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DIVISION OF RECLAMATION
MINING AND SAFETY

Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Attention: Mineral Division
1313 Sherman St, Room 215
Denver, CO 80203

January 6, 2014

RE: HOMESTAKE PITCH RECLAMATION PROJECT
2013 ANNUAL GEOTECHNICAL REPORT (M-1977-004113)

Dear Division:

Attached you will find the 2013 Geotechnical Report for the waste rock management areas at the Homestake Pitch Reclamation Project. The history of the rock dumps has been provided in previous annual reports and is not repeated in this discussion. The waste rock dumps were inspected monthly in 2013, except when winter conditions prohibited access, in accordance with the recommended monitoring program. A site location map and rock dump piezometer map are provided as Figures 1 and 2, respectively. Detailed analysis and presentation of the 2013 data from all piezometers are provided in the following pages.

The inspections conducted in 2013 indicate stable conditions for the Indian Creek and Tie Camp waste rock dumps. Reclamation repairs done in 2012 had alleviated drainage and erosion issues and only reseeding was required in 2013. We will continue close inspections of the rock dumps in 2104.

Historically, the water levels in rock dump piezometers show little fluctuation in the winter months with a temporary rise in response to the spring snow melt. They usually return to normal levels in mid to late summer. Two of the piezometers in the Indian Creek rock dump were replaced in 2011 after several years of issues associated with corrosion and silt buildup in the well casing making it difficult to get an accurate reading of the phreatic surface in the rock dump. All of the piezometers are now functioning as required to provide accurate water level information. The 2013 monthly water level measurements are provided on Table 1 of the attached report. The piezometer readings in 2013 were indicative of the reduced snow pack the past two years and heavier summer precipitation. The water level readings in 2013 are plotted as Figure 3 and a graph with piezometer water levels since 1996 is provided as Figure 4. The Y-axis on these plots is labeled as depth to water from the ground surface.

Please feel free to contact me in the Salt Lake City Utah office (801) 990-3747 or via cell phone at (775) 777-4798 if you have any questions.

Sincerely,

Joseph Giraudo, P.E.
Manager Closure Properties

cc: Bill Ferdinand – Barrick Management Corp.
Dale Davis – Homestake Mining Company-Sargents
Phillip De Dycker – ARCADIS-US, Inc.

Homestake Pitch Reclamation Project
2013 Geotechnical Observations
Indian Creek and Tie Camp Creek Waste Rock Dumps

1. Indian Creek Waste Rock Dump

a) “10800” Level

Site Description: Identical to that of past reports for 1996 through 2012.

2013 Observations: The 2013 observations are similar to those reported for this area during the past sixteen years. Visual inspection of the area revealed no evidence of settling or slumping of the rock dump material in 2013 and the drainage channels are functioning as designed. The drainage on the west side of the upper part of the Indian Creek (IC) Dump, just above the sericite stockpile, where the dump intersects native ground, had undergone minor erosion. In 2012, a low gradient diversion ditch, oriented roughly perpendicular to the main channel, was excavated allowing water from the channel to be diverted and dispersed at low velocities using boulders placed above the steep section of the channel and rip-wrap below the boulders. This repair appears to have corrected the erosion issue and will be inspected after snow melt and after heavy precipitation events.

“10780 - 10650” Level

Site Description: Identical to that of past reports for 1996 through 2012.

2013 Observations: The 2013 observations are similar to past observations. Visual inspection of the area revealed no evidence of settling or slumping of the dump material. The drainage channels are functioning as designed.

b) “10650 - 10600” Level

Site Description: Identical to that of past reports for 1996 through 2012

2013 Observations: Unlike 2012 when the water in Piezometer IC10630 rose only 0.2 feet following snowmelt and summer precipitation events, in 2013 the water elevation in this piezometer rose by approximately 3.5 feet between January and May, and then fell back to its normal range by the end of June. This piezometer rarely has shown more than a foot of water rise following snow melt and it normally dries up by mid-summer. The maximum differential for Piezometer IC10630 during 2013 was 4.4ft.

As noted in previous reports, in October 2001 an obstruction was removed from Piezometer IC10600, allowing it to be used for the collection of water level data. Between 2007 and 2011, the water level increased between 6.5 feet to 12.5 feet in May/June as a result of a very heavy snow melt. The water level then dropped back to its normal range by the end of summer. By comparison, in 2012 and 2013, the water level increased by 1.4 and 3.2 feet, respectively, and then fell back to its normal level by the end of summer. This condition is similar to other piezometers in the Indian Creek dump, and reflects the seasonal snow pack in the area.

c) “10725 - 10525” Level

Site Description: Identical to that of past reports for 1996 through 2012. The minor overlap between this level and other bench designations reflects the original bench

configuration. The total dump thickness in IC10525 is approximately 229 feet at this location.

2013 Observations: Piezometers IC10600 and IC10525 bound this area and similar to piezometer IC10600, the 2012 water level in Piezometer IC10525 rose by 6.7 feet. This compares with a 2.1 feet rise in 2012, 11.0 feet in 2011, 6.5 feet in 2010 and 8.6 feet in 2009. The small rise in the water level in 2012 and 2013 reflected a significantly reduced snow pack after several years with heavier snow pack. Even with the greater rise in more recent years, the water level in Piezometer IC10525 fell back by late summer to what be considered a normal operating range.

d) "10600 - 10400" Level

Site Description: Identical to that of past reports for 1996 through 2012.

2012 Observations: Piezometer IC10440 was located in this area of the rock dump; however, it was lost in 1996. As such, Piezometer IC10525 is also considered representative of this area of the rock dump and was described in the previous section.

e) "10400 - 10370" Level

Site Description: Identical to that of past reports for 1997 through 2012. In 1997 Homestake reconstructed the face of the permanent low-grade stockpile located on the Indian Creek Rock Dump. The purpose of the slope reconstruction was to reduce the potential for infiltration and promote more rapid runoff from the slope. This reconstruction appears to have eliminated seepage in this area.

2013 Observations: In 2011 replacement Piezometer IC10370R was completed approximately 67 feet to the west of the former location of IC10370. The piezometer was terminated at 208 ft bgs and completed with concrete wellhead and 8 inch steel protective casing and concrete apron. Upon completion, a transducer was installed in Piezometer IC10370R to assist in monitoring water levels. In 2012, the water level elevation in Piezometer IC10370R rose by 7.1 feet in the spring and fell back to an acceptable range by late summer. In 2013, the water level rose by 10.9 feet during the spring snow melt and lost approximately five feet of that gain by the end of the year. The increase in water level in 2013 compared with 2012 was attributable to heavier snow pack and higher summer precipitation in 2013. It also reflects the increased sensitivity of the replacement piezometers, relative to the original piezometers. The replacement piezometers are completed with a standard screen and filter pack, while the original piezometers were comprised of hand-perforated steel pipe with no filter pack. Piezometer IC10360 is also located in this area. Water levels in this piezometer rose by 6.9 feet this spring compared with 5.6 feet in 2012 and 11.1 feet in 2011. The average depth to water in 2013 was 223.0 feet bgs compared with 227.8 feet bgs in 2012, reflecting a gain in the average water level of 1.3 feet for the two year period. This is similar to the rise in Piezometer IC10370R during the same period and consistent with the snow packs and summer precipitation over the two year period.

"10300 - 10100" Level

Site Description: The Indian Creek Rock Dump was re-graded in 1994 following procedures approved in the February 1994 Technical Revision. During 1995, several minor, localized areas of slope instability were noted, corrected, and reported in the 1995 Annual Geotechnical Report.

2013 Observations: Field observations indicate that the repairs performed in 1995 were successful and no new areas of surficial instability (slips) were observed from 1996 through 2012. Due to problems in Piezometer IC10300 over several years with sediment buildup in the casing, in 2011 it was abandoned and replaced by Piezometer IC10300R located approximately 30 feet to the west of IC10300. The piezometer was terminated at a depth of 210 feet and completed with 20 feet of screen a concrete wellhead, and an 8 inch steel well protective casing and concrete apron. A transducer was also placed in the Piezometer IC10300R in late 2011 to assist in monitoring water levels.

In 2013, the water level in Piezometer IC10300R rose by 11.1 feet compared with 2012, when the water level rose by only 0.2 feet. The average depth to water for the two year period increased by 4.3 feet, reflecting an increased snow back and heavier summer precipitation in the area in 2013. However, the water levels dropped back to normal levels after the spring snow melt.

Tie Camp Waste Rock Dump

a) "10400 - 10100" Level

Site Description: The Tie Camp Rock Dump was re-graded in 1994 following procedures approved in the February 1994 Technical Revision. During 1995, minor, localized areas of slope instability were noted, corrected, and reported in the 1995 Annual Geotechnical Report.

2013 Observations: Piezometer TC10375 monitors the Tie Camp Creek Rock Dump. In 2013, water levels averaged 168.6 feet bgs, with a maximum observed seasonal fluctuation of 4.2 feet between May and June. The maximum fluctuation was higher than the 2.4 feet recorded in 2012, but well below the 2008 rise of 12.3 feet, when the site incurred heavy snow pack. This is deemed a normal and acceptable seasonal variation. Field observations indicate that the repairs performed in 1995 were successful and no new areas of surficial instability were observed from 1996 through 2013. In 2012, grading was performed on the second and third benches from the top of the rock dump to control rill erosion that had become apparent over the past couple of years due to the benches filling with silt. This repair work was described in the 2012 Annual Reclamation Report. In 2014, we will continue to monitor the surface conditions of the rock dump after the spring snow melt.

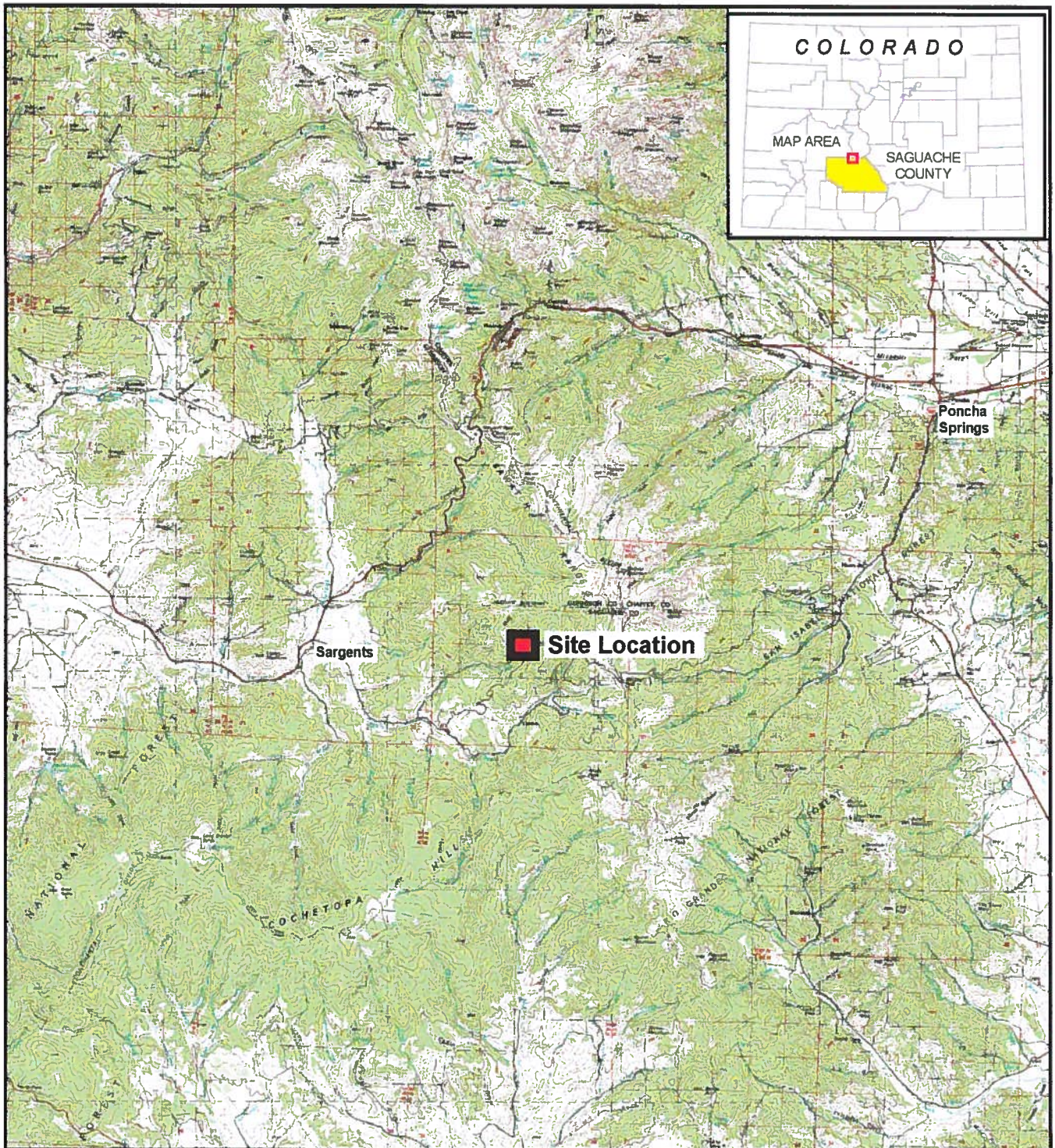
2. Piezometers – 2012 General Comments

The 2013 water level measurements showed a maximum differential following snow melt above the 2012 measurements, but below that of the previous five years due to differences in snow pack and summer precipitation. Following the dry conditions of 2001 through 2003, the seasonal variations had increased in recent years as heavier snow packs had occurred, with 2012 being a relatively dry year. The replacement of two piezometers in the Indian Creek rock dump in 2011 has alleviated issues in monitoring the phreatic surface in the Indian Creek rock dump. We will continue to monitor and evaluate the cause and effect of any seasonal spikes in the piezometric water levels, observe any changes in surface features of the rock dumps and repair as needed. There continues to be no indication of concern related to slope or foundation instability or elevated phreatic surfaces in either the Indian Creek or Tie Camp Creek rock dumps.

Table 1: Monthly Water Level Readings in Rock Dump Piezometers

DATE	IC10630	IC10600	IC10525	IC10370R*	IC10360	IC10300R*	TC10375
Collar Elev.	10631.5	10603.8	10523.6	10380.5	10373.4	10297.8	10373.0
1/10/13	201.9	252.5	229.1	206.4	227.6	190.7	169.5
2/21/13	202.0	252.6	229.5	206.4	227.0	192.0	169.5
3/20/13	202.0	252.5	229.6	206.5	227.2	192.9	169.7
4/10/13	201.9	252.5	229.6	206.4	226.9	193.4	169.8
5/22/13	198.4	250.6	222.9	195.6	219.9	182.3	165.6
6/28/13	201.9	251.7	225.7	195.9	218.8	188.1	167.5
7/9/13	201.8	251.9	226.0	196.6	219.8	188.5	168.2
8/10/13	201.9	252.6	227.0	197.3	220.7	188.5	168.3
9/10/13	202.1	252.7	227.5	198.6	221.7	189.1	168.0
10/10/13	202.7	253.0	227.9	199.6	221.9	189.2	168.4
11/1/13	202.8	253.8	228.2	200.3	222.3	189.5	169.1
12/2/13	202.8	253.8	228.2	201.6	222.4	189.6	169.2
Average depth (from ground surface)	201.9	252.5	227.6	200.9	223.0	189.5	168.6
2013 Maximum Differential	4.4ft	3.2ft	6.7ft	10.3ft	6.9ft	11.1ft	4.2ft

* Piezometers 10370 and 10300 were replaced with piezometers 10370R and 10300R in August 2011 (Described in Pitch Reclamation Project-Piezometer Replacement Field Report, ARCADIS-US, Inc., October 21, 2011)



Source: USGS 1:100,000 Quadrangle of Saguache and Gunnison, Colorado.



GRAPHIC SCALE: (MILES)

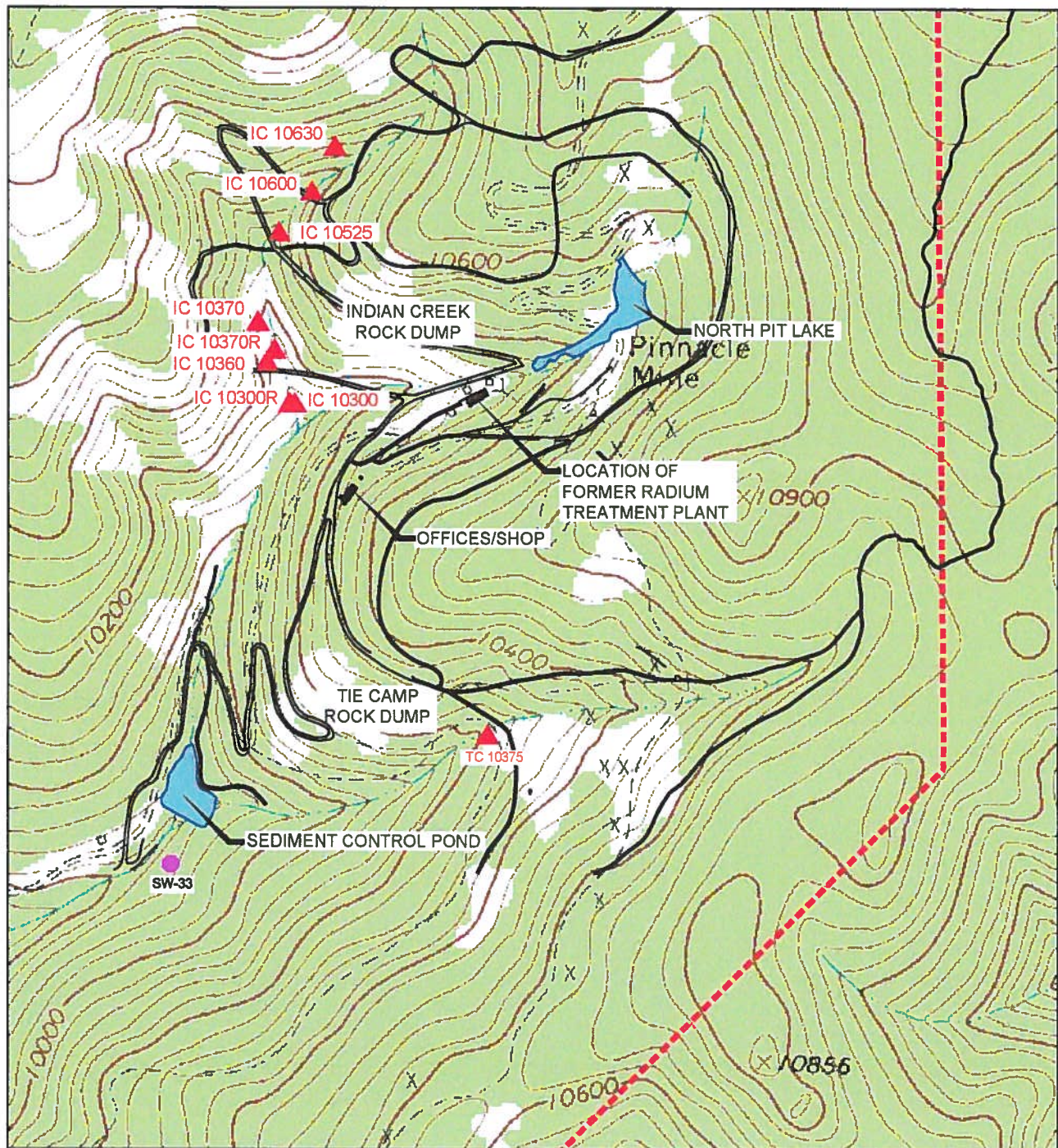


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Figure 1: Project Location Map

DATE | November 26, 2013 | FILENAME | site location.dwg



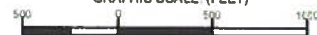
Source: USGS 7.5' quadrangle of Pahrone Peak, Colorado.

LEGEND

- DRMS PERMIT BOUNDARY
- ▲ PIEZOMETERS
- SITE COMPLIANCE POINT
- ROAD



GRAPHIC SCALE: (FEET)

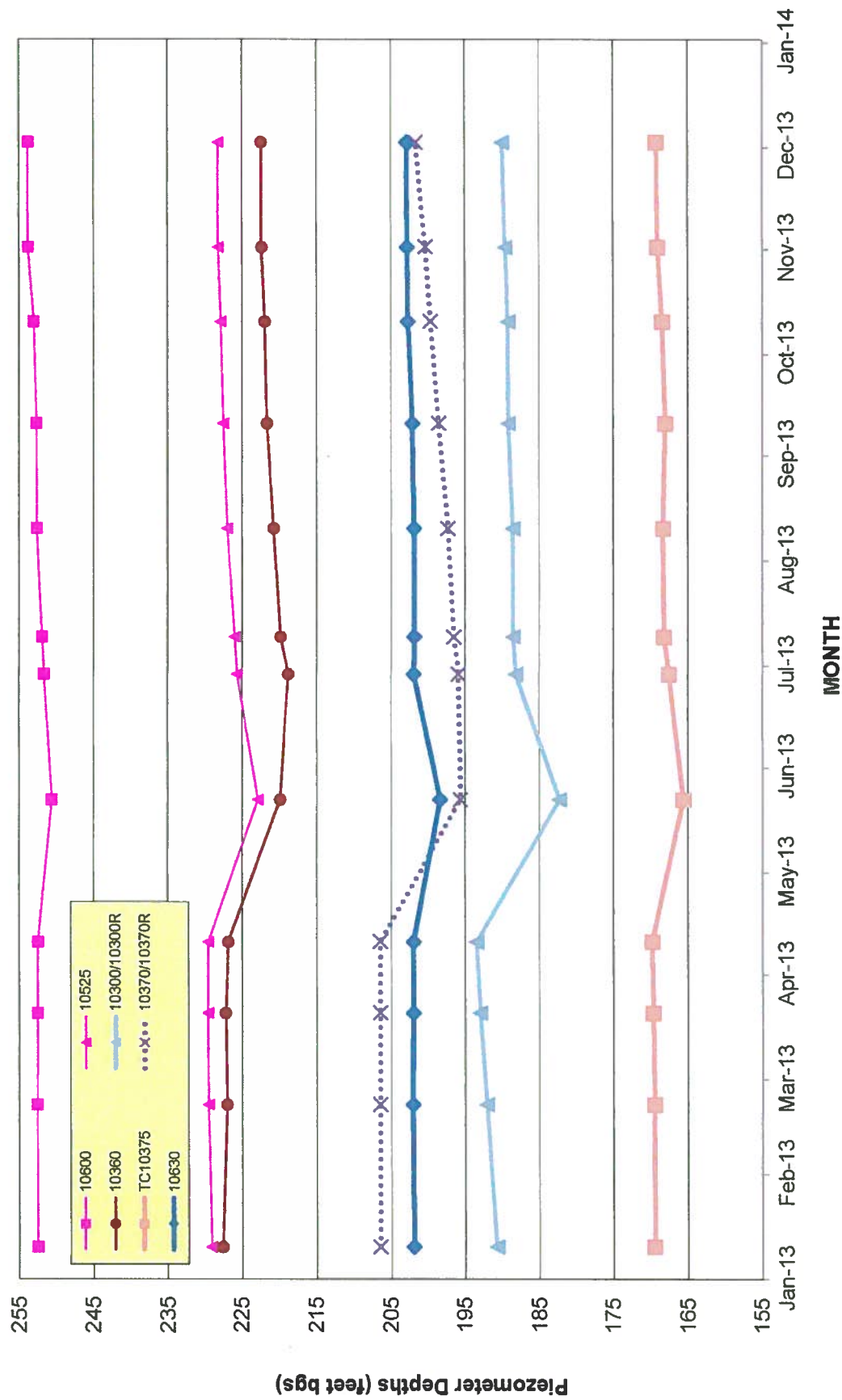



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Figure 2: Piezometer Locations

DATE	December 2, 2013	FILENAME	piezometer locations.dwg
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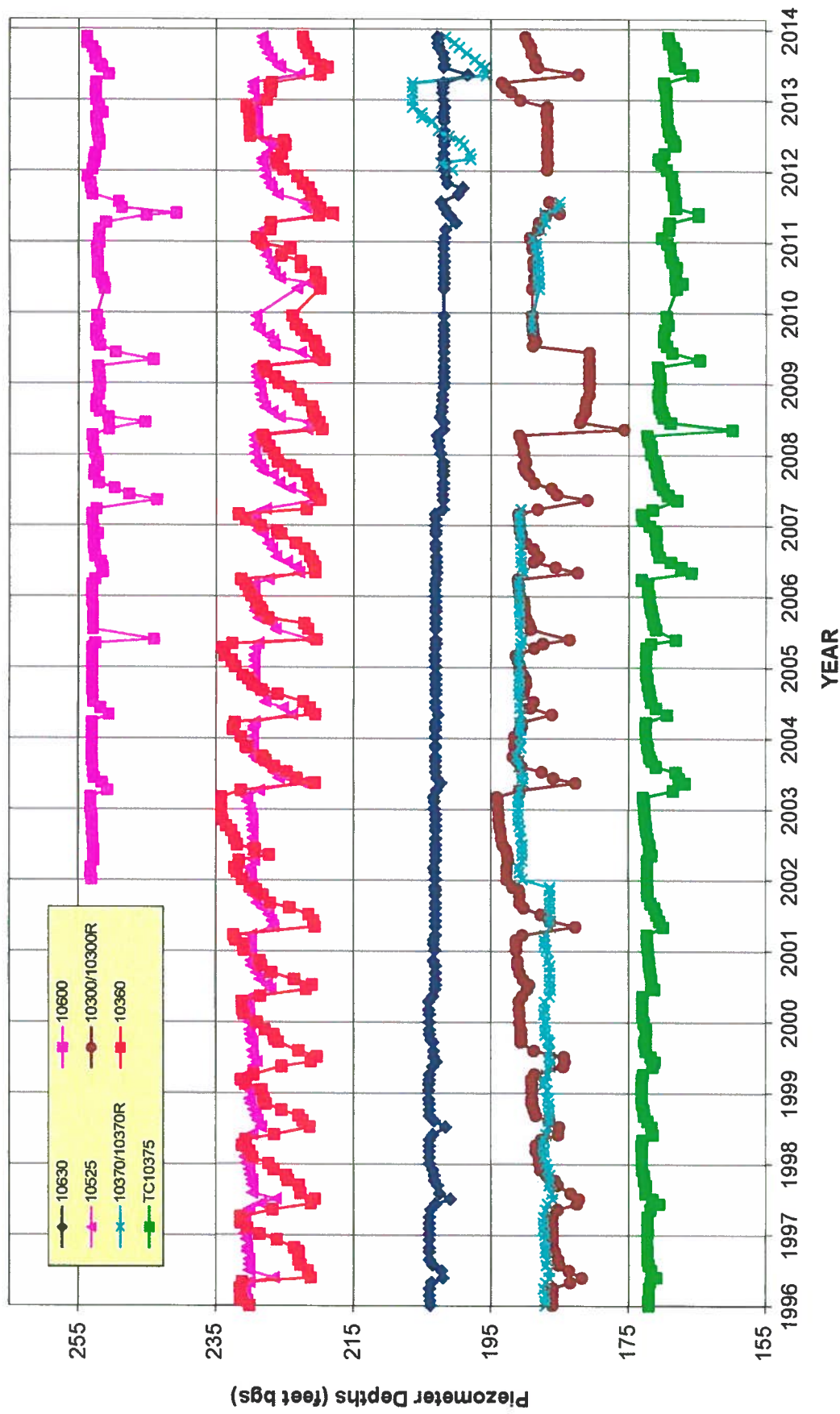




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Figure 3: 2013 Water Levels in Indian Creek and Tie Camp Creek Waste Rock Dump Piezometers

DATE	December 3, 2013	ARCADIS FILENAME	DumpPiezo_Data_Figures2013.xls
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**Figure 4: Historical Water Levels in Indian Creek and Tie
Camp Creek Waste Rock Dump Piezometers**

DATE

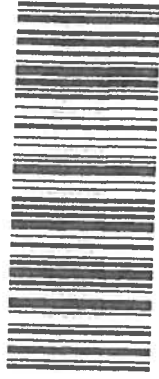
December 3, 2013

ARCADIS FILENAME


DumpPiezo_Data_Figures2013.xls

BARRICK

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