F. Fouts No. 1
API #263
Ground Elevation = 1324

	Top	Bottom	Thickness
Tully	610	590	20
Moscow	590	415	175
Tichenor	415	404	11
Ludlowville	404	144	260
Centerfield	144	109	35
Skaneateles	109	-471	580
Mottville	-471	-554	83
Marcellus	-554	-637	83
Cherry Valley	-637	-643	6
Union Springs	-643	-668	25
Onondaga	-668	-735	67
Oriskany	-735	-746	11

F. Buchanan No. 1
API #367
Ground Elevation = 1442

	Top	Bottom	Thickness
	592	569	23
	569	399	170
	399	364	35
	364	109	255
	109	74	35
	74	-506	580
	-506	-585	79
	-585	-665	80
	-665	-671	6
	-671	-696	25
	-696	-749	53
	-749	-764	15

McCloy No. 1
API #433
Ground Elevation = 1481

	Top	Bottom	Thickness
	686	667	19
	667	492	175
	492	481	11
	481	221	260
	221	186	35
	186	-394	580
	-394	-482	88
	-482	-570	88
	-570	-576	6
	-576	-601	25
	-601	-658	57
	-658	-671	13

J. Mahaney
API #478
Ground Elevation = 824

	Top	Bottom	Thickness
TULLY	789	769	20
Moscow	769	609	160
Tichenor	609	598	11
Ludlowville	598	368	230
Centerfield	368	333	35
Skaneateles	333	-101	434
Mottville	-101	-131	30
Marcellus	-131	-161	30
Cherry Valley	-161	-167	6
Union Springs	-167	-186	19
Onondaga	-186	-241	55
Oriskany	-241	-276	35
Helderberg	-276	-409	133
Bertie	-409	-506	97
Camillus	-506	-604	98
Syracuse	-604	-1101	497

W. Gordoner
API #480
Ground Elevation = 1281

	Top	Bottom	Thickness
	329	308	21
	308	178	130
	178	167	11
	167	-73	240
	-73	-108	35
	-108	-628	520
	-628	-663	35
	-663	-722	59
	-722	-729	7
	-729	-737	8
	-737	-789	52
	-789	-789	0

Farkas #1
API #481
Ground Elevation = 850

	Top	Bottom	Thickness
	655	635	20
	635	495	140
	495	487	8
	487	247	240
	247	212	35
	212	-358	570
	-358	-428	70
	-428	-538	110
	-532	-538	6
	-538	-566	28
	-566	-678	112
	-678	-696	18
	-	-	-
	-	-	-
	-	-	-
	-1362	-1910	548

W. Taubman No. 1
API #482
Ground Elevation = 1397

	Top	Bottom	Thickness
Tully	294	236	58
Moscow	236	96	140
Tichenor	96	88	8
Ludlowville	88	-162	250
Centerfield	-162	-197	35
Skaneateles	-197	-837	640
Mottville	-837	-872	35
Marcellus	-872	-917	45
Cherry Valley	-917	-931	14
Union Springs	-931	-995	64
Onondaga	-995	-1066	71
Oriskany	-1066	-1079	13

W. Taubman No. 2
API #483
Ground Elevation = 1328

	Top	Bottom	Thickness
	420	395	25
	284	253	31
	253	113	140
	113	105	8
	105	-146	251
	-146	-181	35
	-181	-823	642
	-823	-858	35
	-858	-929	71
	-929	-943	14
	-943	-1007	64
	-1007	-1093	86
	-1093	-1106	13

E.S. Vanklrk
API #486
Ground Elevation = 1234

	Top	Bottom	Thickness
	210	150	60
	150	10	140
	10	2	8
	2	-258	260
	-258	-293	35
	-293	-893	600
	-893	-971	78
	-971	-1021	50
	-1021	-1035	14
	-1035	-1071	36
	-1071	-1141	70
	-1141	-1141	0

H. Knutila
API #487
Ground Elevation = 1505

	Top	Bottom	Thickness
TULLY	228	217	64
Moscow	217	75	142
Tichenor	75	67	8
Ludlowville	67	-184	251
Centerfield	-184	-219	35
Skaneateles	-219	-861	642
Mottville	-861	-896	35
Marcellus	-896	-949	53
Cherry Valley	-949	-963	14
Union Springs	-963	-1027	64
Onondaga	-1027	-1102	75
Oriskany	-1102	-1124	22
Helderberg			
Bertie			
Camillus			
Syracuse			

D. Hager #1
API #488
Ground Elevation = 1472

	Top	Bottom	Thickness
	257	207	50
	207	77	130
	77	69	8
	69	-188	257
	-188	-233	45
	-233	-753	520
	-753	-813	60
	-813	-863	50
	-863	-878	15
	-878	-913	35
	-913	-983	70
	-983	-983	0
	-983	-1213	230
	-1213	-1313	100
	-1313	-1428	115
	-1428	-2703	1275

F. Knapp
API #489
Ground Elevation = 1565

	Top	Bottom	Thickness
	48	-16	64
	-16	-156	140
	-156	-164	8
	-164	-424	260
	-424	-459	35
	-459	-1059	600
	-1059	-1129	70
	-1129	-1179	50
	-1179	-1193	14
	-1193	-1229	36
	-1229	-1310	81

C. Westfall
API #494
Ground Elevation = 1380

	Top	Bottom	Thickness
Tully	563	543	20
Moscow	543	376	167
Tichenor	376	368	8
Ludlowville	368	118	250
Centerfield	118	83	35
Skaneateles	83	-497	580
Mottville	-497	-582	85
Marcellus	-582	-667	85
Cherry Valley	-667	-673	6
Union Springs	-673	-698	25
Onondaga	-698	-759	61
Oriskany	-759	-769	10

B. Noble
API #495
Ground Elevation = 1394

	Top	Bottom	Thickness
	560	516	44
	516	423	93
	423	415	8
	415	165	250
	165	130	35
	130	-450	580
	-450	-535	85
	-535	-620	85
	-620	-626	6
	-626	-651	25
	-651	-725	74
	-725	-741	16

G. Hildreth
API #496
Ground Elevation = 1213

	Top	Bottom	Thickness
	573	533	40
	533	406	127
	406	398	8
	398	158	240
	158	123	35
	123	-457	580
	-457	-532	75
	-532	-592	60
	-592	-598	6
	-598	-623	25
	-623	-692	69
	-692	-702	10

C. Mount
API #497
Ground Elevation = 1448

	Top	Bottom	Thickness
Tully	568	528	40
Moscow	528	388	140
Tichenor	388	380	8
Ludlowville	380	140	240
Centerfield	140	105	35
Skaneateles	105	-475	580
Mottville	-475	-550	75
Marcellus	-550	-610	60
Cherry Valley	-610	-616	6
Union Springs	-616	-641	25
Onondaga	-641	-708	67
Oriskany	-708	-720	12

G. Armstrong
API #498
Ground Elevation = 981

	Top	Bottom	Thickness
	634	617	17
	617	477	140
	477	469	8
	469	229	240
	229	194	35
	194	-386	580
	-386	-446	60
	-446	-506	60
	-506	-512	6
	-512	-537	25
	-537	-617	80
	-617	-627	10

M. Ronan
API #499
Ground Elevation = 1335

	Top	Bottom	Thickness
	563	528	35
	528	433	95
	433	425	8
	425	175	250
	175	140	35
	140	-440	580
	-440	-525	85
	-525	-610	85
	-610	-616	6
	-616	-651	35
	-651	-717	66
	-717	-729	12

F. Staddard
API #600
Ground Elevation = 1391

	Top	Bottom	Thickness
Tully	564	530	34
Moscow	530	379	151
Tichenor	379	371	8
Ludlowville	371	121	250
Centerfield	121	86	35
Skaneateles	86	-494	580
Mottville	-494	-579	85
Marcellus	-579	-664	85
Cherry Valley	-664	-670	6
Union Springs	-670	-695	25
Onondaga	-695	-765	70
Oriskany	-765	-777	12

E. Teeter
API #501
Ground Elevation = 1337

	Top	Bottom	Thickness
	560	526	34
	526	379	147
	379	371	8
	371	121	250
	121	86	35
	86	-494	580
	-494	-574	80
	-574	-654	80
	-654	-660	6
	-660	-685	25
	-685	-755	70
	-755	-763	8

J. Robertson
API #502
Ground Elevation = 1396

	Top	Bottom	Thickness
	563	528	35
	528	411	117
	411	403	8
	403	153	250
	153	118	35
	118	-462	580
	-462	-542	80
	-542	-622	80
	-622	-628	6
	-628	-653	25
	-653	-719	66
	-719	-728	9

A. Gagnon No. 1
API #503
Ground Elevation = 1356

	Top	Bottom	Thickness
Tully	568	537	31
Moscow	537	359	178
Tichenor	359	351	8
Ludlowville	351	101	250
Centerfield	101	66	35
Skaneateles	66	-514	580
Mottville	-514	-589	75
Marcellus	-589	-664	75
Cherry Valley	-664	-670	6
Union Springs	-670	-695	25
Onondaga	-695	-832	137
Oriskany	-832	-841	9

A. Gagnon No. 2
API #504
Ground Elevation = 1361

	Top	Bottom	Thickness
	572	538	34
	538	405	133
	405	397	8
	397	147	250
	147	112	35
	112	-468	580
	-468	-543	75
	-543	-618	75
	-618	-624	6
	-624	-649	25
	-649	-714	65
	-714	-723	9

G. Smith
API #505
Ground Elevation = 1254

	Top	Bottom	Thickness
	562	526	36
	526	403	123
	403	395	8
	395	145	250
	145	110	35
	110	-470	580
	-470	-545	75
	-545	-620	75
	-620	-626	6
	-626	-651	25
	-651	-718	67
	-718	-727	9

E. Bower
API #514
Ground Elevation = 1026

	Top	Bottom	Thickness
Tully	641	613	28
Moscow	613	473	140
Tichenor	473	465	8
Ludlowville	465	225	240
Centerfield	225	190	35
Skaneateles	190	-390	580
Mottville	-390	-455	65
Marcellus	-455	-515	60
Cherry Valley	-515	-521	6
Union Springs	-521	-546	25
Onondaga	-546	-693	147
Oriskany	-693	-702	9

E. Townsend #1
API #515
Ground Elevation = 413

	Top	Bottom	Thickness
	413	228	185
	228	193	35
	193	-388	581
	-388	-453	65
	-453	-513	60
	-513	-519	6
	-519	-544	25
	-544	-615	71

J. Crim
API #516
Ground Elevation = 1042

	Top	Bottom	Thickness
	632	603	29
	603	463	140
	463	455	8
	455	215	240
	215	180	35
	180	-400	580
	-400	-440	40
	-440	-500	60
	-500	-506	6
	-506	-531	25
	-531	-612	81
	-612	-621	9

Knettles
API #617
Ground Elevation = 902

	Top	Bottom	Thickness
TULLY	610	580	30
Moscow	580	440	140
Tichenor	440	432	8
Ludlowville	432	192	240
Centerfield	192	157	35
Skaneateles	157	-423	580
Mottville	-423	-461	38
Marcellus	-461	-521	60
Cherry Valley	-521	-527	6
Union Springs	-527	-552	25
Onondaga	-552	-634	82
Oriskany	-634	-643	9
Helderberg			
Bertie			
Camillus			
Syracuse			

J. Beck
API #1322
Ground Elevation = 1358

	Top	Bottom	Thickness
	593	573	20
	573	406	167
	406	398	8
	398	148	250
	148	113	35
	113	-467	580
	-467	-552	85
	-552	-650	98
	-650	-656	6
	-656	-681	25
	-681	-737	56
	-737	-760	23

Cayuga Surface Core
API #2286
Ground Elevation = 410

	Top	Bottom	Thickness
	372	228	144
	228	191	37
	191	-363	554
	-363	-433	70
	-433	-495	62
	-495	-501	6
	-501	-526	25
	-526	-602	76
	-602	-611	9
	-611	-803	192
	-803	-878	75
	-878	-993	115
	-993	-1880	887

V. Nesbit
API #2355
Ground Elevation = 1402

	Top	Bottom	Thickness
	534	493	41

ISCO Well #20
API #3939
Ground Elevation = 590

	Top	Bottom	Thickness
	504	479	25
	479	339	140
	339	331	8
	331	88	243
	88	53	35
	53	-484	537
-484	-550	66	
-550	-596	46	
-596	-612	16	
-612	-631	29	
-631	-688	57	
-688	-697	9	
-697	-913	216	
-913	-1013	100	
-1013	-1110	97	
-1110	-1760	650	

J. Shepherd
API #3973
Ground Elevation = 1295

	Top	Bottom	Thickness
	209	184	25
	184	44	140
	44	34	10
	34	-224	258
-224	-259	35	
-259	-871	612	
-871	-951	80	
-951	-1001	50	
-1001	-1021	20	
-1021	-1055	34	
-1055	-1135	80	
-1135	-1143	8	
-1143	-1415	272	
-1415	-1515	100	
-1515	-1610	95	
-1610	-2820	1210	

Smiley
API #4007
Ground Elevation = 1326

	Top	Bottom	Thickness
	420	395	25
	395	255	140
	255	244	11
	244	-6	250
	-6	-41	35
	-41	-561	520
	-561	-596	35
	-596	-670	74
	-670	-677	7
	-677	-685	8
	-685	-729	44

E. Lloyd
API #4051
Ground Elevation = 1075

	Top	Bottom	Thickness
	420	395	25
	395	255	140
	255	244	11
	244	-6	250
	-6	-41	35
	-41	-561	520
	-561	-596	35
	-596	-670	74
	-670	-677	7
	-677	-685	8
	-685	-729	44

Grund
API #4130
Ground Elevation = 1454

	Top	Bottom	Thickness
	212	162	50
	162	32	130
	32	24	8
	24	-223	247
-223	-255	32	
-255	-835	580	
-835	-888	53	
-888	-938	50	
-938	-951	13	
-951	-983	32	
-983	-1041	58	
-1041	-1054	13	
-1054	-1386	332	
-1386	-1481	95	
-1481	-1581	100	
-1581	-2306	725	

Fee
API #4467
Ground Elevation = 1051

	Top	Bottom	Thickness
TULLY	77	17	60
Moscow	17	-123	140
Tichenor	-123	-131	8
Ludlowville	-131	-391	260
Centerfield	-391	-426	35
Skaneateles	-426	-1035	609
Mottville	-1035	-1105	70
Marcellus	-1105	-1155	50
Cherry Valley	-1155	-1169	14
Union Springs	-1169	-1205	36
Onondaga	-1205	-1265	60
Oriskany	-1265	-1295	30
Helderberg	-1295	-1605	310
Bertie	-1605	-1715	110
Camillus	-1715	-1815	110
Syracuse	-1815	-2674	859

J. Agard
API #5017
Ground Elevation = 875

	Top	Bottom	Thickness
	505	475	30
	475	335	140
	339	349	10
	349	105	244
	105	70	35
	70	-460	530
-476	-517	41	
-517	-570	53	
-570	-576	6	
-576	-601	25	
-601	-658	57	
-658	-668	10	

Ruth Place
API #10243
Ground Elevation = 1841

	Top	Bottom	Thickness
	-51	-93	42
	-93	-199	106
	-199	-209	10
	-209	-464	255
	-464	-499	35
	-499	-1067	568
	-1067	-1131	64
	-1131	-1172	41
	-1172	-1182	10
	-1182	-1217	35
	-1217	-1266	49
	-1266	-1269	3
	-1269	-1489	220
	-1489	-1589	100
	-1589	-1699	110
	-1699	-2309	610

Core Hole #17
API #1317J
Ground Elevation = 832

	Top	Bottom	Thickness
TULLY	580	551	29
Moscow	551	412	139
Tichenor	412	404	8
Ludlowville	404	158	246
Centerfield	158	133	25
Skaneateles	133	-473	606
Mottville	-473	-508	35
Marcellus	-508	-564	56
Cherry Valley	-564	-570	6
Union Springs	-570	-598	28
Onondaga	-598	-672	74
Oriskany	-672	-684	12
Helderberg	-684	-899	215
Bertie	-899	-995	96
Camillus	-995	-1104	109
Syracuse	-1104	-1939	835

#2 Shaft
Ground Elevation = 438

	Top	Bottom	Thickness
	428	223	205
	223	186	37
	186	-368	554
-368	-437.5	69.5	
-437.5	-493	55.5	
-493	-499	6	
-499	-524	25	
-524	-566.5	42.5	
-566.5	-589	22.5	
-589	-809	220	
-809	-909	100	
-909	-970	61	

#3 Shaft
Ground Elevation = 453

	Top	Bottom	Thickness
	452	229	223
	229	202	27
	202	-352	554
	-352	-408	56
	-408	-486	78
	-486	-492	6
	-492	-516	24
	-516	-586	70
	-586	-604	18
	-604	-813	209
	-813	-913	100
	-913	-998	85

Compton
API #20446
Ground Elevation = 750

	Top	Bottom	Thickness
TULLY	-	-	-
Moscow	-	-	-
Tichenor	-	-	-
Ludlowville	top of rock	610	-
Centerfield	610	580	30
Skaneateles	580	0	580
Mottville	0	-24	24
Marcellus	-24	-45	21
Cherry Valley	-45	-60	15
Union Springs	-60	-66	6
Onondaga	-66	-126	60
Oriskany	-126	-146	20
Helderberg	-146	-230	84
Bertie	-230	-320	90
Camillus	-320	-414	94
Syracuse	-414	-938	524

Venice View Farm
API #16120
Ground Elevation = 1198

	Top	Bottom	Thickness
	767	708	59
	708	651	57
	651	641	10
	641	483	158
	483	458	25
	458	36	422
	36	-34	70
-34	-80	46	
-80	-94	14	
-94	-104	10	
-104	-162	58	
-162	-174	12	
-174	-317	143	
-317	-414	97	
-414	-494	80	
-494	-1047	553	

Dunkle
API #16115
Ground Elevation = 865

	Top	Bottom	Thickness
	573	551	22
	551	377	174
	377	371	6
	371	139	232
	139	111	28
	111	-329	440
-329	-381	52	
-381	-420	39	
-420	-436	16	
-436	-445	9	
-445	-504	59	
-504	-535	31	
-535	-664	129	
-664	-771	107	
-771	-855	84	
-855	-1483	628	

Townsend
API #19686
Ground Elevation = 1018

	Top	Bottom	Thickness
	388	372	16
	372	240	132
	240	234	6
	234	-14	248
	-14	-36	22
	-36	-428	392
-428	-476	48	
-476	-503	27	
-503	-520	17	
-520	-529	9	
-529	-577	48	
-577	-587	10	
-587	-728	141	
-728	-856	128	
-856	-921	65	
-921	-1434	531	

Core Hole #16
Ground Elevation = 779

	Top	Bottom	Thickness
TULLY	-	-	-
Moscow	-	-	-
Tichenor	-	-	-
Ludlowville	-	-	-
Centerfield	-	-	-
Skaneateles	-	-	-
Mottville	-	-	-
Marcellus	-	-	-
Cherry Valley	-	-	-
Union Springs	-	-	-
Onondaga	-	-	-
Oriskany	-	-	-
Helderberg	-	-	-
Bertie	-	-	-
Camillus	-	-	-
Syracuse	-1103	-1803	700

Core Hole #15
Ground Elevation = 1076

	Top	Bottom	Thickness
	488	468	20
	468	332	136
	332	324	8
	324	80	244
	80	36	44
	36	-518	554
	-518	-558	40
-558	-638	80	
-638	-652	14	
-652	-676	24	
-676	-740	64	
-740	-740	0	
-740	-944	204	
-944	-1019	75	
-1019	-1134	115	
-1134	-1782	648	

Remington Salt #1
API #1054
Ground Elevation = 400

	Top	Bottom	Thickness
	35	5	30
	5	-140	145
	-140	-148	8
	-148	-395	247
	-395	-427	32
	-427	-1007	580
	-1007	-1060	53
-1060	-1110	50	
-1110	-1123	13	
-1123	-1155	32	
-1155	-1250	95	
-1250	-1265	15	
-1265	-1337	72	
-1337	-1432	95	
-1432	-1547	115	
-1547	-	-	

Ithaca Salt #1
API #1485
Ground Elevation = 396

	Top	Bottom	Thickness
	-44	-74	30
	-74	-224	150
	-224	-234	10
	-234	-494	260
	-494	-526	32
	-526	-1126	600
	-1126	-1190	64
-1190	-1251	61	
-1251	-1264	13	
-1264	-1296	32	
-1296	-1376	80	
-1376	-1389	13	
-1389	-1638	249	
-1638	-1733	95	
-1733	-1848	115	
-1848	-2318	470	

REFERENCES:

W.L. Kreidler, 1959, Selected deep wells and areas of gas production in eastern and central New York, New York State Museum Bulletin 373.

L.V. Rickard, 1969, Stratigraphy of the upper Silurian Salina Group, New York, Pennsylvania, Ohio, Ontario. New York State Museum Map and Chart Series Number 12.

W.L. Kreidler, A.M. VanTyne and K.M. Jorgensen, 1972, Deep wells in New York. New York State Museum Bulletin 418A.

A.M. VanTyne, D.G. Kamakaris and S. Corbo, 1980, Structure contours on base of the Genesee Group. New York State Museum METC/EGSP Series 115.

A.M. VanTyne, D.G. Kamakaris and S. Corbo, 1980, Structure contours on base of the Hamilton Group. New York State Museum METC/EGSP Series 116.

L.V. Rickard, 1969, Stratigraphy of the Upper Silurian Salina Group, New York, Pennsylvania, Ohio and Ontario. New York State Museum Map and Chart Series Number 12.

L.V. Rickard, 1989, Stratigraphy of the subsurface Lower and Middle Devonian of New York, Pennsylvania, Ohio and Ontario. New York State Museum Map and Chart Series Number 39.

SOURCE:
GEOLOGY/HYDROGEOLOGY OF
THE CAYUGA SALT MINE,
LANSING, NEW YORK
SEAR-BROWN, OCTOBER 2000.

PRIVILEGED AND PROPRIETARY INFORMATION

RECEIVED
DEC 28 2000
DEPT OF ENV CONSERVATION
BUREAU OF MINERAL RESOURCES

CONFIDENTIAL

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

NO.	DATE	RECORD OF WORK	DRN	CKD	APPR

CARGILL SALT, INC.
CAYUGA MINE
TOWN OF LANSING
TOMPKIN CO., NY

SPECTRA ENVIRONMENTAL GROUP, INC.
19 British American Blvd.
Latham, NY 12110

DATE: 12/15/00 | SCALE: | PLATE NO. 3.1-19 | SHEET OF

PROJECT

PROJ. MGR.	RCL
PROJ. NO.:	98189
PREPARED BY:	SEAR-BROWN
DRAFTED BY:	SEAR-BROWN
CHECKED BY:	
APPROVED BY:	
DATUM:	
CONTOUR INTERVAL =	FEET

0