Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | Rock Unit | | | |

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | | Structure | | | | Matrix | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | Rock Unit: Carbonate | | | | Weathering | | | | Structure | | | | Matrix | | Phenocrysts: Mafics | | | Phenocrysts: Quartz | | | Phenocrysts: Feldspar | | | Clasts: Pumice | | | Clasts: Lithics | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | HCL Reaction | | | Rock Unit | | | |

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | Structure | | | | Matrix | | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | | Structure | | | | | Matrix | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | Structure | | | | Matrix | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | | Rock Unit: Tuff: Deposition | | | Tuff: Welding | | | | Tuff: Alteration | | | | | Sedimentary | | | | | | Carbonate | | | Other | Weathering | | | | | Structure | | | | | Matrix | | Phenocrysts: Mafics | | | Phenocrysts: Quartz | | | Phenocrysts: Feldspar | | | Clasts: Pumice | | | Clasts: Lithics | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

Logged		Checked		Sample Number	Depth Interval (feet/bgs)		Drilling/Coring Data				Sample Density Data				Munsell Color Symbol	Moisture Content				HCL Reaction			Rock Unit: Tuff									Rock Unit: Sedimentary								Rock Unit: Carbonate			Rock Unit: Other	Weathering					Structure				Matrix		Phenocrysts									Clasts					
																							Tuff									Sedimentary								Carbonate																															
																							Deposition			Welding		Alteration																																										
Date	By	Date	By		From	To	Liquid Drilling Fluid Injection Rate (gpm)	Drilling / Coring Rate (ft/min)	Water Production (gpm)	Sample Recovery (gal)	Borehole Diameter (inch)	Tare Weight (kg)	Sample Plus Tare Weight (kg)	Sample Weight (kg)		NA	DRY	MOIST	WET	NONE	WEAK	STRONG	ASH FALL	ASH FLOW	REWORKED	DENSE	MODERATE	WEAK	NONE	VITRIC	DEVITRIFIED	MATRIX	VAPOR PHASE	SPHERULITIC	CLAYSTONE	MUDSTONE	SILTSTONE	SANDSTONE	CONGLOMERATE	CHERT	LIMESTONE	DOLOMITE	OTHER	FRESH	SLIGHT	MODERATE	HIGH	DECOMPOSED	NONE OBSERVED	STRAIFIED	LAMINATED	FRACTURED	OTHER	DENSE/NONPOROUS	OPEN/POROUS	OTHER	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)	% by Vol.	Munsell Color Symbol	Max. Size (mm)
08/06/03	EJH	11/25/03	BW	24P-1440-1445	1440.00	1445.00	1.0	0.7	110.0	2.0	6.3				n4 5Y 4/4				✓	✓								✓									✓								✓			✓					✓		2	N1	1										50	N5 5YR 2/1	11
08/06/03	EJH	11/25/03	BW	24P-1445-1450	1445.00	1450.00	1.0	0.7	110.0	2.0	6.3				n4 5Y 4/4				✓	✓								✓								✓								✓			✓					✓		1	N1	1										30	N5 5YR 2/1	4
08/06/03	EJH	11/25/03	BW	24P-1450-1455	1450.00	1455.00	1.0	0.7	110.0	2.0	6.3				n4 5Y 4/4				✓	✓			✓					✓		✓																✓			✓					✓		2	N1	1	2	N8	4	1	CL	2	2	10Y 6/6	2	20	N5 5YR 2/1	5
08/06/03	EJH	11/25/03	BW	24P-1455-1460	1455.00	1460.00	1.0	0.7	110.0	2.5	6.3				10YR 6/6				✓	✓								✓									✓								✓			✓					✓		1	N1	1										50	N5 5YR 2/1	10
08/06/03	EJH	11/25/03	BW	24P-1460-1465	1460.00	1465.00	1.0	0.8	110.0	2.5	6.3				10YR 6/6				✓	✓								✓									✓								✓			✓					✓		1	N1	1								10	5Y 8/4	2	10	N5 5YR 2/1	12
08/06/03	EJH	11/25/03	BW	24P-1465-1470	1465.00	1470.00	1.0	0.8	110.0	2.5	6.3				10YR 6/6				✓	✓								✓									✓								✓			✓					✓		1	N1	1								8	5Y 8/4	2	10	N5 5YR 2/1	6
08/06/03	EJH	11/25/03	BW	24P-1470-1475	1470.00	1475.00	1.0	0.8	110.0	2.5	6.3				10YR 6/6				✓	✓								✓									✓								✓			✓					✓		1	N1	1								10	5Y 8/4	2	20	N5 5YR 2/1	7
08/06/03	EJH	11/25/03	BW	24P-1475-1480	1475.00	1480.00	1.0	0.8	110.0	3.0	6.3				10YR 6/6				✓	✓								✓									✓								✓			✓					✓		1	N1	1								10	5Y 8/4	3	10	N4 10R 4/6	20
08/06/03	EJH	11/25/03	BW	24P-1480-1485	1480.00	1485.00	1.0	1.1	122.0	2.0	6.3				10YR 6/6 10R 4/6				✓	✓			✓					✓		✓														✓			✓					✓		1	N1	1								10	5Y 8/4	2	5	5YR 4/4	5
08/06/03	EJH	11/25/03	BW	24P-1485-1490	1485.00	1490.00	1.0	1.1	122.0	2.5	6.3				10R 4/6				✓	✓			✓					✓		✓														✓			✓					✓		1	N1	2	1	N8	1				10	5Y 8/4	4	5	5YR 4/4	6
08/06/03	EJH	11/25/03	BW	24P-1490-1495	1490.00	1495.00	1.0	1.1	122.0	2.0	6.3				10R 4/6 10YR 6/6				✓	✓			✓					✓		✓														✓			✓					✓		1	N1	1								15	5Y 8/4	5			
08/06/03	EJH	11/25/03	BW	24P-1495-1500	1495.00	1500.00	1.0	1.1	122.0	3.0	6.3				10R 4/6 5YR 5/6				✓	✓			✓					✓		✓														✓			✓					✓		1	N1	1	1	N8	1				20	5Y 8/4	4	5	5YR 5/2	6
08/06/03	EJH	11/25/03	BW	24P-1500-1505	1500.00	1505.00	1.0	0.6	122.0	3.0	6.3				10YR 6/6				✓	✓			✓					✓		✓														✓			✓					✓		2	N1	2	3	N7	1				10	10Y 8/2	5	5	N4 5YR 5/2	3
08/06/03	EJH	11/25/03	BW	24P-1505-1510	1505.00	1510.00	1.0	0.6	122.0	2.0	6.3				10YR 6/6 5YR 3/2				✓	✓			✓					✓		✓													✓			✓					✓		3	N1	1	1	CL	1				10	10Y 8/2	3	5	N4 5YR 5/2	4
08/06/03	EJH	11/25/03	BW	24P-1510-1515	1510.00	1515.00	1.0	0.6	122.0	2.5	6.3				10YR 6/6 10YR 5/4				✓	✓			✓					✓		✓													✓			✓					✓		3	N1	1	1	CL	1	1	CL	1	5	10Y 8/2	4	5	N4 5YR 5/2	4
08/06/03	EJH	11/25/03	BW	24P-1515-1520	1515.00	1520.00	1.0	0.6	122.0	2.5	6.3				10YR 6/6 10YR 5/4				✓	✓			✓					✓		✓													✓			✓					✓		4	N1	2	3	N7	1				10	10Y 8/2	3	5	N4 5YR 5/2	10
08/06/03	EJH	11/25/03	BW	24P-1520-1525	1520.00	1525.00	1.0	0.7	114.0	2.5	6.3				10YR 6/6				✓	✓			✓					✓		✓													✓			✓					✓		2	N1	1	1	N7	1				5	10Y 8/2	2	20	N4	2
08/06/03	EJH	11/25/03	BW	24P-1525-1530	1525.00	1530.00	1.0	0.7	114.0	2.5	6.3				10YR 6/6				✓	✓			✓					✓		✓													✓			✓					✓					1	N7	1				8	10Y 8/2	3	15	N4	4
08/06/03	EJH	11/25/03	BW	24P-1530-1535	1530.00	1535.00	1.0	0.7	114.0	2.5	6.3				10YR 6/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	1				10	10Y 8/2	4	10	N4	4
08/06/03	EJH	11/25/03	BW	24P-1535-1540	1535.00	1540.00	1.0	0.7	114.0	2.5	6.3				10YR 6/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	1				8	10Y 8/2	3	20	N4 & N5	4
08/06/03	EJH	11/25/03	BW	24P-1540-1545	1540.00	1545.00	1.0	0.8	114.0	2.5	6.3				5YR 4/4				✓	✓			✓					✓		✓													✓			✓					✓		3	N1	1	1	N7	1	1	CL	1	4	10Y 8/2	4	15	N4 & N5	3
08/06/03	EJH	11/25/03	BW	24P-1545-1550	1545.00	1550.00	1.0	0.8	114.0	2.5	6.3				5YR 4/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	1				3	10Y 8/2	3	15	N4 & N5	3
08/06/03	EJH	11/25/03	BW	24P-1550-1555	1550.00	1555.00	1.0	0.8	114.0	2.5	6.3				5YR 4/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1								5	10Y 8/2	3	5	N4 & N5	2
08/06/03	EJH	11/25/03	BW	24P-1555-1560	1555.00	1560.00	1.0	0.8	114.0	2.5	6.3				5YR 4/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	1				1	10Y 8/2	2	4	N4 & N5	9
08/06/03	EJH	11/25/03	BW	24P-1560-1565	1560.00	1565.00	1.0	0.7	109.0	2.5	6.3				5YR 4/6				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	2	1	CL	1	1	N9	2	4	N5	10
08/06/03	EJH	11/25/03	BW	24P-1565-1570	1565.00	1570.00	1.0	0.7	109.0	2.5	6.3				10R 3/4				✓	✓			✓					✓		✓													✓			✓					✓		1	N1	1	1	N7	2				4	10Y 8/2	2	5	N5	4

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | | Structure | | | | Matrix | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | Rock Unit: Tuff | | | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | | Structure | | | | | Matrix | | Phenocrysts | | | | | | | | | Clasts | | | | | |
|---|---|---

Non-Alluvium Logging Form - Nye County Nuclear Waste Repository Project Office

Borehole ID: **NC-EWDP-24P** (Phase 4) Driller/Drilling Company: Greg Secrist/Eklund Drilling Co. Drilling Method: Reverse Circulation Air Rotary Alluvium Depth (ft bgs): 400 to 1860 Start Date: 7/27/2003 End Date: 8/7/2003

| Logged | | Checked | | Sample Number | Depth Interval (feet/bgs) | | Drilling/Coring Data | | | | Sample Density Data | | | | Munsell Color Symbol | Moisture Content | | | | HCL Reaction | | | | Rock Unit: Tuff | | | | | | | | | | Rock Unit: Sedimentary | | | | | | | | Rock Unit: Carbonate | | | Rock Unit: Other | Weathering | | | | | Structure | | | | Matrix | | | Phenocrysts | | | | | | | | | Clasts | | | | | | | | |
|---|---|---