#### INTERVAL SHEET

WWCR: 202

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Date rec'd: June 30, 1966

PROP: Union Camp Company, well #13

COMP: Layne-Atlantic Company

COUNTY: Isle of Wight

VDMR Well No: 1639

Sample Interval: from 0 to 887

Number of samples: 23

Total Depth: 887 feet

Oil or Gas: Water: X Exploratory:

	Fr	om-To	From-To	From-To	From-To
					110 10
		2.7			
	0	- 34	_	-	-
	34	-60	-	-	-
	60	<del>-</del> 75	_	-	-
	75	-90	-	***	-
	90	100	-	-	-
	100	_110			
		_	_	=	-
	115	- 120	_	_	_
	113	-	_	_	_
	127	- 157	_		_
	127	- 157			
	157	- 190	_	_	-
	190	- 217	_	_	-
	217	- 268	-	-	_
	268	- 338	-	_	_
	338	- 420	-	_	-
	550	120			
	100	-	-	<del>-</del>	-
	428	_ 459		-	==
	459	- 479	-	-	
	No	- Samples	-	-	-
	612	- 643	_	-	
	643	- 673			
			_	<del></del>	_
	673	- 704 -	_	_	_
			_	_	_
	720	_ 773	_	_	_
	782	_ 804	_	_	_
	804	- 825	-	_	-
	825	- 856	-	-	_
	856	- 887	-	_	_
	3000,000		-	_	

All intervals have both washed and unwashed samples.

OWNER: Union Camp Company, well #13

DRILLER: Layne-Atlantic Company

COUNTY: Isle of Wight

VDMR: 1639 WWCR: 202 TOTAL DEPTH: 887'

#### GEOLOGIC LOG

## Depth (feet)

## CHESAPEAKE GROUP (0-90')

- 0 34 Sand buff, slightly argillaceous with some very argillaceous zones; 25% medium grained fresh glauconite and 75% medium- to very coarse-grained quartz sand with some feldspar.
- 34 60 Sand with Limestone lenses gray, silty and argillaceous ("dirty"); medium- to very fine-grained, well-sorted (skewed fine); 60% angular, fine-grained quartz, and 40% fresh, medium-grained glauconite; coarsest fragments are mainly sandy (glauconitic) limestone; traces of muscovite, garnet, phosphorite.
- 60 75 " 75% glauconite, 25% quartz; a few foraminifers
- 75 90 Sand brown, moderately argillaceous; coarse- to very coarse-grained, fairly well-sorted, subangular to slightly subrounded; arkosic; very slightly-glauconitic; traces of garnet and muscovite.

# PAMUNKEY GROUP (90-217')

- 90 100 Sand with Limestone lenses gray, silty and argillaceous ("dirty"); medium- to very fine-grained, well-sorted; 75% fresh glauconite, and 25% quartz; abundant coarser fragments of sandy (glauconite) limestone; small amounts of phosphorite and garnet; a few shell fragments and foraminifers.
- 100 110 Sand grayish-brown, moderately argillaceous; medium- to very coarse-grained, moderately sorted, subangular to subrounded; moderately arkosic; very slightly glauconitic.
- 110 115 No sample
- 115 120 Sand gray, silty; fine- to very fine grained, well-sorted, angular; about 20% fresh glauconite; traces of muscovite and phosphorite; a flew shell fragments.
- 120 127 No sample
- 127 157 Sand brown, very slightly-argillaceous, a few granules; coarse to very coarse -grained, fairly well-sorted, subangular to subrounded; arkosic; very slightly-glauconitic.

157 - 190 Sand with Limestone lenses — gray, silty and argillaceous ("dirty"); medium to coarse-grained, fairly well-sorted; 75-80% fresh glauconite, and 20-25% quartz; abundant coarser fragments of sandy (glauconitic) limestone; pyrite locally abundant in limestone; scattered shell fragments, fish teeth, vertebrae and phosphatic fragments and nodules; traces of muscovite and garnet.

190 - 217

POTOMAC GROUP (217-887')

11

217 - 268 Sand — buff, very argillaceous; coarse- to very-coarse-grained, fairly well-sorted, subangular to slightly-subrounded; slightly to moderately-arkosic; slightly glauconitic; trace of garnet.

268 - 338 !!

338 - 420

420 - 428 No sample

- 428 459 Sand gray, argillaceous, 15-20% granule gravel; medium- to very coarse-grained, rather poorly-sorted; arkosic; slightly glauconitic.
- 459 479 Sand and Gravel gray, slightly argillaceous; 60% fine gravel (2-8 mm), and 40% poorly-sorted sand; arkosic; very slightly-glauconitic; trace of garnet.
- 479 612 No sample
- 612 643 Sand gray, very slightly-argillaceous; very coarse-grained, well-sorted, subrounded, arkosic; trace of garnet.
- 643 673 " 40% granules, very arkosic.
- 673 704 Sand and Gravel brownish-gray, moderately argillaceous; 50% fine gravel (2-6 mm), and 50% coarse, rather poorly-sorted sand; arkosic; trace of glauconite.
- 704 720 No sample
- 720 773 Sand gray, moderately silty, slightly argillaceous; fine- to very coarse-grained, rather poorly-sorted, angular to subrounded; arkosic; slightly glauconitic.
- 773 782 No sample.

782 - 804	Sand — brownish-gray, argillaceo gravel; medium to very coarse-graarkosic; trace of garnet.		
804 - 825	11		
825 - 856	Sand — brown, argillaceous, 5-10% granules and very small pebbles; medium to very coarse-grained, moderately sorted; arkosic.		
856 - 887	Clay — mottled greens, grays, and browns, sandy, a few small pebbles and arkosic.		
	ROCK UNIT	AGE	
0 - 90	Chesapeake Group	Miocene	
90 - 217	Pamunkey Group	Eocene	
217 - 887	Potomac Group	Early Cretaceous	

Virginia Division of Mineral Resources Robert H. Teifke - Geologist August 8, 1966