STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT

OFFICE USE ONLY
Log No. 122066
Permit No.
Basin No. 054

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DO NOT WRITE ON BACK

Please complete this form in its entirety in accordance with NRS 534.170 and NAC 534.340

NOTICE OF INTENT NO. 71747
WELL NAME (if applicable): IM-70

1. OWNER/CLIENT NAME Barrick Cortez
MAILING ADDRESS HC-66 P.O. Box 1250
Crescent Valley, NV 89821

DETAILED ADDRESS AT WELL LOCATION Cottonwood Filtration Project
Crescent Valley, NV
Subdivision Name: None County: Eureka

2. PLS LOCATION SW ¼ SE ¼ 9 Sec 28N N/S 49 E
PERMIT/WAIVER NO. M/O - 1975 (Issued by Water Resources) (Current Parcel No.)

Latitude UTM E 546,970 ☑ NAD 27
Longitude UTM N 4,461,493 ☐ NAD 83/WGS 84

3. WORKED PERFORMED
☑ New Well ☐ Deepen: Orig WL#
☐ Replacement: Original well log #
☐ Recondition: Original well log #

4. PROPOSED USE
☐ Domestic ☐ Irrigation ☑ Monitor
☐ Mining / Dewater ☐ Com / Ind ☐ Stock
☐ Test / Other ☐ Mun / QM ☐ Rec

5. WELL TYPE
☐ Auger ☐ Rotary ☐ RVC
☐ Air ☐ Mud ☑ Sonic
☐ Other

6. LITHOLOGIC LOG

Material Encountered	Lost Circ.	Water Strata	From	To
See Attached Copy				
Nad 27				
40304522				
116447293				

Date started: 4-Mar, 20 15
Date completed: 18-Mar, 20 15

9. WELL CONSTRUCTION
Depth Drilled: 0 Feet 427 Depth Cased: 427 Feet

HOLE DIAMETER (BIT SIZE)

		From		To	
9"	Inches	0	Feet	130	Feet
8"	Inches	0	Feet	427	Feet
	Inches		Feet		Feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To (Feet)
4"		SCH 80	0	397

ANNULAR MATERIALS
Sanitary Seal ☑ Yes ☐ No

☐ Neat Cement		to		☐ Pumped	☐ Poured
☐ Cement Grout		to		☐ Pumped	☐ Poured
☑ Concrete Grout	0	to	3	☐ Pumped	☑ Poured
☑ Bentonite Chips	3	to	395	☐ Pumped	☑ Poured
☑ Gravel Pack [> 0.2 in.]	395	to	427	☐ Pumped	☑ Poured
☐ Sand Pack [< 0.2 in.]		to		☐ Pumped	☐ Poured
☐ Other, explain:		to		☐ Pumped	☐ Poured

PERFORATIONS:
Type of perforation: Factory Cut
Size of perforation: 0.02

From	Feet	To	Feet
397		427	

7. WATER QUALITIES
Static water level: 396 Feet below land surface
Artesian Flow: G.P.M. P.S.I.
Water Temperature: ° Fahrenheit
Water Quality:

8. WELL TEST DATA
Test Method: ☐ Bailer ☐ Pump ☐ Air Lift

G.P.M.	Draw Down (Feet Below Static)	Recorded Time (Hours)

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision. This report is true to the best of my knowledge.
Name Boart Longyear Company (Contractor)
Address 7103 W. Augusta Avenue, Glendale, AZ 85303 (Contractor)
Nevada contractor's license number as issued by the State Contractor's Board: 0021976
Nevada well driller's license number as issued by the Nevada Division of Water Resources (on-site driller): 2270-M
Signed: [signature] By driller performing actual drilling on site or contractor
Date: 3-31-15

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(Rev. 12-13) USE ADDITIONAL SHEETS IF NECESSARY pg. 1 of pg.

BARRICK

Geology/Drill Log

Hole ID: IM-705

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Page 1

Project: Cottonwood II-III MW	Inclination: -90
Drilling Company: BLY	Azimuth: 0
Drilling Method: Sonic	Easting: 546 970
Date Started: 3/9/15	Northing: 446 1493
Date Finished: 3/18/15	Elevation: 5260 Total Depth: 427

Depth From (ft)	Depth To (ft)	Run Length	Recovery (ft)	Recovery (%)	Grain Size (Visual Estimate) % Gravel	% Sand	% Fines	Moisture	Lithologic Discription
0	5	5	0	88					Tan gray sandy gravel w/cobbles/Boulders
5	10	5							
10	15	5							
15	20	5							
20	25	5							
25	30	5							
30	35	5							
35	40	5							
40	45	5							
45	50	5							
50	55	5							
55	60	5							
60	65	5							
65	70	5							
70	75	5							
75	80	5							
80	85	5							
85	90	5	88	92					tan gray silty sandy gravel
90	95	5	92	118					Tan gray sandy gravel w/ cobbles & Boulders
95	100	5							

Clay	Can be rolled in a rope 1/8-in diameter	Dry	Moisture Absent
Silt	Can not be rolled into rope	Moist	Damp, With No Visible Water
Sand with Clay/Silt	20% or more of formation is clay/silt	Wet	Visible Water
Sand, fine - med	Fine to medium (<0.5mm-2 mm),		
Sand med-coarse	Medium to coarse (2-5 mm)		
Sand with Gravel	20% or more of formation is sand		
Gravel	>80% Gravel - Fine (5-20 mm), Coarse (20-75 mm)		

BARRICK

Geology/Drill Log

Hole ID: TM-7D

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Project:	Inclination:
Drilling Company:	Azimuth:
Drilling Method:	Easting:
Date Started:	Northing:
Date Finished:	Elevation: Total Depth:

Depth From (ft)	Depth To (ft)	Run Length	Recovery (ft)	Recovery (%)	Grain Size % Gravel	% Sand	% Fines	Moisture	Lithologic Discription
100	105	5						1	
105	110	5						1	
110	115	5						2	
115	120	5	118	121				3	Brown clay, silt & sand
120	125	5	121	158				2	Tan gray sandy gravel w/ Boulders & cobbles
125	130	5						1	
130	135	5							
135	140	5							
140	145	5							
145	150	5							
150	155	5						1	
155	160	5	158	159				3	Brown clay, silt & sand & gravel
160	165	5	159	186				1	Tan silty sandy gravel w/ cobbles & boulders
165	170	5							
170	175	5							
175	180	5							
180	185	5							
185	190	5	186	218					Brown sandy gravel w/ cobbles
190	195	5							
195	200	5							

Clay	Can be rolled in a rope 1/4-in diameter	Dry	Moisture Absent
Silt	Can not be rolled into rope	Moist	Damp, With No Visible Water
Sand with Clay/Silt	20% or more of formation is clay/silt	Wet	Visible Water
Sand, fine - med	Fine to medium (<0.5mm-2 mm),		
Sand med-coarse	Medium to coarse (2-5 mm)		
Sand with Gravel	20% or more of formation is sand		
Gravel	>80% Gravel - Fine (5-20 mm), Coarse (20-75 mm)		

Barrick Cortez	Geology/Drill Log	Hole ID: TM-70

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Project:		Inclination:	
Drilling Company:		Azimuth:	
Drilling Method:		Easting:	
Date Started:		Northing:	
Date Finished:		Elevation:	Total Depth:

Depth (From)	Depth (To)	Run Length	Recovery (ft)	Recovery (%)	% Gravel	% Sand	% Fines	Graphic Log	Moisture (1-5)	Lithologic Description
200	205	5							1	
205	210	5							1	
210	215	5							3	
215	220	5	218	220					4	Brown sandy silty gravel w/ clay
220	225	5	220	255					2	Brown sandy gravel w/ cobbles
225	230	5								
230	235	5								
235	240	5								
240	245	5								
245	250	5								
250	255	5							2	
255	260	5	255	256					4	Brown sandy silty gravel w/ clay
260	265	5	256	265					2	Brown sandy gravel w/ cobbles
265	270	5	265	266					4	gray sandy silty clay
270	275	5	266	353					2	Brown sandy gravel w/ cobbles
275	280	5								
280	285	5								
285	290	5								
290	295	5								
295	300	5								

Clay	Can be rolled in a rope 1/4-in diameter	Dry	Moisture Absent
Silt	Can not be rolled into rope	Moist	Damp, With No Visible Water
Sand with Clay/Silt	20% or more of formation is clay/silt	Wet	Visible Water
Sand, fine - med	Fine to medium (<0.5mm-2 mm),		
Sand med-coarse	Medium to coarse (2-5 mm)		
Sand with Gravel	20% or more of formation is sand		
Gravel	>80% Gravel - Fine (5-20 mm), Coarse (20-75 mm)		

Barrick Cortez	Geology/Drill Log	Hole ID: IM-7

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Project:		Inclination:	
Drilling Company:		Azimuth:	
Drilling Method:		Easting:	
Date Started:		Northing:	
Date Finished:		Elevation:	Total Depth:

Depth From (ft)	Depth To (ft)	Run Length	Recovery (ft)	Recovery (%)	% Gravel	% Sand	% Fines	Graphic Log	Moisture (1-5)	Lithologic Discription
300	305	5	216	353					2	
305	310	5								
310	315	5								
315	320	5								
320	325	5								
325	330	5								
330	335	5								
335	340	5								
340	345	5								
345	350	5								
350	355	5	353	357					4	gray sandy silty clay w/ gravel
355	360	5	357	383					2	gray brown silty sandy gravel w/cobbles
360	365	5								
365	370	5								
370	375	5								
375	380	5								
380	385	5	383	384						gray brown CG. Sand
385	390	5	384	394						gray brown silty, sandy gravel w/cobbles
390	395	5								
395	400	5	394	396					4	Brown clay, silt, sand & gravel

Clay	Can be rolled in a rope 1/4-in diameter	Dry	Moisture Absent
Silt	Can not be rolled into rope	Moist	Damp, With No Visible Water
Sand with Clay/Silt	20% or more of formation is clay/silt	Wet	Visible Water
Sand, fine - med	Fine to medium (<0.5mm-2 mm),		
Sand med-coarse	Medium to coarse (2-5 mm)		
Sand with Gravel	20% or more of formation is sand		
Gravel	>80% Gravel - Fine (5-20 mm), Coarse (20-75 mm)		

Barrick Cortez

Geology/Drill Log

Hole ID: IM-7AS

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Project:		Inclination:	
Drilling Company:		Azimuth:	
Drilling Method:		Easting:	
Date Started:		Northing:	
Date Finished:		Elevation:	Total Depth:

Depths		Run	Recovery		Grain Size			Graphic	Moisture	Lithologic Discription
From (ft)	To (ft)	Length	(ft)	(%)	% Gravel	% Sand	% fines	Log	(1-5)	
400	405	5	396	427					5	gray brown sandy gravel w/cobbles
405	410	5								1st H_2O 396'
410	415	5								
415	420	5								
420	425	5								TD 427'
425	430	5	427							
430	435	5								
435	440	5								
440	445	5								
445	450	5								
450	455	5								
455	460	5								
460	465	5								
465	470	5								
470	475	5								
475	480	5								
480	485	5								
485	490	5								
490	495	5								
495	500	5								

Clay	Can be rolled in a rope 1/4-in diameter	Dry	Moisture Absent
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