

		Resistivity (8 inch)	Spontaneous Potential	Sonic	Temperature	Well Completion Depth
Lithology	Tuff Walding	0 ohm-meters 1800 0	millivolts	500 300microseconds per foot0 30	degrees centigrade	45 9 0 Radius in inches 9
Unit Name	nonwelded welded	0 ohm-meters 1800		8	ohm-meters	11
		Resistivity (32 inch)				
		0 ohm-meters 1800 Resistivity (64 inch)				
		0 ohm-meters 1800				
(0 to 45 feet [ft]) WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL (SW-SM/SC)						
(45 to 182 5 ft) SILTY_CLAYEY SAND WITH GRAVEL (SM/SC)						- 50
						- 100 ·
						- 150 -
(182.5 to 202.5 ft) ASH-FALL TUFF (RAINIER MESA TUFF)						200
(202.5 to 355 ft) ASH-FLOW TUFF (TIVA CANYON TUFF) (202.5 to 339 ft) LOWER NONLITHPHYSAL ZONE						
						- 250 -
						- 300 -
(339 to 349 ft) BASAL VITROPHYRE						- 350
(349 to 355 ft) NONWELDED BASAL ZONE (355 to 400 ft) ASH-FALL TUFF (PRE-TIVA CANYON TUFF)	_					
(400 to 1,180 ft) ASH-FLOW TUFF (TOPOPAH SPRING TUFF)						- 400 -
(400 TO 600 TE) UPPER NONLITHOPHYSAL ZONE						
						- 450 -
						- 500
						- 550 -
					1	
(600 to 665 ft) UPPER LITHOPHYSAL ZONE			\$			- 600 -
						- 650
(665 to 740 ft) MIDDLE NONLITHOPHYSAL ZONE			$\langle \rangle$			
			<u> </u>			- 700 -
	_	5 55	<u>}</u>			750
		SS				
			\			- 800 -
		S Star				
						- 850 -
						- 900
		E E	Z			
			<b>k</b>			
(1.015 to 1.062 ft) LOWER NONLITHOPHYSAL ZONE						- 1000 -
		3633				- 1050
(1,062 to 1,180 ft) BASAL VITROPHYRE		E	)			
						- 1100 -
			$\sum$			
			4		H	- 1150 -
(1,180 to 1,355 ft) REWORKED ASH-FLOW TUFF, VOLCANICLASTIC SANDSTONE AND ASH-FLOW TUFF (PRE-TOPOPAH SPRING BEDDED TUFFS)						- 1200 -
					$\left\{ \right\}$	
						- 1250 -
						- 1300
(1.355 to 1.765 ft) ASH-FLOW TUFF (PROW PASS TUFF)			{			- 1350 ·
		}	}			- 1400 -
						- 1450
						- 1500 -
						- 1550
		1 I I I I I I I I I I I I I I I I I I I				
						- 1600 ·
		and the second sec				
						- 1650 -
			}			- 1700
			کر			
		<u> </u>		$\rightarrow$		- 1750 -
(1,703 IO 1,900 IL TOTAL DEPTR) ASH-FLOW TUFF (BULLFROG TUFF)						1800
			$\langle$			
						- 1850 -
		₩				1000

Plate 1

Comparison of Geophysical Logging, Lithology, and Well Completion Information for 27P

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.

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## Plate 2 Comparison of Geophysical Logging, Lithology, and

Well Completion Information for 16P

Depth 1 in:100 ft	Natural Gamma (Run 1)	Caliper		Lithology		Resistivity (8 inch, 2 runs merged)	Spontaneous Potential (Run 1)	Sonic	Fluid Temperature (Run 1)	Well Completion Depth
0	counts per second 44 Natural Gamma (Run 2)	100 0 inches 30	Unit Description	Unit Name	Tuff Welding	0 ohm-meters 180 Resistivity (16 inch, 2 runs merged)	0 0 millivolts 500 Spontaneous Potential (Run 2)	300 microseconds per foot 0	0 degrees centigrade Fluid Temperature (Run 2)	65 9 Radius in inches 9
0	counts per second 4	100		·	nonwelded weld	ded 0 ohm-meters 180 Resistivity (32 inch 2 runs merged)	0 0 millivolts 500		0 degrees centigrade Fluid Resistivity (Run 1)	65
						0 ohm-meters 180	<b>⊣</b> 0		0 ohm-meters	30
						Resistivity (64 inch, 2 runs merged)	-		Fluid Resistivity (Run 2)	
- 0 +	5			(0 to 166 feet [ft]) SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)		0 ohm-meters 180	0		0 ohm-meters	
- 50 -										- 50
- 100 -		<u> </u>								- 100 -
450	<u>A</u>	المراجع								
- 150	$\sim$	\$								- 150 -
200										200 -
200	M			$\vee$ + $\vee$ + $\vee$ +						
- 250			-	$\vee + \vee +$ $\vee + \vee +$						- 250 -
	- And - an			$\vee$ + $\vee$ + $\vee$ +						
- 300				$\vee$ + $\vee$ +					}	- 300 -
				$\vee + \vee +$ $\vee + \vee +$						
- 350	<u>č</u>			$\vee + \vee +$ $\vee + \vee +$						- 350 -
	A CONTRACT OF A			$\vee$ + $\vee$ + $\vee$ +						
- 400 -			Gradational contact with overlying ash-flow tuff. Upper 5 feet of unit is highly weathered and argillic; remainder of unit is unweathered.	(395 to 720 ft) ASH-FLOW TUFF (RAINIER MESA TUFF)						- 400 -
450	NAMA NAMA									
400		Ş								- 450 -
L <b>∭</b> <sup>300</sup>										500 -
	Real Provide American Science Provide American									
- 550 -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		- 550 -
	Second Second	L L				<pre> ///</pre>				
- 600 -										- 600 -
- 650 -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							E.		- 650 -
- 700										700
	And									- 700 -
- 750 -			Nonweided, moderately weathered.	(120 10 070 11) ASTI-FLOW TUFF (KANIEK MESA TUFF)			<u>}</u>		<u> </u>	- 750 -
	" MANA		Highly weathered, clayey, crystal ash. No observed pumice or lithic clasts. Possible paleosol.					2	E I	
- 800	<u> </u>		Slightly to moderately weathered.				<u> </u>	<b>&gt;</b>		- 800 -
		{					}	2		
- 850	<u></u>							<u>~</u>		- 850 -
	2		Dense, popporous matrix, moderately weathered, yapor-phase alteration as grain contact.	(876 to 1,065 ft) ASH-FLOW TUFF (TIVA CANYON TUFF): (876 to 900 ft) UPPER LITHOPHYSAL ZONE		1 z	<u>}</u>			
- 900 -			Densely welded, devitrified.	(900 to 1,000 ft) MIDDLE NONLITHOPHYSAL ZONE			<u> </u>			- 900 -
050	- Alexandre - A						<u>}</u>			050
- 950 -		2								- 950 -
- 1000 -							<b>}</b>			- 1000 -
			Densely welded, vapor-phase alteration as grain coatings.	(1,000 to 1,020 ft) LOWER LITHOPHYSAL ZONE           (1,020 to 1,045 ft) BASAL VITROPHYRE						
- 1050 -	55		Nonwelded, devitrified.	() (1,045 to 1,065 ft) NONWELDED BASAL ZONE			2			- 1050 -
			Sharp contact. + + + + Nonwelded, vitric, weathered with an open, porous matrix.	+ + + + (1,065 to 1,080 ft) ASH-FALL TUFF (PRE-TIVA CANYON TUFF)			{			
- 1100 -			Nonwelded, pumice rich.	(1,000 to 1,005 ft) UPPER NONWELDED ZONE (1,005 to 1,005 ft) UPPER NONWELDED ZONE						- 1100 -
	A CALL AND		Weakly to densely welded. Welding increases with depth.	(1,115 to 1,175 ft) UPPER NONLYTHOPHYSAL ZONE			{			
- 1150 -							<pre>{</pre>			- 1150 -
- 1200 -			Moderately to densely welded, devitrified with intense vapor-phase alteration.	(1,175 to 1,330 ft) UPPER LITHOPHYSAL ZONE			3			- 1200 -
1200		<u>گ</u> ج				5	3			
- 1250 -							~~~~~			- 1250 -
	A MARK									
- 1300 -	<u>M</u>						}			- 1300 -
	A.		Moderately to densely welded.	<pre>// // // // // // /// ///////////////</pre>		85				
- 1350 -							ξ			- 1350 -
_ 1400	- Mar					E .	<u>}</u>			
1400			Gradational contact. Moderately to densely welded, intense vapor-phase alteration.	(1,400 to 1,595 ft) LOWER LITHOPHYSAL ZONE		the second secon				- 1400 -
- 1450 -	<u> </u>						<u> </u>			- 1450 -
	J.W.									
- 1500 -							<u> </u>			- 1500 -
	N.N.					Jer B	}			
- 1550 -	¥									- 1550 -
	<u>E</u>									
- 1600 +	Nur		Moderately to densely welded, vapor-phase alteration as grain coatings.	(1,595 to 1,723 ft) LOWER NONLITHOPHYSAL ZONE		5	}			- 1600 -
- 1650 -							}			1650
	www.					<b>S</b>				1000
- 1700 -										- 1700 -
			Densely welded, vitric, aphanitic, partial argillic or zeolitic alteration.	<pre>// // // // // // // // /////////////</pre>						
- 1750										- 1750 -
			Nonwelded to weakly welded, devitrified.	(1,773 to 1,810 ft) NONWELDED BASAL ZONE						
- 1800 +	<u> </u>		Nonwelded, devitrified, argillically altered, open, porous matrix.	K K K K F F F F F F F F F F F F F F F F F F F			<u> </u>			- 1800 -
4050			Nonwelded, devitrified, open, porous matrix. Weakly to highly weathered with arrillic alteration of numice claster	(1,820 to 1,905 ft) ASH-FLOW TUFF (WAHMONIE FORMATION)			4			
1850	<u> </u>									- 1850 -
- 1900 -	ž									- 1900 -
	have		Nonwelded.	(1,905 to 2,278 ft) ASH-FLOW TUFF (PROW PASS TUFF)						1300
- 1950 -	<u> </u>									- 1950 -
- 2000 -										- 2000 -
	s and a						2			
- 2050 -										- 2050 -
	Anna Contra					4				



Drafted By DSD, LAK Checked By DPH, LAK, DSD Approved By EHP

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.



Lithology				Resistivity (8 inch, 2 runs merged)		Spontar
Unit Name		Tuff Welding		0 ohm-meters Resistivity (16 inch, 2 runs merged)	1800 0	Spontar
	nonwelded		welded	0 ohm-meters Resistivity (32 inch, 2 runs merged)	1800 0	
				0 ohm-meters Resistivity (64 inch. 2 runs merged)	1800	
				0 ohm-meters	1800	
(0 to 45 feet [ft]) INTERBEDDED WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL (SW-SM/SC) AND SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)						
(45 to 70 ft) WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL (SW-SM/SC)						
(70 to 240 ft) SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)						
(240 TO 405 TE) ASH-FLOW TUFF (AMIMONIA TANKS TUFF)						
(405 to 660 ft) ASH-FLOW TUFF (POST-RAINIER MESA TUFF)				- TF-		
				Č .		
				A Company of the second		
(660 to 765 ft) ASH-FLOW TUFF (RAINIER MESA TUFF)						
(765 to 920 ft) ASH-FLOW TUFF (POST-TIVA CANYON TUFF)				L		
(920 to 1,035 ft) ASH-FLOW TUFF (TIVA CANYON TUFF)						
				J. S.		
(1,035 to 1,065 ft) ASH-FALL TUFF (PRE-TIVA CANYON TUFF)				F		
(1,065 to 1,145 ft) ASH-FLOW TUFF (TOPOPAH SPRING TUFF)						
				E Contraction of the second se		
(1,145 to 1,342 ft) ASH-FLOW TUFF (PRE-TRAM TUFF)				F		
(1,342 to 1,400 ft) CALCAREOUS MUDSTONE						
(1,400 to 1,445 ft) CALCAREOUS SANDSTONE						
(1,445 to 1,795 ft) ASH-FALL TUFF (PRE-TRAM TUFF)						
				>		
(1,795 to 1,943 ft) ASH-FLOW TUFF (PRE-TRAM TUFF)						
						Ş
(1,943 to 1,974 ft) ARGILLIZED PYROCLASTIC TUFF (?)						}
(1,974 to 2,080 ft Total Depth) INTERBEDDED CLAYSTONE AND SILTSTONE						(

Plate 3

## Comparison of Geophysical Logging, Lithology, and Well Completion Information for 28P

neous Potential Run 1	Sonic	Fluid Temperature Run 1	Well Completion Depth
millivolts 500 neous Potential Run 2	300 microseconds per foot 0	0 degrees centigrade 65 Fluid Temperature Run 2	9 Radius in inches 9
millivolts 500		0 degrees centrigrade 65 Fluid Resistivity Run 1	
		0 ohm-meters 30 Fluid Resistivity Run 2	
		0 ohm-meters 30	- 0 -
			- 50 -
			- 100 -
			- 150 -
			- 200 -
			- 250 -
			- 300 -
			250
			- 400 -
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			- 1800 -
			- 1850 -
			- 1900 -
			1950 -
]			- 2000 -
{			- 2050 -

Drafted By DSD, LAK Checked By DPH, LAK, DSD Approved By EHP

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.



Lithology Unit Name	Tuff Welding	Resistivity (8 inch)0ohm-meters1800 0Resistivity (16 inch)0	Spontaneous Potential millivolts	Compensated Density (Century Geophysical Corporation)         500       0         grams per cubic centimeter       3	Near Neutron (Century Geophysical Corporation)counts per second12000Far Neutron (Century Geophysical Corporation)	Temperature degrees centigrade Fluid Resistivity	Well Completion Depth 65 9 0 Radius in inches 9
	nonwelded welded	0 ohm-meters 1800 Resistivity (32 inch) 0 ohm-meters 1800 Resistivity (64 inch)		0	counts per second 12000 <sup>0</sup>	ohm-meters	30
0 feet [ft]) INTERBEDDED WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL M/SC) AND SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)		0 ohm-meters 1800					
245 ft) WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL (SW-SM/SC)							
							- 100 -
							- 150 -
							- 200 -
o 400 ft) SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)						{ 	- 250 -
							- 300 -
					MILL MAN		- 350 -
o 890 ft) ASH-FLOW TUFF (BULLFROG TUFF)			M			$\overline{\boldsymbol{\lambda}}$	- 400 -
		A Company of the second					- 450 -
							- 500 -
							- 550 -
					man and a start and a start and a start a star		- 600 -
							- 650 -
							- 700 -
			×				- 750 -
							- 800 -
			~				- 850 -
o 933 ft) SANDSTONE (PRE-BULLFROG SEDIMENTARY ROCKS)		2					- 900 -
o 1,356 ft) ASH-FLOW TUFF (TRAM TUFF)		È.					- 950 -
				A A A A A A A A A A A A A A A A A A A			1000
					and a second sec		- 1050 -
							- 1100 -
							- 1150 -
						}	- 1200 -
					\$		- 1250 -
							- 1300 -
to 1,400 ft) VOLCANICLASTIC SEDIMENTARY ROCK (PRE-TRAM SEDIMENTARY ROCKS)							- 1350 -
to 1,480 ft) REWORKED TUFF (LITHIC RIDGE TUFF)			{				- 1400 -
					<u> </u>		- 1450 -
) to 1,722 ft) ASH-FLOW TUFF (LITHIC RIDGE TUFF)			}				- 1500 -
							- 1550 -
		∮	}			/ }	- 1600 -
					$\frac{1}{\xi}$		- 1650 -
							- 1700 -
to 1,860 ft Total Depth) CLAYSTONE, SILTSTONE AND SANDSTONE (PRE-LITHIC RIDGE MENTARY ROCKS)					L Z		- 1750 -
							1900
							1000 -
							- 1850 -

Plate 4 Comparison of Geophysical Logging, Lithology, and Well Completion Information for 24P

Drafted By DSD, LAK Checked By DPH, LAK, DSD Approved By EHP

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.

Depth	Natural Gamma	Caliper		Lithology		Resistivity (8 inch, repeat section)	Compensated Density (Century Geophysical Corporation)	Near Neutron (Century Geophysical Corporation) Sponta	aneous Potential	Sonic	Temperature	Well Completion Depth
1 11. 30 1	0 counts per second 400 0 Natural Gamma (Century Geophysical Corporation)	inches 30	Unit Description	Unit Name	Tuff Welding	0 ohm-meters 1800 Resistivity (16 inch, repeat section)	0 grams per cubic centimeter 3	6 0 counts per second 12000 0 Far Neutron (Century Geophysical Corporation)	millivolts 500 300	microseconds per foot 0 0	degrees centigrade Fluid Resistivity	65 9 <sup>0</sup> <sub>Radius in inches</sub> 9
- 0 -	0 American Petroleum Institute-Gamma Ray 200	1	Weak to strong reaction to 10 percent (%) hydrochloric acid (HCI);	(0 to 125 feet [ft]) WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL	nonwelded welded	0 ohm-meters 1800		0 counts per second 12000		0	ohm-meters	30
			cementation present as caliche-type grain coatings.					$\overline{\boldsymbol{\varsigma}}$				
- 50 -												- 50
							N.					
								LANNA HA				
- 100 -			No reaction to 10% HCI; weak to moderate cementation.									- 100 -
			No reaction to 10% HCl; weak to moderate cementation.	(125 to 265 ft) INTERBEDDED SILTY, CLAYEY SAND WITH GRAVEL (SM/SC) AND WELL-GRADED SAND WITH SILT, CLAY AND GRAVEL (SW-SM/SC)								
- 150 -		~ ~										- 150 -
- 200 -		- And										- 200 -
		Man						M M				
		show a						When the second se				
- 250 -												- 250
		**		(265 to 320 ft) SILTY, CLAYEY SAND WITH GRAVEL (SM/SC)				May Mark				
- 200		Mar and a second s	No reaction to 10% HCl; weak cementation.									
- 300 -			Strong reaction to 10% HCl; strong cementation near bedrock interface.									- 300
			Densely welded, devitrified, unweathered to slightly weathered.	<pre>(320 to 378 ft) ASH-FLOW TUFF (TIVA CANYON TUFF) </pre>								
			Sharp contact with underlying unit.						~			- 350
0		non Mu	<><><><><><><><><><><><><><><><><><><>	<>< <><		5			}			
			Moderately weided; signity to moderately weathered; open, porous matrix. Sharp contact with the underlying unit.	(378 to 410 ft) ASH-FALL TUFF (PRE-TIVA CANYON TUFF)								
- 400 -		<u>ر</u>	Nonwelded, devitrified, slightly weathered. Open, porous matrix, probably poorly consolidated. Gradational contact with underlying unit.	+								- 400
		<u> </u>	Weakly to moderately welded; open, porous matrix; welding increases toward sharp contact with vitrophyre.	+       -         (410 to 640 ft) ASH-FLOW TUFF (TOPOPAH SPRING TUFF):         (410 to 425 ft) UPPER MODERATELY WELDED ZONE					}			
		-	Densely welded glassy tuff; dense non porous matrix, interlayered with soft, zeolitized material.	(425 to 503 ft.) UPPER VITROPHYRE						1 Mm		
- 450 -						5	Ş					- 450 -
						$\int$			}			
- 500 -			Moderately welded	(503 to 600 ft ) MIDDLE NONLYTHOPHYSAL ZONE								- 500
		e e e e e e e e e e e e e e e e e e e	Densely welded; devitrified; dense, non porous matrix. Variable zones of vapor-phase alteration at 520 to 525.						{	La contra c		
			550 to 555, 565 to 570, and 585 to 595 ft. Welding increases toward gradational contact with underlying unit.									
- 550 -												- 550
		M M							}			
						l l				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
- 600 -			Densely welded and glassy; dense non porous matrix, sharp contact with underlying unit.	(600 to 611 ft.) BASAL VITROPHYRE								- 600
			Moderately to densely welded; dense, non porous matrix. Distinctive volcaniclastic texture present. Sharp contact with underlying unit.	(611 to 640 ft.) LOWER MODERATELY WELDED ZONE						M		
		<b>پر</b>	Nonwelded; devitrified; open, porous matrix; slightly weathered.	(640 to 700 ft) ASH-FALL TUFF (BEDDED TUFF OF PRE-TOPOPAH SPRING			sector sect			5		
- 650 -			Sharp contact with underlying unit. $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	+ TUFF)						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		- 650
			+ + + + + + + + + + + + + + + + + + +				A A A A A A A A A A A A A A A A A A A	North May		2		
			+ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$ $+$	+ + + + + + + +					{			
- 700 -			Well-sorted, well-rounded grains of quartz, feldspar, volcanic glass, and biotite. Drilling refusal in "flowing sand."	(700 to 790.7 ft Total Depth) VOLCANICLASTIC SANDSTONE								- 700
_ 750												
100 -												- 750 -
- 800 -												

## Plate 5 Comparison of Geophysical Logging, Lithology, and Well Completion Information for 29P

Drafted By DSD, LAK Checked By DPH, LAK, DSD Approved By EHP

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.

## Plate 6 Comparison of Geophysical Logging, Lithology, and

Well Completion Information for 19PB

Depth Natural Gamma (Century Geophysical Corporation)	Lithelegy	Percent Fines	Compensated Density (Century Geophysical Corporation)	Near Neutron (Century Geophys	sical Corporation)	Temperature	Well Completion Depth
1 in:20 ft 0 American Petroleum Institute-Gamma Ray 200	Unit Name and Description	0 1	1000grams per cubic centimeter3	0 counts per second Far Neutron (Century Geophysi	12000 0 ical Corporation)	degrees centigrade	65 9 0 9 Radius in inches 9
				0 counts per second	12000		
0							
	(0 to 350.8 feet [ft]) UNDIFFERENTIATED ALLUVIUM Not sampled.						
				3			
- 20 -			<u>Ş</u>				20 -
- 40			<b>Ş</b>	\$			
			ž –				
- 60							- 60 -
- 80 -							- 80 -
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- 100 -				2			- 100 -
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			3				
			ξ.				- 180 -



440		••••••••••••••••••••••••••••••••••••••	interval. Fines range from low to moderate plasticity. Gravel clasts are volcanic in origin and subrounded. Color is predominantly reddish yellow (5YR 6/6) to yellowish red (5YR 5/6). Weak cementation is observed throughout the interval; however, no reaction to 10% HCl was observed. All samples are wet.			Ę		110
440	And want & Marcan A		(442.9 to 484.4 ft) POORLY-GRADED GRAVEL WITH SILT (GP-GM) AND WELL-GRADED GRAVEL WITH CLAY (GW-GC): In this interval, layers of GP-GM up to 3.5 ft thick and GW-GC up to 2.2 ft thick predominate. Lesser well-graded gravel with silt (GW-GM), clayey gravel (GC), well-graded gravel (GW), poorly graded gravel (GP), poorly graded gravel with clay (GP-GC), poorly graded sand with clay (SP-SC), poorly graded sand with silt (SP-SM), and well-graded sand with clay (SW-SC) occur in roughly equal proportions. Fines have low plasticity. Clasts are volcanic in origin and subrounded. Color is predominantly yellowish red (5YR 5/6) to reddish yellow (SYR 6/6), reddish to 10% HCl is observed. All samples are wet.		Martin			440 -
400	When the second se					m and the second s		- 400 -
- 480	And the second s		(484.4 to 503.4 ft) CLAYEY SAND (SC) AND POORLY GRADED GRAVEL WITH CLAY (GP-GC): In this interval, layers of SC up to 1.9 ft thick and GP-GC up to 2.3 ft thick predominate. Lesser well-graded gravel with clay (GW-GC), clayey gravel (GC), well-graded gravel (GW) and silty sand (SM) occur in roughly proportional amounts. Fines have low plasticity. Gravel clasts are volcanic in origin and subrounded. Color is predominantly reddish yellow (5YR 6/6) to reddish brown (5YR 5/4), strong brown (7.5YR 5/6), and reddish yellow (7.5 YR 5/6). Weak cementation is observed throughout the interval. No reaction to 10% HCl is observed. All samples are wet.		Maria			- 480 -
- 520	And the second s		(503.4 to 530.4 ft) POORLY GRADED SAND WITH CLAY (SP-SC) AND POORLY-GRADED SAND WITH SILT (SP-SM): In this interval, layers of SP-SC up to 2.6 ft thick and SP-SM up to 2.1 ft thick predominate. Lesser poorly graded gravel with silt (GP-GM), poorly graded gravel with clay (GP-GC), poorly graded gravel (GP), well-graded gravel with clay (GW-GC), well-graded sand with clay (SW-SC) and clayey sand (SC) occur in roughly proportional amounts. Fines have low plasticity. Gravel clasts are volcanic in origin and subrounded to subangular, with the percentage of subangular clasts increasing toward the base of the interval. Color is predominantly strong brown (7.5YR 5/6) to reddish yellow (7.5YR 6/6). Weak cementation is observed throughout the interval. No reaction with 10% HCl is observed. All samples are wet.					- 520 -
- 540			(530.4 to 547.6 ft) CLAYEY SAND (SC) AND POORLY GRADED GRAVEL WITH CLAY (GP-GC): In this interval, layers of SC up to 3.0 ft thick and GP-GC up to 2.5 ft thick predominate. Lesser clayey gravel (GC) also occurs. Fines have low plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly reddish brown (5YR 5/4) to light brown (7.5YR 6/4), yellowish red (5YR 4/6), brown (7.5YR 5/4), and strong brown (7.5YR 5/6). Weak cementation is observed throughout the interval. No reaction to 10% HCl is observed. All samples are wet.					- 540 -
- 560	and the second sec		(547.6 to 568.6 ft) CLAYEY SAND (SC): In this interval, layers of SC up to 3.0 ft thick predominate. Lesser clayey gravel (GC) is also present. Fines range from low to moderate plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly reddish brown (5YR 5/4) to brown (7.5YR 5/4). Weak cementation is observed throughout the interval. No reaction to 10% HCl is observed. All samples are wet.		And a state of the			- 560 -
590	A A A A A A A A A A A A A A A A A A A		(568.6 to 589.8 ft) CLAYEY GRAVEL (GC) AND CLAYEY SAND (SC): In this interval, layers of GC up to 3.3 ft thick and SC up to 2.2 ft thick predominate. Lesser poorly graded sand with clay (SP-SC), poorly graded sand with silt (SP-SM), poorly graded gravel with clay (GP-GC), and well-graded gravel with clay (GW-GC) occur in roughly equal proportions. Fines range from low to modrate plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly yellowish red (5YR 5/6 5YR 4/6) to light brown (7.5YR 6/4), brown (7.5YR 4/3, 10YR 5/3), yellowish brown (10YR 5/4, 10YR 5/6, 10YR 5/8), and reddish yellow (7.5YR 6/6). Weak cementation is observed from 568.6		James and the second seco			520
000	Market		to 570.1 ft. No cementation was observed from 570.1 to 589.8 ft. No reaction to 10% HCl is observed. All samples are wet. (589.8 to 602.9 ft) CLAYEY SAND WITH GRAVEL (SC): The interval consists of layers of SC up to 2.3 ft thick with gravel. Fines have low plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly yellowish red (5YR 5/6) to light brown (7.5YR 6/4), and reddish yellow (7.5YR 6/6). No cementation is observed. Weak reaction to 10% HCl is observed from 593.6 to 594.6 ft. All samples are wet.					360 -
- 600 +	To and the second se		(602.9 to 618.9 ft) CLAYEY SAND (SC) AND WELL-GRADED SAND WITH SILT (SW-SM): In this interval, layers of SC up to 2.7 ft thick and SW-SM up to 1.6 ft thick predominate. Lesser clayey gravel (GC), silty sand (SM), poorly graded sand with clay (SP-SC), poorly graded gravel with clay (GP-GC), and well-graded gravel with clay (GW-GC) occur in roughly equal proportions. Fines range from no to low plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly light brown (7.5 YR 6/4) to yellowish red (5YR 4/6), brown (7.5YR 4/3), and strong brown (7.5YR 4/6). No cementation or reaction to 10% HCl is observed. All samples are wet.					- 600 -
- 620			<ul> <li>(618.9 to 624.9 ft) SILTY SAND WITH GRAVEL (SM): The interval is composed of layers of SM up to 1.5 ft thick. Fines range from low to moderate plasticity. Gravel clasts are volcanic in origin and subangular. Color is strong brown (7.5YR 4/6). No cementation or reaction with 10% HCl is observed. All samples are wet.</li> <li>(624.9 to 633.8 ft Total Depth) CLAYEY SAND WITH GRAVEL (SC): In this interval, layers of SC up to 2.7 ft thick predominate. Lesser clayey gravel (GC) is also present. Fines have low plasticity. Gravel clasts are volcanic in origin and subangular. Color is predominantly light reddish brown (5YR 6/4) to reddish brown (5YR 5/4, 5YR 4/3), and yellowish red (5YR 5/6). No</li> </ul>	F		<u></u>		- 620 -

Drafted By DSD, LAK Checked By DPH, LAK, DSD Approved By EHP

Data Sources: Geophysical logs run by Century Geophysical Corporation and Geophysical Logging Services Inc. Some geophysical logs may have been censored for this report. Refer to Table 6.2-1 for details. Geologic logging and interpretations performed by Nye County staff and contract geologists.