

From: Chris York cyork@summasilver.com

To: David J. (DJ) Ennis, P.G David.Ennis@state.nm.us

RE: Agency Review Comments and Request for Additional Information, Summa Silver Mogollon Project, Catron County, New Mexico, Permit No. CA27EM

Dear Mr. Ennis,

Summa Silver has reviewed the comment letters submitted for our Permit Application. We have the identified the following comments and have the following responses.

#### Comments from the New Mexico Mining and Minerals Division:

- Based on the PAP and site inspection, it appears that DS18 is proposed to be accessed via two different routes: by modifying an existing road from DS19 and by creating a new road from DS13. In order to reduce surface disturbance and preserve vegetation, MMD prefers the route from DS19. Please consider and address possible elimination of the new road proposed from DS13 to DS18.
- Based on the PAP and field inspection, the new road proposed from DS19 to DS20 may not be necessary. Instead, there appears to be an existing road (that may need modifying) from the vicinity of the cattle trough south to DS20. Please consider and address possible elimination of the new road proposed from DS19 to DS20.
- 3. MMD discussed a 5-hole floating option for borehole abandonment while in the field on March 30, 2021. MMD can reduce this to 3 boreholes, if desired by Summa Silver. The 5-hole estimate for financial assurance is as follows:

**Borehole Plugging and Abandonment - Financial Assurance** \$ Cost/Ft. Ft. Number of Holes Total 5-hole floating option 14 2,000 5 140,000

Surface Reclamation - Financial Assurance Category \$Cost/Acre Number of Acres Total First acre or less 8,900 1 8,900 Additional acres 4,900 1 4,900 Total FA (\$) 153,800

#### Summa Silver Responses to the New Mexico Mining and Minerals Division:

1. The new road accessing DS18 from DS13 has been eliminated. DS18 will be access by modifying the road from DS19. Attachment 1 is a map showing this modification.

- The new road from DS19 to DS20 has been eliminated. DS20 will be accessed from modification to the existing road accessing the site. Attachment 1 is a map showing this modification.
- 3. Summa Silver would like to the 5 hole floating option for borehole abandonment for the financial assurance.

## *Office of the State Engineer – Hydrology Bureau comments:*

1. Forms WR-07 and WD-08 need to be submitted

#### Summa Silver Responses to the Office of the State Engineer:

 Forms WR-07 and WD-08 have been completed and submitted to the Office of the State Engineer. We are awaiting response back from the Office of the State Engineer and will make any adjustments needed. Attachment 2 are the forms submitted to the Office of the State Engineer.

### New Mexico Department of Fish and Game Comments:

- 1. The Department recommends all open containment tanks be covered with grating or mesh smaller than 3/8 inch to exclude birds or bats.
- 2. All drill pipes need to be inspected before use to prevent wildlife entry.
- 3. Bird surveys need to be conducted for active nesting of migratory songbirds and raptors.
- 4. The Department recommends seed mixes for reclamation be certified weed-free.
- 5. The Department recommends that large mature trees are left undisturbed to the maximum extent feasible during road/pad construction.

#### Summa Silver Responses to the New Mexico Department of Fish and Game:

- 1. All open tanks will be covered with grating not to exceed 3/8 inches.
- 2. All drill pipes will be inspected prior to use.
- 3. Bird surveys will be performed prior to disturbance work by a third party consultant.
- 4. All seed mixes for reclamation will be certified as weed-free.

5. Summa Silver will make all efforts to avoid disturbing mature trees. Pads and roads will be field adjusted to limit impact to mature trees.

#### New Mexico Environmental Department Comments:

- 20.2.15 NMAC, Pumice, Mica and Perlite Processing. Including 20.2.15.110 NMAC, Other Particulate *Control:* "The owner or operator of pumice, mica or perlite process equipment shall not permit, cause, suffer or allow any material to be handled, transported, stored or disposed of or a building or road to be used, constructed, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne."
- 2. Paragraph (1-3) of Subsection A of 20.2.72.200 and 20.2.73.200 NMAC, *Application for Construction, Modification,NSPS, and NESHAP Permits and Revisions,* states that air quality permits must be obtained by:

"Any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review."

"Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards*, 20.2.78 NMAC, *Emission Standards for Hazardous Air Pollutants*, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant."

- 3. Control plan for fugitive Dust Control at mining sites.
- 4. Drill location #13 lies adjacent to a seasonally inundated, constructed pond. With drilling anticipated during the summer monsoon season, it is imperative that vehicles and drilling equipment or supplies be staged well away and upslope from the pond. Where practicable, confine travel to the outer, upland margins of the pond instead of travel through the pond center.
- 5. Any water produced during drilling must be contained on-site and not discharged to adjacent drainages unless a discharge permit has been secured from the EPA.
- 6. Sump pits may not be used as disposal sites for oil, gas, grease or other potential contaminants to surface and ground water.

- 7. Fuel, oil, hydraulic fluid, lubricants, and other petrochemicals must have a secondary containment system to prevent spills.
- 8. Appropriate spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, drilling and reclamation to address potential spills.
- Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505-428-2500. For non-emergencies after hours, call 866-428-6535 or 505-428-6535 (voice mail, twenty-four hours a day). For emergencies only, call 505-827-9329 twenty-four hours a day (NM Dept of Public Safety).

### Summa Silver Responses to the New Mexico Environmental Department:

- No mining or processing is currently planned. Work will be with exploration drilling rigs prospecting for gold and silver mineralization in volcanic rocks. All road and pad construction will be watered to minimize particulates from becoming airborne through use and construction.
- 2. No stationary equipment or buildings will be constructed. All equipment is mobile. No stationary equipment on site will be used.
- 3. No mining or construction of stationary buildings/equipment will take place. Work will be limited to exploration drilling and road/pad construction. Roads and pads will be watered regularly to minimize fugitive dust. Roads and pads will be created with minimal footprints and designed to limit disturbance of earth. Roads and pads will be reclaimed when work is complete.
- 4. All equipment and supplies will be staged upslope of DS13 and travel will be limited to the margins of the containment pond.
- 5. All water will be contained within tanks and not discharged to adjacent drainages. Pads will also be bermed to limit any potential spills to the drill pads.
- 6. Tanks will be used to instead of sump pits. All oil, gas, greases, and potential contaminates will not be disposed of on the ground.
- 7. All hydrocarbons and petrochemicals will be stored in secondary containment in such a manner that the volume of the hydrocarbons and petrochemicals does not exceed the volume of the secondary containment.
- 8. Spill kits and absorbent pads will be provided on site at all time for potential spills.

9. All spills will be reported immediately to the NMED.

Should you have any questions or additional comments, please contact me at the information below. Thank you for your assistance through the permitting process.

Best regards,

Chris York Exploration Manager Summa Silver Cell: 618-263-8664 Email: cyork@summasilver.com





# **BAROID Industrial Drilling Products**

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Plaste Viscosity_op         0         1b. Add 50%-100% (multiply Hole Volume*1.5-2) for no returns           Vield Point, birt00 ft <sup>2</sup> 0         2. Divide Final Hole Volume by 26.3 to get # Sks BORE-GROUT required           G Strengh, ft to sec / 10 min ) birt00 ft         7         3. Multiply # Sks BORE-GROUT * 24 Gallons Water to get Water required           G Strengh, ft to sec / 10 min ) birt00 ft         7         3. Multiply # Sks BORE-GROUT * 24 Gallons Water to get Water required           G Strengh, ft to sec / 10 min ) birt00 ft         7         3. Multiply # Sks BORE-GROUT * 24 Gallons Water to get Water required           G Strengh, ft to sec / 10 min ) birt00 ft         7         3. Multiply # Sks BORE-GROUT * 24 Gallons Water to get Water required           G Strengh, ft to sec / 10 min ) birt00 ft         7         3. Multiply # Sks BORE-GROUT * 24 Gallons/Ft or 36.2 Gallons/Ft or 58.5 Gallons/Ft or 59.8	600 rpm Reading						1. Calcu	ate Hole \	Volume to	be a	abano	doned usin	g volumes be	low.	
Yaud Paru, Lurioo n <sup>2</sup> 0         2. Divide Final Hole Volume by 26.3 to get # Sks BORE-GROUT required           Gel Stereigh (10 ex / 10 min)         LMUTBY # Sks BORE-GROUT * 24 Gallons Water to get Water required           Gel Stereigh (10 ex / 10 min)         LMUTBY # Sks BORE-GROUT * 24 Gallons Water to get Water required           Galk Thickness 32nd in.         quantities by 2 or 3, etc. to figure out Batch Quantities           Benotelie Solids %         >20.0           PH         DE Volume = (104e) LD'24.522/Hole Depth           PH         Meter         RECOMMENDATIONS/CHANGES           Filtrate Total Hardness as Calcium, ppm         HOLe Volume Calculations: (Hole ID'24.522/Hole Depth           New-py Water (N+Watchess-samp)         /         NQ SS (2.9800°): 0.362 Callons/Ft or 37.5 Gallons/100 Ft           Torque (ht-Buc/sub or gauge)         NQ OS (3.032°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         PQ OS (4.950°): 0.999 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         PQ OS (4.950°): 0.999 Gallons/Ft or 59.8 Gallons/100 Ft           <	300 rpm Reading							1a. Ao	dd 10% (r	nultip	ly Ho	ole Volume	e*1.1) for 100	% returns	
Yaud Paru, Lurioo n <sup>2</sup> 0         2. Divide Final Hole Volume by 26.3 to get # Sks BORE-GROUT required           Gel Stereigh (10 ex / 10 min)         LMUTBY # Sks BORE-GROUT * 24 Gallons Water to get Water required           Gel Stereigh (10 ex / 10 min)         LMUTBY # Sks BORE-GROUT * 24 Gallons Water to get Water required           Galk Thickness 32nd in.         quantities by 2 or 3, etc. to figure out Batch Quantities           Benotelie Solids %         >20.0           PH         DE Volume = (104e) LD'24.522/Hole Depth           PH         Meter         RECOMMENDATIONS/CHANGES           Filtrate Total Hardness as Calcium, ppm         HOLe Volume Calculations: (Hole ID'24.522/Hole Depth           New-py Water (N+Watchess-samp)         /         NQ SS (2.9800°): 0.362 Callons/Ft or 37.5 Gallons/100 Ft           Torque (ht-Buc/sub or gauge)         NQ OS (3.032°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         HQ OS (3.830°): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         PQ OS (4.950°): 0.999 Gallons/Ft or 59.8 Gallons/100 Ft           Pump Rescue (PSI) digital/analog         PQ OS (4.950°): 0.999 Gallons/Ft or 59.8 Gallons/100 Ft           <	Plastic Viscosity cp			0				1b. Add 50%-100% (multiply Hole Volume*1.5-2) for n						or no returns	
Gal Streept (10 ac; / 10 min)       /       3. Multiply # 5ks BORE-GROUT* 24 Gallons Water to get Water required         Filtata API       < 9.0	Yield Point, lb/100 ft <sup>2</sup>			0			2. Divide Final Hole Volume by 26.3 to get # Sks BORE-GROUT required								
Filmas All_ons_30 min.       < 9.0	Gel Strength (10 sec	/ 10 min ) lb/1	00 ft <sup>2</sup>	/											
Cake Thickness 32nd in.       quantities by 2 or 3, etc. to figure out Batch Quantities         Bentonia Solds %       >20.0         HOLE Volume = (Hole ID <sup>2</sup> /24.52)*Hole Depth         Hol Strip       Meter         Bentonia Solds %       Hole Volume Calculations: (Hole ID or Bit Diameter <sup>2</sup> )/24.52*Depth         Make-up Water (HHandness as Calcum, ppm       NQ Std (2.980*): 0.362 Callons/Ft or 36.2 Gallons/100 Ft         Torque (Hubridon gauge)       NQ Std (2.980*): 0.375 Gallons/Ft or 75.8 Gallons/100 Ft         Pump Rate (GPM) on gauge)       HQ Std (3.782*): 0.583 Gallons/Ft or 75.9.8 Gallons/100 Ft         Pump Rate (GPM) on gauge)       HQ Std (3.782*): 0.598 Gallons/Ft or 75.9.8 Gallons/100 Ft         Pump Rate (GPM) on gauge)       0         HQ Std (4.590*): 0.599 Gallons/Ft or 75.9.8 Gallons/100 Ft         Pump Rate (GPM) on gauge       0         PQ Std (4.850*): 0.599 Gallons/Ft or 75.9.0 Gallons/100 Ft         Weight on Bit (bs.)       Multiply Gallons/Ft or 75.9.0 Gallons/100 Ft         Weight on Bit (bs.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Rotational RPM (estimated)       MUL PROPERTY SPECIFICATIONS         Annualar/ Up Hole Volcity, Recommendation       60-120 ft/min         PCURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS						< 9.0									
Bentonite Solids %       >20.0       HOLE Volume = (Hole ID'/24.52)*Hole Depth         pH       Strip       RECOMMENDATIONS/CHANGES         pH       NQ Std (2.980°): 0.362 Gallons/To O Bit Diameter*//24.52*Depth         Make-up Water (pHHardness-strip)       /         NQ Std (2.980°): 0.362 Gallons/Ft or 36.2 Gallons/100 Ft         Torque (H-Mardness-strip)       /         NQ OS (3.032°): 0.375 Gallons/Ft or 53.5 Gallons/100 Ft         Prouge (H-Mardness-strip)       HQ OS (3.830°): 0.598 Gallons/Ft or 53.9 Gallons/100 Ft         Pump Rescure (PSI) digital/analog       HQ OS (3.830°): 0.598 Gallons/Ft or 59.9 Gallons/100 Ft         Pump Ret (GPM)       PQ Std (4.827°): 0.590 Gallons/Ft or 99.9 Gallons/100 Ft         Full Level (From Surface)       0       PQ OS (4.950°): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Full Level (From Surface)       0       PQ OS (4.950°): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Markloan RPM (weilsmated)       MULTP pCoPErtor Y SPECIFICATIONS         Annular/Up Hole Velocity, fitmin       #DIV/01       WEIGHT< 9	Cake Thickness 32nd	d in.										,			
pH       Strip       Meter       RECOMMENDATIONS/CHANGES         Filtrate Total Hardness as Calclum, ppm       Hole Volume Calculations: (Hole ID or Bit Diameter*)/24.52*Depth         Make-up Water (WHandness-strip)       /       NQ Std (2,980'): 0.356 Callons/Ft or 37.5 Gallons/100 Ft         Choride, mg/L       NQ OS (3,032'): 0.355 Gallons/Ft or 58.3 Gallons/100 Ft         Torque (Habresian and gauge)       HQ Std (3,782): 0.583 Gallons/Ft or 58.3 Gallons/100 Ft         Pump Pressure (FSI) digital/analog       HQ OS (3,830'): 0.598 Gallons/Ft or 61.9 Gallons/100 Ft         Pump Retain (WGPM)       PQ Std (4,827'): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft         Pump Retain (WGPM)       PQ Std (4,827'): 0.990 Gallons/Ft or 95.0 Gallons/100 Ft         Puid Level (Form Sufface)       0       PQ OS (4,950'): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (bis.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Rotational RPM (estimated)       MULP ROPERTY SPECIFICATIONS         Annular/U Hole Velocity Recommendation       60-120 ft/min       BY AUTHORTY       Depretors Representative       Other         CURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX	Bentonite Solids %					>20.0									
Filtrate Total Hardness as Calcium, ppm       Hole Volume Calculations: (Hole ID or Bit Diameter <sup>2</sup> )/24.52*Depth         Make-up Water (pHPlandness-strip)       /       NQ Std (2,980*): 0.362 Gallons/Ft or 36.2 Gallons/100 Ft         Choride, mgL       NQ OS (3.032*): 0.375 Gallons/Ft or 58.3 Gallons/100 Ft         Torque (H-bs/psi on gauge)       HQ Std (3.782*): 0.583 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Resure (PSI) digital/analog       HQ OS (3.830*): 0.619 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Resure (PSI) digital/analog       PQ OS (4.827*): 0.950 Gallons/Ft or 59.9 Gallons/100 Ft         Pump Rate (PM)       PQ OS (4.827*): 0.950 Gallons/Ft or 99.9 Gallons/100 Ft         Piud Level (Forn Surface)       0       PQ OS (4.827*): 0.950 Gallons/Ft or 99.9 Gallons/100 Ft         Multiply Gallons/Ft or 91.9 Gallons/100 Ft       Multiply Gallons/Ft or 99.9 Gallons/100 Ft         Mediation RPM (visCPM)       MUD PROPERTY SPECIFICATIONS         Annular/Up Hole Velocity, firmin       #DIV/0!       WEIGHT < 9 VISCOSITV		Strip	Meter												
Make-up Water (pH/Hardness-strip)       /       NQ OStd (2.980"): 0.362 Gallons/Ft or 36.2 Gallons/100 Ft         Choride, mg/L       NQ OSt (3.032"): 0.375 Gallons/Ft or 37.5 Gallons/100 Ft         Torque (IHbs/psi on gauge)       HQ OS (3.032"): 0.375 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Pressure (PSI) digital/analog       HQ OS (3.895"): 0.619 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Pressure (PSI) digital/analog       HQ OS (3.895"): 0.619 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Ret (PM) on gauge       0         HQ OS (3.895"): 0.619 Gallons/Ft or 95.0 Gallons/100 Ft         Fultur Flow (%GPM)       PQ OS (4.827"): 0.990 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (bs.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Annular/Up Hole Velocity, ftmin       #DIV/0!       WEIGHT < 9	·	-	ppm				H	ole Volun						<sup>2</sup> )/24.52*Depth	
Chloride.mg/L       NQ OS (3.032"): 0.375 Gallons/Ft or 37.5 Gallons/100 Ft         Torque (flusteypi on gauge)       HQ OS (3.032"): 0.583 Gallons/Ft or 58.8 Gallons/100 Ft         Pump Preseure (PSI) digita/analog       HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Rate (GPM) on gauge       0         HQ OS (3.835"): 0.619 Gallons/Ft or 59.8 Gallons/100 Ft         Return Flow (%GPM)       PQ Std (4.827"): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft         Fluid Level (From Surface)       0         PQ OS (4.950"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (lbs.)       MUltiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Ratainal RPM (estimated)       MULTHORNEY         Annular/Up Hole Velocity Recommendation       60- 120 ft/min         BY AUTHORITY       Operators Representative       Other         CURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK         NQ HOLE       9'       IL       1 Sk         NQ HOLE       9'       IL       1 Sk         PQ HOLE       9'       IL       1 Sk         PQ HOLE       9'       IL       IL         Vater       2.6 Gallons       IL       IL				/							•				
Torque (It-Ibs/psi on gauge)       HQ Std (3.782"): 0.583 Gallons/Ft or 58.3 Gallons/100 Ft         Pump Pressure (PS) digital/analog       HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Rate (GPM) on gauge       0         Ratum Flow (KyCPM)       PQ Std (4.827"): 0.950 Gallons/Ft or 59.0 Gallons/100 Ft         Fluid Level (From Surface)       0         Weight on Bit (Ibs.)       Multiply Gallons/Ft or P9.9 Gallons/Ft or 99.9 Gallons/100 Ft         Rational RPM (setimated)       Multiply Gallons/Ft or P0.0 Std (4.827"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Annular/Up Hole Velocity, ftmin       #DIV/0!         Weight on Bit (Ibs.)       MULtiply Gallons/Ft * Depth for Hole Volume, adjust for Ioss conditions         Annular/Up Hole Velocity, Recommendation       60-120 ft/min         BY AUTHORITY       Operators Representative         Other       CURRENT MIX (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       9'       Image: Signal Signa								· ,							
Pump Pressure (PSI) digital/analog       HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft         Pump Rate (GPM) on gauge       0       HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft         Return Flow (%/GPM)       PQ OS (4.827"): 0.950 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (lbs.)       PQ OS (4.950"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (lbs.)       MULD PROPERTY SPECIFICATIONS         Annular/Up Hole Velocity Recommendation       60- 120 ft/min         BY AUTHORINY       Operators Written       Drilling Contractor         O Operators Written       Other       Other         RODUCT (IN THIS ORDER)       LB/PER TANK TOTAL UNITS       PRODUCT (IN THIS ORDER)       LB/PER TANK         NQ HOLE       9'       PRODUCT (IN THIS ORDER)       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons       LB/PER TANK       TOTAL UNITS         YQ HOLE       9'       SOR       1 Sk       1 Sk       1 Sk       1 Sk         PQ HOLE       9'       Cement Mix       24 Gallons       1 Sk       1 Sk         QU HOLE       9'       2.6 Gallons       1 Sk       1 Sk       1 Sk         QU HOLE       9'       2.6 Gallons       1 Sk       2.6 Gallons Water + 1	-	auge)													
Pump Rate (GPM) on gauge         0         HQ OS (3.895"): 0.619 Gallons/Ft or 61.9 Gallons/100 Ft           Return Flow (%GPM)         PQ Std (4.827"): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft           Fluid Level (From Surface)         0         PQ OS (4.950"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft           Weight on Bit (bs.)         Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions           Rotational RPM (estimated)         MULtiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions           Annular/Up Hole Velocity, t/min         #DIV/0!         WEIGHT < 9		• ,													
Return Flow (%/GPM)       PQ Std (4.827"): 0.950 Gallons/Ft or 95.0 Gallons/100 Ft         Fluid Level (from Surface)       0       PQ OS (4.950"): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (bs.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Rotational RPM (estimated)       MUD PROPERTY SPECIFICATIONS         Annular/U by Hole Velocity, truini       #DIV/0!       WEIGHT < 9		· ·		0											
Fluid Level (From Surface)       0       PQ OS (4.950°): 0.999 Gallons/Ft or 99.9 Gallons/100 Ft         Weight on Bit (lbs.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Rotational RPM (estimated)       MUD PROPERTY SPECIFICATIONS         Annular/Up Hole Velocity, t/min       #DIV/0!       WEIGHT        9 VISCOSITY        38-45       FILTRATE        12.0         Annular/Up Hole Velocity, tecommendation       60- 120 ft/min       BY AUTHORITY       Operators Writen       Dilling Contractor         CURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       14'       BORE-GROUT       1 Sk         HQ HOLE       9'       1       1 Sk         HQ HOLE       9'       1       1       1         Vater       2.6 Gallons       1       1       1         Water       2.6 Gallons       1       14'       1       1         Water       2.6 Gallons       1       1       1       1         Water       2.6 Gallons       1       1       1       1 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="6"></td><td></td></td<>															
Weight on Bit (lbs.)       Multiply Gallons/Ft * Depth for Hole Volume, adjust for loss conditions         Rotational RPM (estimated)       MUD PROPERTY SPECIFICATIONS         Annular/Up Hole Velocity, t/min       #DIV/0!       WEIGHT < 9 VISCOSITY < 38-45 FILTRATE < 12.0				0											
Rotational RPM (estimated)       #DIV/0!       WEIGHT < 9       VISCOSITY<       38-45       FILTRATE       12.0         Annular/Up Hole Velocity, f/min       60- 120 ft/min       60- 120 ft/min       Deriators Written       Drilling Contractor         Annular/Up Hole Velocity Recommendation       60- 120 ft/min       BY AUTHORITY       Operators Representative       Drilling Contractor         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS       PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         NQ HOLE       14'       BORE-GROUT       LB/100 GALLONS       LB/PER TANK       1 Sk         HQ HOLE       9'       14'       BORE-GROUT       I Sk       1 Sk         HQ HOLE       9'       5'       I       I Sk       I Sk         HQ HOLE       14'       BORE-GROUT       I Sk       I Sk       I Sk         Water       2.6 Gallons       I A/1'       I Sk       I Sk       I Sk         Water       1.0471b) Sk       I A/1'b) Sk       I Sk       I Sk       I Sk         Cement       1.0471b) Sk       1.0471b) Sk		,												r loss conditions	
Annular/Up Hole Velocity, t/min       #DIV/0!       WEIGHT< 9	,	nated)													
Annular/ Up Hole Velocity Recommendation       60- 120 ft/min       BY AUTHORITY       Operators Written       Drilling Contractor         CURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT       (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       9'       14'       BORE-GROUT       1 Sk         HQ HOLE       9'       14'       BORE-GROUT       1 Sk         PQ HOLE       5'       0       0       0         Water       2.6 Gallons       1 (471b) Sk       0       0         Water       1 (471b) Sk       1 (471b) Sk       24 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498	,	,		#DIV/0	)		WEIGHT<							12.0	
CURRENT MIX (XXX GALLON MIX TANK)       RECOMMENDED TREATMENT       (XXX GALLON MIX TANK)         PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS       PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       14'       BORE-GROUT       1 Sk         HQ HOLE       9'       1       1 Sk         PQ HOLE       5'       1       1         Cement Mix       2.6 Gallons       1       1         Water       1       1       4       1         2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498			mmendation			ft/min			Operators	Writte	en	🗌 Drilli	ng Contractor		
PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS       PRODUCT (IN THIS ORDER)       LB/100 GALLONS       LB/PER TANK       TOTAL UNITS         3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       14'       BORE-GROUT       1 Sk         HQ HOLE       9'       1       1 Sk         PQ HOLE       5'       1       1         Cement Mix       2.6 Gallons       1 (47lb) Sk       1 (47lb) Sk         Vater       1 (47lb) Sk       24 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498		CURRENT	T MIX (XXX GALLON N		)									N MIX TANK)	
3/8 HOLE PLUG/CASING SEAL APPROX Ft per Sack       Water       24 Gallons         NQ HOLE       14'       BORE-GROUT       1 Sk         HQ HOLE       9'       1 Sk       1 Sk         PQ HOLE       5'       1 Sk       1 Sk         Cement Mix       2.6 Gallons       1 (47lb) Sk       2.6 Gallons Slurry       24 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498						OTAL UNITS	PRODU			1			<u>`</u>	/	
NQ HOLE14'BORE-GROUT1 SkHQ HOLE9'1 SkPQ HOLE5'1Cement Mix2.6 GallonsWater2.6 GallonsCement1 (47lb) SkCement1 (47lb) Sk2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of SlurryBAROID REPRESENTATIVEDave ColburnHOME/OFFICEBAROID DISTRIBUTORJentechWAREHOUSEElko/SparksTELEPHONE(775) 397-0498		,													
HQ HOLE       9'       Image: Constraint of the second sec							B		т						
PQ HOLE       5'       Image: Constraint of the second sec														I UK	
Cement Mix       Z.6 Gallons       Image: Cement Mix       Image: Cement M										-					
Water       2.6 Gallons         Cement       1 (47lb) Sk         2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498						-									
Water       2.6 Gallons         Cement       1 (47lb) Sk         2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498	Cement	Mix													
Cement1 (47lb) Sk1 (47lb) Sk2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of SlurryBAROID REPRESENTATIVEDave ColburnHOME/OFFICEWestern USTELEPHONE(775) 385-0602BAROID DISTRIBUTORJentechWAREHOUSEElko/SparksTELEPHONE(775) 397-0498					2	2.6 Gallons									
2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons Slurry       24 Gallons Water + 1 Sk BORE-GROUT Yields 26.3 Gallons of Slurry         BAROID REPRESENTATIVE       Dave Colburn       HOME/OFFICE       Western US       TELEPHONE       (775) 385-0602         BAROID DISTRIBUTOR       Jentech       WAREHOUSE       Elko/Sparks       TELEPHONE       (775) 397-0498										1					
BAROID REPRESENTATIVEDave ColburnHOME/OFFICEWestern USTELEPHONE(775) 385-0602BAROID DISTRIBUTORJentechWAREHOUSEElko/SparksTELEPHONE(775) 397-0498	2.6 Gallons	Water + 1	I (47lb) Sk Cement Yie	lds 4.4 Ga			24	Gallons \	Water + 1	Sk E	BORI	E-GROUT	Yields 26.3 G	allons of Slurry	
											EPH	ONE	(775)	397-0498	

THE RECOMMENDATIONS MADE HERON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY BAROID DRILLING FLUIDS, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY



# **BAROID Industrial Drilling Products**

×.	5										RE	PORT NUM	1BER		
HAL.	LIBURTON	Cement Abando	nmon		əlculət	in	ne				Γ	DEPTH (FT)		DATE	
OPERATOR					NTRACTOR		115					RIG NUMBE	R		
REPORT FOR:				REF	PORT FOR:	:						DRILL SU	PERVISOR AND	CONTACT NUMBER	
								0011							
HOLE NUMBER	PROJEC	CT NAME						COUN	NIY					STATE/PROV. NV	
MUD VOLUME (gallons)		DRILLING STR	RING				CASI	NG				CIRCULATION	I DATA		
Hole 0	Drill Pipe/Rod ID Length				0			Set at:	Bean P	ump l	Make/Mo	н	FMC BEAN 35		
	Drill Collar, OD	ID	Length					Set at:	Size	- İ		0 Eff.,% 0.00		35	
Total 3000	Drill Collar, OD	ID	Length					Set at:	Stk/n	nin.	0	Vol./min. (gal)		0	
Mud Type Wate	er Base	BIT DATA		(	OPEN HOL	E SE	ECTIONS		TriplexP	ump	Make/Mc	d			
LSND	Size		Size				Length		Size		0 X	0 Eff.,%	Vol./stk.	0	
	Туре		Size				Length		Stk/n	nin.	0	Vol./min. (gal)		0	
	No. Jets		Size				Length		Compress	or M	ake				
	Jets								Compress	or M	odel				
									cfm			psl			
	MUD PRO	PERTIES			State Re							PERSONNE	L		
Sample From			L FL 1⊻	Pit			Day Driller	-			•	nt Driller -			
Time Sample Taken							Helper -					oer -			
Depth (FT)					45.0		Helper -					per -			
Weight (lb/gal.)					15.6										
Funnel Viscosity (se	ec/qt)												equirements a		
600 rpm Reading							1. Calcul						ng volumes be		
300 rpm Reading			0						•				e*1.1) for 100		
Plastic Viscosity cp			0										lume*1.5-2) fo		
Yield Point, lb/100 ft <sup>2</sup>			0										47lb Cement		
Gel Strength (10 sec		100 ft <sup>2</sup>	/				3. Multiply # Sks 47lb Cement * 2.6 Gallons Water to get Water required						•		
Filtrate API cm3/3							4. If Mix tank is not large enough to mix entire calculated hole volume, divide							volume, divide	
Cake Thickness 32n	d in.						quantities by 2 or 3, etc. to figure out Batch Quantities HOLE Volume = (Hole ID <sup>2</sup> /24.52)*Hole Depth							d	
Bentonite Solids %	CL 1							F	IOLE V	DIU				epth	
рН 🔽	Strip	Meter						(0.000)).	0 007 0	- 11 -		MON BIT	-		
Filtrate Total Hardnes		ppm	1										llons/100 Ft		
Make-up Water (pH/H	Hardness-strip)		/										llons/100 Ft		
Chloride, mg/L								,				or 37.5 Gallo			
Torque (ft-lbs/psi on g							HQ RSG (3.782"): 0.583 Gallons/Ft or 58.3 Gallons/100 Ft HQ OS (3.830"): 0.598 Gallons/Ft or 59.8 Gallons/100 Ft								
Pump Pressure (PSI	, , ,		0				HQ OS (3.895"): 0.619 Gallons/Ft or 61.9 Gallons/100 Ft								
Pump Rate (GPM) or			0										llons/100 Ft		
Return Flow (%/GPM	,		0									r 97.9 Gallo			
Fluid Level (From Sur Weight on Bit (lbs.)	nace)		0											or loss conditions	
Rotational RPM (estir	matod)						wut					Y SPECIFIC			
Annular/Up Hole Velo	,		#DIV/	01			WEIGHT<		COSITY<		38-4		TRATE<	12.0	
Annular/ Up Hole Vel		mmendation			) ft/min		BY AUTH	ORITY	Operators Re	s W	ritten	🗌 Drill	ing Contractor	12.0	
	CURREN	T MIX (XXX GALLON N	I /IX TANF	$\langle \rangle$									Other (XXX GALLC	ON MIX TANK)	
PRODUCT (IN TH		LB/100 GALLONS		<u> </u>	TOTAL UN	ITS	PRODU	CT (IN THIS		-		0 GALLONS	LB/PER TANK	,	
	,	G/CASING SEAL APPR										Cement Mi			
NQ HO			Ι		14'			Water						2.6 Gallons	
HQ HO					9'		4	7lb Cemei	nt					1 Sk	
PQ HO					5'					+					
1 3 10								Water		+				5.2 Gallons	
							c	4lb Cemei	nt	+				1 Sk	
							8			-				I OK	
							2	6 Gallons	Water -	- 1	(47lh	Sk Cemen	t Yields 4.4 G	allons of Slurry	
			I				2.6 Gallons Water + 1 (47lb) Sk Cement Yields 4.4 Gallons of Slurry 5.2 Gallons Water + 1 (94lb) Sk Cement Yields 8.8 Gallons of Slurry								
BAROID REI		TIVE Dave Colbu	Irn	HON	ME/OFFIC	:F									
BAROID DIS		Jentech			REHOUS			/Sparks				HONE		) 397-0498	
				111									(113)	,	

THE RECOMMENDATIONS MADE HERON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY BAROID DRILLING FLUIDS, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY Abandonment for Non-Artisan holes - Bore grout with 10 foot cement cap

Drillhole ID	Easting (NAD83)	Northing (NAD 83)	Elevation (NAD 83)	Pad ID	Township/range/Section/Qsection
MOG21-0007	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0008	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0001	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0002	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0003	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0004	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0011	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0012	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0014	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0015	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0005	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0006	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0009	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0016	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0010	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0017	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0019	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0020	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0013	705008	3698714	2165	26	T10S R19W Section 28 SE
MOG21-0018	705008	3698714	2165	26	T10S R19W Section 28 SE

#### Abandonment for Non-Artisan holes - Bore grout with 10 foot cement cap

Drillhole ID	TD (Feet)	Casing PQ OS 4.950" Feet	HQ OS 3.895" Feet	PQ Volume	HQ Volume	Total Volume	Hole Volume x1.1	Sks Bore-Grout	Sks Cement
MOG21-0007	1150	100	1050	89.91	649.95	739.86	813.846	31	1
MOG21-0008	950	100	850	89.91	526.15	616.06	677.666	26	1
MOG21-0001	1450	100	1350	89.91	835.65	925.56	1018.116	39	1
MOG21-0002	1300	100	1200	89.91	742.8	832.71	915.981	35	1
MOG21-0003	1400	100	1300	89.91	804.7	894.61	984.071	37	1
MOG21-0004	1500	100	1400	89.91	866.6	956.51	1052.161	40	1
MOG21-0011	1550	100	1450	89.91	897.55	987.46	1086.206	41	1
MOG21-0012	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0014	1750	100	1650	89.91	1021.35	1111.26	1222.386	46	1
MOG21-0015	1750	100	1650	89.91	1021.35	1111.26	1222.386	46	1
MOG21-0005	1500	100	1400	89.91	866.6	956.51	1052.161	40	1
MOG21-0006	1100	100	1000	89.91	619	708.91	779.801	30	1
MOG21-0009	1300	100	1200	89.91	742.8	832.71	915.981	35	1
MOG21-0016	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0010	1100	100	1000	89.91	619	708.91	779.801	30	1
MOG21-0017	1450	100	1350	89.91	835.65	925.56	1018.116	39	1
MOG21-0019	1250	100	1150	89.91	711.85	801.76	881.936	34	1
MOG21-0020	1600	100	1500	89.91	928.5	1018.41	1120.251	43	1
MOG21-0013	850	100	750	89.91	464.25	554.16	609.576	23	1
MOG21-0018	800	100	700	89.91	433.3	523.21	575.531	22	1

Drillhole ID	Easting (NAD83)	Northing (NAD 83)	Elevation (NAD 83)	Pad ID	Township/range/Section/Qsection
MOG21-0007	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0008	704960	3698417	2124	11	T10S R19W Section 28 SE
MOG21-0001	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0002	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0003	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0004	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0011	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0012	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0014	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0015	705028	3698476	2115	17	T10S R19W Section 27 SW
MOG21-0005	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0006	705041	3698573	2147	18	T10S R19W Section 27 SW
MOG21-0009	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0016	705056	3698633	2160	20	T10S R19W Section 27 SW
MOG21-0010	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0017	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0019	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0020	705070	3698734	2160	22	T10S R19W Section 27 SW
MOG21-0013	705008	3698714	2165	26	T10S R19W Section 28 SE
MOG21-0018	705008	3698714	2165	26	T10S R19W Section 28 SE

Drillhole ID	TD (Feet)	Casing PQ OS 4.950" Feet	HQ OS 3.895" Feet	PQ Volume	HQ Volume	Total Hole Volume	Hole Volume x1.1	Sks of Cement
MOG21-0007	1150	100	1050	97.9	649.95	747.85	822.635	93
MOG21-0008	950	100	850	97.9	526.15	624.05	686.455	78
MOG21-0001	1450	100	1350	97.9	835.65	933.55	1026.905	117
MOG21-0002	1300					840.7	924.77	
MOG21-0003	1400	100	1300	97.9	804.7	902.6	992.86	
MOG21-0004	1500	100	1400	97.9	866.6	964.5	1060.95	121
MOG21-0011	1550	100	1450	97.9	897.55	995.45	1094.995	124
MOG21-0012	1600	100	1500	97.9	928.5	1026.4	1129.04	128
MOG21-0014	1750	100	1650	97.9	1021.35	1119.25	1231.175	140
MOG21-0015	1750	100	1650	97.9	1021.35	1119.25	1231.175	140
MOG21-0005	1500	100	1400	97.9	866.6	964.5	1060.95	121
MOG21-0006	1100	100	1000	97.9	619	716.9	788.59	90
MOG21-0009	1300	100	1200	97.9	742.8	840.7	924.77	105
MOG21-0016	1600					1026.4		
MOG21-0010	1100	100	1000	97.9	619	716.9	788.59	90
MOG21-0017	1450					933.55		
MOG21-0019	1250					809.75		
MOG21-0020	1600					1026.4		
MOG21-0013	850	100	750	97.9	464.25	562.15	618.365	70
MOG21-0013	800					531.2		