US Army Corps of Engineers
Alaska District

Public Notice of Application for Permit

FAIRBANKS FIELD OFFICE
Regulatory Division (1145)
CEPOA-RD
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4927

PUBLIC NOTICE DATE:	**March 11, 2015**
EXPIRATION DATE:	**April 9, 2015**
REFERENCE NUMBER:	**POA-2015-96**
WATERWAY:	**Cache Creek**

Interested parties are hereby notified that a Department of the Army permit application has been received for work in waters of the United States as described below and shown on the enclosed project drawings.

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Debby McAtee at (907) 474-2166, by fax at (907) 474-2164, or by email at Debby.J.McAtee@usace.army.mil if further information is desired concerning this notice.

APPLICANT: Mr. Douglas Baker, Mudminers, LLC., P.O. Box 874812, Wasilla, Alaska 99687.

LOCATION: The project site, APMA 2624, is located within Sections 9, 16, and 17, T. 3 N., R. 16 W., Fairbanks, Meridian; USGS Quad Map Tanana A-2; Latitude 65.09759º N., Longitude 150.82301º W.; near Tofty, Alaska.

PURPOSE: The applicant's stated purpose is a placer mining operation designed to economically recover gold and complete acceptable reclamation.

PROPOSED WORK: The applicant proposes to mine on his State mining claims under APMA 2624. Excavation and discharge of overburden would be conducted to allow the excavation of 4'-6' of pay gravels located under the overburden allowing for the extraction of gold from the pay gravels. Overburden would be placed in both an existing flooded pit and as backfill in the newly excavated areas, reclaiming the excavation to original ground with several remaining shallow ponds, enhancing the wetland value.

The area to be mined lies within the area between the existing flooded pit adjacent to Dalton Gulch, extending up-valley towards the northeast to approximately 500' above the confluence of Ferguson Gulch and Cache Creek. The mining plan would consist of the following major activities or projects:

1. Clearing the New Pit area, soil stockpiling, road access, and stream diversion construction.

   a. Clearing the New Pit area and soil stockpiling: The new 25 acre pit area would be cleared of its vegetation, which mostly consists of tundra, birch trees, and minor amounts of black spruce. The grubbed vegetation would be windrowed just north of the creek diversion in an area of approximately 2 acres, forming an erosional barrier between the creek diversion and the soil stockpiles.
   b. Roads – A total of approximately three miles of roads would be utilized within the project area to include:
      - 8,200 feet of existing roads
      - 3,800 feet of new road would be constructed adjacent and north of the creek diversion on top of material excavated from the diversion channel
      - 3,000 feet of new road would be constructed in uplands
   c. Stream Diversion – It would be necessary to divert the upper 3,800 feet of Cache Creek in order to mine the gold resources underneath the existing creek location.

2. Overburden and pay gravel excavation and pay processing. In general, hydraulic mining would remove the overburden and pay gravel would be excavated and processed using standard mechanical placer mining techniques.

3. Reclamation:
   a. Within one year of the completion of mining the creek diversion, the road adjacent to the diversion and the soil stockpiles would be graded to approximate the surrounding topography.
   b. Cache Creek would be reestablished in approximately its existing location.
   c. Pre and post mining reclamation would result in a total of approximately 35 acres of shallow ponds within the project area.

Total discharge of fill would be approximately 1.6 million cubic yards (cy) including 1.4 million cy of overburden and 202,000 cy pay gravel. Total project area is 102 acres. Total acreage of wetland disturbance would be 49 acres of which 37 acres are Palustrine scrub-shrub wetlands (PSS4B) and 12 acres are Palustrine scrub-shrub wetlands/emergent (PSS1B/EM).

All work would be performed in accordance with the enclosed plan (sheets 1-16), dated March 4, 2015.

APPLICANT PROPOSED MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States (US) from activities involving discharges of dredged or fill material.

The applicant provided the following in his Applicant Proposed Mitigation Statement:

a. Avoidance: "The New Cache Creek Pit is in an area (Tofty region) with an extensive mining history. The majority of the overburden would be placed in the existing pit or as backfill within the New pit. If any overburden stockpiles are necessary outside the pit area they would be stacked as high as is reasonable and then contoured to meet the ground topography upon final reclamation. Areas with potential erosion along roads and intermittent streams would be protected with slash or coarse rock as needed. Vegetation readily reestablishes naturally and provides protection from erosion."

b. Minimization: "The operations at the Cache Creek Pit are specifically designed to minimize any potential to impact waters of the U.S., including wetlands. It is a fact, that prior to the Clean Water A+ct, earlier mining operations at Tofty discharged silt and water through gravity drains into waters of the U.S. It is also a fact that numerous pits have been excavated at Tofty within low lying benches with relatively little surface water, but within zones of permafrost considered currently as wetlands. Science is based on experiments with repeatable results. These facts are pertinent by showing that even after the worst-case mining scenario the area was enhanced by the mining activity. Operations have only been

developed in areas where known deposits exist. Overburden would be used as backfill within the active pit as much as is reasonable considering the necessary room to operate. All process water or hydraulic mining is conducted using 100% recycled water with no discharge."

c. Compensatory Mitigation: "It is not our plan to complete compensatory mitigation at the Cache Creek placer deposit, because concurrent reclamation is ongoing and leaves an enhanced and greater amount of wetlands."

WATER QUALITY CERTIFICATION: A permit for the described work would not be issued until a certification or waiver of certification, as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no listed or eligible properties in the vicinity of the worksite. Consultation of the AHRS constitutes the extent of cultural resource investigations by the District Commander at this time, and he is otherwise unaware of the presence of such resources. This application is being coordinated with the State Historic Preservation Office (SHPO). Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit would be considered in our final assessment of the described work.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area. We have determined the described activity would have no effect on any listed or proposed threatened or endangered species, and would have no effect on any designated or proposed critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844). Therefore, no consultation with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service is required. However, any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat would be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

No EFH species are known to use the project area. A Fish Habitat Permit was issued June 5, 2013. We have determined the described activity would not adversely affect EFH in the project area.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between Federally recognized Tribes and the Federal government. Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources would be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. Consultation may be initiated by the affected Tribe upon written request to the District Commander during the public comment period.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

EVALUATION: The decision whether to issue a permit would be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires

a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it would be allowed to occur. The decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit would be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(l) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit would be granted unless the District Commander determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received would be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

AUTHORITY: This permit would be issued or denied under the following authority:

(X) Discharge dredged or fill material into waters of the United States – Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review would consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

Project drawings and a Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

BILL WALKER, GOVERNOR

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
401 Certification Program
Non-Point Source Water Pollution Control Program

ANCHORAGE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WQM/401 CERTIFICATION
555 CORDOVA STREET
ANCHORAGE, ALASKA 99501-2617
PHONE: (907) 269-7564/FAX: (907) 334-2415

NOTICE OF APPLICATION
FOR
STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge would comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice No. **POA-2015-96, Cache Creek**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify there is reasonable assurance the activity, and any discharge that might result, would comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project, with respect to Water Quality Certification, may submit written comments to the address above by the expiration date of the Corps of Engineer's Public Notice.

Cache Creek Mine Plan Narrative

The 102 acre project area starts at the west end of the existing 22 acre flooded mining pit, then includes an area averaging approximately 600' wide and 6000' feet long with its long axis running in an east-northeast direction to an area upstream along Cache Creek approximately 800' above the confluence of Ferguson Gulch. The "New Pit" will start at the east side of the existing pit and cover an area of 25 acres as described above.

Mining will be conducted by using hydraulic/mechanical mining methods for removing the overburden and standard placer gravity recovery for processing the pay. Overburden removal and placement uses recycled water from the Existing Pit to hydraulically mine and transport a portion of the silt overburden from the New Pit area to the Existing Pit, combined with dozers, loaders, excavators and trucks to assist in completing the overburden removal. Processing involves excavation, classification of the pay gravel combined with gravity separation to recover the gold. Reclamation will be conducted concurrently with mining. The mining plan will consist of four major activities or projects as follows:

1. Clearing the New Pit area, soil stockpiling, road access and stream diversion construction.

Clearing the New Pit area and soil stockpiling - The New 25 acre pit area will be cleared of its vegetation, which mostly consists of tundra, birch trees and minor amounts of black spruce. The grubbed vegetation will be windrowed just north of the creek diversion in an area of approximately 2 acres, forming an erosional barrier between the creek diversion and the soil stockpiles. Tofty has an abundance of silts that are rich in organics making ideal soils. The "A" horizon of loamy soil will be saved in the 6 acres long, narrow windrowed stockpile located immediately north of the grub stockpile. With an 8' soil stockpile depth, the stockpile can hold 80,000 cubic yards. If the 25 acre New Pit area contains 2' of soil, the total volume required to be stockpiled would be approximately 80,000 cubic yards.

Roads – A total of approximately 3 miles of roads will be utilized within the project area, of which approximately 8,200 feet are existing roads and 3,800' of new roads will be constructed adjacent and north of the creek diversion on top of material excavated from the diversion channel. The remaining length of approximately 3,000 feet of new roads will be constructed on the hill slope south of the New Pit. This new section of road, starting in about the middle and south side of the creek diversion, will traverse south over uplands approximately 1,000 feet, while on State owned land and then continue approximately 2,000 feet within a State of Alaska subdivision, joining the Tofty Road.

Stream Diversion – It is necessary to divert the upper 3,800' of Cache Cr. in order to mine the gold resources underneath the existing creek location. The Cache creek diversion is proposed to start approximately 800' above the confluence of Ferguson Gulch then it will divert the creek to the left limit (looking downstream) of the Cache creek valley to a point down stream approximately 1000' above the east side of the existing pit. This will allow the current creek to be diverted around the south side of the proposed New Pit mining area. Excavating a channel, similar as the existing creek and placing the excavated material adjacent and to the north will create the diversion channel.

The upper end of Cache Cr. is an intermittent stream during the dry periods of the summer and freezes solid in the winter yet it would be considered a perennial stream with minimal flows starting at the confluence of Ferguson Gulch. Approximately 1 mile downstream, adjacent to the Cache Cr./Tofty road crossing, Cache Creek is within a shallow incised channel with 1'to 2' high banks, 2' to 5' widths, and water depths of 3" to 12". It is estimated that on average during mid summer the creek would flow 1 to 1.5 cfs.

The current creek location has historically meandered across the entire valley floor over a width ranging from 300' – 600'. The meandering is due to the relatively flat gradient of 1.7%, natural forces including beaver dams and past mining activities. The diversion will allow for mining the resource using hydraulic methods of removing overburden and processing with 100% recycled water and no process water discharge. The 3,800' long, 3.5 acre diversion will be constructed to accommodate high water events (at least a 2-year flood interval) including spring runoff without bank excessive erosion and will remain in place through the life of the project. The diversion will be constructed having a bankfull width of 10', a depth of 2' and a flood plane width of 40'. The diversion will require approximately 8,200 cubic yards of earth to be excavated for its construction. The diversion will be placed within the relatively flat valley floor, immediately adjacent to and south of the planned mining excavation. The diversion and adjacent road will be removed after mining is completed.

The key questions regarding the diversion are these: **Q**. Will the diversion contain the average stream flows? **Ans**. **Yes**. The diversion will be wider than the current creek channel. In several areas the diversion is located where there is still a defined historic channel. **Q**. What happens during a storm event? **Ans**. In the event of a large storm event, which the diversion cannot contain, the diversion will be breached allowing the water to flow into the mining excavations and the large pond used for recycling. The recycle pond will contain a multiple week storm event and any overflow would run down the existing tail drain at less than a 2% gradient back into Cache Cr. The storm event would be contained within the mining excavations and any resulting discharge would not cause undue erosion below the recycle pond. **Q**. Does the diversion create a steepening that will cause undue erosion? **Ans**. Along the maximum 3,800' length of the diversion the average gradient is less than 1.7%, with the steepest gradient over a 100' length of 3.66%. The diversion is in the creek valley and has the same overall gradient as the existing creek.

2. Overburden and pay gravel excavation and pay processing.

Open pit mining at Tofty using hydraulic/mechanical methods has been conducted since the 1930's. All excavations since the 1980's have been accomplished using 100% recycled water for both hydraulic overburden removal and pay processing. The current operator has successfully been mining at Tofty using these same methods since 2003. Reclaimed mining pits at Tofty represent the highest quality of wetlands in the area. These same methods will be used to mine in upper Cache creek as described below.

In upper Cache creek, pay gravel (gold bearing gravel) occur in a 2' to 5' thick layer directly above bedrock, which is covered by 30' to 40' of overburden (gold barren silts with varying amounts of ice and minor sand and gravel). In general, hydraulic mining will remove a portion of the overburden from the New pit area and fill the majority of the existing pit. Remaining overburden to be removed will be accomplished hydraulically and mechanically by backfilling the New pit concurrent with mining. This will be done starting downstream

and working upstream. Depressions will be left to form ponds as backfilling proceeds upstream.

The mining pit is over an area of approximately 25 acres, containing 1,400,000 cubic yards of overburden and 200,000 cubic yards of pay gravel. Prior to any excavation the existing flooded pit (recycle pond) will be pumped out leaving approximately 10' of water in the 45' deep pond. This clear water will be pumped into the existing drain, which flows into Cache Cr. No processing or hydraulic mining will be conducted in the recycle pond prior to its initial dewatering. Water will be pumped from the existing pit to the New Pit washing the silts down gradient to fill a portion of the existing pit. The existing, 22 acre, 45' deep pit can hold approximately 65% of the overburden or about 920,000 cubic yards. The remaining overburden will be placed in the New pit starting at the downstream or west end of the New pit and progressing upstream. The recycle pond and associated pumps will be moved to newly created up valley ponds as mining progresses. Each prior years excavation will be filled with overburden and tailings accomplishing concurrent reclamation.

Approximately 200,000 cubic yards of pay gravel will be excavated and processed using standard mechanical placer mining techniques, which includes the use of dozers, loaders, excavators, screening devices, and gravity gold recovery methods. Water will be recycled initially from the existing pit and later by ponds created within the New pit area. Pay gravel tailings will be washed into either the existing excavation or the New pit area. All processing will utilize the existing recycle pond or newly excavated pits to achieve 100% water recirculation. No chemicals are utilized in processing.

3. Reclamation

The majority of the reclamation will be conducted concurrent with mining. It is estimated that mining will be completed within 6 years. Within one year of the completion of mining the creek diversion, road adjacent to the diversion and the soil stockpiles will be graded to approximate the surrounding topography. Soils from the Soil Stockpiles will be spread over processed pay tailings where tailings are excessive. Embankments and pit high-walls will be flattened out to allow natural re-vegetation and avoid erosional degradation. The banks will have average slopes of less than 2.5:1. Cache creek will be reestablished in approximately its existing location and will be captured within the shallow flooded mined out pits and will enter its current channel just downstream of the diversion. Pre and post mining reclamation will result in a total of approximately 35 acres of shallow ponds within the project area.

General Parameters

- Location 100 air miles west by northwest of Fairbanks, Alaska
- Latitude 65.09759N, Longitude 150.82301W

- Total Project area = 102 acres

- Maximum Wetlands area = 49 acres
- Previously Disturbed area = 45 acres
- Uplands Area = 8 acres

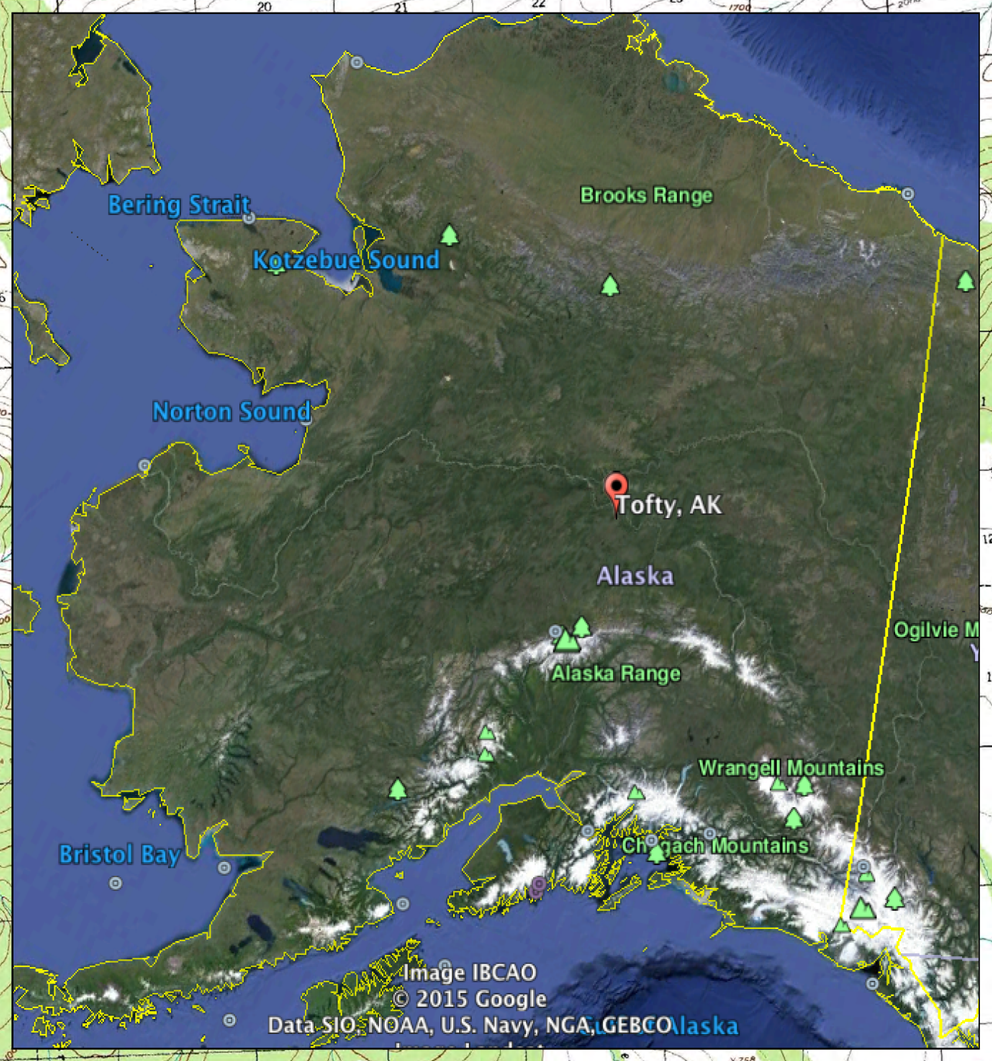
- Grub Stockpiles area = 2 acres
- Soil Stockpiles area = 6 acres
- Existing Road length = 8,200’
- New Road length traversing uplands = 3,000’
- New Road length placed on diversion embankment = 3,800’
- Cache Creek Diversion length = 3,800’
- Cache Creek Diversion area = 3.5 acres

- Existing Pit area = 22 acres
- Existing Pit depth = average of 45’
- Existing Pit overburden (ob) placement capacity = ((22 ac x 43560 sqft/ac) x 26’)/27 = 923,000 cubic yards of overburden fill
- New Pit excavation area = 25 acres
- New Pit total depth from surface to bedrock = average of 40’
- New Pit thickness of overburden = 35’
- New Pit thickness of pay = 5’
- Volume of overburden to be excavated = ((25 ac x 43560 sqft/ac) x 35’)/27 = 1.4 M cubic yards of overburden removal
- Volume of pay to be excavated and processed = ((25 ac x 43560 sqft/ac) x 5’)/27 = 202,000 cubic yards of pay
- Volume of overburden to be removed from New Pit and placed in Existing Pit = 923,000 cubic yards of overburden
- Volume of overburden to be moved from New Pit and placed back in New Pit = 477,000 cubic yards of overburden
- Volume of processed pay tailings to be placed in New Pit = 202,000 cubic yards
- Area of ponds generated by concurrent and post mining = minimum of 35 acres

- Project duration = Estimated 6 years

Figure 1 - Cache Cr. Location and Access Map

POA-2015-96, Cache Creek
APMA 2624, Mudminers, LLC
4 March 2015 Sheet 5 of 16



Cache Creek Placer Project Location

TANANA (A-2) QUADRANGLE
ALASKA
1:63 360 SERIES (TOPOGRAPHIC)

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1952, field annotated 1953. Map not field checked

Universal Transverse Mercator projection, 1927 North American datum
10,000-foot grid based on Alaska coordinate system, zone 4
1000-metre Universal Transverse Mercator grid ticks, zone 5, shown in blue

Land lines represent unsurveyed and unmarked locations predetermined by the Bureau of Land Management
Folios F.5 and F.6, Fairbanks Meridian

Swamps, as portrayed, indicate only the wetter areas, usually of low relief, as interpreted from aerial photographs

SCALE 1:63360

CONTOUR INTERVAL 100 FEET
DASHED LINES REPRESENT 50-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

APPROXIMATE MEAN DECLINATION, 1953

FOR SALE BY U. S. GEOLOGICAL SURVEY
FAIRBANKS, ALASKA 99701, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Light-duty — Unimproved dirt
State Route

TANANA (A-2), ALASKA
N6500—W15030/15X30

1953
MINOR REVISIONS 1964

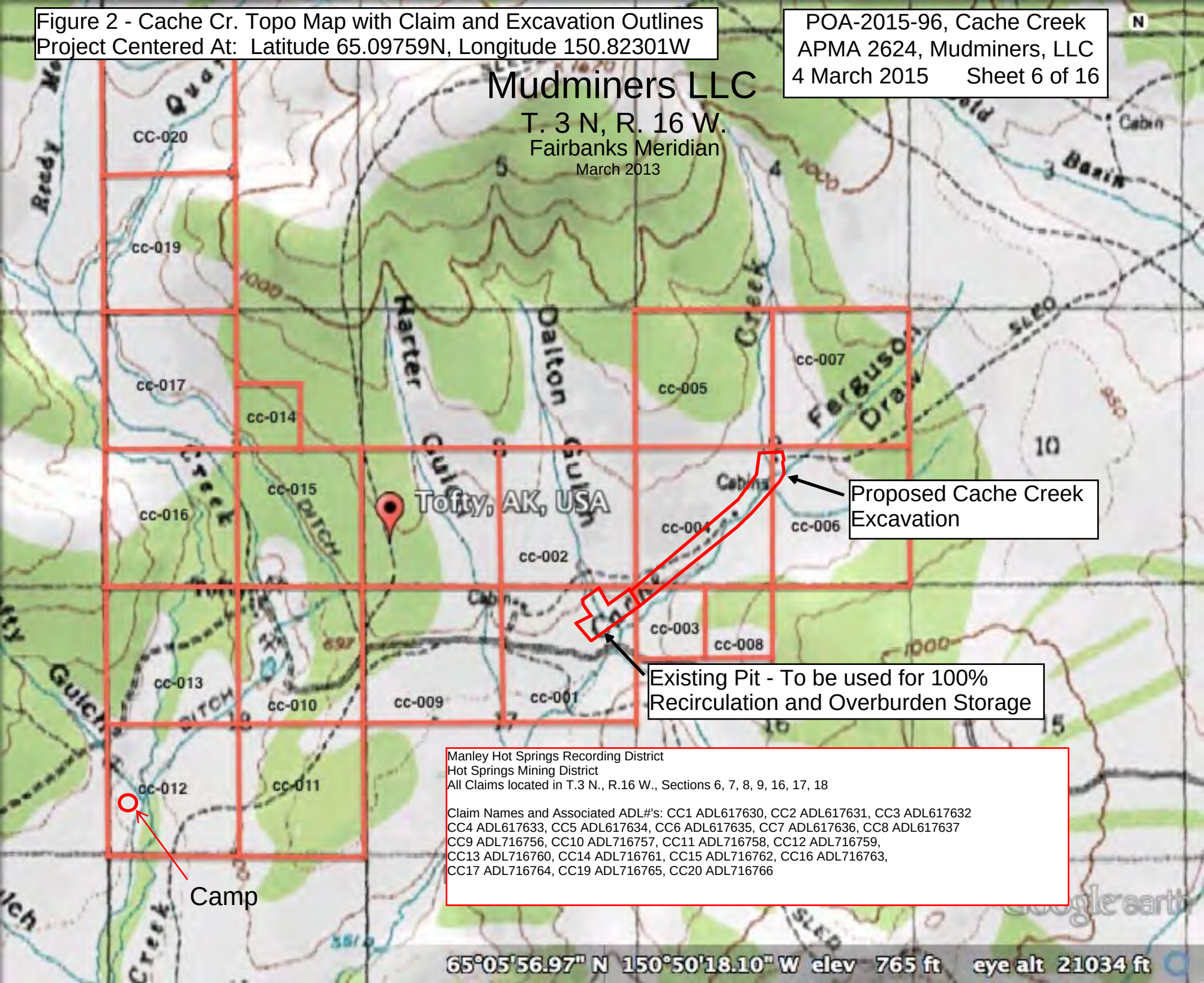
ISBN 0-604-04009-6

Figure 2 - Cache Cr. Topo Map with Claim and Excavation Outlines
Project Centered At: Latitude 65.09759N, Longitude 150.82301W

POA-2015-96, Cache Creek
APMA 2624, Mudminers, LLC
4 March 2015 Sheet 6 of 16

Mudminers LLC

T. 3 N, R. 16 W.
Fairbanks Meridian
March 2013



Manley Hot Springs Recording District
Hot Springs Mining District
All Claims located in T.3 N., R.16 W., Sections 6, 7, 8, 9, 16, 17, 18

Claim Names and Associated ADL#'s: CC1 ADL617630, CC2 ADL617631, CC3 ADL617632
CC4 ADL617633, CC5 ADL617634, CC6 ADL617635, CC7 ADL617636, CC8 ADL617637
CC9 ADL716756, CC10 ADL716757, CC11 ADL716758, CC12 ADL716759,
CC13 ADL716760, CC14 ADL716761, CC15 ADL716762, CC16 ADL716763,
CC17 ADL716764, CC19 ADL716765, CC20 ADL716766

Plan Map Showing Project Boundary
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

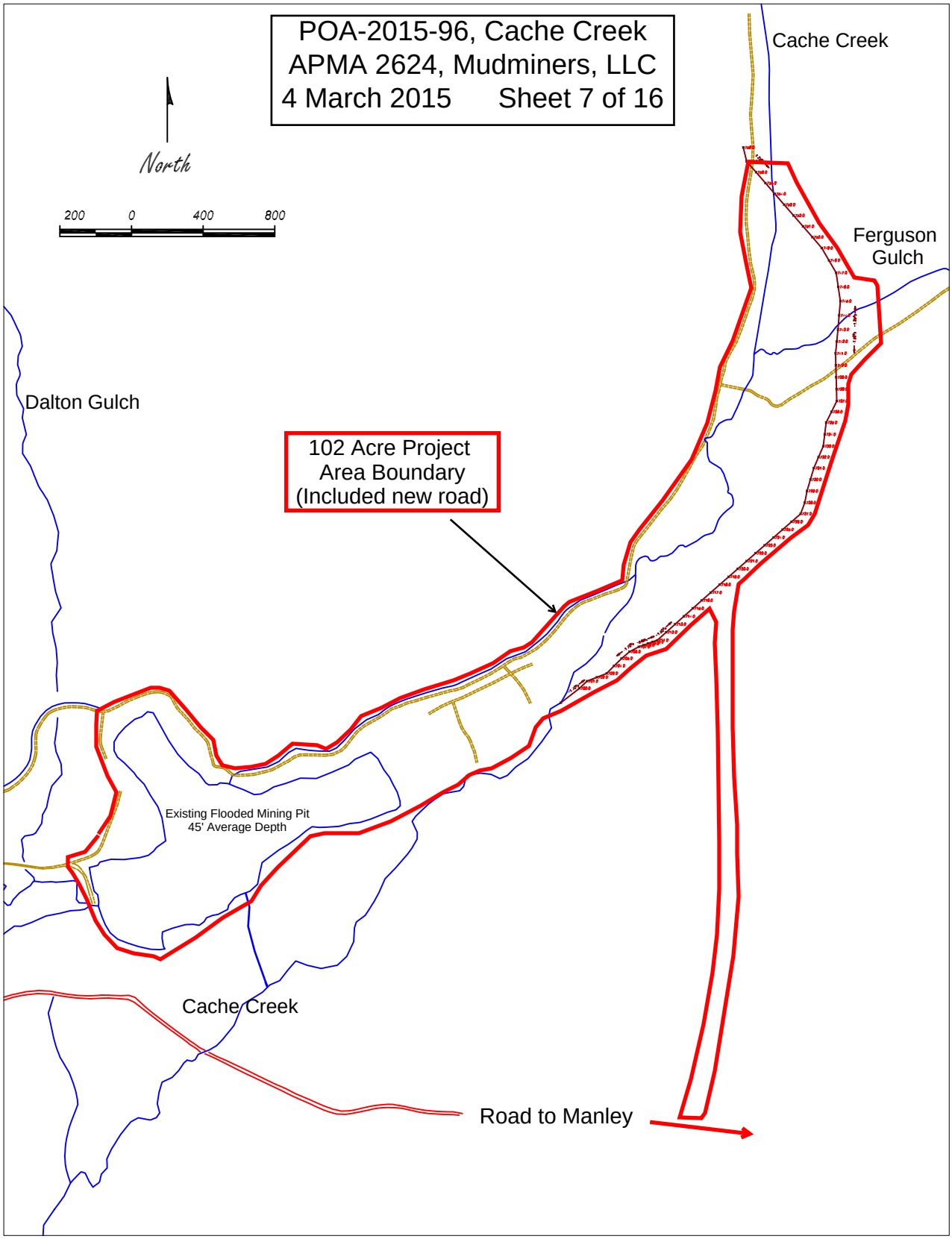
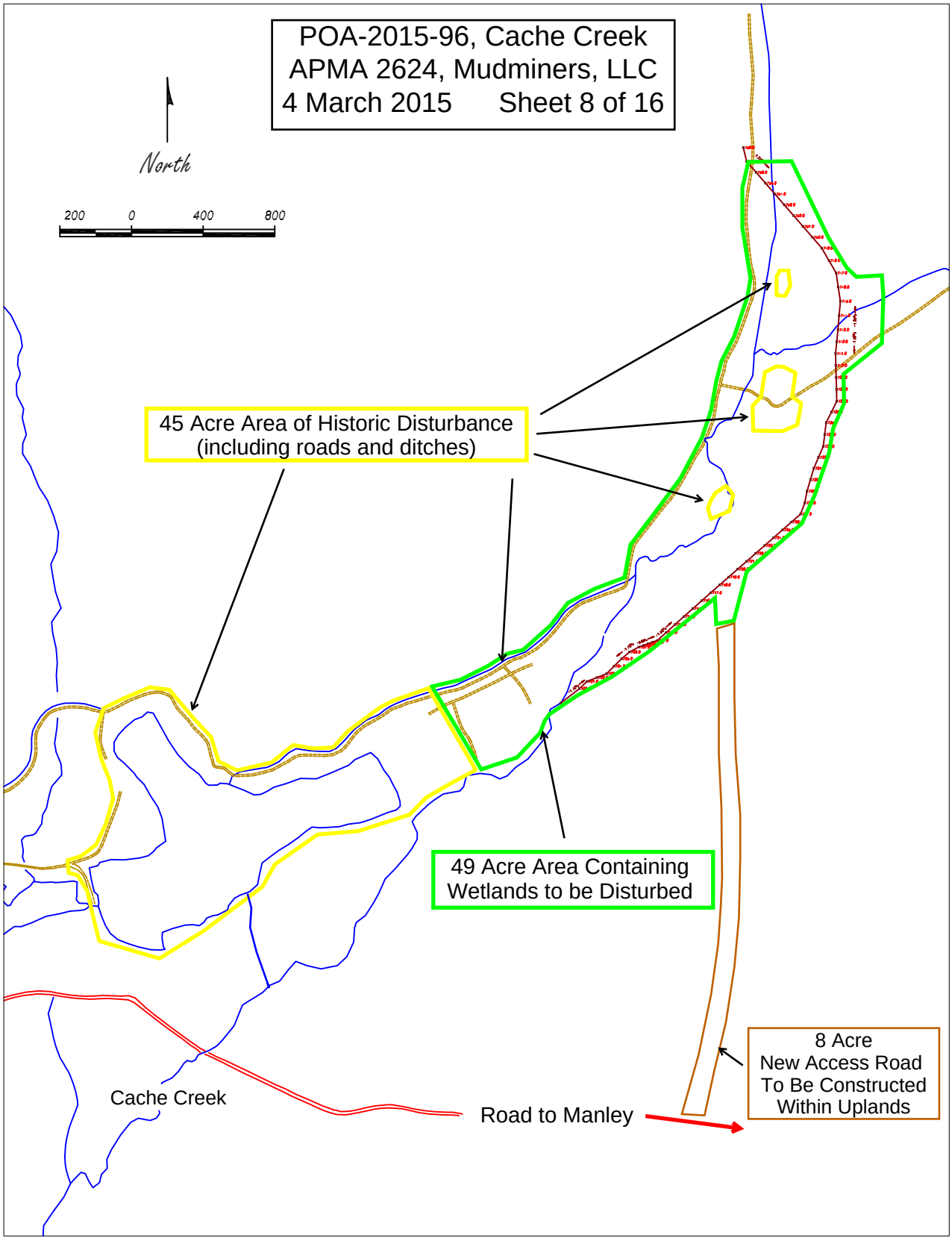


Figure 3

Plan Map Showing Project Area
Wetlands Areas to be Disturbed and Historic Disturbance
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian



Note: The total project area is 102 acres. The 102 acres consist of approximately 49 acres of wetlands, 45 acres of area with historic disturbance and 8 acres. The new access road traverses across the upland hillside, through the State of Alaska subdivision, then joining the road to Manley Hot Springs.

Figure 4

Plan Map Showing Pit Area, Soil Stockpiles, Recycle Pond and Creek Diversion Centerline
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

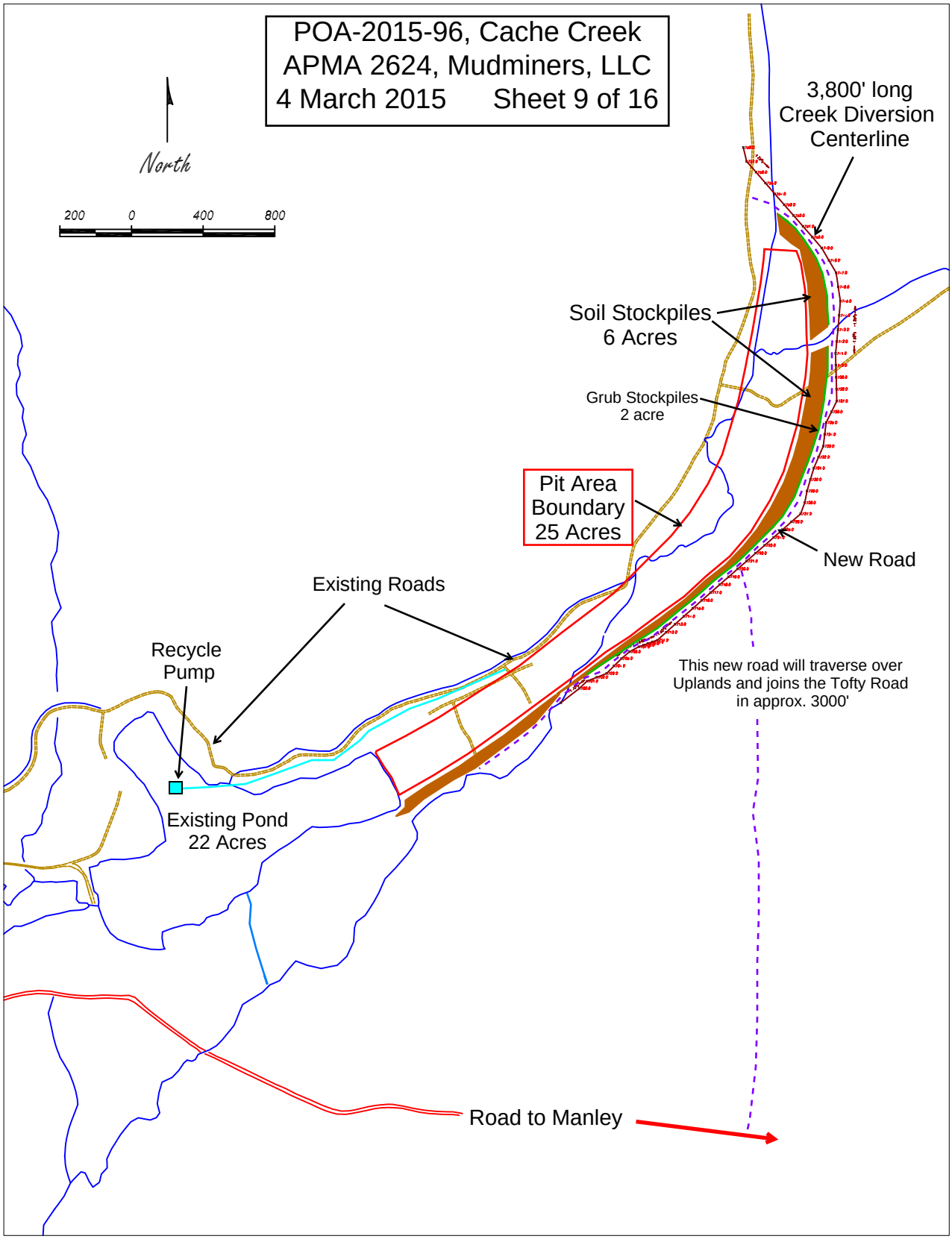


Figure 5

Plan Map Showing Locations of Longitudinal and Cross Sections Locations
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

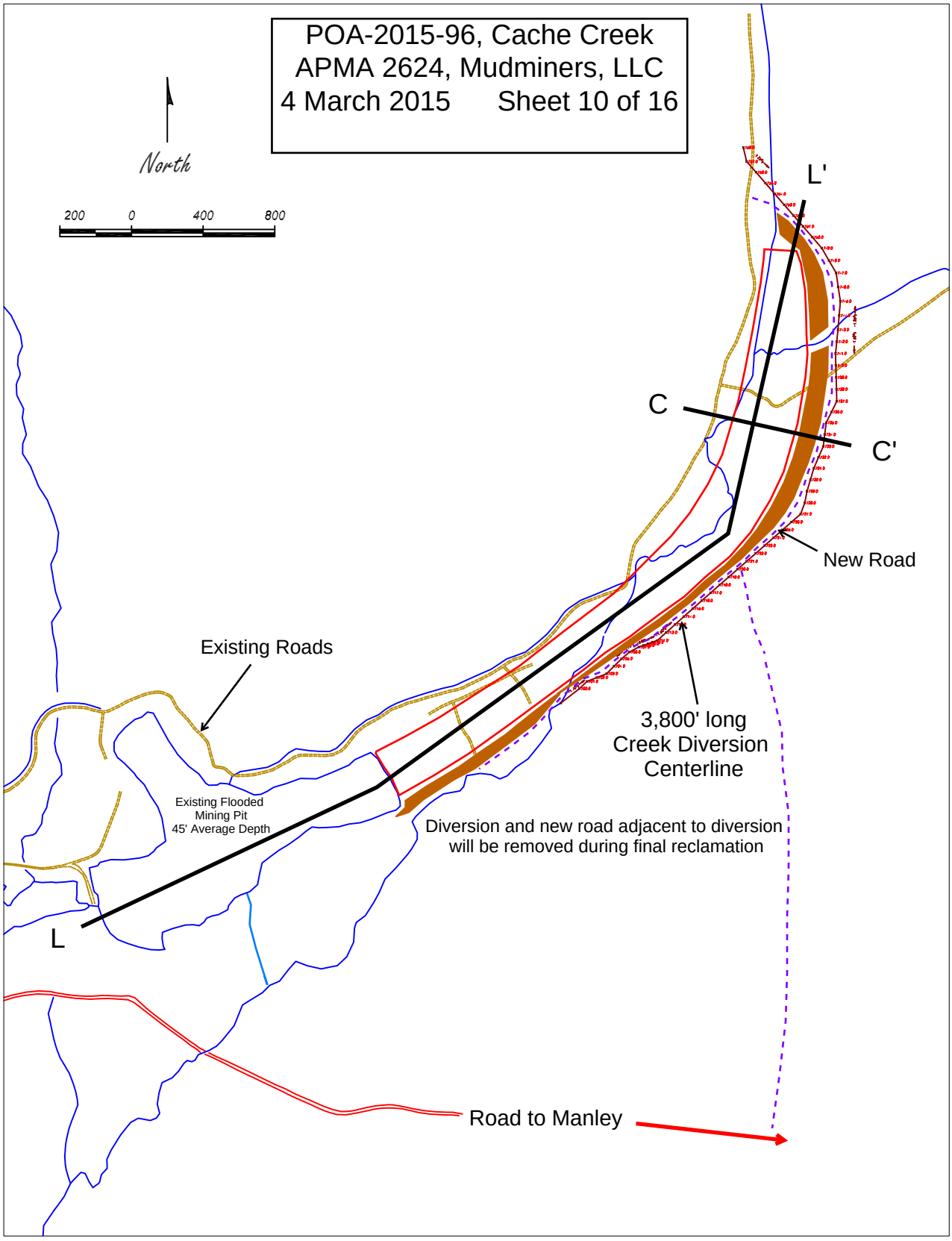
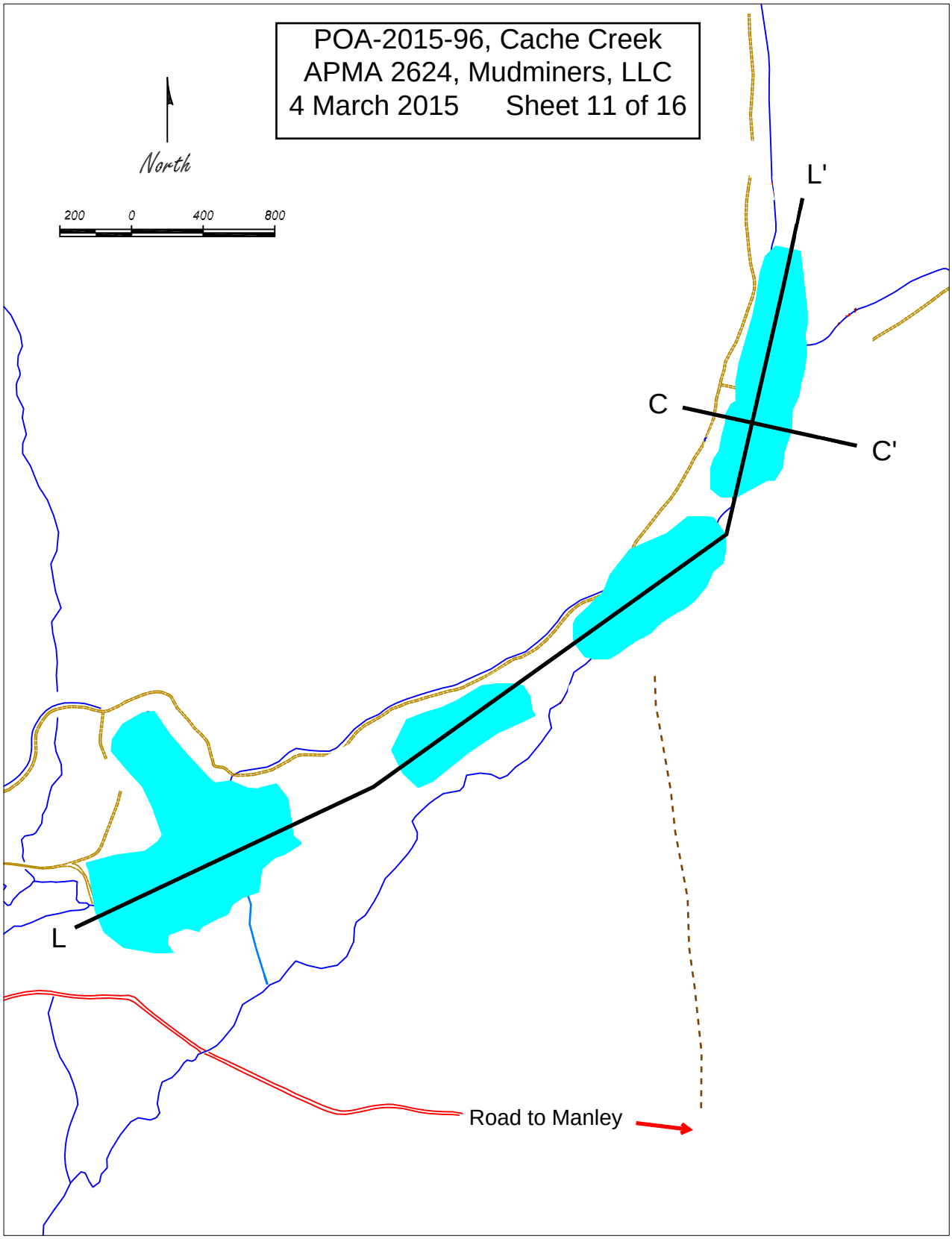


Figure 6

Plan Map Showing Locations of Longitudinal and Cross Sections Post Mining
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

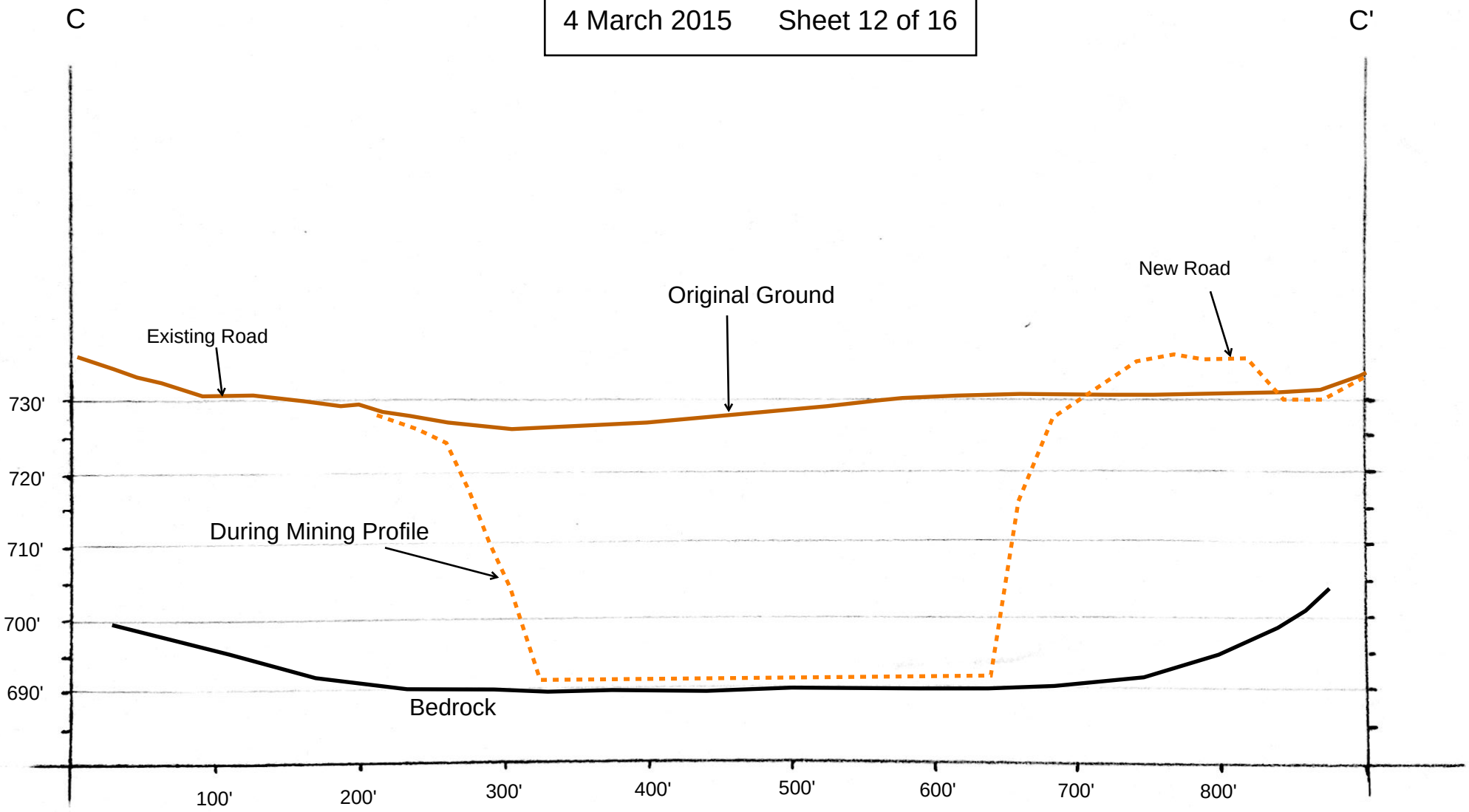


Note: Upon final reclamation the new ponds will cover an area of at least 35 acres and the creek diversion will be removed.

Figure 7

Cross-Section Showing Pre-Mining and During Mining Surfaces
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

POA-2015-96, Cache Creek
APMA 2624, Mudminers, LLC
4 March 2015 Sheet 12 of 16

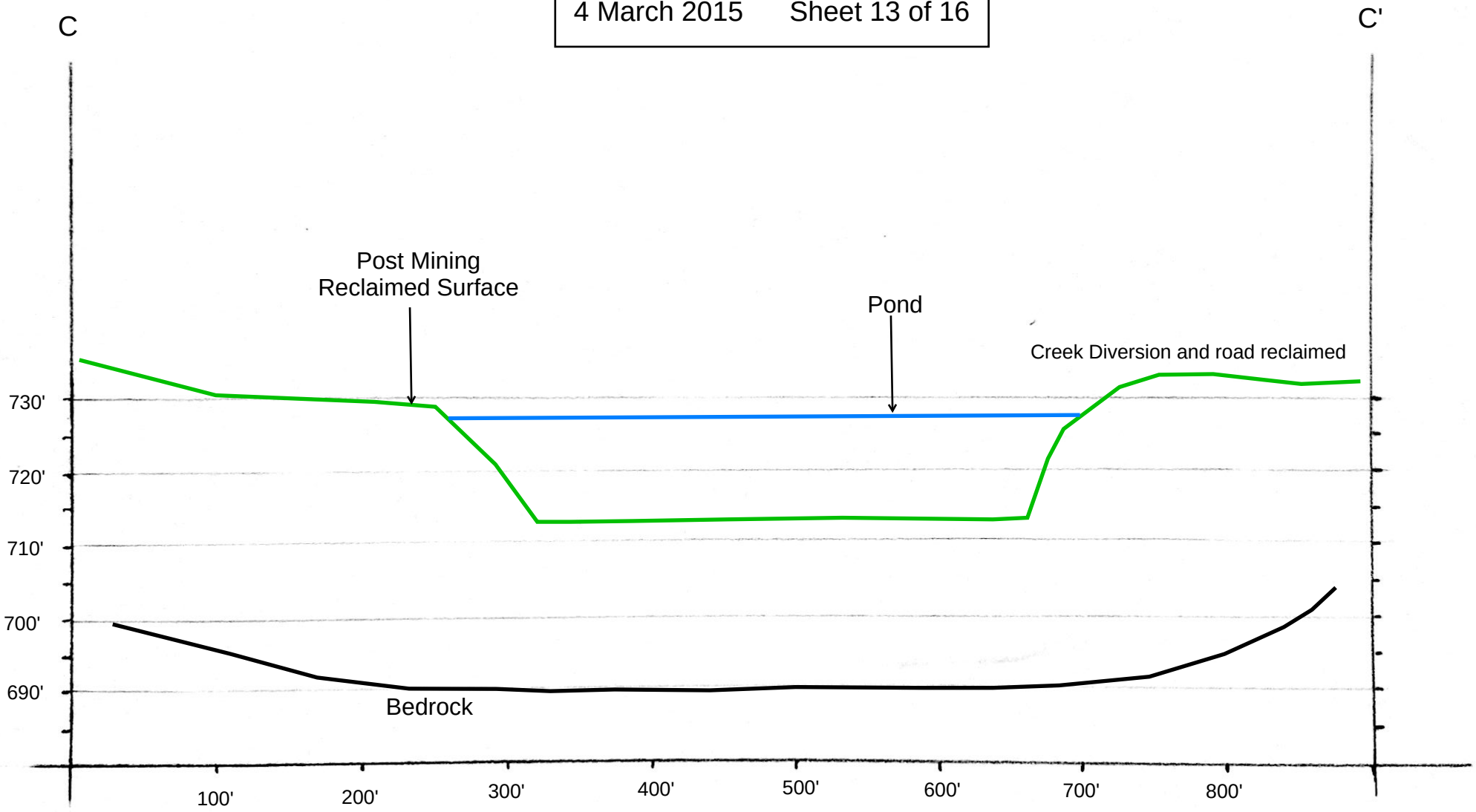


Note: Vertical elevations are not to the same scale as horizontal scale.

Figure 8

Cross-Section Showing Post Mining Reclaimed Surface With Pond
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

POA-2015-96, Cache Creek
APMA 2624, Mudminers, LLC
4 March 2015 Sheet 13 of 16



Note: Vertical elevations are not to the same scale as horizontal scale.

Figure 9

Longitudinal-Section Showing Pre-Mining and During Mining Surfaces
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

POA-2015-96, Cache Creek
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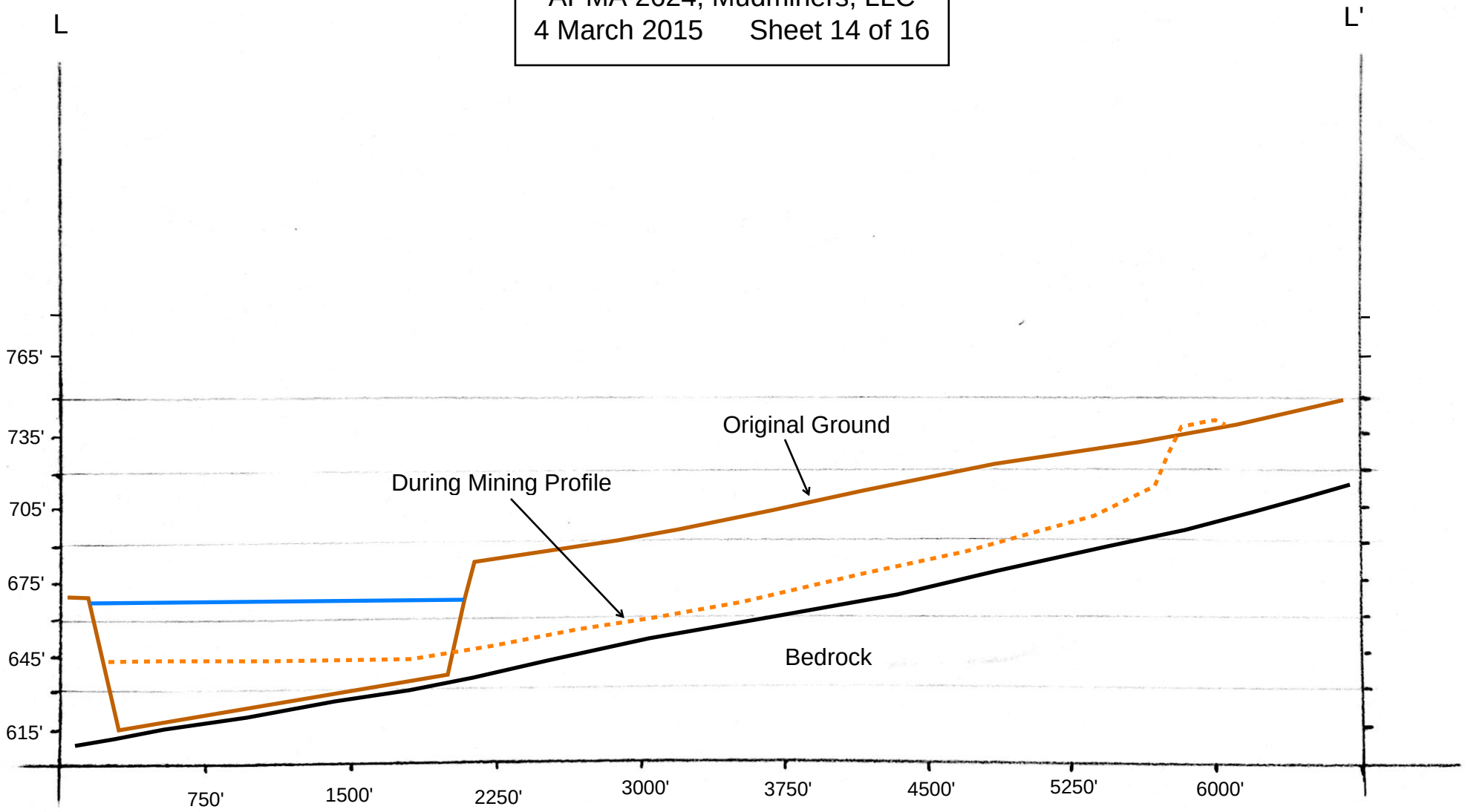
4 March 2015 Sheet 14 of 16



Note: Vertical elevations are not to the same scale as horizontal scale.

Figure 10

Longitudinal-Section Showing Post Mining Reclaimed Surface With Pond
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

POA-2015-96, Cache Creek
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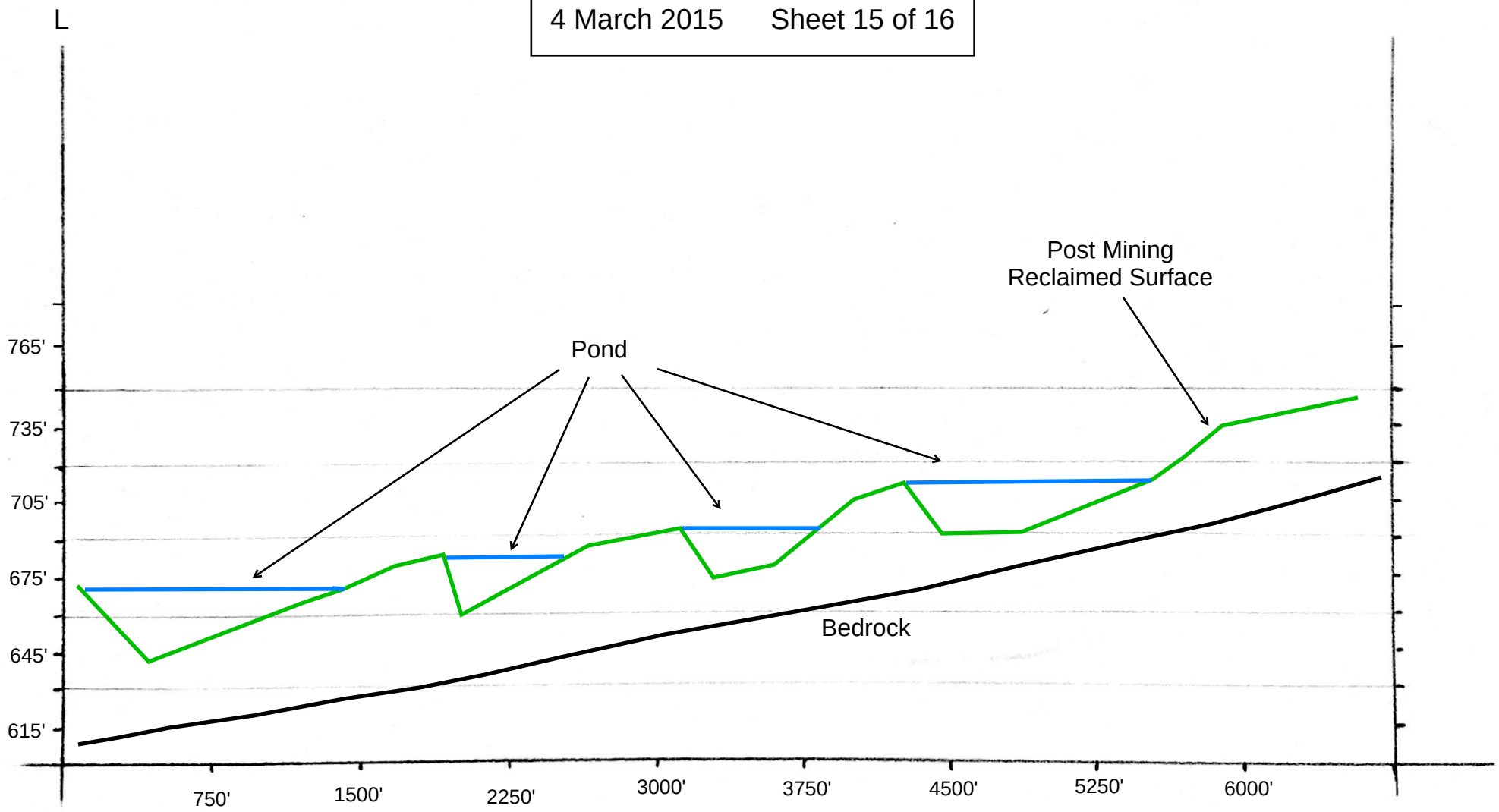
4 March 2015 Sheet 15 of 16



Note: Vertical elevations are not to the same scale as horizontal scale.

Figure 11

Diagrammatic Typical Section Showing the Cache Creek Diversion, New Road Access, Topsoil and Grub Stockpiles
Looking Northeast
Mudminers, LLC
Cache Creek Placer Project
T. 3 N., R. 16 W., Fbks. Meridian

POA-2015-96, Cache Creek
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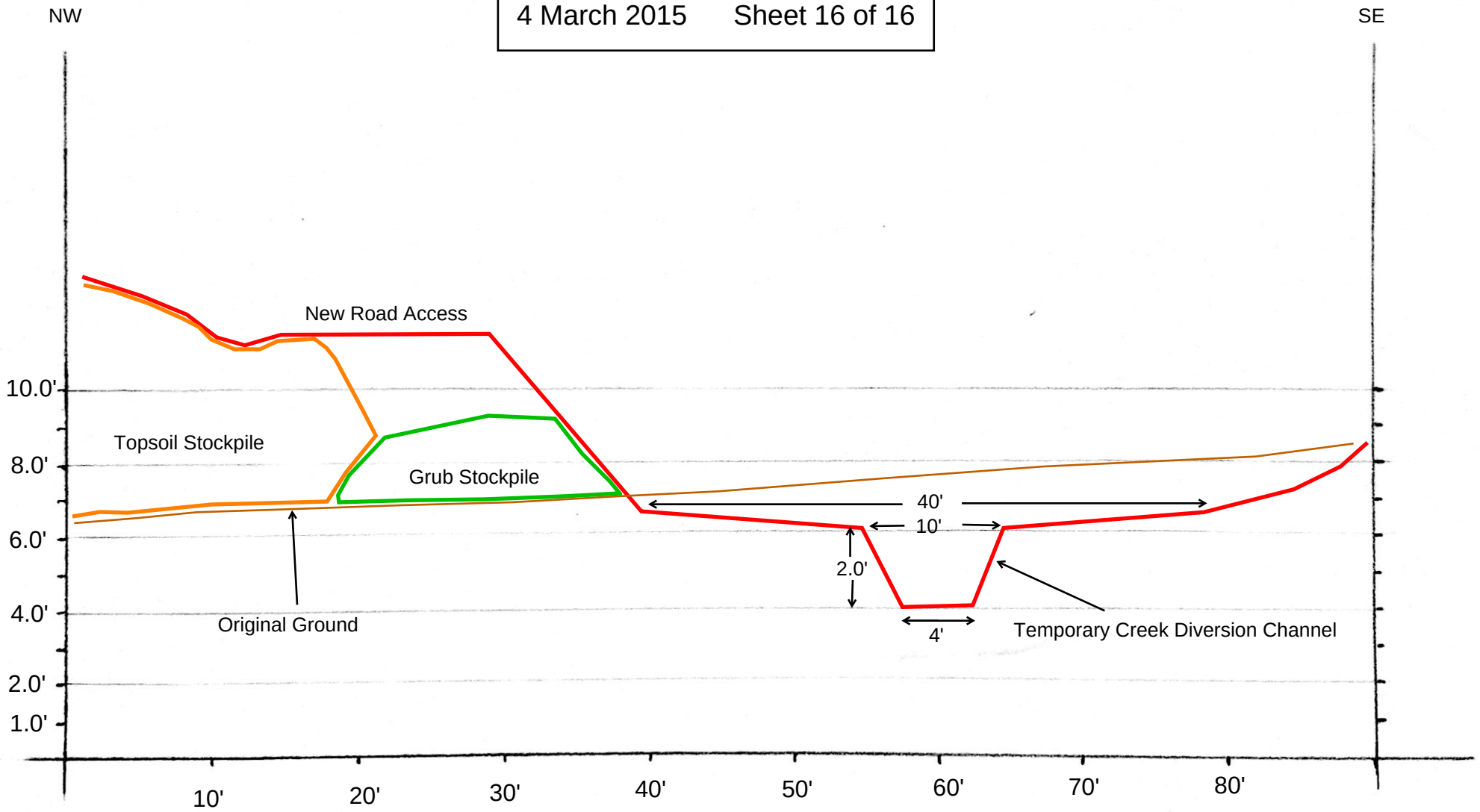
4 March 2015 Sheet 16 of 16



Note: The above diversion dimensions are minimum widths and deths and maximum slopes

Figure 12