Page <u>1</u> State Vermont County Chittenden Township Cold Well Operator Vt. Nat. Gas. & Min Well Name Gregoire #1 Township Colchester Sample Descriptions (Type, color, texture, etc.) Sample Depths Dolostone, lt. gray, white, lt. pink; scattered black dolomitic 180 - 184chips (cavings) less than 5%. 184-188 as above 188-192 as above, minor sandy textures. 192-197 as above 197-202 202-227 Sample Gap. Dolostone, buff to pink, more xtalline than above. Dolostone as above, 30% blk & gray chips 227-228 228-230 230-238 as above 238-246 11 ", becoming redder 246-248 248-250 Dolostone, red to pink, sugary 250-254 as above 254-258 Dolostone, buff to pink, as above 258-262 as above 11 262-268 , with white dolostone also 268-271 as abóve Dolostone, lt. gray to pink 271-275 275-283 Dolostone, 1t. gray Dolostone, lt. pink, 20% gray as above 283-290 290-297 Dolostone, white & pink banded bedding, xtalline 297-302 as above 302-305 н 11 , 10% gray, silty shale 305-308 , tr. pyrite 308-313 Dolostone as above, 20% siltstone, tr. conglomerate (breccia) (dolostone pebbles, shale matrix) 313-318 as above Limestone, white, thin-bedded, with blk. shale partings, disturbe Shale, black, calcareous, 30% limestone as above 318-329 329 - 344344-368 as above, tr. slickensides 368-386 as above, no 386-406 11 ,white limestone content decreasing 406-411 Shale as above, white calcite veinlets as fracture fill, 411-431 occasional shale fragments in white calcite 431-438 as above, +r. slickensides 438-445 r. slickensides a: altove 445-452 as above 452-459 11 . 459 - 478, tr. slickensides, white calcite veinlets increasing 11 11 478-498 'n 498-523 , tr. slickensides 11 11 523-543 543-553 11 11 white calcite decreasing It **91** 553-566 н 11 11 11 II 566-593 11 593-615 615-629 Shale, black, silty, slightly dolomitic (loss of shale carbonate content) 629-643 as above 643-658 658-660 Sample Gap 660-698 Shale, black, calcareous, about 20% wht. calcite vein fill 698-740 as above 740-840 840-934 н 934-944 Sample Gap 944-948 Shale as above, slightly calcareous, becoming fissile 948-950 as above, 20% wht. calcite veinlets, 10% quartz grains, clear, 10% (rounded to angular) 950-955 н , some appears silty, some calcite is fibrous, white calcite content decreasing 955-962 11 11 in loss of clear qtz. grains Ŧŧ 962-968 interval 11 11 968-974 5% white calcite, tr. shale, gray, soft 1 11 11 974-982 : 11 * 11 982-995 11 995~1002 1002-1020 2 Sample bags missing 1020-1033 Shale, black, slightly calcareous, 5% wht. calcite vein fill 1033-1041 Sample Gap

Page 2 State Vermont County Chittenden Township Colchester Well Operator Vt. Nat. gas & Min. Well Name Gregoire #1 Sample Descriptions (Type, color, texture, etc.) Sample Depths 1041-1049 Shale, very dark gray to black, carbonate content variable, tr. quartz, clear grains, iron stained 1049-1059. as above 1059-1068 u. 11 1068-1088 Sample Gap 1088-1098 Sh. as above, softer, decrease in calcite content of shale, fiss 1098-1110 Sample Gap 1110-1125 as above 1125-1135 , increase in wht. calcite veinlets . . 11 1135-1145 11 11 1145-1155 , tr. slickensides u. 11 1155-1175 11 11 1175--187 11 n 1187-1199 , wht.calcite decreasing 11 11 1199-1224 , tr. wht. calcite 11 11 1224-1239 5% wht. calcite 1239-1250 Shale, black, moderately fissile, tr. wht. calcite, variable carbonate content in shale 1250-1261 as above 1261-1276 1276-1290 н , 10% wht. calcite н It , some shale dk. gray 1290-1310 TT n , all shale black 1310 - 1333H. 11 1333-1343 1343-1353 Shale, dk. gray, moderately fissile, slightly calcareous 1353-1363 as above 1363-1374 ŧŧ 1374-1389 , shale carbonate content variable 11 ... 1389-1404 , very dk. gray to black, sh. carbonate content variable . 11 1404-1420 1420-1433 11 11 11 11 , 5% white calcite 1433-1443 11 11 1443-1454 1454-1466 Shale, black, moderately fissile, sh. carb. content variable (appears less calcareous than above) 1466-1477 as above 1477-1489 £1 11 н 1489-1504 ,remains slightly calcareous 1504-1517 , 20% wht. calcite veinlets 18 1517-1536 10% , sh. carb. content variable 1536-1550 as above 1550-1567 1567-1586 Shale as above, 5% wht. calcite veinlets, smaller carb. content Sample Gap 1586-1599 1599-1610 as above gradual 1610-1626 change H н 1626-1640 1640-1655 Shale as above, 5% wht. calcite veinlets, sh. very slightly calcareous 1655-1663 as above 1663-1675 Sample Gap Shales, dk. gray and black, 55% blk. as above; 40% dk. gray sh. 1675-1702 silty, calcareous; 5% wht. calcite veinlets 1702-1721 as above 1721-1732 shale carbonate content increasing 11 11 н. n 1732-1755 decreasing, tr. wht. calcite н 11 ** 1755-1763 very low, 11 11 1763-1775 91 11 11 н 1775-1783 variable, 5% 1783-2010 Large Sample Gap

State Vermont	County Chittenden Township Colchester Page	3
Sample Depths	t. Nat. Gas & Min. Well Name <u>Gregoire #1</u> Sample Descriptions (Type, color, texture, etc.)	
2010-2030	Shale, black, moderately calcareous, tr. wht. calcite vei	nlets
2030-2041	as above	mic cb
2041-2055		
2055-2067		
20 67-2079 207 9-2097	u u	
2097-2129	PT TI	
2129-2140	" , tr. pyrite	
2140-2152	Shale as above	
2152-2161	as above	
2161-2171 2171-2180	н н Н н	
2180-2194	н н	
2194-2210	11 II.	
2210-2226		
2226-2236	" " shale carbonate content increasing	
2236-2238 2238-2251	" " , shale carbonate content increasing as above	•
2251-2261		•
2261-2271	FI 11	
2271-2284	11 11	
2284-2296	11 11	_
2296-2308	Shale, black, mod. fissile, sh. carb. content variable, t	r. calc:
2308-2321 2321-2331	Shale, black, "", calcareous, tr. calcite	
2331-2343	li il i	
2343-2353	n n i i i i i i i i i i i i i i i i i i	
2353-2365	_ 17	
2365-2380	17 11	
2380-2390	Sample Gap	•.
2390-2412 2412-2425	Shale as above	
2412-2425	as above	
2438-2440	17 H	
2440-2448	н н	inanin he
2448-2463		
2463-2470		1.
2470-2495 2495-2510	Sample Gap Shale as above	
2510-2521	as above	
2521-2531		
2531-2535	11 DF	
2535-2542	Shale, black, mod. fissile, 5% wht. calcite veinlets, sli shale carbonate content variable	.ckensid
2542-2553 2553-2563	Shale, calcareous as above, 5% wht. calcite Shale as above, tr. white calcite veinlets	
2563-2575	as above	
2575-2587		
2587-2598		
2598-2618		
2618-2633 2633-2649		
2649-2662	" , shale carbonate content variable	
2662-2672	Shale, black, more fissile, calcareous, tr. wht. calcite	
2672-2683	as above	
2683-2691		
2691-2700	n n n ² n	
2700-2709	- 11 It	
2709-2717 2717-2729	и и	
2729-2739	ti și	
2739-2746	51 43	
2746-2757	u u -	
2757-2765		
2765-2775	""" """ aliokonaidoa (in the abale not in the aplaite)	
2775-2789 2789-2803	" " , slickensides (in the shale, not in the calcite)	l.
2803-2819	er tê	
2819-2829		
2829-2840		
2840-2848	47 89 01 71	
2848-2860		

State Vermont	County Chittenden Township Colchester Page 4
	. Nat. Gas & Min. Well Name Gregoire #1
Sample Depths	Sample Descriptions (Type, color, texture, etc.)
2860-2868	Shale, black, fissile, calcareous, 10% wht. calcite veinlets
2868-2874 2874-2887	Shale as above, 5% wht. calcite as above
2887-2897	
2897-2907	
2907-2917	11 11
2917-2927	
2927-2932 2932-2943	Shale as above, tr. wht. calcite
2943-2952	, 5°
2952-2960	" " , 10% " "
2960-2965	" " , 5% " "
2965-2973 2973-2993	Sample Gap Shale as above, tr. " "
2993-3009	as above
3009 to	Largo
4001	Large Sample Gap
4001-4010	
4010-4021	Shale, black, calcareous, fissile, tr. wht. calcite vein fill as above
4021-4034	1) (<u>)</u>
4034-4046	
4046-4056 4056-4070	
4070-4085	n n
4085-4100	
4100-4110	
4110-4127 4127-4147	FT 11
4127-4147	Shale as above, shale carbonate content increasing
4157-4167	Shale, black, very calcareous, moderately fissile, tr. wht. calc
4167-4180	as above
4180-4190	
4190-4209 4209-4219	
4219-4231	17 D
4231-4241	17 11 L
4241-4253	in v
4253-4267 4267-4672	n n
4272-4287	Shale as above, 5% wht. calcite veinlets
4287-4296	" " , tr. " " "
4296-4306	as above
4306-4322 4322-4336	11 17 · · · ·
4336-4356	" , tr. slickensides
4356-4367	Shale, black, very calcareous, mod. fissile, tr. wht. calcite
4367-4379	as above
4379-4388 4388-4398	41 ET TT - 47
4388-4398	IT IT
4410-4422	н н
4422-4432	
4432-4452 4452-4465	
4465-4471	Shale as above, 10% wht. calcite, only slightly fissile
4471-4478	"", 20% "
4478-4485	"", 58 ""
4485-4497 4497-4503	as above, tr. slickensides
4503-4507	" , tr. slickensides Shale, black, very calcareous, slightly fissile, tr. wht. calcit
4508-4515	as above
4515-4532	87 87
4532-4540 4540-4550	
4550-4564	n u
4564-4575	п и
4575-4585	n n
4585-4605 4605-4614	17 77 90 71
4614-4655	Sample Gap

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State Vermont	County Chittenden Township Coicnester
Well Operator Vt.	Nat Gas & Min. Well Name Gregoire #1
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Sample Depths	Sample Descriptions (Type, color, texture, etc.)
4655-4660	Shale, black, very calcareous, slightly fissile, tr. wht. calcite
	5% combination hematitic arkose & (tr.) pink dolostone
4660-4662	as above, tr. pyrite
4662-4666	Shale as above, tr. arkose & dolostone (as above), tr. pyrite
4666-4668	
4668-4673	Shale, black, very calcareous, slightly fissile, tr. wht. calcite
	(a few chips per bag)
4673-4686	as above
4686-4689	n an the second s
4689-4702	n H ,
4702-4713	n n
4713-4914	" , Note: this interval represents 16 samples
4914-4926	50% shale as above, 50% Dolomite, white with a green tint, xtalli
	tr. pyrite, tr. slickensides
4926-4934	80% shale as above, 20% dolomite as above
4934-4944	Shale, as above, 5% wht. calcite vein fill
4944-4962	as above
4962-4972	n n
4972-4978	75% shale as above, 25% wht. dolomite as above
4978-4986	Sample Gap
4986-4992	Shale, black, very calcareous, slightly fissile, tr. wht. calcite
	tr. slickensides
4992-5006	Shale as above, 5% wht. calcite
5006-5014	as above
5014-5020	70% shale as above, 10% shale, dk. gray, moderately calcareous,
	10% wht. calcite, 10% dolomite, white as above
5020-5030	Shale, black as above
5030-5036	Shale as above, 20% dolomite as above
5036-5052	" " , 2% wht. calcite, tr. dolomite as above
5052-5067	"", tr. ""
5067-5071	as above
5071-5075	" , tr. pyrite

<u>TD 5075</u> ft.