

KEWEENAW BAY INDIAN COMMUNITY

2010 TRIBAL COUNCIL

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April 6, 2010

Bharat Mathur
Acting Regional Administrator Region 5
U. S. Environmental Protection Agency
77 West Jackson Boulevard (R-19J)
Chicago, Illinois 60604

Re: Underground Injection Control (UIC) Permit; Kennecott Eagle Mine, Marquette County, Michigan

Dear Mr. Mathur:

EPA Region 5, Underground Injection Control Branch, is currently processing an application by Kennecott Eagle Minerals Company (KEMC) for a UIC permit in order to discharge waste water from Eagle Mine to the groundwater through a "subsurface fluid distribution system" as part of a proposed Treated Water Infiltration System (TWIS).

KEMC's proposed waste water disposal system is located east of the Keweenaw Bay Indian Community's L'Anse Reservation and within the Community's ceded territory. The waste water disposal system will discharge over a half million (500,000) gallons of mine waste water per day into the watersheds of the Yellow Dog and Salmon Trout Rivers, in the northwest part of Marquette County, Michigan. Accordingly, the Community is extremely concerned about the adverse impacts the underground disposal of mine waste water will have on the health and welfare of its members and on the hunting, fishing and gathering rights reserved to the tribe and its members under the 1842 Treaty with the United States.

KEMC recently submitted a request, dated February 12, 2010, to the Michigan Department of Natural Resources and Environment (MDNRE) to approve a design modification (2010 Design Modification) of the TWIS specifications for the Eagle Mine (Design Modification Request). Subsequently, the MDNRE issued an approval of 2010 Design Modification, or accepted the 2010 Design Modification as a matter of "default", as described in a public notification issued by the MDNR, dated March 19, 2010. Thereafter, KEMC informed the MDNRE, in writing that all necessary permits for the mining project had been obtained and, expressly declared, without any legal authority in support thereof, that it was not necessary

LAKE SUPERIOR BAND OF CHIPPEWA INDIANS

for KEMC to obtain a UIC permit for the mine. We understand that KEMC has now advised Region 5 that it wishes to withdraw its pending permit application for a UIC Permit for the TWIS.

The Community has reviewed KEMC's 2010 Design Modification and the construction drawings in KEMC's original Michigan Part 31 permit application (Figure 7-2 dated February 2006) for the TWIS (2006 Design) and strongly objects to KEMC's request to withdraw its application for a UIC permit for the TWIS. (Copies of the 2010 Design Modification drawings and the original 2006 Design drawings are attached hereto.)

First, KEMC has chosen to word its request for the 2010 Design Modification to make it **sound like** that the "subsurface fluid distribution system" of the TWIS is being moved from below ground to a position on the surface of the ground. KEMC's wording in the Design Modification Request, such as "*KEMC is requesting a modification of the design basis for the system to be **surface based**.*"; the design modification will "*...move this treated water infiltration system ("TWIS") **above grade**...*"; and the "*Treated water will be discharged through **at-grade discharge piping, instead of below grade piping***", inaccurately describe the 2010 Design Modification when compared to the 2006 Design. The words used by KEMC and/or its consultant are intended to suggest that, somehow, the position of the piping for the "subsurface fluid distribution system" will be different in the 2010 Design Modification when compared to the position of the piping system specified in the 2006 Design when, in fact, there is neither any vertical or horizontal difference in the location of the piping for the "subsurface fluid distribution system" in the 2010 Design Modification from that specified in the 2006 Design.

When the construction drawings for the 2006 Design are compared to the 2010 Design Modification it is clear that, **there is no change of the elevation of the piping system** – both design drawings clearly show the waste water distribution piping at the same elevation, i.e., at the existing grade. Moreover, both MDNRE and KEMC representatives have stated publicly, and repeatedly, that the actual elevation of the distribution piping is exactly the same in both the 2006 and 2010 designs. Besides minor changes in pipe size and washed stone thickness, the only substantive change in the 2010 Design Modification from that depicted in the 2006 Design is that the piping system would be covered, for purposes of insulation from freezing conditions, by Styrofoam insulation instead of insulation by a man made mound of soil.

Secondly, there is **nothing** in the 2010 Design Modification which would change the EPA's legal obligation to regulate KEMC's injection of 500,000 gallons of waste water per day from the mine into the subsurface of the ground under the Safe Drinking Water Act (SDWA). The definition of "well injection" under the SDWA makes it clear that the piping for a "subsurface fluid distribution system" does not have to be located below the surface of the ground:

Well injection means the subsurface emplacement of fluids through a well.

Well means: A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; **or, a subsurface fluid distribution system.**

Subsurface fluid distribution system means an **assemblage of perforated pipes**, drain tiles, or other similar mechanisms **intended to distribute fluids below the surface of the ground.**

40 CFR §§ 144.3, 146.3 (emphasis added).

In this regard, reference is made to EPA Fact Sheet, “*When Are Storm Water Discharges Regulated As Class V Wells?*” (2003) which discusses when storm water discharges are regulated as Class V UIC wells. EPA states that “subsurface drainfields that release fluids underground” are Class V UIC wells and that such wells “can include French drains, tile drains, infiltration sumps, and **percolation areas with vertical drainage.**” The fact sheet further states that some types of storm water infiltration systems are **not** UIC wells, including surface impoundments or ditches:

Surface impoundments or ditches are excavated ponds, lagoons, and ditches (lined or unlined, without piping or drain tile) **with an opened surface.** They are used to hold storm water. **These devices would be considered Class V injection wells, however, if they include subsurface fluid distribution systems.**

The UIC definition of “subsurface fluid distribution system”, which is “an assemblage of perforated pipes, drain tiles, or other similar mechanisms **intended** to distribute fluids below the surface of the ground” is exactly what is depicted in KEMC’s 2010 Design Modification and the 2006 Design. Based on the UIC definition of “well injection” by use of a “subsurface fluid distribution system”, the pertinent concept or trigger for a UIC permit requirement is the “intent” of the system to “distribute fluids below the subsurface of the ground”. Moreover, the definition does not require that the “system” of perforated pipes, etc., be located underground. It should be noted, as discussed above, the original TWIS system of “perforated pipes” which prompted the EPA Call – In Notification (March 22, 2007) was at existing grade and not underground, and was located at exactly the same elevation (at grade) as specified for the “perforated pipes” in the 2010 Design Modification

Indeed, the Call – In Notification states that “*Based on the significant volume and the industrial nature of Kennecott's proposed injection well at issue, we have determined that in order to protect the USDW, and ultimately human health and the environment, additional conditions are necessary.*”

Bharat Mathur
Acting Regional Administrator Region 5

April 6, 2010

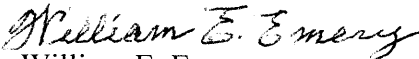
The 2010 Design Modification **substitution** of a Styrofoam insulation system for a man made mound of soil insulation system for the piping of the subsurface fluid distribution system, as specified in the 2006 Design, does not change or have any effect on the volume or industrial nature of mine waste water that will be discharged by KEMC's assemblage of perforated pipes which is **intended** to distribute fluids below the surface of the ground and ultimately to an underground source of drinking water.

Based upon the foregoing, the only conclusion that can be reached, based upon the very clear UIC statutory provisions, is that KEMC's 2010 Design Modification does not change anything with respect to the method that KEMC intends to use in order to discharge 500,000 gallons of waste water per day below the surface of the ground and, accordingly, the EPA must reject KEMC's request to withdraw its application for a UIC permit for the TWIS.

Thank you for your consideration of the concerns of the Community. We look forward to working with Region 5 as the UIC permitting process proceeds.

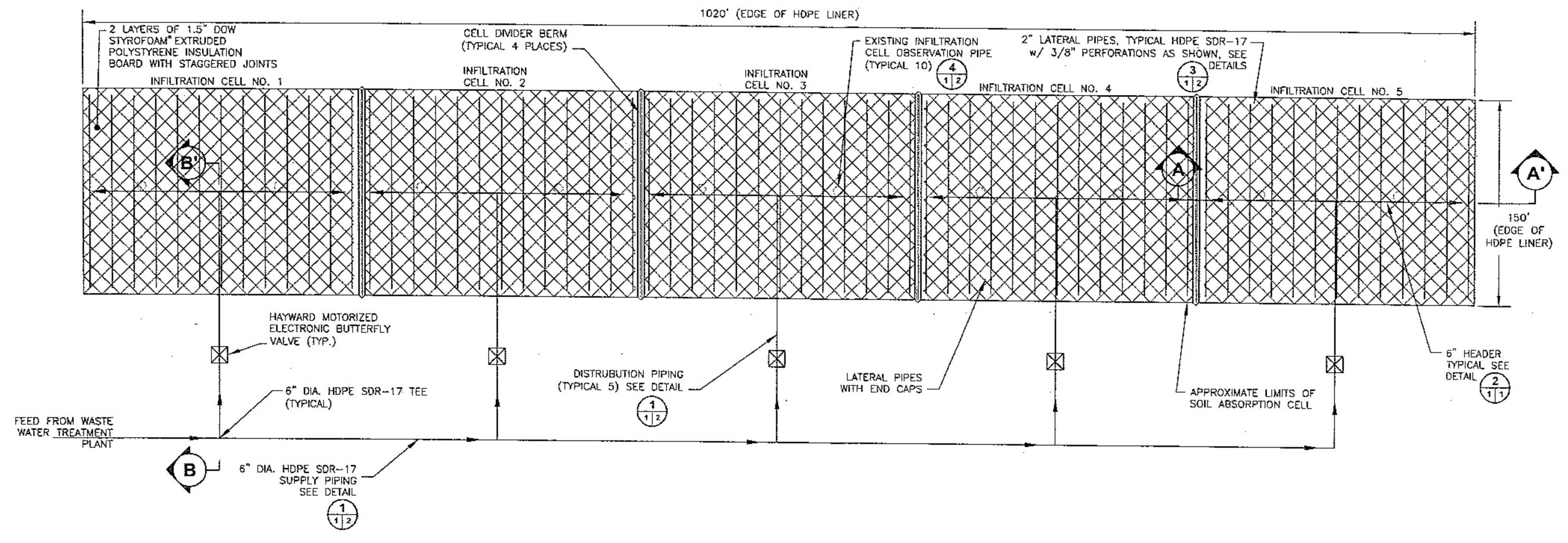
Please do not hesitate to contact me if you should have any questions concerning the foregoing.

Sincerely,


William E. Emery
Vice President

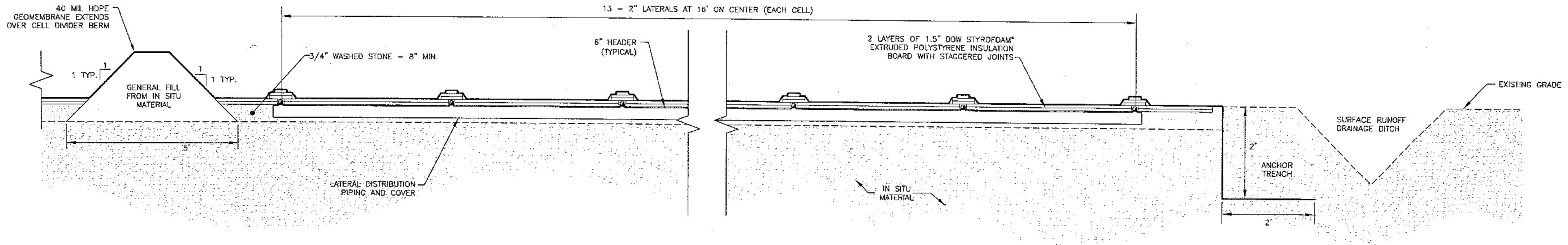
Enclosures

cc: Tinka Hyde, Director, Water Division
Rebecca Harvey, Branch Chief, UIC Branch
Carrie Wheling, Attorney, Office of General Counsel
Leslie Darman, Attorney, Office of General Counsel
Robert Kaplan, Regional Counsel
Joanna S. Glowacki, Associate Regional Counsel
Robert Thompson, Associate Regional Counsel
Jennifer Manville, Michigan Tribal Liaison



1 TREATED WATER INFILTRATION SYSTEM - SCHEMATIC
 1 1
 NOT TO SCALE

DETAIL NOTE
 1. THE EXACT CONFIGURATION OF THE LATERAL DISTRIBUTION LINES SHOWN ABOVE MAY VARY FROM THE PATTERN SHOWN HERE TO ACCOMMODATE INSULATION PANEL DIMENSIONS, CELL DIVIDER BERMS, AND THE LIKE. THE SAME NUMBER OF LATERALS SHALL BE CONSTRUCTED IN EACH CELL.



2 TREATED WATER INFILTRATION SYSTEM - TYPICAL SECTION (A-A)
 1 1
 NOT TO SCALE

- GENERAL NOTES:**
- HDPE PIPING IS NOTED WITHIN THE DRAWINGS. THIS PIPE CAN BE SUBSTITUTED WITH PVC PIPE AT THE OWNER'S DISCRETION.
 - SAND BAGS WILL BE PLACED OVER THE GEOMEMBRANE TO PREVENT WIND UPLIFT.
 - ALL DIMENSIONS ARE TYPICAL UNLESS MINIMUM IS SPECIFIED.
 - DIFFERENT EQUIPMENT AND/OR CONFIGURATION THAN THAT SHOWN MAY BE USED IF CAPABLE OF DELIVERING LIKE QUANTITIES TO EACH CELL.

Golden Associates
Great Lakes

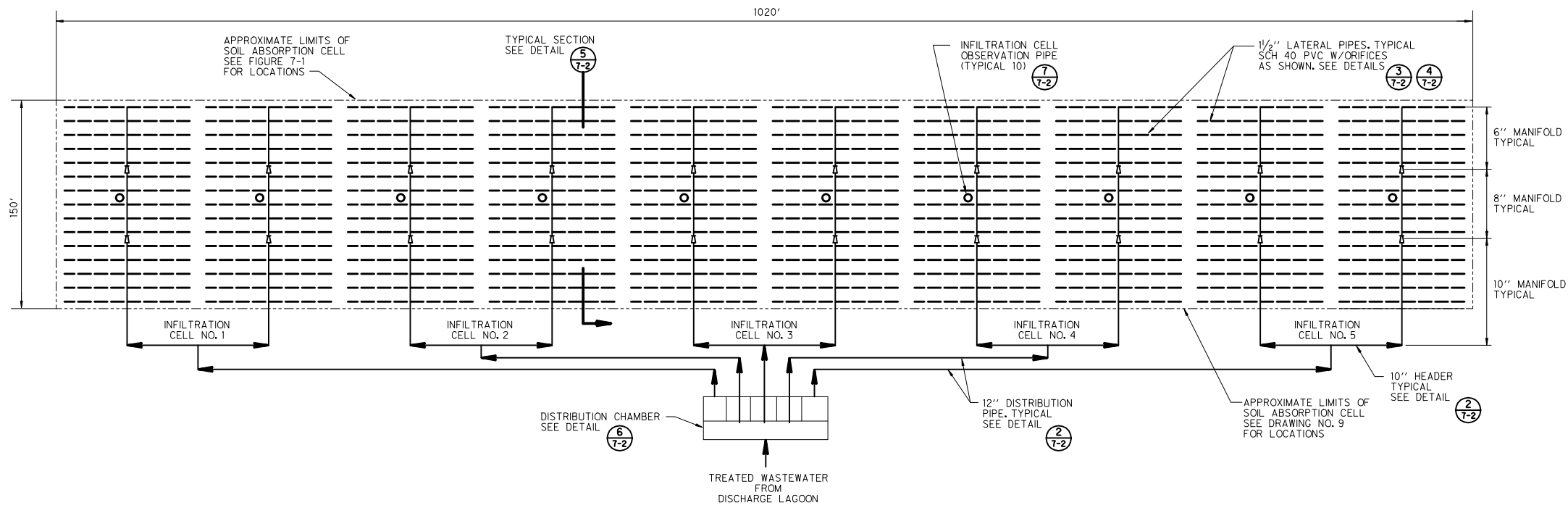
REV	DATE	DES	CHK	R/W
1	12/22/09	JJS	JJS	DML
2	04/20/09	JJS	JJS	DML
3	03/11/09	JJS	JJS	DML

KENNECOTT EAGLE MINERALS

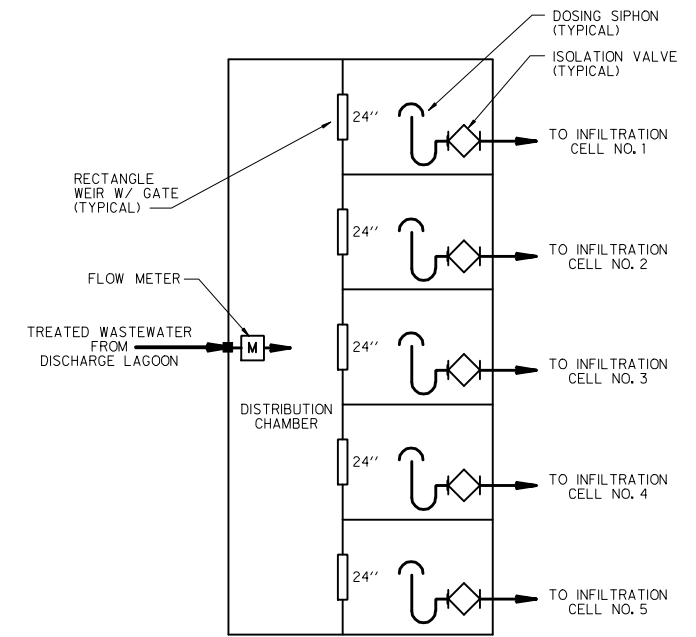
TREATED WATER INFILTRATION SYSTEM DESIGN AND DETAILS

PROJECT No.	093-88572
FILE No.	08388572A001_R4
REV.	2 SCALE AS SHOWN
DESIGN	DML 01/27/09
CADD	JJS 04/20/09
CHECK	TDJ 02/02/10
REVIEW	DML 02/02/10

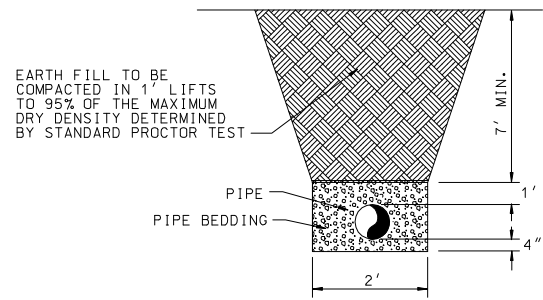
SHEET 1 of 2



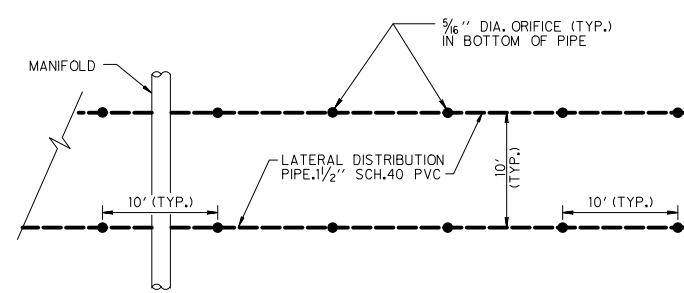
1 TREATED WATER INFILTRATION SYSTEM - SCHEMATIC
NOT TO SCALE



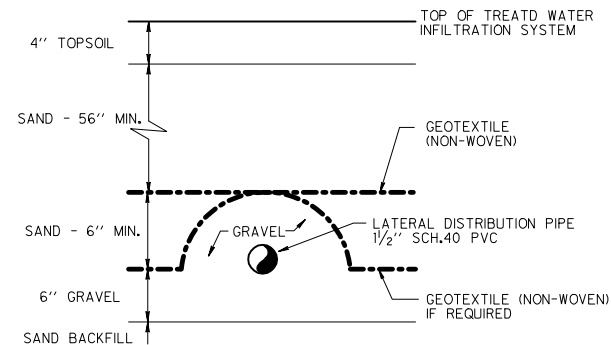
6 DISTRIBUTION CHAMBER
NOT TO SCALE



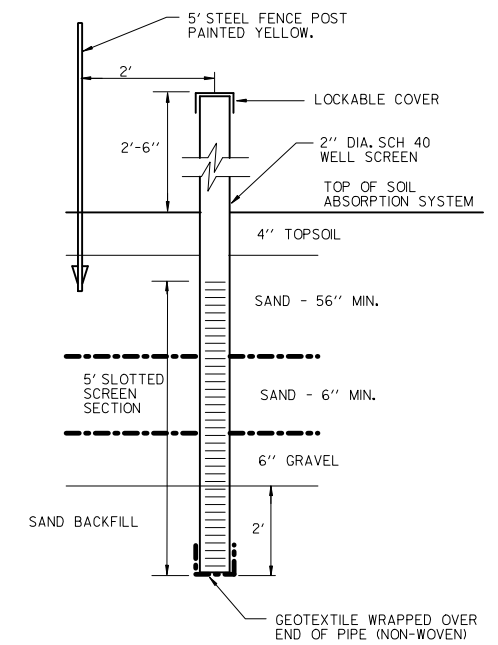
2 TYPICAL TRENCH SECTION FOR BURIED PIPELINES
NOT TO SCALE



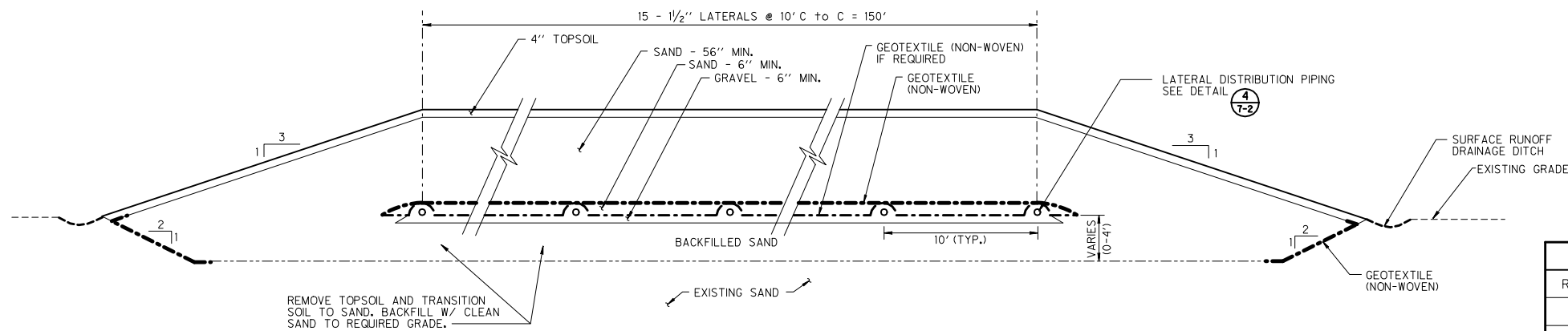
3 LATERAL DETAIL
NOT TO SCALE



4 LATERAL DISTRIBUTION PIPING DETAIL
NOT TO SCALE



7 INFILTRATION CELL OBSERVATION PIPE DETAIL
NOT TO SCALE



5 TREATED WATER INFILTRATION SYSTEM - TYPICAL SECTION
NOT TO SCALE

Foth & Van Dyke				
REVISED	DATE	BY	DESCRIPTION	
				FIGURE 7-2 TREATED WATER INFILTRATION SYSTEM DESIGN AND DETAILS
CHECKED BY: PAK		DATE: FEB. '06		Scale: NOT TO SCALE Date: FEBRUARY, 2006
APPROVED BY: SVD1		DATE: FEB. '06		
APPROVED BY:		DATE:		Prepared By: Foth & Van Dyke By: GJB 04W018