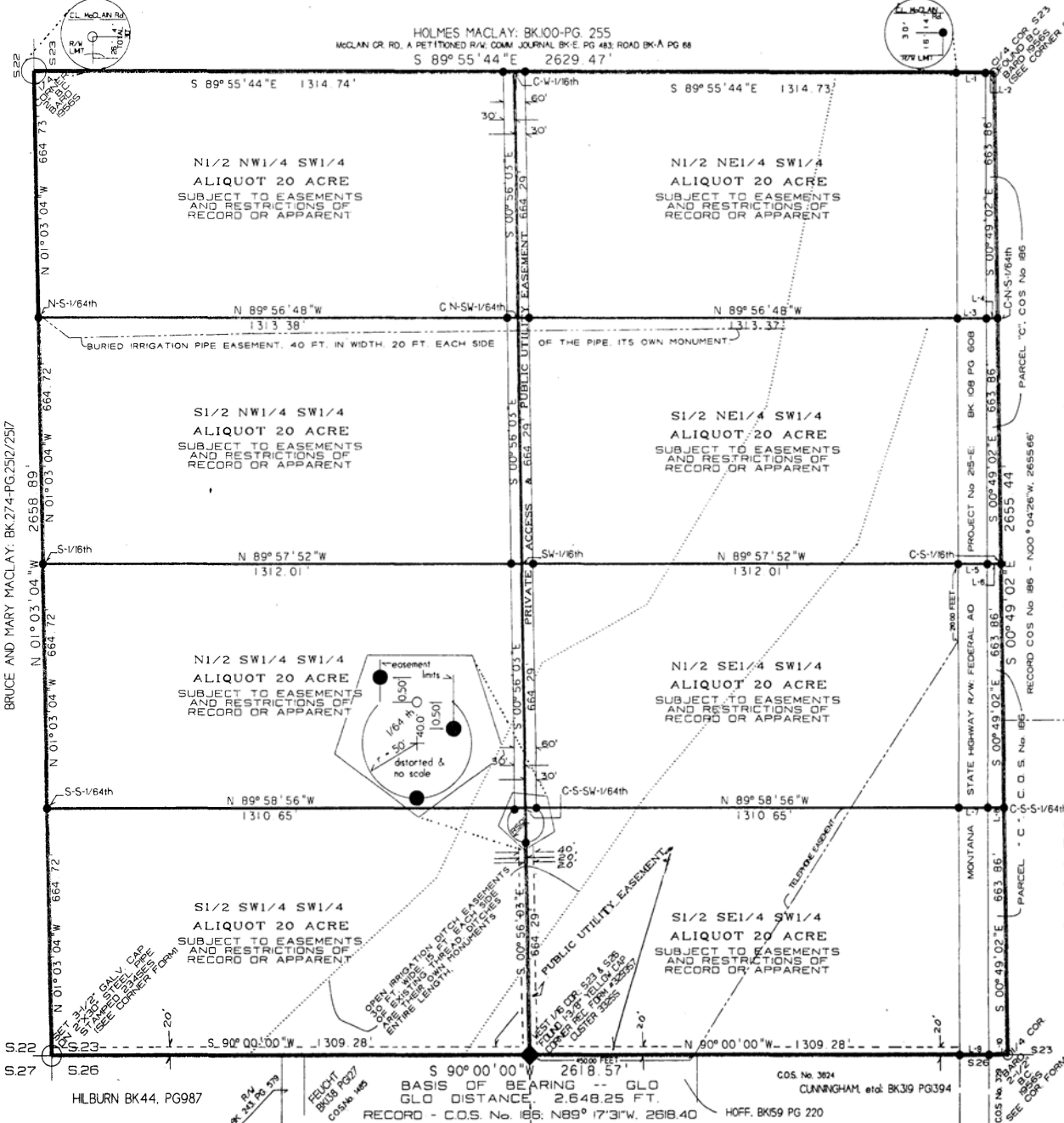
CERTIFICATE OF SURVEY

BOOK 328 PAGE 552

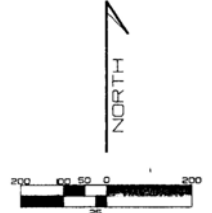
BOOK 251 PAGE 2270

A RETRACEMENT SURVEY OF THE SW1/4 OF SECTION 23, T. 11 N., R. 20 W. PRINCIPAL MERIDIAN MONTANA AND THE SUBDIVISION OF SAID SW1/4 INTO 1/32 ALIQUOT PARTS OF A SECTION. (LEGAL 20 ACRE PARCELS).

3935



LINE	BEARING	DISTANCE
L 1	S 89° 55' 44" E	80.00'
L 2	S 89° 55' 44" E	23.91'
L 3	S 89° 56' 48" E	80.00'
L 4	S 89° 56' 48" E	30.92'
L 5	S 89° 57' 52" E	80.00'
L 6	S 89° 57' 52" E	37.93'
L 7	S 89° 58' 56" E	80.00'
L 8	S 89° 58' 56" E	44.94'
L 9	N 90° 00' 00" E	80.00'
L 10	N 90° 00' 00" E	51.95'



LEGEND:

- # 6 x 24" REBAR WITH 1-3/8" PLASTIC YELLOW CAP, MARKED: D1850 & MT2345ES
- ALL 1/4 CORNERS, THE SW SECTION CORNER AND THE W-1/8TH CORNER BETWEEN SECTIONS 23 AND 26 ARE AS NOTED ON CORNER RECORDATION FORMS.
- DIMENSIONS ALONG PARCEL LINES ARE FULL ALIQUOT MEASUREMENTS
- PINS SET ALONG THE NEW ROADWAY EASEMENT ARE REFERENCE MONUMENTS, BEING SET 30.00 FT. THE RESPECTIVE DISTANCE FROM THE ALIQUOT CORNER THIS IS TYPICAL ALL CASES EXCEPT THE CULDESAC WHERE THE SOUTHERLY PIN IS 90.00 FEET DISTANT.

SURVEYOR'S CERTIFICATE:
I CERTIFY THAT THIS CERTIFICATE OF SURVEY IS A TRUE AND CORRECT REPRESENTATION OF SURVEY PERFORMED BY ME DURING THE PERIOD OF JANUARY 23 TO FEBRUARY 18 1991

Gordon E. Sorenson
GORDON E. SORENSON, PE/RLS, MONTANA REG. No. 23456
MSSOULA CITY-COUNTY HEALTH DEPARTMENT

FINAL APPROVAL OF THIS CERTIFICATE OF SURVEY HAS BEEN GRANTED BY:
David J. Brown MISSOULA COUNTY SURVEYOR DATED: APRIL 12, 1991
Jon Boye MISSOULA CITY-COUNTY HEALTH DEPARTMENT DATED: APRIL 23, 1991

PURPOSE OF SURVEY:
TO PERFORM AN ALIQUOT 1/32 PART OF A SECTION SURVEY WHICH IS NOT REQUIRED AS A REGULATION OF THE MONTANA SUBDIVISION AND PLATTING ACT AS PER DEFINITION TO SECTION 78-3-401 M.C.A.

A BURIED SEWER LINE EASEMENT GRANTED IN BK 251, PG 2270, CENTERLINE OF SAID EASEMENT IS 900 FEET NORTHERLY OF THE S 1/4 CORNER OF SECTION 23. THIS CERTIFICATE OF SURVEY EXTENDS THIS EASEMENT WESTERLY THROUGH THE N/2 SE1/4 SW1/4, SECTION 23 TO THE EASTERLY R/W LIMIT OF THE OLD MONTANA STATE HIGHWAY, RECORDED IN BK 108 OF DEEDS PG 608.

SURVEY PERFORMED FOR:
JOHN FELTON, Trustee;
Owner of Record
by:
GORDON E. SORENSON
2810 GUNSIGHT COURT
MISSOULA, MT 59801
(406) 549-9693

1/4 SEC.	T.	R.
23	11 N.	20 W.
PRINCIPAL MERIDIAN MONTANA		
MISSOULA COUNTY MONTANA		
SHEET 1 OF 1		

3106168 ✓

CERTIFICATE OF SURVEY No. 3935

I received and read this instrument for record on the 24th day of April 1991 at 12:20 o'clock P.M., permanent files of Missoula County, State of Montana. Witness my hand: *Wendy Crowder*, County Recorder BEADY CROWDER, County Recorder MISSOULA, MONTANA 406-549-9693

Chublist #911

Received FTS 08/19/2020

Abby R. Indreland

From: Erik Langaunet <ErikL@meccoop.com>
Sent: Tuesday, November 12, 2019 4:08 PM
To: Abby R. Indreland
Subject: RE: Opencut Gravel Pit - Setbacks from Utilities

There is an overhead three phase line and an underground single phase service drop in the area. I would recommend having a utility locate done so you can see where the underground line runs to. Please note that the locating company will only locate MEC's facilities up to the metering point. Anything beyond that is the members and won't be located. Overhead lines have a 20 foot easement, underground is 10.



Erik Langaunet, P.E.
Manager of Engineering
Missoula Electric Cooperative,
Inc.
1700 W Broadway Missoula
MT 59808
P: 406.541.6342 C:
406.546.5026



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Abby R. Indreland [mailto:aindreland@wgmgroup.com]
Tuesday, November 12, 2019 3:52 PM
Erik Langaunet <ErikL@meccoop.com>
Opencut Gravel Pit - Setbacks from Utilities

Hi Erik,

We are working on an amended opencut gravel permit and need to address the nearby or onsite utilities and any easement/setbacks associated with them. I was hoping you could help answer my questions or maybe direct this email to another contact who may be able to do so.

The Hendricksen Pit is located in Sec 23, T 11N, R 20W, Missoula County just south of Lolo off of Old HWY 93 – I believe there is just a buried electric line that runs from the Old HWY 93 ROW to the concrete plant. We contacted NWE, and they believe this is your utility. Do you know of any other MEC utilities in the area and any easements/setbacks associated with them?

Thanks in advance!

Abby Indreland, E.I.

Engineer Intern



OFFICE: 406-728-4611

CELL: 406-493-8225

EMAIL: aindreland@wmggroup.com

ADDRESS: 1111 E Broadway, Missoula MT 59802

Abby R. Indreland

From: Medland, S a n <S a n.Medland@nort estern.com>
Sent: Tuesday, November 12, 2019 1:2 PM
To: Abby R. Indreland
Subject: RE: Opencut Gravel Pits - Setbacks from N E utilities

Hi Abby,

Item 2 is in my area. Is the below map the pit you are talking about? If so our overhead electric and transmission lines are on the eastside of Hwy 93. I believe MEC is on the west and they own the underground electric you are talking about. I don't believe we have any gas lines in this area. It looks like our nearest gas main ends on Maple Lane to the south. I would recommend getting in contact with MEC and calling in locates just in case there are utilities that are not mapped correctly. Let me know if you need anything else.



Thanks,

M d d

n neer

shawn.medland@northwestern.com

406-540-2579

406-542-5975

1903 Russell Street | Missoula, MT 59802

From: Loran, Erik <Erik.Loran@northwestern.com>
Sent: Tuesday, November 12, 2019 12:59 PM
To: Medland, Shawn <Shawn.Medland@northwestern.com>
Subject: FW: Opencut Gravel Pits - Setbacks from NWE utilities

From: Abby R. Indreland <aindreland@wgmgroup.com>
Sent: Monday, November 11, 2019 3:08 PM
To: Loran, Erik <Erik.Loran@northwestern.com>
Subject: Opencut Gravel Pits - Setbacks from NWE utilities

NOTICE: This message has been sent by an EXTERNAL sender outside of NorthWestern Energy. Please use caution when clicking on links, opening attachments, or replying to this email.

Hi Erik,

Just following up on a voicemail I left you on your office phone.

We are working on two different opencut gravel permits and need to address the nearby or onsite utilities and any easement/setbacks associated with them. I was hoping you could help answer my questions or maybe direct this email to another contact who may be able to do so.

- 1) Revier Pit located in Sec 25, T 20N, R 26W, Sanders County – There is an aerial power line that cuts through the permit boundary. I believe it is just a single phase line. Could you provide information on setbacks/slopes from the base of the poles and vertical setbacks from overhead?
- 2) Hendricksen Pit located in Sec 23, T 11N, R 20W, Missoula County just south of Lolo off of Old HWY 93 – I believe there is just a buried electric line that runs from the Old HWY 93 ROW to the concrete plant. Do you know of any other NWE utilities in the area and any easements/setbacks associated with them?

Thanks in advance, and have a great week!

Abby

[Abby Indreland, E.I.](#)

Engineer Intern



OFFICE: 406-728-4611
CELL: 406-493-8225
EMAIL: aindreland@wgmgroup.com
ADDRESS: 1111 E Broadway, Missoula MT 59802

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WASH PLANT SETTLING POND GUIDELINE

A wash plant settling pond system must be designed to allow settlement of target particle sizes during the time of impoundment. Operators can avoid the need for discharge permits and additional water treatment by installing a closed water system. After initial construction, some modifications in operations or system design may be needed. A clarifier system is a less common, more expensive, water treatment option. See the attached “Wash Plant Schematic with Settling Ponds”.

POND GEOMETRY - Constructing two or more ponds in series should result in more effective sediment removal. Design the pond system to minimize short-circuiting and dead storage areas. Long, narrow ponds are best. A length-to-width ratio of 4:1 is recommended. If a pond’s length to width ratio is less than 4:1, use baffles to increase the flow path between the inlet and outlet. Inspect baffles frequently to maintain their effectiveness. Make the pond bottom level to facilitate sedimentation.

POOL DEPTH - A pond depth of 3 to 6 feet is recommended. Avoid depths less than 2 feet and more than 8 feet. Design ponds so that sediment can be cleaned out easily to maintain storage capacity.

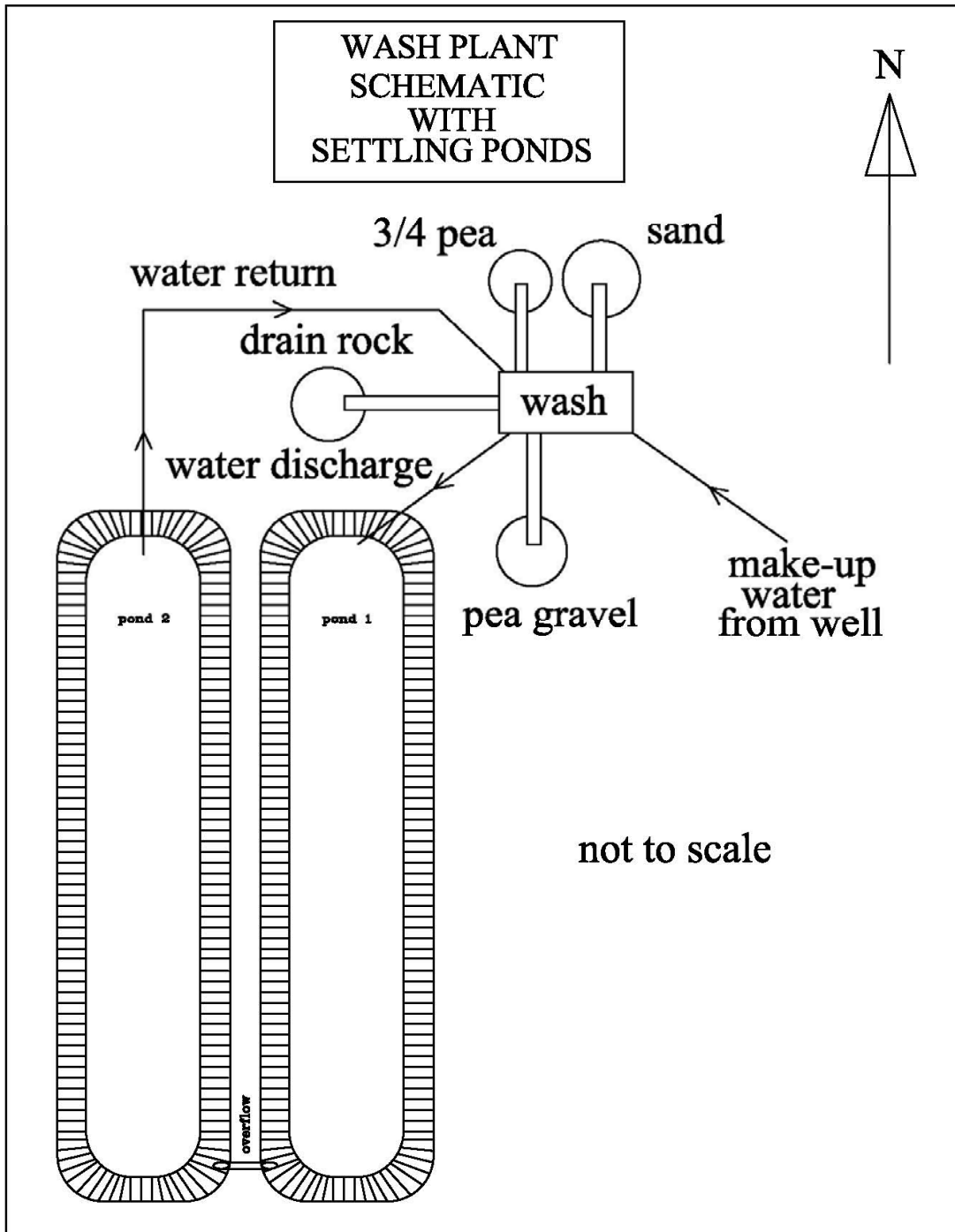
POOL VOLUME - Under ideal conditions, particles down to fine silt size will settle out of 6 feet of water in about 6.5 hours. Design the system to hold at least 110 percent of the water volume used in 6.5 hours.

SLOPES AND EMBANKMENTS - Make interior pond slopes 3:1 or flatter. Make exterior embankment slopes 2:1 or flatter. Leave at least 1 foot of freeboard between the maximum pool elevation and the top of the embankment. Build embankments to acceptable construction standards, such as those developed by the U.S. Natural Resources Conservation Service (NRCS). Large embankments may need to be approved by the Montana Department of Natural Resources and Conservation (DNRC).

INLET, WATER PASSAGE, AND OUTLET - Locate the inlet and outlet of each pond as far apart as possible. If these features cannot be at opposite ends of a pond, use baffles to direct water in a longer path from inlet to outlet. If warranted, install an energy dissipater to spread out the flow and reduce the velocity of incoming water. If able, locate the inlet so that it discharges at or below the maximum elevation of the pool. Design and build inlets, water passages, and outlets to minimize erosion.

LINER- Install a liner during construction or install one later if the system loses too much water.

SAFETY- Provide appropriate safety precautions, including warning signs and fencing.



Application Date: 7/24/2020 4:28:45 PM

Issued Date: 7/24/2020 4:50:52 PM

Property

Street Address 5985 McClain Creek Rd

City Florence

Legal Description

Geo Code 04-1975-23-3-01-11-0000

Long Description GEOCODES: 04-1975-23-3-01-11-0000; 04-1975-23-3-01-01-0000; 04-1975-23-3-01-13-0000

Owner

Contractor

Name Michael Smith / WGM

Address 1111 E Broadway Missoula, MT 59802

Phone 406-728-4611

Project Information

Proposed Work Western Materials, LLC is submitting an amendment application to the DEQ to expand the Hendricksen Pit, a sand and gravel pit operation under existing Opencut Permit #2681. See scanned permit application for full details.

CAPS Review

Zoning

Zoning District ZD 40

Setbacks required? False

Structures

of Existing Dwellings 1

of New Dwellings 0

Hillside Standards Apply? False

Comment The existing house on the area being added will remain as a residence until the mining activities expand into that area, at which time the house will be removed.

Structure

Footprint of existing structure 2,064,744 sqft

Footprint of proposed structure 130,680 sqft

Comment Footprint of gravel pit area, not structures
existing: 47.4 acres
proposed expansion: 15 acres

Parking

Parking required? False

Landscaping

Landscaping required? False

Floodplain

Zone A

Zone AE

Zone AO

Zone AH

Zone X True

Floodway

Shaded X

Conditions

Applicant is responsible for construction of the project as shown on the submitted and approved plans.

Any changes or modifications to the approved plans must be made in consultation with the Planning Office. A new approval will be required prior to construction.

Construction Comment

Project is approved for zoning compliance as an expansion to a legal nonconforming use. The approved expansion does not increase the degree of nonconformity to the extent that it does not comply with ZD 40.

Fire Review

Rural Fire Review False

County Fire Review False

Water Quality

Air Quality

Health Quality

Floodplain Review

Zone A

Zone AE

Zone AO

Zone AH

Zone X True

Floodway

Shaded X

Shoreline Review

Balance Due

Balance Due \$0.00

EXHIBIT Y

Opencut #: **2681**

OPENCUT MINING PERMIT

Amendment #: **4**

Pursuant to the Opencut Mining Act (MCA Title 82, chapter 4, part 4), the State of Montana, Department of Environmental Quality (DEQ) is authorized to issue Opencut Mining Permits when, on the basis of the information set forth in the application and an evaluation of the proposed opencut operations, it finds the requirements of the Act and its implementing rules (ARM Title 17, chapter 24, subchapter 2) can be carried out and will be observed. The Act further authorizes DEQ to issue permit amendments in accordance with Sections 82-4-422[1], 82-4-432[11], 82-4-434[5], 82-4-436, and 82-4-439[2], MCA.

DEQ issues this **permit** to **Western Materials, LLC** (Operator). The permit comprises a total of **66.0 acres** located in **Missoula County**, Montana, to be known as the **Hendricksen site**.

The following provisions apply to this permit:

1. DEQ approves the Operator's **amendment** application and incorporates it into the permit for all purposes. The Operator is hereby authorized to conduct Opencut operations in compliance with requirements of the permit, Act, and rules.
2. If the Operator violates the permit, Act, or rules DEQ can take enforcement action which may include the assessment of penalties as specified in 82-4-441 MCA.
3. The permit does not relieve the Operator's obligation to: *a)* comply with any other applicable federal, state, county, or local statutes, regulations, or ordinances, and *b)* obtain any other permits, licenses, approvals, etc. required for any part of the operation.
4. The Operator may allow another party to conduct Opencut operations only if the Operator: *a)* retains control over that party's activities and *b)* ensures there are no violations of the permit, Act, and rules. The Operator is accountable for violations at the permit site, even if the violations result from the activities of another person.
5. The Operator shall pay the annual fee on the total amount of materials mined at the site, including materials mined by other parties. The Operator's annual progress report shall indicate the total amount of materials mined.
6. DEQ can only enforce requirements of the permit, Act, and rules. Therefore, Operator arrangements with another party (including the Landowner) should be stated in a separate written agreement between the two parties.
7. The Operator shall conduct reclamation: *a)* in accordance with the approved plan of operation; *b)* as concurrent with operations as feasible; and *c)* within one year of termination of the right to conduct operations, or the cessation of operations. If reclamation is not completed in the approved timeframe, after 30 days written notice DEQ may order the Operator to cease operations. If operations do not cease, DEQ may issue an order to reclaim, institute action to enjoin further operations, and sue for damages.
8. Unless the Operator is a governmental entity, a bond has been posted to ensure the site is reclaimed. If the site is not reclaimed as and when required, DEQ may pursue forfeiture of the bond. If the bond is cancelled or invalidated, the Operator shall provide a valid bond within 30 days. If not provided, DEQ may suspend the permit and require the Operator to cease operations.
9. The Operator may apply to amend the permit at any time. If approved, the amendment becomes part of the original permit for all purposes. DEQ is authorized to review the permit and require revisions as specified in 82-4-435 MCA.
10. The Operator shall allow DEQ and its representatives to access the site at any time to determine if Opencut operations are being carried out in compliance with the permit, Act, and rules.
11. This permit is effective upon approval below by DEQ and expires **December 31, 2045**.

APPROVED BY: STATE OF MONTANA, DEPARTMENT OF ENVIRONMENTAL QUALITY



Coal & Opencut Mining Bureau

Opencut Mining Unit Coordinator
Title

May 20, 2021
Date

EXHIBIT Z



MEMORANDUM

Date: August 5, 2024
To: Graham Coppes, Attorney, Coppes and Ferguson, PLLC
From: Michael T. Meredith, P.G. *MTM*
Subject: Hendrickson Pit Expansion, Missoula County, Montana – Preliminary Hydrology Comments

In accordance with your request and authorization, I have completed a preliminary review of a document titled *Hydrogeologic Evaluation Report, Hendrickson Pit, Missoula County, Montana* dated June 28, 2024, prepared by GSI Environmental, Inc. (the GSI report) on behalf of Western Materials, LLC (Applicant to expand the Hendrickson Pit opencut mine). I have also reviewed selected sections of Montana Department of Environmental Quality Opencut Mining Permit #2681 Amendment 4 (the Permit) for the Western Materials LLC Hendrickson Pit (the site). Note that my review of these documents and other details pertaining to this site was limited in scope due to time constraints.

Based on my review of these documents, the following are my preliminary comments regarding hydrologic aspects of the proposed expansion of opencut mining operations at the Hendrickson Site. These comments are preliminary in nature and I reserve the right to modify my comments if new information comes to my attention. Comments are numbered for reference purposes only.

1. The GSI report falls short in terms of characterizing depth to groundwater at the proposed mine expansion site. A clear understanding of depth to groundwater is critical to assessing the potential for groundwater quality and quantity impacts at an opencut site because it (along with the mining plan) determines whether groundwater is likely to be intercepted by mining activities.

Published literature (cited in the GSI report) indicates that groundwater levels in the Bitterroot Valley fluctuate seasonally. However, the GSI report only presents approximately 10 days of groundwater level monitoring data, which is far too short to adequately characterize the degree of seasonal groundwater level fluctuation at the site or to approximate annual minimum and maximum groundwater levels (as acknowledged in the GSI report). Therefore, groundwater level monitoring should continue on a monthly or more frequent basis for a minimum of one full year to characterize the high and low groundwater levels at the site and the degree of seasonal groundwater level fluctuation.

Furthermore, the wells monitored by GSI are only located within or around the currently permitted mine site. In order to ensure the mine expansion area is represented, at least some monitoring wells located within the bounds of this area should be added to the monitoring network.

2. The approach used by GSI for assessing groundwater flow direction and gradient is suboptimal for two reasons.

First, the GSI report indicates that all four wells in their monitoring network (W1, W5, W5A, W5B) are used as water supply wells (p. 3). This is most notably reflected in the frequent fluctuations of water level in W1 (more than 25 feet at times) and the less frequent dips in most of the other wells' water levels (see GSI report Figure 4). The regular pumping of W1 likely results in a depressed groundwater level that does not accurately reflect the static groundwater level in the surrounding aquifer. Thus, data collected from this well in particular may erroneously suggest that groundwater is deeper than it actually is. Such an error would adversely affect the accuracy of GSI's interpretation of groundwater flow direction and gradient.

Second, the spatial configuration of the wells used by GSI for assessing groundwater flow direction and gradient is poor and likely limits the accuracy and relevance of these determinations. At its simplest, determination of groundwater flow direction and gradient is an exercise in defining a plane in space that represents the groundwater table or potentiometric surface. Definition of a plane requires a minimum of three points—in this case groundwater elevations in wells. Practically, a layout consisting of wells spaced widely across the area of interest in an approximately equilateral triangle shape provides the best and most accurate definition of the water table plane (and is standard industry practice), whereas wells in a nearly straight line produce a much lower accuracy definition of the plane.

At the scale of the site, the arrangement of GSI's monitoring wells (W1, W5, and W5A; see GSI report Figure 3) is much closer to a line than an equilateral triangle and is thus unlikely to provide a high accuracy definition of groundwater flow direction and gradient. Furthermore, the monitoring network footprint does not cover the proposed expansion area. Therefore, to improve the geometry and attain a reasonable level of accuracy and representativeness of the site, the monitoring network should be expanded to include additional wells located in the proposed expansion area. Depth to groundwater should be monitored in the expanded monitoring network and water table or potentiometric surface maps should be made once per quarter for at least one year to document if or how groundwater flow direction and gradient changes seasonally at the proposed mine site.

3. Establishing whether shallow groundwater will be intercepted while mining the proposed expansion area is essential to understanding the potential for impacts to surrounding water users.

Based on the materials that I have reviewed, there appears to be potential for shallow groundwater to be encountered during mining of the proposed expansion area. Evidence that shallow, unconfined groundwater may be present in the area includes:

- The water level reported for Well 5 in the GSI report is 9.71 feet below ground surface (bgs). This well has a total depth of 40 feet below ground surface and its well log shows that it does not penetrate any confining layers, indicating

groundwater at this location is shallow and unconfined (as opposed to rising under pressure from a deeper formation).

- GSI reaches a similar conclusion about Well 5 (p. 7) but does not explain how the proposed mine expansion will avoid intercepting this shallow unconfined groundwater.
- The Permit identifies a well called W6, located within the proposed mine expansion area, that was drilled to 100 feet bgs but completed with an open bottom at a depth of 40 feet bgs. The static water level reported for this well is 9 feet bgs and its well log does not exclude the possibility of a shallow unconfined origin for groundwater at this location (see Permit, Determining Depth to Groundwater Worksheet, Section C.1.b “Well Logs & GWIC Data”).

Additionally, the actively pumped well (W1) that is part of the current GSI monitoring network has the potential to indicate groundwater levels that are lower than (and unrepresentative of) actual static groundwater levels around that location (detailed further in comment 2).

Based on this information, the extent, depth, and quantity of shallow groundwater beneath the proposed expansion area is uncertain. However, the items I have cited above suggest it is a possibility that mining in excess of about 9 feet bgs in the proposed expansion area could intercept groundwater. If additional data are not available, Applicant should install a minimum of three monitoring wells within the proposed expansion area, complete them at representative mining depths, and monitor depth to groundwater for at least one year to characterize the extent and quantity of shallow groundwater in the proposed expansion area. If it is determined that mining could intercept groundwater, additional hydrologic analysis will be necessary to assess potential impacts (e.g. water balance calculations).

4. Applicant should provide information on current and proposed water use related to openpit mining operations so that nearby property owners can understand and evaluate the potential effects of expanded water usage. Information provided should include rate, volume, source, and period of use for all surface water and groundwater diversions. Applicant should also provide water right numbers for existing water uses and describe the anticipated elements of any additional water rights they plan to seek in support of expanded mine operations.
5. Qualitatively speaking, any removal of overburden and gravel above the aquifer at the proposed mine expansion area will increase the risk of surface contamination impacting groundwater over that of a no mining scenario. Specifically, removing overburden and/or exposing an aquifer (as commonly occurs during openpit mining) eliminates material that might otherwise trap or retard the movement of contaminants spilled at the surface. This establishes a more direct pathway between the surface and groundwater, which dramatically increases the aquifer’s susceptibility to contamination from surface spills or releases. Thus, as a consequence of expanded openpit mining, downgradient groundwater users (and potentially surface water bodies) are likely to experience a degree of elevated risk of contamination from any surface spills at or near the mine site.

6. The GSI report concludes that “site-specific hydrogeologic data collected by GSI in June 2024 do not indicate that operations at the existing or proposed expansion of the Pit will adversely impact water quality or water quantity...” (p. 7). Based on the minimal amount of data presented, it is my opinion these conclusions are overly broad and premature for the reasons described in my comments above. In addition, regarding water quality, GSI presents no data on existing water quality, no sampling results, no analysis, and no other basis to support their conclusion of no likely effect from expanded mine operations.