



COMPANY Sierra  
WELL 26-19 ST1  
FIELD Alum  
COUNTY/STATE Esmeralda/Nevada  
WELL HEAD COORDINATES  
37.91N,117.67W Sect29,T1N,R38.5E  
ELEVATION 4993.57' /1522.04m  
SPUD DATE 2/23/10  
TD DATE 3/9/10  
TOTAL DEPTH 1341.1m  
TRUE VERTICAL DEPTH 1341.1m  
TD LOCATION 000'N,000'E of wellhead  
CONTRACTOR/RIG Xtreme 4  
COMPANY REPRESENTATIVE Jerry Hamblin, Rod Bray

#### LOG INTERVAL

DATE LOGGED 2/23/10 TO 3/9/10  
DEPTH LOGGED 27.43m TO 1341.1m  
MUD DRILLING 27.43m TO 1341.1m  
AIR DRILLING N/A TO N/A  
LOG SCALE 1:1000 UNIT NO. T1  
LOGGING GEOLOGISTS  
Lamont, Schepflin  
Feinburg

#### HOLE

311.2" TO 245.3'  
155.6" TO 1341.1'  
TO  
TO  
TO  
TO  
TO

#### CASING

177.8" FROM 0' TO 243.8'  
114.3" FROM 0' TO 1071.1'  
FROM TO  
FROM TO  
FROM TO

#### ABBREVIATIONS

**NB** New Bit **BHT** Bottom Hole Temp  
**RRB** Re-run Bit **C** Carbide Test  
**CB** Core Bit **NR** No Returns  
**WOB** Weight On Bit **LAT** Logged After Trip  
**SPM** Strokes per Minute **CFM** Cubic Feet per Min  
**PP** Pump Pressure **BUT** Bottoms Up Temp  
**RPM** Revolutions per Min

#### SYMBOLS

Wireline Log Casing Shoe  
 Steam/Water Entry Flow Test  
 Deviation Survey Cored Interval  
 No Recovery

#### LITHOLOGY

	Alluvium		Tuff
	Siltstone		Breccia
	Sandstone		Limestone
	Conglomerate		Dolomite
	Mylonite		Marble
	Quartzite		Schist
	Quartz Veins		Undiff Carbonates
	Rhyolite		Dike
	Diorite		Altered Zone
	Tuff Seds		

#### REMARKS

All depths from  
KB= 3.81 m  
  
ml= Matthew Lamont  
as= Andrew Schepflin

#### SECONDARY MINERALS

Q = Quartz		Rare	<< 1%
C = Calcite		Trace	< 1%
P = Pyrite		Minor	1% to 4%
Pr = Pyrrhotite		Common	4% to 7%
H = Hematite		Abundant	7% to 10%
Ch = Chlorite			> 10%
Cl = Clay			
S = Sulfur			
A = Alum (Alunite)			

Tecton Geologic			Alum 26-19			Scale 1: 1000			
Drilling Data			Lithology	Minerals	Temperatures		Circulation		Descriptions
ROP					Temperature In		Pit Total		
200	m/hr	0			Temperature Out		0	kl 100	
Weight on Bit					deg C		Pump Pressure		
0	kg X 1000	80	<div>Depth (m)</div>	<div>Clay Epidote Chalcopryite Sanidine Galenite Sulfur Chlorite Alum Hematite Pyrite Calcite Quartz</div>			0	kpa 20000	
			50						<div>Samples f/27.4m t/243.8 m collected prior to logging Alum 26-19 were identified at the end of the well.</div> <div>SANDSTONE:gry,olive grn,pale grn,pale yellow,sft-mod hd,fn-crs gr,prly srtd,mod cemented,str calcareous,frsh,pred tuffaceous,occ str blchd,sub rndd to ang grs,mod rexln,r qtz,r-com calc,r calc micro vng,r disem &amp; agg pyr,pred lim altd grs until 120',r hem,graded to SILTSTONE:wht,tan,pale grn,olive grn,pale orng,sft-frm,r occ crs lithics,calcareous,r disem &amp; pyr,r hem,graded to MUDSTONE:pale orng,tan,olive grn,v f slty-aphan,sft-frm,com clay altd grs,mixed with CLAY:tan,wht,v sft,slty,sticky,amorph,pr-no relic text.</div> <div>SANDSTONE:lt-med gry,salt&amp; pepper,wk-mod grn cast,mod fm-v hd,loc crumb,ang-subrdd grs,pred mod well strtd,loc ind gr bndrys,loc wk-mod rexln,r loc druzy qtz, r-mnr diss calc,r-mnr diss &amp; vn pyr,r loc horn alt to chl,r loc gypsum,r-mnr silty matrix. SILTSTONE:lt-med gry,buff,red-brn,loc grn cast,mod sft-mod hd,loc sandy,loc gypsum bearing,r-mnr diss calc,r-tr fn lams. CLAY:lt-med gry,med soluble,r loc sticky.TUFF: Med gry,buff,dull,waxy,hd-v hd,pred ind gr brnrys,r loc flattened k-spar grs.</div> <div>SANDSTONE:lt-med gry,wht,tan,olive gry-olive grn,occ salt &amp; pepper,mod mod hd-v hd,loc crumb,ang-subrdd grs,prly-mod well strtd,locind gr bndrs,loc wk-mod rexln,r loc druzy qtz, r-mnr disem calc, tr-mnr disem/agg/vng pyr,r loc gypsum,r-mnr silty matrix,SILTSTONE:lt-med gry,tan,pale orng,red-brn,loc olive grn,mod sft-mod hd,loc sandy,loc gypsum bearing,r calc,com lams,MUDSTONE:brnsh gry,tan,v slty-aphan,frm-mod hd,com bedd with vis sandstone &amp; siltstone,tr-mnr disem/agg/vng pyrCLAY:lt-med gry,tan,med soluble,amorph,r loc sticky.</div>
			100						
			150						
			200						
			250						
NB#3 HTC TSXA6144C 2/28 ml					Temp Out Removed Due To Magnet		no losses		<div>Abandon original hole andstart Alum 26-19 ST on 2/28/10 making new 6 1/8" hole f/259.7 m</div> <div>SILTSTONE:med-dk gry,dk brn,occ tan,frm-mod hd,fissle,occ laminated,wk-str calcareous,r agg &amp; vn pyr,tr metallic stringers (magnetic),r qtz micro vng,loc grading to SANDSTONE:tan-white,mod hd-hd,mod rexln,fn-med gr,com lith frags,calc-siliceous cement,prly srtd,r lithic frags,loc r agg pyr.30-40% CLAY:lt gry-white,soft,aphan,silty,pr-no relic text.</div>
14.3m/1hr 3/1 as					BUI=21 degC		no losses		
RRB#1 Hughes HC406ZX							incr pump rate		
WOB 2.7K PP 11,721 SPM 65					23/26 degC		15106 kPa		









