

**Table S1**

Assembly of the genome of *Leptospirilum* group II from the 5-way CG location of the Richmond Mine (sample collected March 2002, as described by Tyson et al. 2004). The manually curated assembly (columns A to F) is compared with the draft assembly reported by Tyson et al. (column G). Red bars separate genome fragments for which linkage has been established. Blue bars indicate the positions of major strain variant sequences (shown at end).

contig #	gene #	Locus_Tag	Product description	Length aa	Position on Phrap contig	Gene number (Tyson et al. 2004)
<b>Main genome path:</b>						
9398	1	CGL2_09398001	Putative cobyrinic acid a,c-diamide synthase	248	157..900	245_GENE_16
9398	2	CGL2_09398002	ParB-like partition protein	313	1047..1985	245_GENE_15
10284	1	CGL2_10284001	Transcriptional regulator, HxIR family	111	complement(680..1012)	245_GENE_14
10284	2	CGL2_10284002	NADPH:quinone reductase 1 (EC 1.6.5.5)	330	1184..2173	245_GENE_12
10284	3	CGL2_10284003	Hypothetical protein	69	2151..2357	245_GENE_11
10284	4	CGL2_10284004	Hypothetical protein	52	2483..2638	245_GENE_10
10284	5	CGL2_10284005	DNA methyltransferase	350	2661..3710	245_GENE_9
10284	6	CGL2_10284006	type II restriction endonuclease	241	3719..4441	245_GENE_8
10284	7	CGL2_10284007	isonitrile hydratase	268	4475..5278	245_GENE_7
10284	8	CGL2_10284008	Hypothetical protein	68	5385..5588	245_GENE_6
10284	9	CGL2_10284009	short-chain dehydrogenase	248	5576..6319	245_GENE_5
10284	10	CGL2_10284010	Putative phospholipid/glycerol acyltransferase	178	complement(6332..6865)	245_GENE_4
10284	11	CGL2_10284011	Probable conjugal transfer protein (TraB)	373	complement(7031..8149)	245_GENE_3
7472	2	CGL2_07472002	Probable conjugal transfer protein (TraF)	175	complement(1816..2340)	245_GENE_2
7472	1	CGL2_07472001	Putative diguanylate phosphodiesterase	256	complement(1040..1807)	245_GENE_1
8228	1	CGL2_08228001	Hypothetical protein	91	40..312	1147_GENE_3a
8228	2	CGL2_08228002	DNA topoisomerase III (EC 5.99.1.2)	684	320..2371	1147_GENE_3
8228	3	CGL2_08228003	Protein of unknown function	139	2334..2750	1147_GENE_2
8228	4	CGL2_08228004	Hypothetical protein	95	2807..3091	1147_GENE_1
8228	5	CGL2_08228005	Single-strand DNA-binding protein	133	3091..3489	
8228	6	CGL2_08228006	Hypothetical protein	16	3531..3578	
6046	1	CGL2_06046001	ssDNA binding protein	139	130..546	751_GENE_1
6046	2	CGL2_06046002	Hypothetical protein	78	609..842	751_GENE_2
6046	3	CGL2_06046003	DNA repair proteins (RadC)	146	829..1266	751_GENE_3
9933	1	CGL2_09933001	Conserved hypothetical protein	298	287..1180	751_GENE_4
9933	2	CGL2_09933002	Protein of unknown function	96	complement(1350..1637)	751_GENE_5
9933	3	CGL2_09933003	Conserved hypothetical protein	368	complement(1867..2970)	751_GENE_6
9207	1	CGL2_09207001	HD-GYP hydrolase domain protein/response regulato	206	116..733	259_GENE_12
9207	3	CGL2_09207003	Hypothetical protein	107	complement(1116..1436)	259_GENE_10

9933	4	CGL2_09933004	Protein of unknown function	154	complement(2970..3431)	259_GENE_9
9933	5	CGL2_09933005	Putative conjugal transfer protein (TrbI)	425	complement(3434..4708)	259_GENE_8
9933	6	CGL2_09933006	Putative conjugal transfer protein (TrbG)	312	complement(4708..5643)	259_GENE_7
9933	7	CGL2_09933007	Probable conjugal transfer protein (TrbF)	221	complement(5643..6305)	259_GENE_6
9933	8	CGL2_09933008	Probable conjugal transfer protein (TrbL)	454	complement(6308..7669)	259_GENE_5
8831	1	CGL2_08831001	Probable conjugal transfer (TrbJ)	288	complement(349..1212)	259_GENE_4
8831	2	CGL2_08831002	Probable conjugal transfer protein (TrbE)	812	complement(1230..3665)	259_GENE_2
8831	3	CGL2_08831003	Putative conjugal transfer protein (TrbD)	104	complement(3668..3979)	259_GENE_1
8831	4	CGL2_08831004	Hypothetical protein	102	complement(3983..4288)	
8831	5	CGL2_08831005	Putative conjugal transfer protein (TrbB)	168	complement(4288..4791)	440_GENE_3
11226	1	CGL2_11226001	Putative plasmid transfer factor (TraG)	65	complement(240..434)	440_GENE_5
11226	2	CGL2_11226002	Hypothetical protein	166	595..1092	582_GENE_1
11226	3	CGL2_11226003	Hypothetical protein	64	1103..1294	582_GENE_2
11226	4	CGL2_11226004	Hypothetical protein	141	1294..1716	582_GENE_3
11226	5	CGL2_11226005	Putative twitching motility protein (PilT)	346	1716..2753	582_GENE_4
11226	6	CGL2_11226006	Hypothetical protein	438	2753..4066	582_GENE_6
11226	7	CGL2_11226007	Protein of unknown function	196	4069..4656	582_GENE_7
11226	8	CGL2_11226008	Hypothetical protein	363	4656..5744	582_GENE_8
11226	9	CGL2_11226009	Putative type II secretion system protein D	615	5822..7666	
11226	10	CGL2_11226010	Putative type II secretion system protein E	574	7673..9394	
11226	11	CGL2_11226011	Conserved protein of unknown function	202	9397..10002	
11226	12	CGL2_11226012	Hypothetical protein	160	complement(10072..10551)	
11226	13	CGL2_11226013	Conserved hypothetical protein	101	complement(10734..11036)	784_GENE_6
11226	14	CGL2_11226014	Conserved hypothetical protein	136	complement(11106..11513)	784_GENE_5
11226	15	CGL2_11226015	Putative type II secretion system protein F	402	complement(11654..12859)	1145_GENE_1
11226	16	CGL2_11226016	Hypothetical protein	85	complement(12859..13113)	
11226	17	CGL2_11226017	Putative phage integrase	346	complement(13238..14275)	784_GENE_2
11226tRNA		CGL2_11226R001	TRNA Arg CCG		complement(14411..14488)	
11226	18	CGL2_11226018	Putative Cl-channel, voltage gated	570	complement(14549..16258)	283_GENE_8
11226	19	CGL2_11226019	Conserved hypothetical protein	144	complement(16258..16689)	283_GENE_7
11226	20	CGL2_11226020	Hypothetical protein	78	complement(16881..17114)	283_GENE_6
11226	21	CGL2_11226021	Protoporphyrinogen oxidase (EC 1.3.3.4)	462	17322..18707	283_GENE_5
11226	22	CGL2_11226022	Putative metallophosphoesterase	227	complement(18727..19407)	283_GENE_4
11226	23	CGL2_11226023	Zinc-containing alcohol dehydrogenase superfamily (	333	complement(19436..20434)	283_GENE_3
11226	24	CGL2_11226024	Putative radical SAM family protein	172	complement(20542..21057)	283_GENE_2
11067	45	CGL2_11067045	Protein of unknown function	108	complement(53116..53439)	53_GENE_28
11067	44	CGL2_11067044	Probable signal transduction protein	277	complement(52073..52903)	53_GENE_27
11067	43	CGL2_11067043	Conserved protein of unknown function	485	complement(50243..51697)	53_GENE_26
11067	42	CGL2_11067042	Hypothetical protein	496	complement(48607..50094)	53_GENE_24
11067	41	CGL2_11067041	Conserved protein of unknown function	185	complement(48034..48588)	53_GENE_23
11067	40	CGL2_11067040	Glucokinase (EC 2.7.1.2)	344	complement(46445..47476)	53_GENE_22

11067	39	CGL2_11067039	6-phosphogluconolactonase (EC 3.1.1.31)	276	complement(45477..46304)	53_GENE_21
11067	38	CGL2_11067038	Transketolase (EC 2.2.1.1)	677	complement(43407..45437)	53_GENE_20
11067	37	CGL2_11067037	Transaldolase	977	complement(40415..43345)	53_GENE_19
11067	36	CGL2_11067036	Glucose-6-phosphate 1-dehydrogenase (EC 1.1.1.49)	510	complement(38831..40360)	53_GENE_18
11067	35	CGL2_11067035	Protein of unknown function	582	complement(37072..38817)	53_GENE_17
11067	34	CGL2_11067034	Putative monooxygenase	414	complement(35831..37072)	53_GENE_16
11067	33	CGL2_11067033	Probable trigger factor	467	complement(34231..35631)	53_GENE_15
11067	32	CGL2_11067032	Peptidase S14, ClpP (EC 3.4.21.92)	203	complement(33595..34203)	53_GENE_14
11067	31	CGL2_11067031	ClpX, ATPase regulatory subunit	426	complement(32287..33564)	53_GENE_13
11067	30	CGL2_11067030	Protein of unknown function	217	31634..32284	53_GENE_12
11067	29	CGL2_11067029	Protein of unknown function	442	complement(30241..31566)	53_GENE_11
11067	28	CGL2_11067028	Putative CDP-alcohol phosphatidyltransferase	183	complement(29690..30238)	53_GENE_10
11067	27	CGL2_11067027	Conserved protein of unknown function	462	complement(28288..29673)	53_GENE_9
11067	26	CGL2_11067026	4-diphosphocytidyl-2-C-methyl-D-erythritol kinase (f	293	complement(27410..28288)	53_GENE_8
11067tRNA		CGL2_11067R006	TRNA Gln TTG		complement(27326..27400)	
11067	25	CGL2_11067025	Ribose-phosphate pyrophosphokinase (EC 2.7.6.1)	314	complement(26318..27259)	53_GENE_7
11067	24	CGL2_11067024	Ribosomal protein L25	207	complement(25636..26256)	53_GENE_6
11067	23	CGL2_11067023	Peptidyl-tRNA hydrolase (EC 3.1.1.29)	187	complement(25054..25614)	53_GENE_5
11067	22	CGL2_11067022	GTP binding protein	364	complement(23895..24986)	53_GENE_4
11067	21	CGL2_11067021	Ribosomal protein S6	122	complement(23499..23864)	271_GENE_14
11067	20	CGL2_11067020	Single-stranded DNA-binding protein	140	complement(23080..23499)	271_GENE_13
11067	19	CGL2_11067019	Ribosomal protein S18	76	complement(22781..23008)	271_GENE_12
11067	18	CGL2_11067018	Hypothetical protein	289	complement(21810..22676)	271_GENE_11
11067	17	CGL2_11067017	Rare lipoprotein A family protein	263	complement(21080..21868)	271_GENE_10
11067	16	CGL2_11067016	Protein of unknown function	74	complement(20800..21021)	271_GENE_9
11067	15	CGL2_11067015	Conserved hypothetical protein	56	complement(20626..20793)	271_GENE_8
11067	14	CGL2_11067014	Protein of unknown function	151	20162..20614	271_GENE_7
11067	13	CGL2_11067013	RNA modification enzyme, MiaB family	483	complement(18599..20047)	271_GENE_6
11067	12	CGL2_11067012	Hypothetical protein	342	17538..18563	271_GENE_5
11067tRNA		CGL2_11067R005	TRNA Leu TAG		complement(17410..17495)	
11067	11	CGL2_11067011	Putative flavoprotein reductase	379	complement(16112..17248)	271_GENE_3
11067	10	CGL2_11067010	Protein of unknown function	258	complement(15336..16109)	271_GENE_2
11067tRNA		CGL2_11067R004	TRNA Tyr GTA		complement(15070..15155)	
11067tRNA		CGL2_11067R003	TRNA Gly TCC		complement(14959..15033)	
11067tRNA		CGL2_11067R002	TRNA Thr GGT		complement(14860..14935)	
11067	9	CGL2_11067009	Translation elongation factor Tu (EC 2.7.7.4)	399	complement(13549..14745)	137_GENE_1
11067	8	CGL2_11067008	Ribosomal protein L33	49	complement(13372..13518)	137_GENE_1a
11067tRNA		CGL2_11067R001	TRNA Trp CCA		complement(13285..13361)	
11067	7	CGL2_11067007	Preprotein translocase (SecE)	69	complement(13064..13270)	
11067	6	CGL2_11067006	Transcription antitermination protein (NusG)	184	complement(12489..13040)	137_GENE_2
11067	5	CGL2_11067005	Ribosomal protein L11	141	complement(12027..12449)	137_GENE_3

11067	4	CGL2_11067004	Ribosomal protein L1	232	complement(11286..11981)	137_GENE_4
11067	3	CGL2_11067003	Ribosomal protein L10	174	complement(10762..11283)	137_GENE_5
11067	2	CGL2_11067002	Ribosomal protein L7/L12	128	complement(10271..10654)	137_GENE_6
11067	1	CGL2_11067001	DNA-directed RNA polymerase, beta subunit (EC 2.7.7.1)	1718	complement(4756..9909)	137_GENE_7
11067	1a	CGL2_11067001a	DNA-directed RNA polymerase, beta' subunit (EC 2.7.7.2)	1574	complement(30..4751)	137_GENE_8
11212	1	CGL2_11212001	Ribosomal protein S12	65	133..327	713_GENE_4
11212	2	CGL2_11212002	Ribosomal protein S7	157	368..838	713_GENE_3
11212	3	CGL2_11212003	Translation elongation factor G	692	854..2929	713_GENE_2
11212	4	CGL2_11212004	Translation elongation factor Tu (EC 2.7.7.4)	399	2952..4148	713_GENE_1
11212	5	CGL2_11212005	Ribosomal protein S10	101	4185..4487	
11212	6	CGL2_11212006	Ribosomal protein L3	207	4502..5122	349_GENE_14
11212	7	CGL2_11212007	Ribosomal protein L4	218	5147..5800	349_GENE_13
11212	8	CGL2_11212008	Ribosomal protein L23	95	5790..6074	
11212	9	CGL2_11212009	Ribosomal protein L2	273	6080..6898	349_GENE_12
11212	10	CGL2_11212010	Ribosomal protein S19	94	6917..7198	349_GENE_11
11212	11	CGL2_11212011	Ribosomal protein L22	110	7223..7552	349_GENE_10
11212	12	CGL2_11212012	Ribosomal protein S3	226	7573..8250	349_GENE_9
11212	13	CGL2_11212013	Ribosomal protein L16/L10E	127	8287..8667	349_GENE_8
11212	14	CGL2_11212014	Ribosomal protein L29	66	8667..8864	349_GENE_7a
11212	15	CGL2_11212015	Ribosomal protein S17	95	8860..9144	349_GENE_7
11212	16	CGL2_11212016	Ribosomal protein L14	122	9182..9547	349_GENE_6
11212	17	CGL2_11212017	Ribosomal protein L24	117	9564..9914	349_GENE_5a
11212	18	CGL2_11212018	Ribosomal protein L5	226	9946..10623	349_GENE_5
11212	19	CGL2_11212019	Ribosomal protein S14	61	10646..10828	349_GENE_4a
11212	20	CGL2_11212020	Ribosomal protein S8	132	10853..11248	349_GENE_4
11212	21	CGL2_11212021	Ribosomal protein L6P/L9E	179	11280..11816	349_GENE_3
11212	22	CGL2_11212022	Ribosomal protein L18	117	11855..12205	349_GENE_2
11212	23	CGL2_11212023	Ribosomal protein S5	161	12234..12716	349_GENE_1
11212	24	CGL2_11212024	Ribosomal protein L30	63	12751..12939	88_GENE_20
11212	25	CGL2_11212025	Ribosomal protein L15	149	12975..13421	88_GENE_19
11212	26	CGL2_11212026	Preprotein translocase subunit (SecY)	437	13445..14755	88_GENE_18
11212	27	CGL2_11212027	Adenylate kinase (EC 2.7.4.3)	219	14761..15417	88_GENE_17
11212	28	CGL2_11212028	Methionine aminopeptidase (EC 3.4.11.18)	252	15423..16178	88_GENE_16
11212	29	CGL2_11212029	Translation initiation factor 1 (IF-1)	72	16191..16406	88_GENE_16a
11212	30	CGL2_11212030	Ribosomal protein L36	37	16420..16530	
11212	31	CGL2_11212031	Ribosomal protein S13	124	16545..16916	
11212	32	CGL2_11212032	Ribosomal protein S11	128	16970..17353	88_GENE_15a
11212	33	CGL2_11212033	Ribosomal protein S4 and related proteins	209	17410..18036	88_GENE_15
11212	34	CGL2_11212034	DNA-directed RNA polymerase, alpha subunit (EC 2.7.7.1)	324	18083..19054	88_GENE_14
11212	35	CGL2_11212035	Ribosomal protein L17	154	19093..19554	88_GENE_13
11212	36	CGL2_11212036	Protein of unknown function	143	19579..20007	88_GENE_12

11212	37	CGL2_11212037	DTDP-4-dehydrorhamnose reductase (EC 1.1.1.133)	288	20079..20942	88_GENE_11
11212	38	CGL2_11212038	Trehalose-6-phosphate phosphatase	285	complement(20962..21816)	88_GENE_10
11212	39	CGL2_11212039	Alpha,alpha-trehalose-phosphate synthase (UDP-forr	500	complement(21785..23284)	88_GENE_8
11212	40	CGL2_11212040	Putative glycosyl transferase, group 1	361	complement(23326..24408)	88_GENE_7
11212	41	CGL2_11212041	Putative major facilitator superfamily transporter	428	complement(24414..25697)	88_GENE_6
11212	42	CGL2_11212042	Probable macrolide-efflux protein	429	complement(25851..27137)	88_GENE_5
11212	43	CGL2_11212043	ADP-L-glycero-D-mannoheptose-6-epimerase (EC 5.	303	27352..28260	88_GENE_4
11212	44	CGL2_11212044	Protein of unknown function	610	28241..30070	88_GENE_3
11212	45	CGL2_11212045	Amidophosphoribosyltransferase (EC 2.4.2.14)	504	complement(30090..31601)	88_GENE_2
11212	46	CGL2_11212046	Phosphoribosylformylglycinamide synthase II (EC 6	737	complement(31607..33817)	88_GENE_1
11212	47	CGL2_11212047	Phosphoribosylformylglycinamide synthase I	255	complement(33924..34688)	30_GENE_4
11212	48	CGL2_11212048	Conserved hypothetical protein	257	34948..35718	30_GENE_5
11212	49	CGL2_11212049	Protein of unknown function	238	35917..36630	30_GENE_6
11212	50	CGL2_11212050	Putative transcriptional regulator, TetR family	237	36679..37389	30_GENE_7
11212	51	CGL2_11212051	Putative outer membrane efflux protein	490	37389..38858	30_GENE_8
11212	52	CGL2_11212052	Secretion protein (HlyD)	376	38854..39981	30_GENE_9
11212	53	CGL2_11212053	Putative cation/multidrug efflux pump split	1070	40003..43212	30_GENE_10
11212	54	CGL2_11212054	Putative transcriptional regulator, LysR family	310	complement(43219..44148)	30_GENE_11
11212	55	CGL2_11212055	Putative outer membrane efflux protein	474	44343..45764	30_GENE_12
11212	56	CGL2_11212056	Protein of unknown function	243	45764..46492	30_GENE_13
11212	57	CGL2_11212057	Protein of unknown function	207	46534..47154	30_GENE_14
11212	58	CGL2_11212058	ABC transporter, ATPase subunit (EC 3.6.3.29)	256	47150..47917	30_GENE_15
11212	59	CGL2_11212059	Putative ABC-2 transporter	285	47913..48767	30_GENE_16
11212	60	CGL2_11212060	Putative oxidoreductase FAD/NAD(P)-binding	257	48821..49591	30_GENE_17
11212	61	CGL2_11212061	Protein of unknown function	346	49656..50693	30_GENE_18
11212	62	CGL2_11212062	Putative 3-hydroxybutyryl-coA dehydrogenase	378	50707..51840	30_GENE_19
11212	63	CGL2_11212063	Protein of unknown function	160	51915..52394	30_GENE_20
11212	63	CGL2_11212063	Protein of unknown function	160	51915..52394	30_GENE_20
11212	65	CGL2_11212065	Protein of unknown function	231	52537..53229	30_GENE_21
11212	66	CGL2_11212066	Putative TPR-domain containing protein	731	53229..55421	30_GENE_22
11212	67	CGL2_11212067	Putative DegT/DnrJ/EryC1/StrS aminotransferase	391	55443..56615	30_GENE_23
11212	68	CGL2_11212068	Putative OsmC-like protein (osmotic induced)	173	56615..57133	30_GENE_24
11212	69	CGL2_11212069	Probable dethiobiotin synthase	237	57085..57795	30_GENE_25
11212	70	CGL2_11212070	Protein of unknown function	110	complement(57853..58182)	30_GENE_26
11212	71	CGL2_11212071	Protein of unknown function	68	complement(58263..58466)	30_GENE_27
11212	72	CGL2_11212072	Protein of unknown function	284	complement(58472..59323)	30_GENE_28
11212	73	CGL2_11212073	Protein of unknown function	350	complement(59348..60397)	30_GENE_29
11212	74	CGL2_11212074	Protein of unknown function	107	complement(60412..60732)	30_GENE_30
11212	75	CGL2_11212075	Multi-sensor signal transduction histidine kinase	596	61548..63335	30_GENE_31
11212	76	CGL2_11212076	Putative response regulator receiver protein	148	63416..63859	30_GENE_32
11212	77	CGL2_11212077	Response regulator receiver modulated diguanylate c	874	63923..66544	30_GENE_33

11212	78	CGL2_11212078	Thiamine-phosphate pyrophosphorylase ThiE(EC 2.5.	212	complement(66551..67186)	30_GENE_34
11212	79	CGL2_11212079	Acetyl-CoA carboxylase, biotin carboxylase (EC 6.3.4	456	complement(67235..68602)	30_GENE_35
11212	80	CGL2_11212080	Acetyl-CoA biotin carboxyl carrier protein	157	complement(68611..69081)	30_GENE_36
11212	81	CGL2_11212081	Translation elongation factor P	191	complement(69131..69703)	30_GENE_37
11212	82	CGL2_11212082	3-dehydroquinate dehydratase, type II (EC 4.2.1.10)	149	complement(69771..70217)	30_GENE_38
11212	83	CGL2_11212083	Putative TPR-domain containing protein	464	complement(70217..71608)	30_GENE_39
11212	84	CGL2_11212084	DNA/pantothenate metabolism flavoprotein (EC 4.1.	415	complement(71770..73014)	30_GENE_40
11212	85	CGL2_11212085	Putative DNA-directed RNA polymerase, omega subu	134	complement(73025..73426)	30_GENE_41
11212	86	CGL2_11212086	Guanylate kinase (EC 2.7.4.8)	243	complement(73426..74154)	30_GENE_42
11212	87	CGL2_11212087	Conserved protein of unknown function	94	complement(74222..74503)	30_GENE_43
11212	88	CGL2_11212088	Conserved protein of unknown function	293	complement(74496..75374)	30_GENE_44
11212	89	CGL2_11212089	Probable amylo-alpha-1,6-glucosidase	725	75575..77749	30_GENE_45
11212	90	CGL2_11212090	Putative penicillin-binding protein, transpeptidase	468	77964..79367	30_GENE_46
11212	91	CGL2_11212091	Putative signal-transduction protein with CBS domair	136	79504..79911	317_GENE_7
11212	92	CGL2_11212092	8-amino-7-oxononanoate synthase (EC 2.3.1.47)	380	complement(80007..81146)	317_GENE_6
11212	93	CGL2_11212093	6-carboxyhexanoate--CoA ligase (EC 6.2.1.14)	300	complement(81127..82026)	317_GENE_5
11212	94	CGL2_11212094	Biotin synthetase (EC 2.8.1.6)	346	complement(82026..83063)	317_GENE_4
11212	95	CGL2_11212095	Diguanylate cyclase	412	83322..84557	317_GENE_3
11212	96	CGL2_11212096	transposase	124	85643..86014	94_GENE_21
11212	97	CGL2_11212097	Glycyl-tRNA synthetase, alpha subunit (EC 6.1.1.14)	300	86421..87320	94_GENE_20
11212	98	CGL2_11212098	Glycyl-tRNA synthetase, beta subunit (EC 6.1.1.14)	739	87320..89536	94_GENE_19
11212	99	CGL2_11212099	Riboflavin biosynthesis protein RibD (EC 3.5.4.26) (E	388	89539..90702	94_GENE_18
11212	100	CGL2_11212100	Riboflavin synthase, alpha subunit	210	90709..91338	94_GENE_17
11212	101	CGL2_11212101	Hypothetical protein	67	91354..91554	94_GENE_16
11212	102	CGL2_11212102	Cobalt-precorrin-2 C(20)-methyltransferase (EC 2.1.	251	91554..92306	94_GENE_15
11212	103	CGL2_11212103	Hypothetical protein	179	92306..92842	94_GENE_14
11212	104	CGL2_11212104	Precorrin-4 C11-methyltransferase (EC 2.1.1.133)	279	92829..93665	94_GENE_13
11212	105	CGL2_11212105	Protein of unknown function (transcrip reg?)	179	complement(93823..94359)	94_GENE_12
11212	106	CGL2_11212106	Protein of unknown function	221	complement(94513..95175)	94_GENE_11
11212	107	CGL2_11212107	Putative radical SAM family protein	476	complement(95203..96630)	94_GENE_10
11212	108	CGL2_11212108	Cation efflux family protein	315	96844..97788	94_GENE_9
11212	109	CGL2_11212109	Conserved hypothetical protein	112	complement(97802..98137)	94_GENE_8
11212	110	CGL2_11212110	Putative DNA recombination protein, RmuC family	477	complement(98137..99567)	94_GENE_7
11212	111	CGL2_11212111	Dihydroxy-acid dehydratase (EC 4.2.1.9)	557	complement(99607..101277)	94_GENE_6
11212	112	CGL2_11212112	Protein of unknown function	183	complement(101476..102024)	94_GENE_5
11212	113	CGL2_11212113	Hypothetical protein	59	complement(102073..102249)	94_GENE_4
11212	114	CGL2_11212114	Cobyric acid synthase (CobQ)	500	102394..103893	94_GENE_3
11212	115	CGL2_11212115	Cobalamin biosynthesis protein (CbiB)	338	103893..104906	94_GENE_2
11212	116	CGL2_11212116	Putative L-threonine-O-3-phosphate decarboxylase	369	104913..106019	94_GENE_1
11212	117	CGL2_11212117	Fumarate hydratase class II (EC 4.2.1.2)	471	106493..107905	57_GENE_26

11212tRNA	CGL2_11212R001	TRNA Pro CGG		108074..108150	
11212	118	CGL2_11212118	Putative acylphosphatase	99	108264..108560
11212	119	CGL2_11212119	RNA polymerase, RpoD-like sigma subunit	499	108623..110119
11212	120	CGL2_11212120	Conserved protein of unknown function	110	110125..110454
11212	121	CGL2_11212121	Glutamate synthase [NADPH] large subunit (EC 1.4.1.1)	1525	complement(110573..115147)
11212	122	CGL2_11212122	Putative metal dependent phosphohydrolase	332	115413..116408
11212	123	CGL2_11212123	D-lactate dehydrogenase (Cytochrome) (EC 1.1.2.4)	945	116408..119242
11212	124	CGL2_11212124	Putative methyl-accepting chemotaxis sensory transductor	372	complement(119251..120366)
11212	125	CGL2_11212125	Probable acyl-[acyl-carrier protein] desaturase	286	complement(120700..121557)
11212	126	CGL2_11212126	Exodeoxyribonuclease III (EC 3.1.11.2)	265	complement(121793..122587)
11212	127	CGL2_11212127	Probable cation transport protein	181	complement(122580..123122)
11212	128	CGL2_11212128	3-methyl-2-oxobutanoate hydroxymethyltransferase	287	complement(123127..123987)
11212	129	CGL2_11212129	Putative methylenetetrahydrofolate reductase	289	complement(123993..124859)
11212	130	CGL2_11212130	Methenyltetrahydrofolate cyclohydrolase (EC 3.5.4.9)	294	complement(124859..125740)
11212	131	CGL2_11212131	GTP cyclohydrolase I (EC 3.5.4.16)	191	complement(125824..126396)
11212	132	CGL2_11212132	Putative 5-formyltetrahydrofolate cyclo-ligase	206	complement(126377..126994)
11212	133	CGL2_11212133	Probable citrate transporter	633	127016..128914
11212	134	CGL2_11212134	Putative acyltransferase	232	complement(128922..129617)
11212	135	CGL2_11212135	Cytidylate kinase (EC 2.7.4.14)	221	complement(129593..130255)
11212	136	CGL2_11212136	3-phosphoshikimate 1-carboxyvinyltransferase (EC 2.6.1.10)	454	complement(130252..131613)
11212	138	CGL2_11212138	Prephenate dehydrogenase (EC 1.3.1.12)	302	complement(131600..132505)
11212	139	CGL2_11212139	Phospho-2-dehydro-3-deoxyheptonate aldolase, subunit	340	complement(132505..133524)
11212	140	CGL2_11212140	Prephenate dehydratase (EC 4.2.1.51)	365	complement(133548..134642)
11212	141	CGL2_11212141	Conserved protein of unknown function	252	complement(134731..135486)
11212	142	CGL2_11212142	Probable cytochrome C oxidase mono-heme subunit	176	135909..136436
11212	143	CGL2_11212143	Conserved hypothetical protein	429	136596..137882
11212	144	CGL2_11212144	Glycine oxidase (ThiO)	375	complement(137898..139022)
11212	145	CGL2_11212145	UDP-glucose 6-dehydrogenase (EC 1.1.1.22)	443	139252..140580
11212	146	CGL2_11212146	Sugar fermentation stimulation protein	239	140562..141278
11212	147	CGL2_11212147	Putative NAD-dependent epimerase/dehydratase family	308	141307..142230
11212	148	CGL2_11212148	Conserved hypothetical protein	349	142223..143269
11212	149	CGL2_11212149	Nucleoside-diphosphate kinase (EC 2.7.4.6)	138	143276..143689
11212	150	CGL2_11212150	Protein of unknown function	397	143746..144936
11212	151	CGL2_11212151	Tyrosyl-tRNA synthetase (EC 6.1.1.1)	403	145018..146226
11212	152	CGL2_11212152	Secretion protein HlyD	374	146440..147561
11212	153	CGL2_11212153	Heavy metal efflux pump, CzcA family	1027	147561..150641
11212	154	CGL2_11212154	Putative glutamine amidotransferase class-I	235	150735..151439
11212	155	CGL2_11212155	Transposase	446	151619..152956
11233rRNA	CGL2_11233R001	16S rRNA		219..1736	
11233tRNA	CGL2_11233R001	TRNA Ile GAT		1862..1938	
11233tRNA	CGL2_11233R002	TRNA Ala TGC		1944..2019	

11233rRNA	CGL2_11233R002	23S rRNA		2347..4992	
11233rRNA	CGL2_11233R003	5S rRNA		5220..5283	
11233	1	CGL2_11233001	Hypothetical protein	49	5616..5762
11233	3	CGL2_11233003	NADH dehydrogenase, subunit F (EC 1.6.99.5)	1048	5797..8940
11233	4	CGL2_11233004	Putative endonuclease III	210	complement(8905..9534)
11233	5	CGL2_11233005	Putative transcriptional regulators, TraR/DksA family	136	9653..10060
11233	6	CGL2_11233006	Prolipoprotein diacylglycerol transferase	272	10091..10906
11233	7	CGL2_11233007	Putative methyl-accepting chemotaxis sensory trans	484	10919..12370
11233	8	CGL2_11233008	Transcriptional regulator, BadM/Rrf2 family	141	12409..12831
11233	9	CGL2_11233009	Hypothetical protein	109	complement(12830..13156)
11233	10	CGL2_11233010	Conserved hypothetical protein	90	13304..13573
11233	11	CGL2_11233011	Conserved protein of unknown function	380	complement(13576..14715)
11233	12	CGL2_11233012	Putative permease	852	complement(14711..17266)
11233	13	CGL2_11233013	ABC transporter, ATP-binding protein (3.6.3.25)	241	complement(17273..17995)
11233	14	CGL2_11233014	3-hydroxyisobutyrate dehydrogenase (EC 1.1.1.31)	292	complement(17995..18870)
11233	15	CGL2_11233015	Hypothetical protein	87	19172..19432
11233	16	CGL2_11233016	Conserved hypothetical protein	97	19435..19725
11233	17	CGL2_11233017	Conserved hypothetical protein	834	19721..22222
11233	18	CGL2_11233018	Hypothetical protein	204	22222..22833
11233	19	CGL2_11233019	Hypothetical protein	410	22845..24074
11233	20	CGL2_11233020	Hypothetical protein	229	24074..24760
11233	21	CGL2_11233021	DNA-dependent RNA polymerase	385	24760..25914
11233	22	CGL2_11233022	Hypothetical protein	316	25919..26866
11233	23	CGL2_11233023	Putative MoxR-like ATPases	282	26866..27711
11233	24	CGL2_11233024	Hypothetical protein	151	complement(27892..28344)
11233	25	CGL2_11233025	Putative oxygen-independent coproporphyrinogen II	389	28602..29768
11233	26	CGL2_11233026	Putative phage integrase family protein	314	complement(29784..30725)
11233	27	CGL2_11233027	Hypothetical protein	390	complement(30742..31911)
11233	28	CGL2_11233028	Protein of unknown function	455	complement(31935..33299)
11233	29	CGL2_11233029	Ferredoxin-nitrite reductase (EC 1.7.7.1)	547	33572..35212
11233	30	CGL2_11233030	Hypothetical protein	63	complement(35224..35412)
11233	31	CGL2_11233031	Conserved protein of unknown function	282	complement(35489..36334)
11233	32	CGL2_11233032	Glycogen synthase (EC 2.4.1.21)	493	36597..38075
11233	33	CGL2_11233033	transposase	133	complement(38375..38773)
11233	34	CGL2_11233034	Hypothetical protein	45	complement(39064..39198)
11233	35	CGL2_11233035	Putative transcriptional regulator, Crp/Fnr family	237	complement(39216..39926)
11233	36	CGL2_11233036	Putative peptidoglycan-binding lytic transglycosylase	473	40318..41736
11233	37	CGL2_11233037	Protein of unknown function	264	complement(41888..42679)
11233	38	CGL2_11233038	Probable ferredoxin	86	complement(42687..42944)
11233	39	CGL2_11233039	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	453	complement(43053..44411)
11233	40	CGL2_11233040	Phosphoribosylaminoimidazole carboxylase, catalytic	175	44665..45189

11233	41	CGL2_11233041	Phosphoribosylaminoimidazole carboxylase, ATPase :	382	45189..46334	62_GENE_15
11233	42	CGL2_11233042	Conserved protein of unknown function	221	complement(46352..47014)	62_GENE_14
11233	43	CGL2_11233043	Protein of unknown function	136	complement(47165..47572)	62_GENE_13
11233	44	CGL2_11233044	Putative adenylate/guanylate cyclase	454	complement(48132..49493)	62_GENE_12
11233	45	CGL2_11233045	Hypothetical protein	483	49618..51066	62_GENE_11
11233	46	CGL2_11233046	Conserved protein of unknown function	374	51339..52460	62_GENE_10
11233	47	CGL2_11233047	Conserved hypothetical protein	338	52613..53626	62_GENE_9
11233	48	CGL2_11233048	Conserved hypothetical protein	132	53633..54028	62_GENE_8
11233	49	CGL2_11233049	Protein of unknown function	213	54121..54759	62_GENE_7
11233	50	CGL2_11233050	oxidoreductase/K <sup>+</sup> -channel protein?	58	54944..55117	62_GENE_6
11233	51	CGL2_11233051	Protein of unknown function	313	complement(55300..56238)	62_GENE_5
11233	52	CGL2_11233052	Putative ABC transporter	304	complement(56238..57149)	62_GENE_4
11233	53	CGL2_11233053	Putative ABC transporter	257	complement(57188..57958)	62_GENE_3
11233	54	CGL2_11233054	Probable ABC transporter, permease protein	261	complement(57981..58763)	62_GENE_2
11233	55	CGL2_11233055	Protein of unknown function	243	complement(58813..59541)	62_GENE_1
11233	57	CGL2_11233057	Cold shock proteins	68	complement(60195..60398)	140_GENE_1
11233	58	CGL2_11233058	Hypothetical protein	205	60718..61332	140_GENE_2
11233	59	CGL2_11233059	Probable general secretion pathway protein I	127	61332..61712	140_GENE_3
11233	60	CGL2_11233060	Probable general secretion pathway protein J	235	61712..62416	140_GENE_4
11233	61	CGL2_11233061	DnaB helicase	463	complement(62454..63842)	140_GENE_5
11233	62	CGL2_11233062	Histidyl-tRNA lygase (EC 6.1.1.21)	437	complement(63849..65159)	140_GENE_6
11233	63	CGL2_11233063	D-3-phosphoglycerate dehydrogenase (EC 1.1.1.95)	535	complement(65159..66763)	140_GENE_7
11233	64	CGL2_11233064	Serine--glyoxylate transaminase (EC 2.6.1.45)	381	complement(66785..67927)	140_GENE_8
11233	65	CGL2_11233065	Putative oligopeptide ABC transporter	533	complement(68134..69732)	140_GENE_9
11233rRNA		CGL2_11233R004	5S rRNA		complement(69908..69971)	
11233rRNA		CGL2_11233R005	23S rRNA		complement(70199..72844)	
11233tRNA		CGL2_11233R003	TRNA Ala TGC		complement(73172..73247)	
11233tRNA		CGL2_11233R004	TRNA Ile GAT		complement(73253..73329)	
11277	2	CGL2_11277002	Protein of unknown function	40	complement(239..358)	42_GENE_2
11277	3	CGL2_11277003	Protein of unknown function (probable hemolysin?)	455	562..1926	42_GENE_3
11277	4	CGL2_11277004	Protein of unknown function	189	1957..2523	42_GENE_4
11277	5	CGL2_11277005	Protein of unknown function	355	2548..3612	42_GENE_5
11277	6	CGL2_11277006	Transcriptional regulator, BadM/Rrf2 family	156	3698..4165	42_GENE_6
11277	7	CGL2_11277007	Cysteine desulfurase (EC 2.8.1.7)	404	4128..5339	42_GENE_7
11277	8	CGL2_11277008	FeS cluster assembly scaffold IscU	137	5380..5790	42_GENE_8
11277	9	CGL2_11277009	Iron-sulfur cluster assembly protein	109	5805..6131	42_GENE_9
11277	10	CGL2_11277010	Putative co-chaperone HscB	225	6228..6902	42_GENE_10
11277	11	CGL2_11277011	Chaperone protein HscA	603	6926..8734	42_GENE_11
11277	12	CGL2_11277012	Putative ferredoxin	103	8754..9062	42_GENE_13
11277	13	CGL2_11277013	Protein of unknown function	67	9098..9298	42_GENE_14

11277	14	CGL2_11277014	Conserved hypothetical protein	155	9298..9762	42_GENE_15
11277	15	CGL2_11277015	Putative ATP binding protein, Mrp like	358	9855..10928	42_GENE_16
11277	16	CGL2_11277016	Protein of unknown function	85	10928..11182	42_GENE_17
11277	17	CGL2_11277017	Pseudouridylate synthase (4.2.1.70)	268	11243..12046	42_GENE_18
11277	18	CGL2_11277018	Protein of unknown function	103	complement(12064..12372)	42_GENE_19
11277	19	CGL2_11277019	Glycerol 3-phosphate dehydrogenase (NADP) (1.1.1.	353	complement(12441..13499)	42_GENE_20
11277	20	CGL2_11277020	Probable phosphoribosyltransferase	223	13734..14402	42_GENE_21
11277	21	CGL2_11277021	Protein of unknown function	403	14518..15726	42_GENE_22
11277	22	CGL2_11277022	Putative diguanylate cyclase/phosphodiesterase with	884	complement(15720..18371)	42_GENE_23
11277	23	CGL2_11277023	Putative phosphatidylethanolamine binding protein	188	complement(18424..18987)	42_GENE_24
11277	24	CGL2_11277024	Seryl-tRNA synthetase (6.1.1.11)	442	19309..20634	42_GENE_25
11277	25	CGL2_11277025	Protein of unknown function	123	20634..21002	42_GENE_26
11277	26	CGL2_11277026	Protein of unknown function	241	20989..21711	42_GENE_27
11277	27	CGL2_11277027	Hypothetical protein	84	21749..22000	42_GENE_27a
11277	28	CGL2_11277028	Putative GTP binding protein	518	22111..23664	42_GENE_29
11277	29	CGL2_11277029	Hypothetical protein	163	23669..24157	42_GENE_30
11277	30	CGL2_11277030	Hypothetical protein	333	24160..25158	42_GENE_31
11277	31	CGL2_11277031	Protein of unknown function	140	25253..25672	42_GENE_32
11277	32	CGL2_11277032	Putative peptidase M16	476	25738..27165	42_GENE_33
11277	33	CGL2_11277033	Putative peptidase M16	481	27196..28638	42_GENE_34
11277	34	CGL2_11277034	Hypothetical protein	430	complement(28705..29994)	42_GENE_35
11277	35	CGL2_11277035	Putative Na+/H+ antiporters	406	complement(30044..31261)	42_GENE_36
11277	36	CGL2_11277036	Putative metabolite transport protein	429	31715..33001	42_GENE_37
11277	37	CGL2_11277037	Conserved hypothetical protein	101	complement(33490..33792)	42_GENE_38
11277	38	CGL2_11277038	Hypothetical protein	102	34138..34443	42_GENE_39
11277	39	CGL2_11277039	Hypothetical protein	93	34446..34724	42_GENE_40
11277	40	CGL2_11277040	Hypothetical protein	261	complement(34681..35463)	42_GENE_41
11277	41	CGL2_11277041	Hypothetical protein	187	complement(35623..36183)	42_GENE_44
11277	42	CGL2_11277042	Hypothetical protein	111	complement(36183..36515)	42_GENE_45
11277	43	CGL2_11277043	Conserved hypothetical protein	83	complement(36515..36763)	42_GENE_47
11277	44	CGL2_11277044	Conserved hypothetical protein	588	complement(36892..38655)	21_GENE_2
11277	45	CGL2_11277045	Conserved hypothetical protein	307	complement(38648..39568)	21_GENE_3
11277	46	CGL2_11277046	Hypothetical protein	270	39766..40575	21_GENE_5
11277	47	CGL2_11277047	Integrase	367	40580..41680	21_GENE_6
11277tRNA		CGL2_11277R001	TRNA Arg ACG		complement(41698..41774)	
11277	48	CGL2_11277048	Leucyl-tRNA synthetase (6.1.1.4)	828	42055..44538	21_GENE_8
11277	49	CGL2_11277049	Protein of unknown function	239	44538..45254	21_GENE_9
11277	50	CGL2_11277050	Probable DNA polymerase III, delta subunit	348	45254..46297	21_GENE_10
11277	51	CGL2_11277051	Ribosomal protein S20	87	complement(46287..46547)	21_GENE_11
11277	52	CGL2_11277052	Putative virulence factor MVN like	547	46631..48271	21_GENE_12
11277	53	CGL2_11277053	Probable HNH endonuclease	186	complement(48285..48842)	21_GENE_13

11277	54	CGL2_11277054	Protein of unknown function	347	complement(48906..49946)	21_GENE_14
11277	55	CGL2_11277055	Protein of unknown function	163	50116..50604	21_GENE_15
11277	56	CGL2_11277056	Protein of unknown function	116	50686..51036	21_GENE_16
11277	57	CGL2_11277057	Probable ATPase, PP-loop superfamily implicat	307	51036..51956	21_GENE_17
11277	58	CGL2_11277058	Conserved protein of unknown function	324	52008..52979	21_GENE_18
11277	59	CGL2_11277059	Probable metal-dependent phosphohydrolase	424	complement(52982..54253)	21_GENE_19
11277	60	CGL2_11277060	Protein of unknown funciton, but transposase (delete	105	54888..55202	21_GENE_20
11277tRNA		CGL2_11277R002	TRNA His GTG		complement(55579..55653)	
11277	62	CGL2_11277062	Anthranilate synthases component I (EC 4.1.3.27)	441	55759..57080	21_GENE_21
11277	64	CGL2_11277064	Putative branched chain amino acid aminotransferase	295	57072..57956	21_GENE_22
11277	65	CGL2_11277065	Rubrerythrin	139	58187..58603	21_GENE_23
11277	66	CGL2_11277066	Ribonucleotide reductase (EC 1.17.4.1)	732	complement(58849..61044)	21_GENE_24
11277	67	CGL2_11277067	Protein of unknown function	484	complement(61262..62713)	21_GENE_25
11277	68	CGL2_11277068	Protein of unknown function	205	complement(62854..63468)	21_GENE_26
11277	69	CGL2_11277069	Putative acriflavin resistance protein	386	complement(63783..64940)	21_GENE_27
11277	70	CGL2_11277070	Putative acriflavin resistance protein	664	complement(64959..66950)	21_GENE_28
11277tRNA		CGL2_11277R003	TRNA Arg TCG		complement(67254..67330)	
11277	71	CGL2_11277071	Protein of unknown function	152	67577..68032	21_GENE_31
11277tRNA		CGL2_11277R004	TRNA Cys GCA		68110..68184	
11277	72	CGL2_11277072	Putative major facilitator superfamily transporter	487	complement(68293..69753)	21_GENE_32
11277	73	CGL2_11277073	L-2,4-diaminobutyric acid acetyltransferase	187	70464..71024	21_GENE_34
11277	74	CGL2_11277074	Diaminobutyrate--pyruvate aminotransferase (EC 2.6.1.1)	425	71048..72322	21_GENE_35
11277	75	CGL2_11277075	Ectoine synthase	131	72349..72741	21_GENE_36
11277	76	CGL2_11277076	Ectoine hydroxylase	305	72819..73733	21_GENE_37
11277	77	CGL2_11277077	Protein of unknown function	147	complement(73776..74216)	21_GENE_38
11277	78	CGL2_11277078	Hypothetical protein	153	complement(74253..74711)	21_GENE_39
11277	79	CGL2_11277079	Hypothetical protein	67	74818..75018	21_GENE_40
11277	80	CGL2_11277080	Probable sodium/calcium exchanger membrane regic	303	75018..75926	21_GENE_41
11277	81	CGL2_11277081	Probable transporter protein	406	75926..77143	21_GENE_42
11277	82	CGL2_11277082	Hypothetical protein	214	complement(77134..77775)	21_GENE_43
11277	83	CGL2_11277083	Putative proteasome component	448	complement(77823..79166)	21_GENE_44
11277	84	CGL2_11277084	Probable 20S proteasome alpha-subunit	229	complement(79193..79879)	21_GENE_45
11277	85	CGL2_11277085	Putative 20S proteasome beta-subunit	279	complement(79879..80715)	21_GENE_46
11277	86	CGL2_11277086	Conserved protein of unknown function	70	complement(80734..80943)	21_GENE_47
11277	87	CGL2_11277087	Putative proteasome component	505	complement(80969..82483)	21_GENE_48
11277	88	CGL2_11277088	Vesicle-fusing ATPase (EC 3.6.4.6)	579	complement(82504..84240)	21_GENE_49
11277	89	CGL2_11277089	Peroxiredoxin	158	complement(84432..84905)	21_GENE_51
11277	90	CGL2_11277090	Putative band 7 family protein	286	complement(84982..85839)	21_GENE_52
11277	91	CGL2_11277091	Protein of unknown function	202	complement(85874..86479)	21_GENE_53
11277	92	CGL2_11277092	Protein of unknown function	93	complement(86487..86765)	21_GENE_54
11277	93	CGL2_11277093	Protein of unknown function	115	87064..87408	21_GENE_56

11277	94	CGL2_11277094	Alcohol dehydrogenase (EC 1.1.1.1)	334	complement(87473..88474)	21_GENE_57
11277	95	CGL2_11277095	Protein of unknown function	72	complement(88519..88734)	21_GENE_58
11277	96	CGL2_11277096	Putative acriflavin resistance protein	1087	complement(88826..92086)	21_GENE_59
11277	97	CGL2_11277097	Efflux transporter, RND family, MFP subunit	349	complement(92086..93132)	32_GENE_53
11277	98	CGL2_11277098	Putative outer membrane efflux protein	472	complement(93193..94608)	32_GENE_52
11277	99	CGL2_11277099	Putative transcriptional regulator, ArsR family	112	complement(94608..94943)	32_GENE_51
11277	100	CGL2_11277100	Hypothetical protein	89	95205..95471	32_GENE_50
11277	101	CGL2_11277101	Exinuclease ABC, B subunit (UvrB)	701	complement(95482..97584)	32_GENE_49
11277	102	CGL2_11277102	Conserved hypothetical protein	117	complement(97584..97934)	32_GENE_48
11277	103	CGL2_11277103	Protein of unknown function	239	97991..98707	32_GENE_47
11277	104	CGL2_11277104	Aminopeptidase N (EC 3.4.11.2)	863	complement(98735..101323)	32_GENE_46
11277	105	CGL2_11277105	Putative thioredoxin	108	complement(101372..101695)	32_GENE_45
11277	106	CGL2_11277106	Conserved protein of unknown function	253	101887..102645	32_GENE_44
11277	107	CGL2_11277107	Protein of unknown function	234	102658..103359	32_GENE_43
11277	108	CGL2_11277108	Probable cytochrome b561 family	253	103465..104223	32_GENE_42
11277	109	CGL2_11277109	Putative diguanylate phosphodiesterase	416	complement(104254..105501)	32_GENE_41
11277	110	CGL2_11277110	Copper translocating P-type ATPase (EC 3.6.3.4)	843	105624..108152	32_GENE_40
11277	111	CGL2_11277111	Ammonium transporter	435	complement(108233..109537)	32_GENE_39
11277	112	CGL2_11277112	Nitrogen regulatory protein P-II	112	complement(109608..109943)	32_GENE_38
11277	113	CGL2_11277113	Ammonium transporter	490	complement(110013..111482)	32_GENE_37
11277	114	CGL2_11277114	Protein of unknown function	514	complement(111609..113150)	32_GENE_36
11277	115	CGL2_11277115	Hypothetical protein	154	113548..114009	32_GENE_35
11277	116	CGL2_11277116	Cystathionine gamma-synthase (EC 2.5.1.48)	401	complement(114028..115230)	32_GENE_34
11277	117	CGL2_11277117	Protein of unknown function	365	115366..116460	32_GENE_33
11277	118	CGL2_11277118	Putative oligopeptide ABC transporter	303	complement(116491..117399)	32_GENE_32
11277	119	CGL2_11277119	Putative oligopeptide ABC transporter	283	complement(117399..118247)	32_GENE_31
11277	120	CGL2_11277120	Hypothetical protein	90	complement(118250..118519)	32_GENE_29
11277	121	CGL2_11277121	Protein of unknown function	126	complement(118522..118899)	32_GENE_28
11277	122	CGL2_11277122	Protein of unknown function	116	complement(118957..119304)	32_GENE_27
11277	123	CGL2_11277123	Protein of unknown function	208	complement(119294..119917)	32_GENE_26
11277	124	CGL2_11277124	Putative glycosyl hydrolase, BNR repeat	352	complement(120032..121087)	32_GENE_25
11277	125	CGL2_11277125	Hypothetical protein	42	complement(121087..121212)	
11277	126	CGL2_11277126	Hypothetical protein	18	complement(121209..121262)	
11277	126a	CGL2_11277126a	Transposase	446	complement(121576..122913)	
11277	127	CGL2_11277127	Protein of unknown function	223	complement(123460..124128)	32_GENE_24
11277	128	CGL2_11277128	Putative haloacid dehalogenase-like hydrolase	232	complement(124353..125048)	32_GENE_23
11277	129	CGL2_11277129	Probable hexapeptide transferase family protein	177	125210..125740	32_GENE_22
11277	130	CGL2_11277130	Putative periplasmic sensor signal transduction histic	546	125800..127437	32_GENE_21
11277	131	CGL2_11277131	Putative response regulator receiver protein	148	127459..127902	32_GENE_20
11277	132	CGL2_11277132	Peptidase S1C, Do	500	127946..129445	32_GENE_19
11277	133	CGL2_11277133	Probable crossover junction endodeoxyribonuclease I	158	129486..129959	32_GENE_18

11277	134	CGL2_11277134	Probable holliday junction DNA helicase (RuvA)	208	129959..130582	32_GENE_17
11277	135	CGL2_11277135	Holliday junction DNA helicase (RuvB)	332	130572..131567	32_GENE_16
11277	136	CGL2_11277136	Protein of unknown function	241	complement(131580..132302)	32_GENE_15
11277	137	CGL2_11277137	Protein of unknown function	277	132450..133280	32_GENE_14
11277	138	CGL2_11277138	Protein of unknown function	308	133280..134203	32_GENE_13
11277	139	CGL2_11277139	Conserved hypothetical protein	51	complement(134216..134368)	32_GENE_12
11277	140	CGL2_11277140	Conserved hypothetical protein	100	complement(134323..134622)	32_GENE_11
11277	141	CGL2_11277141	Probable prevent-host-death protein	64	complement(134673..134864)	32_GENE_10
11277	142	CGL2_11277142	Hypothetical protein	105	135141..135455	32_GENE_9
11277	143	CGL2_11277143	Putative antibiotic biosynthesis monooxygenase	104	136077..136388	32_GENE_8
11277	144	CGL2_11277144	Probable thiamine biosynthesis protein	328	136388..137371	32_GENE_7
11277	145	CGL2_11277145	Probable radical SAM family protein	311	137362..138294	32_GENE_6
11277	146	CGL2_11277146	Conserved protein of unknown function	109	complement(138672..138998)	32_GENE_5
11277	147	CGL2_11277147	Probable oxidoreductase FAD/NAD(P)-binding protein	229	complement(139091..139777)	32_GENE_4
11277	148	CGL2_11277148	Putative major facilitator superfamily transporter	418	140056..141309	32_GENE_1
11277	149	CGL2_11277149	Protein of unknown function	244	complement(141338..142069)	
11277	150	CGL2_11277150	Protein of unknown function	255	142172..142936	630_GENE_3
11277	151	CGL2_11277151	Transposase	411	143224..144456	630_GENE_4
11277	153	CGL2_11277153	Protein of unknown function (cyt 572, see full length)	576	complement(144648..146375)	630_GENE_6
		Strain variant path	Strain variant path		Strain variant path	
11277	154	CGL2_11277154	Transposase	446	complement(147058..148395)	815_GENE_1
11277tRNA		CGL2_11277R005	TRNA Leu CAA		148692..148778	
11277	155	CGL2_11277155	Integrase	185	149319..149873	815_GENE_2
11277	156	CGL2_11277156	Hypothetical protein	63	150116..150304	815_GENE_3
11277	157	CGL2_11277157	Hypothetical protein	60	complement(150474..150653)	815_GENE_4
11277	158	CGL2_11277158	Protein of unknown function	1140	complement(150680..154099)	815_GENE_5
11277	159	CGL2_11277159	Hypothetical protein	63	complement(154104..154292)	600_GENE_2
11277	160	CGL2_11277160	Hypothetical protein	36	complement(154300..154407)	600_GENE_3
11277	161	CGL2_11277161	Hypothetical protein	150	complement(154407..154856)	600_GENE_4
11277	162	CGL2_11277162	conjugation TrwB	456	complement(154980..156347)	600_GENE_5
11277	163	CGL2_11277163	plasmid coupling TrwB	425	complement(156353..157627)	185_GENE_1
11277	164	CGL2_11277164	Hypothetical protein	138	complement(157645..158058)	185_GENE_2
11277	165	CGL2_11277165	Hypothetical protein	180	complement(158058..158597)	185_GENE_3
11277	166	CGL2_11277166	Hypothetical protein	85	complement(158751..159005)	185_GENE_4
11277	167	CGL2_11277167	Hypothetical protein	75	complement(159005..159229)	185_GENE_5
11277	168	CGL2_11277168	Hypothetical protein	82	complement(159229..159474)	185_GENE_6
11277	169	CGL2_11277169	Hypothetical protein	43	complement(159518..159646)	185_GENE_7
11277	170	CGL2_11277170	Hypothetical protein	104	complement(159661..159972)	185_GENE_8
11277	171	CGL2_11277171	Protein of unknown function	45	160002..160136	185_GENE_9
11277	172	CGL2_11277172	Hypothetical protein	43	160097..160225	185_GENE_10
11277	173	CGL2_11277173	Hypothetical protein	63	160422..160610	185_GENE_12

11277	174	CGL2_11277174	Protein of unknown function	155	160628..161092	185_GENE_13
11277	174a	CGL2_11277174a	Hypothetical protein	113	complement(161100..161438)	
11277	175	CGL2_11277175	Hypothetical protein	302	complement(161562..162467)	185_GENE_14
11277	176	CGL2_11277176	biopolymer transport, ExbD	147	complement(162562..163002)	185_GENE_15
11277	177	CGL2_11277177	TonB	509	complement(163575..165101)	185_GENE_16
11277	178	CGL2_11277178	TolQ	236	complement(165245..165952)	185_GENE_18
11277	179	CGL2_11277179	Protein of unknown function	500	complement(166046..167545)	185_GENE_19
11277	180	CGL2_11277180	Hypothetical protein	54	complement(167638..167799)	185_GENE_20
11277	181	CGL2_11277181	Hypothetical protein	146	complement(167795..168232)	185_GENE_21
11277	182	CGL2_11277182	Conserved protein of unknown function	577	complement(168204..169934)	185_GENE_22
11277	183	CGL2_11277183	Probable transposase	213	complement(170344..170982)	173_GENE_16
11277	184	CGL2_11277184	Transposase	431	complement(170975..172267)	173_GENE_15
11277	185	CGL2_11277185	Protein of unknown function	620	complement(172511..174370)	173_GENE_14
11277	186	CGL2_11277186	Conserved hypothetical protein	161	complement(174395..174877)	173_GENE_13
11277	187	CGL2_11277187	Hypothetical protein	82	complement(174885..175130)	173_GENE_12
11277	188	CGL2_11277188	IstB helper protein/transposase	259	complement(175186..175962)	173_GENE_11
11277	189	CGL2_11277189	transposase	440	complement(175965..177284)	173_GENE_10
11277	189a	CGL2_11277189a	Hypothetical protein	126	complement(177336..177713)	
11277	190	CGL2_11277190	Conserved protein of unknown function	221	complement(178159..178821)	173_GENE_9
11277	191	CGL2_11277191	Hypothetical protein	151	complement(179031..179483)	173_GENE_7
11277	191a	CGL2_11277191a	Hypothetical protein	138	complement(179587..180000)	
11277	192	CGL2_11277192	transposase	102	complement(180152..180457)	173_GENE_5
11277	193	CGL2_11277193	transposase	135	complement(180442..180846)	173_GENE_4
11277	194	CGL2_11277194	Hypothetical protein	225	complement(180864..181538)	173_GENE_3
11277	195	CGL2_11277195	Hypothetical protein	73	complement(181573..181791)	173_GENE_2
11277	196	CGL2_11277196	Putative replicative helicase	448	complement(181769..183112)	173_GENE_1
11277	196a	CGL2_11277196a	Hypothetical protein	75	complement(183112..183336)	
11277	197a	CGL2_11277197a	Hypothetical protein	110	complement(183336..183665)	
11277	197	CGL2_11277197	Hypothetical protein	80	complement(183777..184016)	374_GENE_1
11277	198	CGL2_11277198	Protein of unknown function	231	184124..184816	374_GENE_2
11277	199	CGL2_11277199	Transposase	146	complement(185024..185461)	374_GENE_3
11277	200	CGL2_11277200	Probable phage integrase, pseudo	123	185866..186234	374_GENE_4a
11277	201	CGL2_11277201	Protein of unknown function	113	complement(186368..186706)	374_GENE_5
11277	202	CGL2_11277202	Protein of unknown function	217	complement(186712..187362)	374_GENE_6
11277	203	CGL2_11277203	Protein of unknown function	163	complement(187774..188262)	374_GENE_7
11277	204	CGL2_11277204	Protein of unknown function	371	complement(188410..189522)	374_GENE_8
11277	205	CGL2_11277205	Conserved hypothetical protein	326	complement(189531..190508)	374_GENE_9
11277	206	CGL2_11277206	Probable TPR-domain containing protein	176	complement(190718..191245)	374_GENE_10
11277	207	CGL2_11277207	Conserved protein of unknown function	95	complement(191933..192217)	4_GENE_100
11277	208	CGL2_11277208	Putative carbon-nitrogen hydrolase	273	complement(192294..193112)	4_GENE_99
11277	209	CGL2_11277209	Pantoate-beta-alanine ligase (EC 6.3.2.1)	286	193191..194048	4_GENE_98



11277	252	CGL2_11277252	Protein of unknown function	292	complement(229668..230543) 4_GENE_56
11277	253	CGL2_11277253	flagellar biosynthesis protein FlhF	393	complement(230547..231725) 4_GENE_55
11277	254	CGL2_11277254	possible flagellar biosynthetic protein FlhA	702	complement(231732..233837) 4_GENE_54
11277	255	CGL2_11277255	flagellar biosynthesis protein, FlhB	362	complement(233821..234906) 4_GENE_53
11277	256	CGL2_11277256	flagellar biosynthesis protein, FliR	262	complement(234899..235684) 4_GENE_52
11277	257	CGL2_11277257	Chemotaxis/flagella (novel lepto genera)	112	complement(235684..236019) 4_GENE_51
11277	258	CGL2_11277258	Flagellar biosynthesis protein FlIP	265	complement(236083..236877) 4_GENE_50
11277	259	CGL2_11277259	Protein of unknown function	173	complement(236868..237386) 4_GENE_49
11277	260	CGL2_11277260	flagellar motor switch protein FliN	125	complement(237419..237793) 4_GENE_48
11277	261	CGL2_11277261	Putative flagellar basal body-associated protein FliL	168	complement(237833..238336) 4_GENE_47
11277	262	CGL2_11277262	Probable flagellar hook protein FlgE	457	complement(238500..239870) 4_GENE_46
11277	263	CGL2_11277263	Probable flagellar hook capping protein FlgD	276	complement(239875..240702) 4_GENE_45
11277	264	CGL2_11277264	Conserved protein of unknown function	494	complement(240733..242214) 4_GENE_44
11277	265	CGL2_11277265	Protein of unknown function	169	complement(242242..242748) 4_GENE_43
11277	266	CGL2_11277266	Protein of unknown function	147	complement(242748..243188) 4_GENE_42
11277	267	CGL2_11277267	Flagellum-specific ATP synthase FliI (EC 3.6.3.14)	462	complement(243191..244576) 4_GENE_41
11277	268	CGL2_11277268	Protein of unknown function	219	complement(244576..245232) 4_GENE_40
11277	269	CGL2_11277269	Flagellar motor switch protein FliG	334	complement(245263..246264) 4_GENE_39
11277	270	CGL2_11277270	Flagellar M-ring protein FliF	531	complement(246292..247884) 4_GENE_38
11277	271	CGL2_11277271	Flagellar hook-basal body complex protein FliE	109	complement(247936..248262) 4_GENE_37
11277	272	CGL2_11277272	Flagellar basal-body rod protein FlgC	145	complement(248308..248742) 4_GENE_36
11277	273	CGL2_11277273	Putative flagellar basal-body rod protein FlgB	144	complement(248748..249179) 4_GENE_35
11277	274	CGL2_11277274	Putative two component, sigma54 specific, transcript	489	complement(249198..250664) 4_GENE_34
11277	275	CGL2_11277275	Putative PAS/PAC sensor signal transduction histidine kinase	406	complement(250664..251881) 4_GENE_33
11277	276	CGL2_11277276	Protein of unknown function	719	complement(251900..254056) 4_GENE_32
11277	277	CGL2_11277277	Putative sigma54 specific transcriptional regulator, FliM	344	complement(254233..255264) 4_GENE_31
11277	278	CGL2_11277278	Probable iron-sulfur cluster binding protein	342	complement(255269..256294) 4_GENE_30
11277	279	CGL2_11277279	Probable metal dependent phosphohydrolase	281	complement(256294..257136) 4_GENE_29
11277	280	CGL2_11277280	Probable metal dependent phosphohydrolase	280	complement(257190..258029) 4_GENE_28
11277	281	CGL2_11277281	Protein of unknown function	110	complement(258070..258399) 4_GENE_27
11277	282	CGL2_11277282	Probable lipoate protein ligase	209	complement(258399..259025) 4_GENE_26
11277	283	CGL2_11277283	Glycine dehydrogenase (Decarboxylating) subunit 2	496	complement(259038..260525) 4_GENE_25
11277	284	CGL2_11277284	Glycine dehydrogenase (Decarboxylating) subunit 1	453	complement(260525..261883) 4_GENE_24
11277	285	CGL2_11277285	Glycine cleavage system H protein	134	complement(261879..262280) 4_GENE_23
11277	286	CGL2_11277286	Glycine cleavage system T protein (EC 2.1.2.10)	377	complement(262394..263524) 4_GENE_22
11277	287	CGL2_11277287	Protein of unknown function	234	264038..264739 4_GENE_21
11277	288	CGL2_11277288	Putative methyl-accepting chemotaxis sensory transductor	454	complement(264821..266182) 4_GENE_20
11277	289	CGL2_11277289	Putative methyl-accepting chemotaxis sensory transductor	158	complement(266088..266561) 4_GENE_19
11277	290	CGL2_11277290	Protein of unknown function	184	complement(266571..267122) 4_GENE_18
11277	291	CGL2_11277291	Probable ABC transporter, periplasmic component	339	267338..268354 4_GENE_17
11277	292	CGL2_11277292	Protein of unknown function	467	268367..269767 4_GENE_16

11277	293	CGL2_11277293	Putative rhodanese-like domain protein	114	269829..270170	4_GENE_15
11277	294	CGL2_11277294	Protein of unknown function	101	complement(270246..270548)	4_GENE_14
11277	295	CGL2_11277295	Putative tRNA (1-methyladenosine) methyltransferase	276	270705..271532	4_GENE_13
11184	1	CGL2_11184001	Putative methyltransferase	214	complement(73..714)	4_GENE_12
11184	2	CGL2_11184002	NHL repeat domain protein	494	847..2328	4_GENE_11
11184	3	CGL2_11184003	Protein of unknown function	436	2404..3711	4_GENE_10
11184	4	CGL2_11184004	Hypothetical protein	67	3820..4020	4_GENE_9
11184	5	CGL2_11184005	Diaminopimelate epimerase (EC 5.1.1.7)	290	complement(4043..4912)	4_GENE_8
11184	6	CGL2_11184006	Protein of unknown function	284	complement(4951..5802)	4_GENE_7
11184	7	CGL2_11184007	Probable short-chain dehydrogenase/reductase SDR	247	complement(5798..6538)	4_GENE_6
11184	8	CGL2_11184008	Putative transcriptional regulators, TraR/DksA family	127	complement(6538..6918)	4_GENE_5
11184	9	CGL2_11184009	Putative catalytic LigB subunit of aromatic ring-openi	291	7054..7926	4_GENE_4
11184	10	CGL2_11184010	Heavy metal efflux pump (CzcA)	1036	complement(7845..10952)	4_GENE_3
11184	11	CGL2_11184011	Secretion protein (HlyD)	380	complement(10955..12094)	4_GENE_2
11184	12	CGL2_11184012	Probable outer membrane efflux protein	458	complement(12109..13482)	59_GENE_29
11184	13	CGL2_11184013	Protein of unknown function	206	complement(13836..14453)	59_GENE_28
11184	14	CGL2_11184014	Conserved protein of unknown function	281	complement(14453..15295)	59_GENE_27
11184	15	CGL2_11184015	Protein of unknown function	402	15515..16720	59_GENE_26
11184	16	CGL2_11184016	Protein of unknown function	82	16894..17139	59_GENE_24a
11184	17	CGL2_11184017	Protein of unknown function	100	17174..17473	59_GENE_24
11184	18	CGL2_11184018	Protein of unknown function	122	17491..17856	59_GENE_23
11184	19	CGL2_11184019	Protein of unknown function	83	17920..18168	59_GENE_22
11184tRNA		CGL2_11184R001	tRNA Ser GGA		18280..18372	
11184	20	CGL2_11184020	DNA polymerase III subunit gamma/tau (EC 2.7.7.7)	540	18561..20180	59_GENE_21
11184	21	CGL2_11184021	Protein of unknown function	104	20180..20491	59_GENE_20
11184	22	CGL2_11184022	Recombination protein RecR	214	20507..21148	59_GENE_19
11184	23	CGL2_11184023	Peptide chain release factor 3	551	21206..22858	59_GENE_18
11184	24	CGL2_11184024	Putative mechanosensitive ion channel	313	complement(22805..23743)	59_GENE_17
11184tRNA		CGL2_11184R002	tRNA Ser GCT		complement(23816..23908)	
11184tRNA		CGL2_11184R003	tRNA Ser TGA		complement(23939..24024)	
11184	25	CGL2_11184025	Putative TPR-domain containing protein	272	complement(24581..25396)	59_GENE_16
11184	26	CGL2_11184026	Putative zinc-binding cytidine/deoxycytidylate deami	162	25430..25915	59_GENE_15
11184tRNA		CGL2_11184R004	tRNA Ser CGA		25991..26080	
11184	27	CGL2_11184027	Putative sigma-54 specific transcriptional regulator, I	453	26104..27462	59_GENE_14
11184	28	CGL2_11184028	Protein of unknown function	45	27707..27841	59_GENE_13
11184	29	CGL2_11184029	MazG family protein (nucleotide pyrophosphohydrola	301	27947..28849	59_GENE_12
11184	30	CGL2_11184030	Probable glycosyl transferase family protein	334	28849..29850	59_GENE_11
11184	31	CGL2_11184031	Probable metal-dependent phosphohydrolase	403	29865..31073	59_GENE_10
11184	32	CGL2_11184032	Protein of unknown function	80	complement(31072..31311)	59_GENE_9
11184	33	CGL2_11184033	Protein of unknown function	136	complement(31376..31783)	59_GENE_8
11184	34	CGL2_11184034	Hypothetical protein	72	31989..32204	59_GENE_7

11184	35	CGL2_11184035	Probable acid phosphatase	329	complement(32217..33203)	59_GENE_6
11184	36	CGL2_11184036	Protein of unknown function	464	complement(33203..34594)	59_GENE_5
11184	37	CGL2_11184037	Dihydrolipoamide dehydrogenase (EC 1.8.1.4)	462	complement(34642..36027)	59_GENE_4
11184tRNA		CGL2_11184R005	tRNA Met CAT		36112..36188	
11184	38	CGL2_11184038	transposase	479	complement(37465..38901)	333_GENE_1
11184	39	CGL2_11184039	Hypothetical protein	554	complement(38909..40570)	59_GENE_3
11184	40	CGL2_11184040	Hypothetical protein	213	complement(40761..41399)	333_GENE_4
11184	41	CGL2_11184041	Probable transcriptional regulator, LuxR family	358	42029..43102	333_GENE_5
11184	42	CGL2_11184042	Putative uracil-DNA glycosylase	237	complement(43132..43842)	333_GENE_6
11184	43	CGL2_11184043	Hypothetical protein	66	complement(43833..44030)	333_GENE_7
11184	44	CGL2_11184044	Protein of unknown function	404	complement(44030..45241)	333_GENE_8
11184	45	CGL2_11184045	Protein of unknown function (membrane?)	124	45372..45743	333_GENE_9
11184	46	CGL2_11184046	Exoribonuclease II (EC 3.1.13.1)	744	complement(45739..47970)	3_GENE_1
11184	47	CGL2_11184047	Protein of unknown function	160	48741..49220	3_GENE_4
11184	48	CGL2_11184048	Putative outer membrane protein, OmpA/MotB family	179	49362..49898	3_GENE_5
11184	49	CGL2_11184049	Probable OmpA family protein	232	50257..50952	3_GENE_6
11184	50	CGL2_11184050	Hypothetical protein	161	complement(50891..51373)	3_GENE_7
11184	51	CGL2_11184051	Thiamine-monophosphate kinase (EC 2.7.4.16)	335	complement(51360..52364)	3_GENE_8
11184	52	CGL2_11184052	ATP-dependent protease La (EC 3.4.21.53)	816	complement(52357..54804)	3_GENE_9
11184	53	CGL2_11184053	UTP-glucose-1-phosphate uridylyltransferase (GalU)	297	complement(54811..55701)	3_GENE_10
11184	54	CGL2_11184054	Dephospho-CoA kinase (EC 2.7.1.24)	204	complement(55723..56334)	3_GENE_11
11184	55	CGL2_11184055	Hypothetical protein	159	complement(56334..56810)	3_GENE_12
11184	56	CGL2_11184056	Protein of unknown function	229	complement(56810..57496)	3_GENE_13
11184	57	CGL2_11184057	DNA polymerase I (EC 2.7.7.7)	872	complement(57530..60145)	3_GENE_14
11184	58	CGL2_11184058	Branched-chain amino acid aminotransferase (EC 2.6.1.1)	310	complement(60155..61084)	3_GENE_15
11184	59	CGL2_11184059	Probable membrane protein	234	complement(61126..61827)	3_GENE_16
11184	60	CGL2_11184060	Hypothetical protein	191	complement(61920..62492)	3_GENE_17
11184	61	CGL2_11184061	Hypothetical protein	333	complement(62483..63481)	3_GENE_18
11184	62	CGL2_11184062	Putative transcriptional regulator, LysR family	303	complement(63481..64389)	3_GENE_19
11184	63	CGL2_11184063	Probable ATP-dependent DNA helicase	737	complement(64411..66621)	3_GENE_20
11184	64	CGL2_11184064	Conserved hypothetical protein	240	complement(66625..67344)	3_GENE_21
11184	65	CGL2_11184065	Protein of unknown function	468	complement(67319..68722)	3_GENE_22
11184	66	CGL2_11184066	Conserved protein of unknown function	185	complement(68725..69279)	3_GENE_23
11184	67	CGL2_11184067	Nicotinate-nucleotide adenylyltransferase (EC 2.7.7.1)	230	complement(69263..69952)	3_GENE_25
11184	68	CGL2_11184068	Gamma-glutamyl phosphate reductase (EC 1.2.1.41)	421	complement(69974..71236)	3_GENE_26
11184	69	CGL2_11184069	Glutamate 5-kinase (EC 2.7.2.11)	380	complement(71246..72385)	3_GENE_27
11184	70	CGL2_11184070	Putative GTP binding protein	360	complement(72385..73464)	3_GENE_28
11184	71	CGL2_11184071	Ribosomal protein L27	92	complement(73492..73767)	3_GENE_29
11184	72	CGL2_11184072	Ribosomal protein L21	106	complement(73849..74166)	3_GENE_30
11184	73	CGL2_11184073	Putative ferric uptake regulator, Fur family	153	74477..74935	3_GENE_31
11184	74	CGL2_11184074	Probable glycosyl hydrolase, BNR repeat	352	complement(74979..76034)	3_GENE_32

11184	75	CGL2_11184075	transposase	115	complement(76434..76778)	3_GENE_33
11181	1	CGL2_11181001	Protein of unknown function	332	complement(801..1796)	3_GENE_34
11181	2	CGL2_11181002	Probable 6-pyruvoyl tetrahydrobiopterin synthase far	128	2118..2501	3_GENE_36
11181	3	CGL2_11181003	Oligopeptide/dipeptide ABC transporter, ATP-binding	336	2501..3508	3_GENE_37
11181	4	CGL2_11181004	ABC phosphate transporter (EC 3.6.3.27)	347	3513..4553	3_GENE_38
11181	5	CGL2_11181005	Phenylalanyl-tRNA synthetase alpha chain (EC 6.1.1.	519	4581..6137	3_GENE_39
11181	6	CGL2_11181006	Phenylalanyl-tRNA synthetase beta chain	569	6174..7880	3_GENE_40
11181	7	CGL2_11181007	Ribosomal protein L20	118	complement(7952..8305)	3_GENE_41
11181	8	CGL2_11181008	Ribosomal protein L35	65	complement(8390..8584)	3_GENE_42
11181	9	CGL2_11181009	Translation initiation factor 3 (IF-3)	175	complement(8629..9153)	3_GENE_43
11181	10	CGL2_11181010	Threonyl-tRNA synthetase (EC 6.1.1.3)	617	complement(9229..11079)	3_GENE_44
11181	10a	CGL2_11181010a	Putative transposase	446	complement(11438..12775)	
11181	11	CGL2_11181011	Putative diguanylate cyclase/phosphodiesterase	1196	complement(12923..16510)	3_GENE_45
11181	12	CGL2_11181012	Phosphomethylpyrimidine kinase (EC 2.7.4.7)	283	complement(16529..17377)	3_GENE_46
11181	13	CGL2_11181013	Putative peptidase M23B family protein	296	complement(17383..18270)	3_GENE_47
11181	14	CGL2_11181014	Thiamine monophosphate synthase (EC 2.5.1.3)	215	complement(18270..18914)	3_GENE_48
11181	15	CGL2_11181015	Thiazole biosynthesis protein (ThiG)	274	complement(18920..19741)	3_GENE_49
11181	17	CGL2_11181017	Acetyl-CoA synthetase (EC 6.2.1.1)	641	19983..21905	3_GENE_50
11181	18	CGL2_11181018	Putative glyoxalase (GloA)	291	21932..22804	3_GENE_51
11181	19	CGL2_11181019	Hypothetical protein	270	complement(22776..23585)	3_GENE_52
11181	20	CGL2_11181020	Putative monogalactosyldiacylglycerol synthase	376	23777..24904	3_GENE_53
11181	21	CGL2_11181021	Putative metallophosphoesterase	311	24904..25836	3_GENE_54
11181	22	CGL2_11181022	Probable major facilitator superfamily transporter	405	complement(25751..26965)	3_GENE_55
11181	23	CGL2_11181023	Carboxymethylenebutenolidase (EC 3.1.1.45)	259	complement(27021..27797)	3_GENE_56
11181	24	CGL2_11181024	Putative outer membrane protein	496	complement(28208..29695)	3_GENE_57
11181	25	CGL2_11181025	Protein of unknown function	165	complement(29796..30290)	3_GENE_58
11181	26	CGL2_11181026	Putative periplasmic sensor signal transduction histid	474	complement(30414..31835)	3_GENE_59
11181	27	CGL2_11181027	Putative two component transcriptional regulator, wi	222	complement(31850..32515)	3_GENE_60
11181	28	CGL2_11181028	Protein of unknown function	151	complement(32571..33023)	3_GENE_61
11181tRNA		CGL2_11181R001	TRNA Pro TGG		complement(33263..33339)	
11181	29	CGL2_11181029	Protein of unknown function	318	33507..34460	3_GENE_62
11181	30	CGL2_11181030	Putative beta-lactamase family protein	293	34468..35346	3_GENE_63
11181	31	CGL2_11181031	ATP synthase F1, epsilon subunit	143	complement(35424..35852)	3_GENE_64
11181	32	CGL2_11181032	ATP synthase F1, beta subunit (EC 3.6.3.15)	463	complement(35861..37249)	3_GENE_65
11181	33	CGL2_11181033	ATP synthase F1, gamma subunit (EC 3.6.3.15)	291	complement(37297..38169)	3_GENE_66
11181	34	CGL2_11181034	ATP synthase F1, alpha subunit (EC 3.6.3.15)	512	complement(38176..39711)	3_GENE_67
11181	35	CGL2_11181035	Putative ATP synthase F1, delta subunit	189	complement(39711..40277)	3_GENE_68
11181	36	CGL2_11181036	ATP synthase F0, subunit B	175	complement(40277..40801)	3_GENE_69
11181	37	CGL2_11181037	ATP synthase F0, subunit C	76	complement(40850..41077)	3_GENE_70
11181	38	CGL2_11181038	ATP synthase F0, subunit A	244	complement(41111..41842)	3_GENE_71
11181	39	CGL2_11181039	Hypothetical protein	89	complement(41849..42115)	3_GENE_72

11181	40	CGL2_11181040	Probable membrane protein	164	42457..42948	3_GENE_73
11181	41	CGL2_11181041	Phosphoglycolate phosphatase (EC 3.1.3.18)	239	complement(42869..43585)	3_GENE_74
11181	42	CGL2_11181042	Putative oligopeptide ABC transporter, permease pro	340	complement(43651..44670)	3_GENE_75
11181	43	CGL2_11181043	Putative oligopeptide ABC transporter, permease pro	324	complement(44670..45641)	3_GENE_76
11181	44	CGL2_11181044	Transporter (Extracellular solute binding protein fam	534	complement(45641..47242)	3_GENE_77
11181	45	CGL2_11181045	preprotein translocase, SecG subunit	101	complement(47380..47682)	3_GENE_78
11181	46	CGL2_11181046	Triosephosphate isomerase (EC 5.3.1.1)	258	complement(47737..48510)	3_GENE_79
11181	47	CGL2_11181047	Phosphoglycerate kinase (EC 2.7.2.3)	399	complement(48527..49723)	3_GENE_80
11181	48	CGL2_11181048	Glyceraldehyde-3-phosphate dehydrogenase (EC 1.2	342	complement(49723..50748)	3_GENE_81
11181	49	CGL2_11181049	Peptidoglycan glycosyltransferase (EC 2.4.1.129)	790	complement(50867..53236)	3_GENE_82
11181	50	CGL2_11181050	Hypothetical protein	70	complement(53463..53672)	3_GENE_84
11181	51	CGL2_11181051	Orotate phosphoribosyl transferase (EC 2.4.2.10)	212	complement(53820..54455)	3_GENE_85
11181	52	CGL2_11181052	Putative methyl-accepting chemotaxis sensory trans	368	complement(54660..55763)	3_GENE_86
11181tRNA		CGL2_11181R002	TRNA Leu GAG		complement(56130..56213)	
11181	53	CGL2_11181053	Siroheme synthase, N-terminal	217	complement(56502..57152)	3_GENE_89
11181	54	CGL2_11181054	Probable DNA uptake lipoprotein	243	complement(57152..57880)	3_GENE_90
11181	55	CGL2_11181055	3-oxoacyl-[acyl-carrier-protein] synthase 3 (EC 2.3.1	329	57974..58960	3_GENE_91
11181	56	CGL2_11181056	Putative two component, sigma54 specific, transcript	457	complement(58963..60333)	3_GENE_92
11181	57	CGL2_11181057	Multi-sensor signal transduction histidine kinase	751	complement(60337..62589)	3_GENE_93
11181	58	CGL2_11181058	Protein of unknown function	408	complement(62648..63871)	3_GENE_94
11181	59	CGL2_11181059	Protein of unknown function	222	complement(63878..64543)	3_GENE_95
11181	60	CGL2_11181060	Probable multiple antibiotic resistance protein (MarC)	201	64582..65184	3_GENE_96
11181	61	CGL2_11181061	Protein of unknown function	144	65289..65720	3_GENE_97
11181	62	CGL2_11181062	Putative UbiE/COQ5 methyltransferase	279	complement(65732..66568)	3_GENE_98
11181	63	CGL2_11181063	Putative queuosine biosynthesis protein	385	complement(66568..67722)	3_GENE_99
11181	64	CGL2_11181064	Putative diguanylate phosphodiesterase	347	67758..68798	3_GENE_100
11181	65	CGL2_11181065	Protein of unknown function	168	68937..69440	3_GENE_101
11181	66	CGL2_11181066	Probable lipoprotein	396	69456..70643	3_GENE_102
11181	67	CGL2_11181067	Putative sulfide-quinone reductase	375	complement(70746..71870)	3_GENE_103
11181	68	CGL2_11181068	Carbonic anhydrase	193	complement(71985..72563)	147_GENE_15
11181	69	CGL2_11181069	Diguanylate cyclase	368	72947..74050	147_GENE_14
11181	70	CGL2_11181070	Protein of unknown function	161	74106..74588	147_GENE_13
11181	71	CGL2_11181071	Probable helicase	62	74581..74766	147_GENE_11a
11181	72	CGL2_11181072	Putative helicase	1055	complement(74776..77940)	147_GENE_11
11181	73	CGL2_11181073	Putative NUDIX hydrolase	134	complement(77930..78331)	147_GENE_10
11181	74	CGL2_11181074	Putative metal-dependent phosphohydrolase	476	78515..79942	147_GENE_9
11181	75	CGL2_11181075	Patatin-like phospholipase	330	79948..80937	147_GENE_8
11181	76	CGL2_11181076	Alcohol dehydrogenase (EC 1.1.1.1)	341	complement(80947..81969)	147_GENE_7
11181	77	CGL2_11181077	Probable anti-ECFsigma factor (ChrR)	223	complement(81969..82637)	147_GENE_6
11181	78	CGL2_11181078	Protein of unknown function	268	82811..83614	147_GENE_5
11181	79	CGL2_11181079	Conserved hypothetical protein	318	83614..84567	147_GENE_4

11181	80	CGL2_11181080	Protein of unknown function	100	84741..85040	147_GENE_3
11181	81	CGL2_11181081	Probable transcriptional regulator	97	85040..85330	147_GENE_2
		CGL2_11181CRISPR			85518..89905	
		CGL2_11386CRISPR			36056..37265	
11386	30	CGL2_11386030	CRISPR-associated protein, Cas2	102	35660..35965	26_GENE_2
11386	29	CGL2_11386029	CRISPR-associated protein, Cas1	306	34759..35676	26_GENE_3
11386	28	CGL2_11386028	CRISPR-associated protein, Cas3	218	34110..34763	26_GENE_4
11386	27	CGL2_11386027	CRISPR-associated protein, Cas5	227	33440..34120	26_GENE_5
11386	26	CGL2_11386026	CRISPR-associated protein, Cas4	398	32239..33432	26_GENE_6
11386	25	CGL2_11386025	CRISPR-associated protein, Cas2	171	31727..32239	26_GENE_7
11386	24	CGL2_11386024	CRISPR-associated protein, Cas1	508	30204..31727	26_GENE_8
11386	23	CGL2_11386023	CRISPR-associated helicase Cas3	880	27565..30204	26_GENE_9
11386	22	CGL2_11386022	Transposase	455	25968..27332	26_GENE_10
11386	21	CGL2_11386021	Probable transposase	143	complement(25114..25542)	26_GENE_12
11386	20	CGL2_11386020	Hypothetical protein	74	complement(24765..24986)	26_GENE_13
11386	19	CGL2_11386019	Hypothetical protein	43	complement(24580..24708)	26_GENE_14
11386	18	CGL2_11386018	DNA methyltransferase/helicase	1067	complement(20914..24114)	26_GENE_15
11386	17	CGL2_11386017	Conserved protein of unknown function	209	complement(20254..20880)	26_GENE_16
11386	16	CGL2_11386016	Protein of unknown function	229	19380..20066	26_GENE_17
11386	15	CGL2_11386015	Hypothetical protein	125	18864..19238	26_GENE_18
11386	14	CGL2_11386014	Conserved hypothetical protein	703	16756..18864	26_GENE_19
Strain variant path		Strain variant path			Strain variant path	
11386	13	CGL2_11386013	Conserved hypothetical protein	300	15833..16732	26_GENE_20
11386	12	CGL2_11386012	phage DNA binding protein	60	15654..15833	26_GENE_21
11386	11	CGL2_11386011	Hypothetical protein	309	14611..15537	26_GENE_22
11386	10	CGL2_11386010	integrase INT P4	403	13403..14611	26_GENE_23
11386	9	CGL2_11386009	SsrA-binding protein	163	12311..12799	26_GENE_24
11386	8	CGL2_11386008	Leucyl aminopeptidase (EC 3.4.11.1)	532	10649..12244	183_GENE_9
11386	7	CGL2_11386007	ExsB protein (succinoglycan synthase?)	241	9812..10534	183_GENE_8
11386	6	CGL2_11386006	Putative radical activating enzyme	212	9171..9806	183_GENE_7
11386	5	CGL2_11386005	Protein of unknown function	231	8411..9103	183_GENE_6
11386	4	CGL2_11386004	DNA gyrase, A subunit	816	5860..8307	183_GENE_5
11386	3	CGL2_11386003	DNA gyrase, B subunit (EC 5.99.1.3)	818	3348..5801	183_GENE_4
11386	2	CGL2_11386002	DNA polymerase III, beta chain (EC 2.7.7.7)	387	1959..3119	183_GENE_3
11386	1	CGL2_11386001	Chromosomal replication initiator protein (DnaA) ORI	465	543..1937	183_GENE_2
Strain variant path		Strain variant path			Strain variant path	
11389	40	CGL2_11389040	Acetolactate synthase, large subunit (EC 2.2.1.6)	581	complement(34161..35903)	26_GENE_33
11389	39	CGL2_11389039	Acetolactate synthase, small subunit	184	complement(33592..34143)	26_GENE_34
11389	38	CGL2_11389038	Acetoxyhydroxy acid isomeroreductase (EC 1.1.1.86)	339	complement(32507..33523)	26_GENE_35
11389	37	CGL2_11389037	Phosphatidylserine decarboxylase (EC 4.1.1.65)	217	complement(31841..32491)	26_GENE_36
11389	36	CGL2_11389036	CDP-diacylglycerol-serine O-phosphatidyltransferase	278	complement(31036..31869)	26_GENE_37



10706	2	CGL2_10706002	Hypothetical protein	81	complement(1752..1994)	214_GENE_8
10706	1	CGL2_10706001	Hypothetical protein	507	complement(114..1634)	
11172	1	CGL2_11172001	Ribosomal protein L9	150	873..1322	150_GENE_15
11172	2	CGL2_11172002	Ribosomal protein L34	44	1415..1546	150_GENE_15a
11172	3	CGL2_11172003	Protein of unknown function	111	1567..1899	150_GENE_14a
11172	4	CGL2_11172004	Protein of unknown function	68	1878..2081	150_GENE_13a
11172	5	CGL2_11172005	Putative inner-membrane protein	511	2128..3660	150_GENE_13
11172	6	CGL2_11172006	TRNA modification GTPase TrmE	445	3677..5011	150_GENE_12
11172	7	CGL2_11172007	Glucose-inhibited division protein A	605	5030..6844	150_GENE_11
11172	8	CGL2_11172008	Putative glucose-inhibited division protein B	210	6852..7481	150_GENE_10
11172	9	CGL2_11172009	Putative cobyricic acid a,c-diamide synthase (CbiA)	254	7532..8293	150_GENE_9
11172	10	CGL2_11172010	ParB-like partition protein	284	8289..9140	150_GENE_8
11172	11	CGL2_11172011	Protein of unknown function	132	9157..9552	150_GENE_7
11172	12	CGL2_11172012	tRNA (5-methylaminomethyl-2-thiouridylate)-methyl	361	9570..10652	150_GENE_6
11172	13	CGL2_11172013	DNA polymerase III, epsilon subunit	265	10652..11446	150_GENE_5
11172	14	CGL2_11172014	Ribonuclease III (EC 3.1.26.3)	375	11930..13054	150_GENE_4
11172	15	CGL2_11172015	Transposase	479	13375..14811	150_GENE_1
11172	16	CGL2_11172016	Protein of unknown function	77	15149..15379	
11172	17	CGL2_11172017	Ferredoxin	109	complement(15419..15745)	
11172	18	CGL2_11172018	Protein of unknown function	148	15949..16392	6_GENE_88a
11172	19	CGL2_11172019	Hypothetical protein	161	16544..17026	6_GENE_88
11172	20	CGL2_11172020	UDP-3-O-acetyl-N-acetylglucosamine deacetylase	298	complement(17057..17950)	6_GENE_87
11172	21	CGL2_11172021	Hypothetical protein	101	complement(18201..18503)	6_GENE_85
11172	22	CGL2_11172022	Protein of unknown function	520	complement(18632..20191)	6_GENE_84
11172	23	CGL2_11172023	Hypothetical protein	180	complement(20252..20791)	6_GENE_83
11172	24	CGL2_11172024	Inositol monophosphatase (EC 3.1.3.25)	265	21032..21826	6_GENE_82
11172	25	CGL2_11172025	Putative peptidase M50 family	264	complement(21819..22610)	6_GENE_81
11172	26	CGL2_11172026	Hypothetical protein	106	complement(22673..22990)	6_GENE_80
11172	27	CGL2_11172027	Transposase	446	complement(23400..24737)	
11172	28	CGL2_11172028	Trans-hexaprenyltranstransferase (EC 2.5.1.30)	330	24939..25928	6_GENE_79
11172	29	CGL2_11172029	Protein of unknown function	426	25980..27257	6_GENE_78
11172	31	CGL2_11172031	Pseudouridylate synthases, 23S RNA-specific	340	complement(27247..28266)	6_GENE_77
11172	32	CGL2_11172032	Putative TPR-domain containing protein	327	complement(28279..29259)	6_GENE_76
11172	33	CGL2_11172033	Signal peptidase II (EC 3.4.23.36)	179	complement(29262..29798)	6_GENE_75
11172	34	CGL2_11172034	Isoleucyl-tRNA synthetase (EC 6.1.1.5)	976	complement(29798..32725)	6_GENE_74
11172tRNA		CGL2_11172R001	TRNA Val CAC		32816..32890	
11172	35	CGL2_11172035	Transposase	396	complement(33467..34654)	
11172	36	CGL2_11172036	Hypothetical protein	88	35171..35434	6_GENE_73
11172	37	CGL2_11172037	Transposase	416	35505..36752	
11172	38	CGL2_11172038	Conserved hypothetical protein	192	36808..37383	
11172	39	CGL2_11172039	Hypothetical protein	96	37465..37752	6_GENE_73





11111	69	CGL2_11111069	Arginine biosynthesis protein (ArgJ) (EC 2.3.1.35)	404	complement(67201..68412)	426_GENE_6
11111	68	CGL2_11111068	Ribosomal protein S2	274	complement(66212..67033)	13_GENE_68
11111	67	CGL2_11111067	Elongation factor Ts (EF-Ts)	198	complement(65550..66143)	13_GENE_67
11111	66	CGL2_11111066	Uridylate kinase	236	complement(64840..65547)	13_GENE_66
11111	65	CGL2_11111065	Ribosome recycling factor	184	complement(64252..64803)	13_GENE_65
11111	64	CGL2_11111064	Alanine racemase (EC 5.1.1.1)	406	complement(63015..64232)	13_GENE_64
11111	63	CGL2_11111063	Putative integral membrane protein	255	complement(62248..63012)	13_GENE_63
11111	62	CGL2_11111062	ABC transporter ATP-binding protein (EC 3.6.3.25)	264	complement(61466..62257)	13_GENE_62
11111	61	CGL2_11111061	Putative ABC transporter	518	complement(59841..61394)	13_GENE_61
11111	60	CGL2_11111060	ResB-like family protein (poss cyt biosyn)	513	complement(58137..59675)	13_GENE_60
11111	59	CGL2_11111059	Putative cytochrome c biogenesis protein	283	complement(57130..57978)	13_GENE_59
11111	58	CGL2_11111058	Putative cytochrome c biogenesis protein	199	complement(56521..57117)	13_GENE_58
11111	57	CGL2_11111057	Putative thioredoxin family protein	171	complement(55998..56510)	13_GENE_57
11111	56	CGL2_11111056	Putative cytochrome c biogenesis protein (Ccda)	249	complement(55204..55950)	13_GENE_56
11111	55	CGL2_11111055	Geranylgeranyl reductase family protein	416	complement(53919..55166)	13_GENE_55
11111	54	CGL2_11111054	Probable protease family protein	402	complement(52714..53919)	13_GENE_54
11111	53	CGL2_11111053	Primosomal protein N' (PriA)	661	50781..52763	13_GENE_53
11111	52	CGL2_11111052	Regulatory protein	155	50317..50781	13_GENE_52
11111	51	CGL2_11111051	Glycine hydroxymethyltransferase (EC 2.1.2.1)	414	49048..50289	13_GENE_51
11111	50	CGL2_11111050	Ribose/galactose isomerase (EC 5.3.1.26)	158	48544..49017	13_GENE_50
11111	49	CGL2_11111049	Protein of unknown function	181	complement(47916..48458)	13_GENE_49
11111	48	CGL2_11111048	Thymidylate kinase	229	complement(47107..47793)	13_GENE_48
11111	47	CGL2_11111047	Thymidylate kinase (EC 2.7.4.9)	217	complement(46457..47107)	13_GENE_47
11111	46	CGL2_11111046	Putative Ppx/GppA phosphatase family protein	518	44901..46454	13_GENE_46
11111	45	CGL2_11111045	Protein of unknown function	431	complement(43510..44802)	13_GENE_45
11111	44	CGL2_11111044	Ubiquinone/menaquinone biosynthesis methyltransfe	259	complement(42687..43463)	13_GENE_44
11111	43	CGL2_11111043	Putative radical SAM family protein	530	complement(41093..42682)	13_GENE_43
11111	42	CGL2_11111042	Protein of unknown function	170	complement(40580..41089)	13_GENE_42
11111	41	CGL2_11111041	Putative 4-hydroxybenzoate polypropenyl transferase	287	complement(39720..40580)	13_GENE_41
11111	40	CGL2_11111040	Hypothetical protein	38	complement(39348..39461)	13_GENE_39
11111	39	CGL2_11111039	Hypothetical protein	85	39100..39354	13_GENE_39a
11111	38	CGL2_11111038	Putative major facilitator superfamily transporter	459	complement(37599..38975)	13_GENE_37
11111	37	CGL2_11111037	Putative potassium channel protein	347	complement(36548..37588)	13_GENE_36
11111	36	CGL2_11111036	Acetylornithine aminotransferase (EC 2.6.1.11)	390	complement(35308..36477)	13_GENE_35
11111	35	CGL2_11111035	Ornithine carbamoyltransferase (EC 2.1.3.3)	309	complement(34379..35305)	13_GENE_34
11111	34	CGL2_11111034	Argininosuccinate synthase (EC 6.3.4.5)	408	complement(33146..34369)	13_GENE_33
11111	33	CGL2_11111033	Argininosuccinate lyase (EC 4.3.2.1)	467	complement(31743..33143)	13_GENE_32
11111	32	CGL2_11111032	Diaminopimelate decarboxylase (EC 4.1.1.20)	414	complement(30307..31548)	13_GENE_31
11111	31	CGL2_11111031	Protein of unknown function	165	complement(29817..30311)	13_GENE_30
11111	30	CGL2_11111030	Dihydrodipicolinate synthase (EC 4.2.1.52)	295	complement(28886..29770)	13_GENE_29
11111	29	CGL2_11111029	Dihydrodipicolinate reductase (EC 1.3.1.26)	265	complement(28083..28877)	13_GENE_28

11111	28	CGL2_11111028	5-carboxymethyl-2-hydroxymuconate delta-isomerase	267	complement(27283..28083)	13_GENE_27
11111	27	CGL2_11111027	Putative flagellar basal body rod protein	267	complement(26200..27000)	13_GENE_26
11111	26	CGL2_11111026	Flagellar basal body rod protein	261	complement(25392..26174)	13_GENE_25
11111	25	CGL2_11111025	Hypothetical protein	212	complement(24742..25377)	13_GENE_24
11111	24	CGL2_11111024	Protein of unknown function	208	complement(24129..24752)	13_GENE_23
11111	23	CGL2_11111023	Putative flagellar P-ring protein	354	complement(23068..24129)	13_GENE_22
11111	22	CGL2_11111022	Conserved hypothetical protein	121	complement(22706..23068)	13_GENE_21
11111	21	CGL2_11111021	Putative flagellin	286	complement(21816..22673)	13_GENE_20
11111	20	CGL2_11111020	Protein of unknown function	119	complement(21336..21692)	13_GENE_19
11111	19	CGL2_11111019	Protein of unknown function	164	complement(20802..21293)	13_GENE_18
11111	18	CGL2_11111018	Flagellar hook-associated protein (FlgK)	561	complement(19114..20796)	13_GENE_17
11111	17	CGL2_11111017	Flagellar hook-associated protein (FlgL)	312	complement(18148..19083)	13_GENE_16
11111	16	CGL2_11111016	Putative carbon storage regulator (CsrA)	80	complement(17841..18080)	13_GENE_15
11111	15	CGL2_11111015	Protein of unknown function	143	complement(17413..17841)	13_GENE_14
11111	14	CGL2_11111014	Putative flagellin	275	complement(16416..17240)	13_GENE_13
11111	13	CGL2_11111013	Putative flagellar hook-associated protein (FliD)	479	complement(14878..16314)	13_GENE_12
11111	12	CGL2_11111012	Flagellar protein (FliS)	152	complement(14398..14853)	13_GENE_11
11111	11	CGL2_11111011	Hypothetical protein	114	complement(14049..14390)	13_GENE_10
11111	10	CGL2_11111010	Conserved protein of unknown function	326	complement(12893..13870)	13_GENE_9
11111	9	CGL2_11111009	Putative SAM-dependent methyltransferases	780	complement(10573..12912)	13_GENE_8
11111	8	CGL2_11111008	Putative heptosyltransferase family protein	519	complement(9002..10558)	13_GENE_7
11111	6	CGL2_11111006	Conserved hypothetical protein	599	complement(7213..9009)	13_GENE_6
11111	5	CGL2_11111005	Probable heptosyltransferase family protein	595	complement(5429..7213)	13_GENE_5
11111	4	CGL2_11111004	Hypothetical protein	217	complement(4779..5429)	13_GENE_4
11111	2	CGL2_11111002	Probable TonB dependent receptor	861	complement(1953..4535)	13_GENE_3
11111	2	CGL2_11111002	Probable TonB dependent receptor	861	complement(1953..4535)	13_GENE_3
11111	1	CGL2_11111001	transposase	360	complement(734..1813)	13_GENE_1
11195	47	CGL2_11195047	Protein of unknown function	139	complement(54662..55078)	22_GENE_48
11195	46	CGL2_11195046	Protein of unknown function	206	complement(53810..54427)	22_GENE_46
11195	45	CGL2_11195045	Inorganic diphosphatase (EC 3.6.1.1)	182	complement(53169..53714)	22_GENE_45
11195	44	CGL2_11195044	ABC transporter ATP-binding protein (EC 3.6.3.25)	234	complement(52439..53140)	22_GENE_44
11195	43	CGL2_11195043	Putative ABC transporter, permease protein	402	complement(51234..52439)	22_GENE_43
11195	42	CGL2_11195042	Secretion protein HlyD	380	complement(50072..51211)	22_GENE_42
11195	41	CGL2_11195041	Flagellar motor switch protein FliM	338	complement(48917..49930)	22_GENE_41
11195	40	CGL2_11195040	Transcriptional regulator, NifA, Fis Family	550	complement(47082..48731)	22_GENE_39
11195	39	CGL2_11195039	NADH dehydrogenase (Quinone) precursor (EC 1.6.9	584	complement(45113..46864)	22_GENE_38
11195	38	CGL2_11195038	Probable NADH dehydrogenase I, M subunit	437	complement(43807..45117)	22_GENE_37
11195	37	CGL2_11195037	Protein of unknown function	1139	complement(40391..43807)	22_GENE_36
11195	36	CGL2_11195036	Probable nitrogen regulatory protein P-II	114	complement(40059..40400)	22_GENE_35
11195	35	CGL2_11195035	Putative major facilitator superfamily transporter	265	39251..40045	22_GENE_34
11195	34	CGL2_11195034	transposase	420	37992..39251	

11195	33	CGL2_11195033	Putative major facilitator superfamily transporter	159	37448..37924	22_GENE_34
11195	32	CGL2_11195032	Probable cellulose synthase operon protein C	964	complement(34438..37329)	22_GENE_33
11195	31	CGL2_11195031	glycosyltransferase	714	complement(32307..34448)	22_GENE_32
11195	30	CGL2_11195030	cyclic di-GMP binding protein	737	complement(30097..32307)	22_GENE_31
11195	29	CGL2_11195029	Endoglucanase (EC 3.2.1.4)	366	complement(29000..30097)	22_GENE_30
11195tRNA		CGL2_11195R001	tRNA Gln CTG		28853..28926	
11195	27	CGL2_11195027	Peptidoglycan glycosyltransferase (EC 2.4.1.129)	756	26508..28775	22_GENE_29
11195	26	CGL2_11195026	Protein of unknown function	125	complement(26027..26401)	22_GENE_28
11195	25	CGL2_11195025	Putative outer membrane protein	512	complement(24378..25913)	22_GENE_27
11195	24	CGL2_11195024	Protein of unknown function	247	complement(23602..24342)	22_GENE_26
11195	23	CGL2_11195023	Hypothetical protein	227	complement(22935..23615)	22_GENE_25
11195	22	CGL2_11195022	DNA repair protein (RadC)	237	complement(22096..22806)	22_GENE_24
11195	21	CGL2_11195021	ABC1 family transporter	557	20394..22064	22_GENE_23
11195	20	CGL2_11195020	Protein of unknown function	523	18783..20351	22_GENE_22
11195	19	CGL2_11195019	Protein of unknown function	212	complement(17924..18559)	22_GENE_21
11195	18	CGL2_11195018	Adenylosuccinate synthase (EC 6.3.4.4)	432	16650..17945	22_GENE_20
11195	17	CGL2_11195017	Protein of unknown function	104	16198..16509	22_GENE_19
11195	16	CGL2_11195016	Protein of unknown function	547	complement(14171..15811)	22_GENE_18
11195	15	CGL2_11195015	Putative two component transcriptional regulator, wi	259	complement(13236..14012)	22_GENE_17
11195	14	CGL2_11195014	Hypothetical protein	112	complement(12901..13236)	22_GENE_15
11195	13	CGL2_11195013	Periplasmic phosphate binding protein	372	complement(11721..12836)	22_GENE_14
11195	12	CGL2_11195012	Phosphate ABC transporter, permease protein (PstC)	340	complement(10497..11516)	22_GENE_12
11195	11	CGL2_11195011	Phosphate transport system permease protein 2	303	complement(9581..10489)	22_GENE_11
11195	10	CGL2_11195010	Phosphate import ATP-binding protein (PstB) (EC 3.6	250	complement(8801..9550)	22_GENE_10
11195	9	CGL2_11195009	Phosphate uptake regulator (PhoU)	217	complement(8122..8772)	22_GENE_9
11195	8	CGL2_11195008	Thymidylate synthase (ThyX)	272	6933..7748	22_GENE_8
11195	7	CGL2_11195007	Protein of unknown function	419	5429..6685	22_GENE_7
11195	6	CGL2_11195006	Aldehyde dehydrogenase (EC 1.2.1.3)	502	complement(3768..5273)	22_GENE_6
11195	5	CGL2_11195005	Hypothetical protein	52	3603..3758	22_GENE_5
11195	4	CGL2_11195004	Fructose-1,6-bisphosphatase (EC 3.1.3.11)	335	2480..3484	22_GENE_4
11195	3	CGL2_11195003	Hypothetical protein	139	1993..2409	22_GENE_3a
11195	2	CGL2_11195002	Protein of unknown function	150	1544..1993	22_GENE_3
11195	1	CGL2_11195001	Probable histone deacetylase family protein	322	541..1506	22_GENE_2
11364	1	CGL2_11364001	Transcription termination factor Rho	416	455..1702	174_GENE_2
11364	2	CGL2_11364002	Ribosomal protein L31	68	1766..1969	174_GENE_3
11364	3	CGL2_11364003	Peptide chain release factor 1	361	1982..3064	174_GENE_4
11364	4	CGL2_11364004	Modification methylase (HemK)	293	3064..3942	174_GENE_5
11364	5	CGL2_11364005	UDP-N-acetylglucosamine 1-carboxyvinyltransferase	442	3951..5276	174_GENE_6
11364	6	CGL2_11364006	ATP phosphoribosyltransferase (EC 2.4.2.17)	205	5324..5938	174_GENE_7
11364	7	CGL2_11364007	Histidinol dehydrogenase (EC 1.1.1.23) (HDH)	445	5975..7309	174_GENE_8
11364	8	CGL2_11364008	Histidinol-phosphate aminotransferase (EC 2.6.1.9)	359	7309..8385	174_GENE_9

11364	9	CGL2_11364009	Imidazoleglycerol-phosphate dehydratase (EC 4.2.1.	210	8385..9014	174_GENE_10
11364	10	CGL2_11364010	Imidazole glycerol phosphate synthase, glutamine ar	211	9014..9646	174_GENE_11
11364	11	CGL2_11364011	1-(5-phosphoribosyl)-5-[(5-phosphoribosylamino)m	247	9627..10367	174_GENE_12
11364	12	CGL2_11364012	Histidine biosynthesis protein (HisF) (EC 5.3.1.16)	255	10360..11124	174_GENE_13
11364	13	CGL2_11364013	Putative histidine biosynthesis bifunctional protein (+	233	11124..11822	174_GENE_14
11364	14	CGL2_11364014	Putative histidine triad (HIT) protein	118	11822..12175	174_GENE_15
11364	15	CGL2_11364015	Putative histone-like DNA-binding protein	102	complement(12204..12509)	174_GENE_16
11364	16	CGL2_11364016	Ribosomal protein S21	65	12847..13041	
11364	17	CGL2_11364017	Conserved protein of unknown function	139	13104..13520	224_GENE_1
11364	18	CGL2_11364018	DNA primase	461	13789..15171	224_GENE_3
11364	19	CGL2_11364019	RNA polymerase, sigma 38 subunit, RpoS	598	15232..17025	224_GENE_4
11364tRNA		CGL2_11364R001	TRNA Met CAT		17030..17104	
11364	20	CGL2_11364020	Conserved protein of unknown function	262	17153..17938	224_GENE_5
11364	21	CGL2_11364021	Putative ribonuclease H	134	17938..18339	224_GENE_6
11364	22	CGL2_11364022	Putative metal dependent phosphohydrolase	467	18765..20165	224_GENE_7
11364	23	CGL2_11364023	Protein of unknown function	110	20322..20651	224_GENE_8
11364	24	CGL2_11364024	Putative transglycosylase	220	complement(20568..21227)	224_GENE_9
11364	25	CGL2_11364025	Protein of unknown function	298	21408..22301	224_GENE_10
11364	26	CGL2_11364026	Putative heat shock protein Hsp20	152	22401..22856	288_GENE_9
11364	27	CGL2_11364027	ATPase components of ABC transporters wi	643	23133..25061	288_GENE_8
11364	28	CGL2_11364028	Probable phosphohydrolase	298	25169..26062	288_GENE_7
11364	29	CGL2_11364029	Ribonuclease PH (EC 2.7.7.56)	245	26163..26897	288_GENE_6
11364	30	CGL2_11364030	Putative Ham1-like protein	198	26897..27490	288_GENE_5
11364	31	CGL2_11364031	Beta-N-acetylhexosaminidase (EC 3.2.1.52)	342	27490..28515	288_GENE_4
11364	32	CGL2_11364032	Glutamate racemase (EC 5.1.1.3)	314	28515..29456	288_GENE_3
11364	33	CGL2_11364033	Putative peptidase C26	239	complement(29329..30045)	288_GENE_2
11364	34	CGL2_11364034	Putative ATP-dependent RNA helicase	444	complement(30035..31366)	288_GENE_1
11364	35	CGL2_11364035	Hypothetical protein	32	31851..31946	175_GENE_1
11364	36	CGL2_11364036	Conserved protein of unknown function	165	32123..32617	175_GENE_2
11364	37	CGL2_11364037	Hypothetical protein	53	complement(32842..33000)	175_GENE_3
11364	38	CGL2_11364038	Phosphoglycerate mutase (EC 5.4.2.1)	223	complement(33000..33668)	175_GENE_4
11364	39	CGL2_11364039	Lipoate synthase	316	complement(33777..34724)	175_GENE_5
11364	40	CGL2_11364040	Mutative metal dependent phosphohydrolase	413	complement(34808..36046)	175_GENE_6
11364	41	CGL2_11364041	Glycogen debranching enzyme GlgX (EC 3.2.1.68)	714	36540..38681	175_GENE_8
11364	42	CGL2_11364042	Protein of unknown function	143	38744..39172	175_GENE_9
11364	43	CGL2_11364043	Putative major facilitator superfamily transporter	420	complement(39227..40486)	175_GENE_10
11364	44	CGL2_11364044	Putative beta-lactamase family protein	290	complement(40595..41464)	175_GENE_11
11364	45	CGL2_11364045	Hypothetical protein	135	41533..41937	175_GENE_12
11364	46	CGL2_11364046	Protein of unknown function	398	42122..43315	175_GENE_13
11364	47	CGL2_11364047	Conserved protein of unknown function	657	complement(43598..45568)	294_GENE_2
11364	48	CGL2_11364048	Protein of unknown function	281	complement(45602..46444)	294_GENE_3

11364	49	CGL2_11364049	Hypothetical protein	108	46617..46940	294_GENE_4
11364	50	CGL2_11364050	Hypothetical protein	81	46928..47170	294_GENE_5
11364	51	CGL2_11364051	Probable DNA helicase	455	47170..48534	294_GENE_6
11364	52	CGL2_11364052	Hypothetical protein	316	48494..49441	170_GENE_15
11364	53	CGL2_11364053	Conserved hypothetical protein	466	complement(49749..51146)	170_GENE_14
11364	54	CGL2_11364054	Hypothetical protein	106	51487..51804	170_GENE_13
11364	55	CGL2_11364055	Hypothetical protein	162	51855..52340	170_GENE_12
11364	56	CGL2_11364056	Protein of unknown function	204	52363..52974	170_GENE_10
11364	57	CGL2_11364057	Hypothetical protein	73	52974..53192	170_GENE_9
11364	58	CGL2_11364058	Hypothetical protein	197	53384..53974	170_GENE_8
11364	59	CGL2_11364059	Probable TrwB protein	672	53980..55995	170_GENE_7
11364	60	CGL2_11364060	Hypothetical protein	59	55995..56171	170_GENE_6
11364	61	CGL2_11364061	Probable TrwC protein	1128	56174..59557	170_GENE_5
11364	62	CGL2_11364062	Hypothetical protein	60	59578..59757	170_GENE_4
10641	21	CGL2_10641021	Putative transcriptional activator	80	13143..13382	5-way(CG_Leptoll_sc)
10641	20	CGL2_10641020	Probable transposase	162	complement(13425..13910)	5-way(CG_Leptoll_sc)
10641	19	CGL2_10641019	Hypothetical protein	85	complement(12759..13013)	170_GENE_1a
10641	17	CGL2_10641017	Probable conjugugal transfer protein TraB	434	complement(11387..12688)	170_GENE_1
10641	17	CGL2_10641017	Probable conjugugal transfer protein TraB	434	complement(11387..12688)	170_GENE_1
10641	16	CGL2_10641016	Hypothetical protein	204	complement(10760..11371)	5-way(CG_Leptoll_sc)
10641	15	CGL2_10641015	Conserved protein of unknown function	153	complement(10284..10742)	5-way(CG_Leptoll_sc)
10641	14	CGL2_10641014	Putative phage integrase	325	9275..10249	5-way(CG_Leptoll_sc)
10641tRNA		CGL2_10641R001	TRNA Leu TAA		9088..9146	
10641	13	CGL2_10641013	Putative metallophosphoesterase	251	8064..8816	212_GENE_14
10641	12	CGL2_10641012	N-6 DNA methylase	524	complement(6361..7932)	212_GENE_12
10641	11	CGL2_10641011	Hypothetical protein	95	complement(6084..6368)	212_GENE_11
10641	10	CGL2_10641010	Hypothetical protein	74	complement(5863..6084)	212_GENE_10
10641	9	CGL2_10641009	Hypothetical protein	77	complement(5626..5856)	212_GENE_9
10641	8	CGL2_10641008	Hypothetical protein	133	complement(4951..5349)	212_GENE_8
10641	7	CGL2_10641007	Hypothetical protein	116	complement(4448..4795)	212_GENE_7
10641	6	CGL2_10641006a	Hypothetical protein	98	complement(3943..4236)	
10641	6	CGL2_10641006	Putative nucletidyltransferase	132	complement(3495..3890)	212_GENE_6
10641	5	CGL2_10641005	Putative Type I restriction modification system, speci	533	complement(1904..3502)	212_GENE_5
10641	4	CGL2_10641004	Hypothetical protein	73	complement(1547..1765)	212_GENE_4
10641	3	CGL2_10641003	Putative DNA damage inducible protein J	78	complement(1263..1496)	212_GENE_3
10641	2	CGL2_10641002	Hypothetical protein	130	complement(827..1216)	212_GENE_2
10641	1	CGL2_10641001	Hypothetical protein	106	complement(532..849)	212_GENE_1
11346	1	CGL2_11346001	ABC transporter, ATP-binding subunit	239	complement(594..1310)	232_GENE_1
11346	2	CGL2_11346002	Conserved hypothetical protein	222	complement(1332..1997)	232_GENE_2
11346	3	CGL2_11346003	Hypothetical protein	188	complement(3384..3947)	232_GENE_3
11346	4	CGL2_11346004	ABC transporter, ATP-binding subunit	389	complement(3957..5123)	232_GENE_4

11346	5	CGL2_11346005	Hypothetical protein	94	complement(5303..5584)	232_GENE_5
11346	6	CGL2_11346006	Hypothetical protein	344	5713..6744	232_GENE_6
11346	7	CGL2_11346007	Hypothetical protein	233	6957..7655	232_GENE_6a
11346	8	CGL2_11346008	Conserved hypothetical protein	93	complement(7652..7930)	232_GENE_8
11346	9	CGL2_11346009	Conserved hypothetical protein	98	complement(7937..8230)	232_GENE_9
11346	10	CGL2_11346010	transposase	313	8499..9437	579_GENE_7
11346	11	CGL2_11346011	Hypothetical protein	148	9684..10127	232_GENE_12
11346	12	CGL2_11346012	Hypothetical protein	223	complement(10375..11043)	
11346	13	CGL2_11346013	transposase	374	complement(11114..12235)	579_GENE_3
11346	14	CGL2_11346014	transposase	315	12265..13209	579_GENE_2
11346	15	CGL2_11346015	transposase	153	12951..13409	579_GENE_2
11346	16	CGL2_11346016	Hypothetical protein	138	13409..13822	579_GENE_1
11346	16a	CGL2_11346016a	Hypothetical protein	118	complement(13811..14164)	
11346	17	CGL2_11346017	Protein of unknown function	146	complement(14167..14604)	27_GENE_52
11346	18	CGL2_11346018	Protein of unknown function	84	complement(14607..14858)	27_GENE_51
11346	19	CGL2_11346019	Hypothetical protein	92	complement(14976..15251)	27_GENE_50
11346	20	CGL2_11346020	Conserved protein of unknown function	156	complement(15301..15768)	27_GENE_49
11346	21	CGL2_11346021	Conserved hypothetical protein	127	complement(16120..16500)	27_GENE_48
11346	22	CGL2_11346022	Putative helicase	1625	complement(16487..21361)	27_GENE_47
11346	22	CGL2_11346022	Putative helicase	1625	complement(16487..21361)	27_GENE_47
11346	24	CGL2_11346024	Protein of unknown function	268	complement(21476..22279)	27_GENE_46
11346	25	CGL2_11346025	Probable phage integrase	105	complement(22282..22596)	27_GENE_45a
11346	26	CGL2_11346026	Probable phage integrase CG confirms was misssemt	146	complement(22394..22831)	27_GENE_45
11346	27	CGL2_11346027	integrase	127	22955..23335	27_GENE_44
11346	28	CGL2_11346028	Protein of unknown function	193	complement(23537..24115)	27_GENE_43
11346	29	CGL2_11346029	Conserved hypothetical protein	359	complement(24115..25191)	27_GENE_42
11346	30	CGL2_11346030	Conserved protein of unknown function	423	complement(25194..26462)	27_GENE_41
11346	31	CGL2_11346031	Putative phage shock protein A (PspA)	225	complement(26465..27139)	27_GENE_40
11346	32	CGL2_11346032	Protein of unknown function	218	complement(27185..27838)	27_GENE_39
11346	33	CGL2_11346033	Conserved protein of unknown function	188	28016..28579	27_GENE_38
11346	34	CGL2_11346034	HAD-superfamily hydrolase, subfamily IA	230	complement(28558..29247)	27_GENE_37
11346tRNA		CGL2_11346R001	TRNA Glu CTC		complement(29317..29392)	
11346	35	CGL2_11346035	Protein of unknown function	148	29468..29911	27_GENE_36
11346	36	CGL2_11346036	Protein of unknown function	151	complement(29907..30359)	27_GENE_35
11346	37	CGL2_11346037	Protein of unknown function	536	30492..32099	27_GENE_34
11346	38	CGL2_11346038	Putative LD-carboxypeptidase family protein	319	complement(32110..33066)	27_GENE_33
11346	39	CGL2_11346039	Protein of unknown function	89	complement(33036..33302)	27_GENE_32
11346	40	CGL2_11346040	Putative cobyrinic acid a,c-diamide synthase	208	complement(33308..33931)	27_GENE_31
11346	41	CGL2_11346041	Putative creatininase	251	complement(33951..34703)	27_GENE_30
11346	42	CGL2_11346042	Putative phytoene synthase	320	34825..35784	27_GENE_29
11346	43	CGL2_11346043	Putative amine oxidase	491	35780..37252	27_GENE_28

11346	44	CGL2_11346044	Putative phytoene synthase	317	37252..38202	27_GENE_27
11346	45	CGL2_11346045	Putative beta-lactamase family protein	352	complement(38166..39221)	27_GENE_26
11346	46	CGL2_11346046	Putative peptidase U62, modulator of DNA gyrase	485	39408..40862	27_GENE_25
11346	47	CGL2_11346047	Putative peptidase U62, modulator of DNA gyrase	452	40862..42217	27_GENE_24
11346	48	CGL2_11346048	Putative decarboxylase family protein	214	42217..42858	27_GENE_23
11346	49	CGL2_11346049	Protein of unknown function	247	complement(42877..43617)	27_GENE_22
11346	50	CGL2_11346050	DNA repair protein RadA	461	43753..45135	27_GENE_21
11346	51	CGL2_11346051	Probable glycoprotein endopeptidase	215	45135..45779	27_GENE_20
11346	52	CGL2_11346052	Ribosomal-protein-alanine acetyltransferase	204	45763..46374	27_GENE_19
11346	53	CGL2_11346053	Protein of unknown function	78	46477..46710	27_GENE_18
11346	54	CGL2_11346054	Probable twin-arginine translocation protein (TatA/E)	99	46716..47012	27_GENE_17
11346	55	CGL2_11346055	Sec-independent protein translocase	252	47005..47760	27_GENE_16
11346	56	CGL2_11346056	Putative undecaprenol kinase	285	47857..48711	27_GENE_15
11346	57	CGL2_11346057	Formate--tetrahydrofolate ligase (EC 6.3.4.3)	557	48859..50529	27_GENE_14
11346	58	CGL2_11346058	Protein of unknown function	642	50529..52454	27_GENE_13
11346	59	CGL2_11346059	Di-trans-poly-cis-decaprenylcistaminol transferase (EC 2.5.1..1)	264	52460..53251	27_GENE_12
11346	60	CGL2_11346060	Putative phosphatidate cytidylyltransferase	279	53251..54087	27_GENE_11
11346	61	CGL2_11346061	1-deoxy-D-xylulose 5-phosphate reductoisomerase (EC 1.1.1.85)	393	54112..55290	27_GENE_10
11346	62	CGL2_11346062	Peptidase M50, putative membrane-associated zinc r	354	55317..56378	27_GENE_9
11346	63	CGL2_11346063	4-hydroxy-3-methylbut-2-en-1-yl diphosphate synth	377	56444..57574	27_GENE_8
11346	64	CGL2_11346064	Prolyl-tRNA synthetase	422	57591..58856	27_GENE_7
11346	65	CGL2_11346065	Conserved hypothetical protein	164	58863..59354	27_GENE_6
11346	66	CGL2_11346066	Ribosomal protein S32	37	59409..59519	27_GENE_5
11346	67	CGL2_11346067	Ribosomal protein S32	23	59519..59587	27_GENE_5
11346	68	CGL2_11346068	Fatty acid/phospholipid synthesis protein (PlsX)	331	59603..60595	27_GENE_4
11346	69	CGL2_11346069	3-oxoacyl-(Acyl-carrier-protein) synthase III (EC 2.3.1.21)	341	60595..61617	27_GENE_3
11346	70	CGL2_11346070	Malonyl CoA-acyl carrier protein transacylase (EC 2.3.1.3)	314	61617..62558	27_GENE_2
11346	71	CGL2_11346071	Malonyl CoA-acyl carrier protein transacylase (EC 2.3.1.22)	251	62558..63310	27_GENE_1
11346	72	CGL2_11346072	Acyl carrier protein (ACP)	76	63392..63619	295_GENE_10
11346	73	CGL2_11346073	3-oxoacyl-(Acyl-carrier-protein) synthase II (EC 2.3.1.23)	419	63622..64878	295_GENE_9
11346	74	CGL2_11346074	Ribonuclease III (EC 3.1.26.3)	247	64979..65719	295_GENE_8
11346	75	CGL2_11346075	hypothetical protein predicted by Glimmer/Critic	382	complement(65748..66893)	295_GENE_7
11346	76	CGL2_11346076	Hypothetical protein	354	complement(66911..67972)	295_GENE_6
11346	77	CGL2_11346077	Phosphoribosylformylglycinamide cyclo-ligase (EC 4.6.1.2)	350	68302..69351	295_GENE_5
11346	78	CGL2_11346078	Phosphoribosylglycinamide formyltransferase (EC 2.1.1.12)	207	69338..69958	295_GENE_4
11346tRNA		CGL2_11346R002	TRNA Ala CGC		70039..70114	
11346	79	CGL2_11346079	Hypothetical protein	69	complement(70138..70344)	295_GENE_3
11346	80	CGL2_11346080	6-phosphogluconate dehydrogenase (decarboxylating)	339	70440..71456	135_GENE_12
11346	81	CGL2_11346081	Glucose-6-phosphate dehydrogenase (EC 1.1.1.49)	468	71461..72864	135_GENE_11
11346	82	CGL2_11346082	Serine 3-dehydrogenase (EC 1.1.1.276)	247	72942..73682	135_GENE_10
11346	83	CGL2_11346083	Conserved protein of unknown function	344	73748..74779	135_GENE_9

11346	84	CGL2_11346084	Methyl-accepting chemotaxis sensory transducer	577	complement(74814..76544)	135_GENE_8
11346	85	CGL2_11346085	Amino-acid N-acetyltransferase (EC 2.3.1.1)	448	76933..78276	135_GENE_6
11346	86	CGL2_11346086	Protein of unknown function	207	78770..79390	135_GENE_5
11346	87	CGL2_11346087	Putative response regulator receiver protein	322	79589..80554	135_GENE_4
11346	88	CGL2_11346088	Phosphoenolpyruvate synthase (EC 2.7.9.2)	799	80931..83327	135_GENE_3
11346	89	CGL2_11346089	GTP-binding protein (EngA)	469	complement(83398..84804)	135_GENE_2
11346	90	CGL2_11346090	Protein of unknown function	230	complement(84804..85493)	135_GENE_1
11346	92	CGL2_11346092	Probable purine-cytosine permease	477	85875..87305	14_GENE_68
11346	93	CGL2_11346093	NADH dehydrogenase (EC 1.6.99.3)	452	87301..88656	14_GENE_67
11346	94	CGL2_11346094	Putative amino acid permease	651	complement(88659..90611)	14_GENE_66
11346	95	CGL2_11346095	Hypothetical protein	519	complement(90800..92356)	14_GENE_65
11346	96	CGL2_11346096	Hypothetical protein	175	complement(92416..92940)	14_GENE_64
11346	97	CGL2_11346097	Hypothetical protein	54	complement(93068..93229)	14_GENE_63
11346	98	CGL2_11346098	Hypothetical protein	98	complement(93300..93593)	14_GENE_62
11346	99	CGL2_11346099	Hypothetical protein	332	complement(93714..94709)	14_GENE_61
11346	100	CGL2_11346100	Putative amino acid permease	476	complement(94788..96215)	14_GENE_60
11346	101	CGL2_11346101	Conserved protein of unknown function	176	complement(96288..96815)	14_GENE_59
11346	102	CGL2_11346102	Putative acetyltransferase	164	complement(96867..97358)	14_GENE_58
11346	103	CGL2_11346103	Deoxyribonuclease, TatD family	263	complement(97361..98149)	14_GENE_57
11346	104	CGL2_11346104	Methionyl-tRNA synthetase (EC 6.1.1.10)	673	complement(98157..100175)	14_GENE_56
11346	105	CGL2_11346105	Conserved protein of unknown function	240	complement(100214..100933)	14_GENE_55
11346	106	CGL2_11346106	DNA polymerase III (EC 2.7.7.7)	343	complement(101001..102029)	14_GENE_54
11346	107	CGL2_11346107	Thymidylate kinase (EC 2.7.4.9)	220	complement(102029..102688)	14_GENE_53
11346	108	CGL2_11346108	Hypothetical protein	43	complement(102857..102985)	14_GENE_52
11346	109	CGL2_11346109	Putative ferric uptake regulator, Fur family	155	103267..103731	14_GENE_51
11346	110	CGL2_11346110	Cytochrome c peroxidase (EC 1.11.1.5)	338	103757..104770	14_GENE_50
11346	111	CGL2_11346111	Putative alkyl hydroperoxide reductase	200	104922..105521	14_GENE_49
11346	112	CGL2_11346112	Putative aicreductone dioxygenase	186	105580..106137	14_GENE_48
11346	113	CGL2_11346113	Ribulose-bisphosphate carboxylase (EC 4.1.1.39)	389	106140..107306	14_GENE_47
11346	114	CGL2_11346114	Putative hydrolase, haloacid dehalogenase-like family	216	107306..107953	14_GENE_46
11346	115	CGL2_11346115	Putative aldolase class II	200	107949..108548	14_GENE_45
11346	116	CGL2_11346116	Transcriptional regulator, MarR family	159	108707..109183	14_GENE_44
11346	117	CGL2_11346117	Conserved hypothetical protein	150	109215..109664	14_GENE_43
11346	118	CGL2_11346118	Conserved protein of unknown function	76	109766..109993	14_GENE_42
11346	119	CGL2_11346119	Putative silent information regulator protein, Sir2 family	279	complement(110082..110918)	14_GENE_41
11346	120	CGL2_11346120	Hypothetical protein	125	111491..111865	14_GENE_39
11346	121	CGL2_11346121	Putative transcriptional regulator, ArsR family	117	112055..112405	14_GENE_38
11346	122	CGL2_11346122	Glyoxalase family protein	146	112405..112842	14_GENE_37
11346	123	CGL2_11346123	Hypothetical protein	285	complement(112871..113725)	14_GENE_36
11346	124	CGL2_11346124	Conserved protein of unknown function	222	113943..114608	14_GENE_35
11346	125	CGL2_11346125	Glucosamine-1-phosphate N-acetyltransferase] (EC 2.3.1.25)	469	114601..116007	14_GENE_34

11346	126	CGL2_11346126	Glucosamine--fructose-6-phosphate aminotransferase	605	116012..117826	14_GENE_33
11346	127	CGL2_11346127	Protein of unknown function	439	117865..119181	14_GENE_32
11346	128	CGL2_11346128	Putative ATP-dependent DNA helicase, UvrD/REP family	746	119181..121418	14_GENE_31
11346	129	CGL2_11346129	Glutamyl-tRNA(Gln) amidotransferase, C subunit	99	121565..121861	14_GENE_30
11346	130	CGL2_11346130	Aspartate 1-decarboxylase (EC 4.1.1.11)	121	121869..122231	14_GENE_29
11346	131	CGL2_11346131	Glutamyl-tRNA(Gln) amidotransferase A subunit / An	492	122231..123706	14_GENE_28
11346	132	CGL2_11346132	Glutamyl-tRNA(Gln) amidotransferase B subunit	490	123706..125175	14_GENE_27
11346	133	CGL2_11346133	Protein of unknown function	227	125175..125855	14_GENE_26
11346	134	CGL2_11346134	Probable Cytochrome c, NapC/NirT family	166	125871..126368	14_GENE_25
11346	135	CGL2_11346135	Enolase (EC 4.2.1.11)	427	126381..127661	14_GENE_24
11346	136	CGL2_11346136	Hypothetical protein	113	127672..128010	14_GENE_23
11346	137	CGL2_11346137	Protein of unknown function	146	complement(128038..128475)	14_GENE_22
11346	138	CGL2_11346138	Probable cytochrome c, class I	185	129079..129633	14_GENE_20
11346	139	CGL2_11346139	Putative sigma54 specific transcriptional regulator, F	463	130191..131579	14_GENE_19
11346	140	CGL2_11346140	Hypothetical protein	168	132055..132558	14_GENE_18
11346	141	CGL2_11346141	Hypothetical protein	121	132641..133003	14_GENE_17
11346	142	CGL2_11346142	Putative peptidase, C39 family	279	133087..133923	14_GENE_16
11346	143	CGL2_11346143	Hypothetical protein	246	133957..134694	14_GENE_15
11346	144	CGL2_11346144	Conserved hypothetical protein	375	135338..136462	14_GENE_14
11346	145	CGL2_11346145	Putative Outer membrane protein, OmpAfamly	521	136474..138036	14_GENE_13
11346	146	CGL2_11346146	Protein of unknown function	292	complement(138057..138932)	14_GENE_12
11346	147	CGL2_11346147	Flavin oxidoreductase/NADH oxidase (EC 1.6.99.1)	367	complement(139106..140206)	14_GENE_11
11346	148	CGL2_11346148	Putative transcriptional regulator, BadM/Rrf2 family	159	complement(140289..140765)	14_GENE_10
11346	149	CGL2_11346149	Phosphoglucosamine mutase (EC 5.4.2.10)	457	140920..142290	14_GENE_8
11346	150	CGL2_11346150	Competence protein (ComEC)	482	142566..144011	14_GENE_7
11346	151	CGL2_11346151	Putative DNA methylase N-4/N-6	453	complement(143987..145345)	14_GENE_6
11346	152	CGL2_11346152	Hypothetical protein	46	145522..145659	14_GENE_5
11346	153	CGL2_11346153	Protein of unknown function	207	complement(145672..146292)	14_GENE_4
11346	154	CGL2_11346154	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	634	146431..148332	14_GENE_3
11346	154a	CGL2_11346154a	transposase	446	148469..149806	
11346tRNA		CGL2_11346R003	TRNA Lys CTT		150149..150224	
11346	155	CGL2_11346155	Diguanylate cyclase with GAF sensor	322	150471..151436	14_GENE_2
11346	156	CGL2_11346156	Conserved hypothetical protein	262	151662..152447	51_GENE_7
11346	157	CGL2_11346157	Protein of unknown function	409	152512..153738	51_GENE_8
11346	158	CGL2_11346158	Secretion protein (HlyD)	385	complement(153802..154956)	51_GENE_9
11346	159	CGL2_11346159	Hydrophobe/amphiphile efflux family protein	1042	complement(155012..158137)	51_GENE_10
11346	160	CGL2_11346160	RND efflux system, outer membrane lipoprotein (Noc)	500	complement(158198..159697)	51_GENE_11
11346	161	CGL2_11346161	Hypothetical protein	63	complement(159841..160029)	51_GENE_12
11346	162	CGL2_11346162	Putative transcriptional regulator, MarR family	181	160165..160707	51_GENE_13
11346	163	CGL2_11346163	Cinnamyl-alcohol dehydrogenase (EC 1.1.1.195)	334	160786..161787	51_GENE_14
11346	164	CGL2_11346164	Putative exodeoxyribonuclease V, gamma subunit	1095	161852..165136	51_GENE_15

11346	165	CGL2_11346165	Putative exodeoxyribonuclease V, beta subunit	1095	165136..168420	51_GENE_16
11346	166	CGL2_11346166	Exodeoxyribonuclease V, alpha subunit (EC 3.1.11.5)	575	168420..170144	51_GENE_17
11346	167	CGL2_11346167	Conserved protein of unknow function	364	complement(170172..171263)	51_GENE_18
11346	168	CGL2_11346168	Putative two component transcriptional regulator, wi	253	complement(171263..172021)	51_GENE_19
11346	169	CGL2_11346169	Protein of unknown function	144	complement(172379..172810)	51_GENE_20
11346	170	CGL2_11346170	Probable TonB-like protein	216	complement(172824..173471)	51_GENE_21
11346	171	CGL2_11346171	Putative biopolymer transport protein	139	complement(173471..173887)	51_GENE_22
11346	172	CGL2_11346172	Putative biopolymer transport protein	234	complement(173954..174655)	51_GENE_23
11346	173	CGL2_11346173	Probable TonB-dependent receptor	974	complement(174823..177744)	51_GENE_24
11346	174	CGL2_11346174	Conserved protein of unknown function	238	178026..178739	51_GENE_26
11346	175	CGL2_11346175	Protein of unknown function	147	179281..179721	51_GENE_27
11346	175a	CGL2_11346175a	Conserved hypothetical protein	213	complement(179805..180443)	
11346	176	CGL2_11346176	Transposase	416	complement(180436..181683)	
11346	177	CGL2_11346177	Hypothetical protein	2132	complement(181919..188314)	
11346	178	CGL2_11346178	Putative Type I Restriction modification system, S su	360	complement(188806..189885)	
11346	179	CGL2_11346179	Putative Type I Restriction modification system, M su	549	complement(189885..191531)	
11346	180	CGL2_11346180	Putative DEAD/DEAH box helicase	756	complement(191575..193842)	
11346	181	CGL2_11346181	Conserved hypothetical protein	317	complement(193870..194820)	
11346	182	CGL2_11346182	Hypothetical protein	144	complement(194866..195297)	
11346	183	CGL2_11346183	Hypothetical protein	164	complement(195704..196195)	265_GENE_7
11346	184	CGL2_11346184	Probable XRE family transcriptional regulator	175	complement(196188..196712)	265_GENE_6
11346	185	CGL2_11346185	Conserved hypothetical protein	119	complement(196728..197084)	
11346	186	CGL2_11346186	Putative mobilization protein TraA	899	complement(197283..199979)	219_GENE_18
11346	8	CGL2_11346008	Conserved protein of unknow function	93	complement(7652..7930)	232_GENE_8
11346	9	CGL2_11346009	Conserved protein of unknow function	98	complement(7937..8230)	232_GENE_9
9314	5	CGL2_09314005	Putative phage integrase	330	complement(2687..3676)	219_GENE_5
9314	4	CGL2_09314004	Conserved protein of unknown function	73	complement(2385..2603)	219_GENE_4
9314	3	CGL2_09314003	Probable plasmid stabilization system protein	100	complement(2083..2382)	219_GENE_3
9314	2	CGL2_09314002	Hypothetical protein	145	complement(1424..1858)	
9314	1	CGL2_09314001	Hypothetical protein	226	complement(736..1413)	
11185	11	CGL2_11185011	Protein of unknown function	240	8393..9112	
11346	187	CGL2_11346187	Hypothetical protein	110	complement(199930..200259)	219_GENE_17
11346	188	CGL2_11346188	mobilization protein, MobE	210	complement(200263..200892)	219_GENE_16
11346	189	CGL2_11346189	mobilization protein, MobD	132	complement(200892..201287)	219_GENE_15
11346	190	CGL2_11346190	Conserved hypothetical protein	111	complement(201218..201550)	219_GENE_14
11346	191	CGL2_11346191	Protein of unknown function	163	complement(201578..202066)	219_GENE_13
11346	192	CGL2_11346192	Hypothetical protein	138	complement(202318..202731)	219_GENE_12
11346	193	CGL2_11346193	Hypothetical protein	430	complement(202860..204149)	219_GENE_10
11346	194	CGL2_11346194	Hypothetical protein	62	complement(204154..204339)	219_GENE_9
11346	195	CGL2_11346195	Hypothetical protein	236	204449..205156	219_GENE_8
11346	196	CGL2_11346196	Integrase	388	205199..206362	219_GENE_7

11346tRNA		CGL2_11346R004	TRNA Gly GCC		complement(206302..206376)	
11346	197	CGL2_11346197	Probable outer membrane lipoprotein	173	complement(206523..207041)	219_GENE_6
Strain variant path		Strain variant path				Strain variant path
10850	18	CGL2_10850018	Putative pirin protein	301	complement(19392..20294)	98_GENE_19
10850	17	CGL2_10850017	Putative potassium channel protein	421	complement(17862..19124)	98_GENE_18
10850	16	CGL2_10850016	Deoxyribodipyrimidine photolyase (EC 4.1.99.3)	534	16247..17848	98_GENE_17
10850	15	CGL2_10850015	Protein of unknown function	276	complement(15086..15913)	98_GENE_16
10850	14	CGL2_10850014	Putative secretion protein (HlyD)	299	14139..15035	98_GENE_15
10850	13	CGL2_10850013	Conserved hypothetical protein	68	13936..14139	98_GENE_14
10850	12	CGL2_10850012	Putative fusaric acid resistance protein	682	11891..13936	98_GENE_13
10850	11	CGL2_10850011	Protein of unknown function	240	10986..11705	98_GENE_12
10850	10	CGL2_10850010	Protein of unknown function	386	9698..10855	98_GENE_11
10850	9	CGL2_10850009	Protein of unknown function	214	9028..9669	98_GENE_10
10850	8	CGL2_10850008	a+/H+ antiporter	535	7213..8817	98_GENE_9
10850	7	CGL2_10850007	Putative transcriptional regulator, TetR family	219	6352..7008	98_GENE_8
10850	6	CGL2_10850006	Putative isochorismatase hydrolase	188	complement(5681..6244)	98_GENE_7
10850	5	CGL2_10850005	Putative ammonia monooxygenase	345	complement(4543..5577)	98_GENE_6
10850tRNA		CGL2_10850R001	TRNA Asn GTT		4384..4459	
10850	4	CGL2_10850004	Conserved protein of unknown function	235	3574..4278	98_GENE_4
10850	3	CGL2_10850003	Conserved protein of unknown function	293	2696..3574	98_GENE_3
10850	2	CGL2_10850002	Dihydropteroate synthase (EC 2.5.1.15)	283	1843..2691	98_GENE_2
10850	1	CGL2_10850001	Peptidase M41, FtsH (EC 3.6.4.6)	592	78..1853	98_GENE_1
11247	23	CGL2_11247023	Hypoxanthine phosphoribosyl transferase (EC 2.4.2.8)	176	24189..24716	76_GENE_1
11247	22	CGL2_11247022	TRNA(Ile)-lysidine synthetase	504	22702..24213	76_GENE_2
11247	21	CGL2_11247021	Riboflavin kinase / FAD synthase (RibC) (EC 2.7.7.2)	319	21771..22727	76_GENE_3
11247	20	CGL2_11247020	Porphobilinogen synthase (EC 4.2.1.24)	326	20743..21720	76_GENE_4
11247	19	CGL2_11247019	Uroporphyrin-III C-methyltransferase / synthase (EC	513	19166..20704	76_GENE_5
11247	18	CGL2_11247018	Porphobilinogen deaminase (EC 2.5.1.61)	314	17662..18603	76_GENE_6
11247	17	CGL2_11247017	Glutamyl-tRNA reductase	452	16304..17659	76_GENE_7
11247	16	CGL2_11247016	Putative Cytochrome c assembly protein	269	15425..16231	76_GENE_8
11247	15	CGL2_11247015	Protein of unknown function	515	complement(13749..15293)	76_GENE_9
11247	14	CGL2_11247014	Lysine 2,3-aminomutase	383	complement(12597..13745)	76_GENE_10
11247	13	CGL2_11247013	Nitroreductase	249	complement(11824..12570)	76_GENE_11
11247	12	CGL2_11247012	Putative 2-deoxycytidine 5-triphosphate deaminase	366	complement(10736..11833)	76_GENE_12
11247	11	CGL2_11247011	Putative AAA-family ATPase	575	complement(8846..10570)	76_GENE_13
11247	10	CGL2_11247010	Putative proteasome component	511	complement(7314..8846)	76_GENE_14
11247	9	CGL2_11247009	Protein of unknown function	64	complement(7103..7294)	76_GENE_15
11247	8	CGL2_11247008	Putative 20S proteasome beta-subunit	265	complement(6301..7095)	76_GENE_16
11247	7	CGL2_11247007	Probable 20S proteasome alpha-subunit	251	complement(5553..6305)	76_GENE_17
11247	6	CGL2_11247006	Conserved protein of unknown function	502	complement(4120..5625)	76_GENE_18
11247	5	CGL2_11247005	Dihydroorotate dehydrogenase (EC 1.3.3.1)	368	3014..4117	76_GENE_19

11247	4	CGL2_11247004	Homoserine kinase (EC 2.7.1.39)	331	2041..3033	76_GENE_20
11247	3	CGL2_11247003	Probable ferredoxin	112	1710..2045	76_GENE_21
11247	1	CGL2_11247001	Conserved hypothetical protein	239	791..1507	76_GENE_22
11077	1	CGL2_11077001	Hypothetical protein	37	42..152	
11077	2	CGL2_11077002	Hypothetical protein	66	215..412	25_GENE_1
11077	3	CGL2_11077003	Probable cytochrome C oxidase mono-heme subunit	176	477..1004	25_GENE_2
11077	4	CGL2_11077004	Protein of unknown function	110	1117..1446	25_GENE_3
11077	5	CGL2_11077005	Hypothetical protein	68	1716..1919	25_GENE_4
11077	6	CGL2_11077006	Protein of unknown function	143	1934..2362	25_GENE_5
11077	7	CGL2_11077007	Protein of unknown function	68	2402..2605	25_GENE_6
11077	8	CGL2_11077008	Protein of unknown function	155	2628..3092	25_GENE_7
11077	9	CGL2_11077009	Probable cytochrome-c oxidase	185	3092..3646	25_GENE_8
11077	10	CGL2_11077010	Conserved protein of unknown function	362	3646..4731	25_GENE_9
11077	11	CGL2_11077011	Probable cytochrome C oxidase	188	4770..5333	25_GENE_10
11077	12	CGL2_11077012	Hypothetical protein	89	5338..5604	25_GENE_11
11077	13	CGL2_11077013	Probable iron-sulfur protein	442	5692..7017	25_GENE_12
11077	14	CGL2_11077014	Protein of unknown function	155	7096..7560	25_GENE_13
11077	15	CGL2_11077015	Hypothetical protein	108	7544..7867	25_GENE_13a
11077	16	CGL2_11077016	Conserved hypothetical protein	202	7887..8492	25_GENE_15
11077	17	CGL2_11077017	Putative ADP-ribose pyrophosphatase	198	8482..9075	25_GENE_16
11077	18	CGL2_11077018	Probable ferredoxin	63	9106..9294	25_GENE_17
11077	19	CGL2_11077019	Sigma54 specific transcriptional regulator, Fis family	473	9301..10719	25_GENE_18
11077	20	CGL2_11077020	Anthranilate synthase component I (EC 4.1.3.27)	501	10719..12221	25_GENE_19
11077	21	CGL2_11077021	Anthranilate synthase component II (EC 4.1.3.27)	198	12212..12805	25_GENE_20
11077	22	CGL2_11077022	Anthranilate phosphoribosyltransferase (EC 2.4.2.18)	341	12805..13827	25_GENE_21
11077	23	CGL2_11077023	Indole-3-glycerol phosphate synthase (EC 4.1.1.48)	274	13797..14618	25_GENE_22
11077	24	CGL2_11077024	Phosphoribosylanthranilate isomerase (EC 5.3.1.24)	212	14611..15246	25_GENE_23
11077	25	CGL2_11077025	Tryptophan synthase, beta subunit (EC 4.2.1.20)	412	15236..16471	25_GENE_24
11077	26	CGL2_11077026	Tryptophan synthase, alpha chain (EC 4.2.1.20)	264	16471..17262	25_GENE_25
11077	27	CGL2_11077027	Acetyl-CoA carboxylase carboxyltransferase, beta sul	304	17318..18229	25_GENE_26
11077	28	CGL2_11077028	Folylpolyglutamate synthase (EC 6.3.2.17)	444	18233..19564	25_GENE_27
11077	29	CGL2_11077029	Probable organic solvent tolerance protein (OstA)	767	19564..21864	25_GENE_28
11077	30	CGL2_11077030	Conserved protein of unknown function	266	complement(21891..22688)	25_GENE_29
11077	31	CGL2_11077031	NAD(+) kinase (EC 2.7.1.23)	305	complement(22753..23667)	25_GENE_30
11077	32	CGL2_11077032	Glutamate synthase, small subunit (EC 1.4.1.13)	613	24161..25999	25_GENE_31
11077	33	CGL2_11077033	Putative rieske iron-sulfur family protein	206	25999..26616	25_GENE_32
11077	34	CGL2_11077034	Putative cytochrome b/b6, N-terminal	253	26795..27553	25_GENE_33
11077	35	CGL2_11077035	Probable cytochrome b/b6, C-terminal	276	27611..28438	25_GENE_34
11077	36	CGL2_11077036	Protein of unknown function	72	28540..28755	25_GENE_35
11077	37	CGL2_11077037	Probable cytochrome c, class I	321	28755..29717	25_GENE_36

11077	38	CGL2_11077038	Daunorubicin resistance ABC transporter ATP-binding c	327	29802..30782	25_GENE_37
11077	39	CGL2_11077039	Putative ABC-2 type transporter	273	30782..31600	25_GENE_38
11077	40	CGL2_11077040	Conserved protein of unknown function	164	31704..32195	25_GENE_39
11077	40	CGL2_11077040	Conserved protein of unknown function	164	31704..32195	25_GENE_39
11077	42	CGL2_11077042	Signal peptide peptidase, SppA	349	32210..33256	25_GENE_40
11077	43	CGL2_11077043	Protein of unknown function	119	complement(33223..33579)	25_GENE_41
11077	44	CGL2_11077044	Putative hydroxypyruvate reductase/glycerate kinase	431	complement(33579..34871)	25_GENE_42
11077	45	CGL2_11077045	Hypothetical protein	87	complement(34879..35139)	25_GENE_43
11077	46	CGL2_11077046	Conserved protein of unknown function	359	35184..36260	25_GENE_44
11077	47	CGL2_11077047	Protein of unknown function	115	complement(36277..36621)	25_GENE_45
11079	1	CGL2_11079001	Protein of unknown function	220	complement(739..1398)	25_GENE_46
11079	2	CGL2_11079002	Protein of unknown function	115	complement(1478..1822)	25_GENE_47
11079	3	CGL2_11079003	Conserved hypothetical protein	168	1908..2411	25_GENE_48
11079	4	CGL2_11079004	Putative major facilitator superfamily transporter	404	2386..3597	25_GENE_49
11080	1	CGL2_11080001	Putative CBS domain containing membrane protein	152	1065..1520	25_GENE_50
11080	2	CGL2_11080002	Conserved protein of unknown function	175	1510..2034	25_GENE_51
11080	3	CGL2_11080003	Putative histidine triad (HIT) protein	179	2048..2584	25_GENE_52
11080	4	CGL2_11080004	Protein of unknown function	231	2602..3294	25_GENE_53
11080	5	CGL2_11080005	Uracil phosphoribosyltransferase (EC 2.4.2.9)	199	3354..3950	25_GENE_54
11080	6	CGL2_11080006	Aspartate carbamoyltransferase (EC 2.1.3.2)	308	3950..4873	25_GENE_55
11080	7	CGL2_11080007	Dihydroorotase (EC 3.5.2.3)	438	4906..6219	25_GENE_56
11080	8	CGL2_11080008	Carbamoyl-phosphate synthase, small subunit (EC 6.	365	6219..7313	25_GENE_57
11080	9	CGL2_11080009	Putative radical SAM family protein	332	7306..8301	25_GENE_58
11080	10	CGL2_11080010	Carbamoyl-phosphate synthase, large subunit (EC 6.	1080	8297..11536	25_GENE_59
11080	11	CGL2_11080011	Putative transcription elongation factor GreA	160	11616..12095	25_GENE_60
11080	12	CGL2_11080012	Hypothetical protein	41	12133..12255	25_GENE_61
11080	13	CGL2_11080013	Hypothetical protein	25	12437..12511	
11390	1	CGL2_11390001	Putative lytic transglycosylase	185	163..717	1108_GENE_3
11390	2	CGL2_11390002	Hypothetical protein	298	840..1733	483_GENE_1
11390	3	CGL2_11390003	Dihydrolipoamide dehydrogenase (EC 1.8.1.4)	461	complement(1764..3146)	483_GENE_2
11390	4	CGL2_11390004	Putative diguanylate cyclase/phosphodiesterase with	1157	complement(3277..6747)	483_GENE_3
11390	5	CGL2_11390005	Glutamine synthetase, type I (EC 6.3.1.2)	470	7377..8786	23_GENE_3
11390	6	CGL2_11390006	Aspartyl-tRNA synthetase (EC 6.1.1.12)	584	complement(8907..10658)	23_GENE_4
11390	7	CGL2_11390007	Pseudouridine synthase, Rsu	583	complement(10673..12421)	23_GENE_4a
11390	8	CGL2_11390008	GMP synthase [glutamine-hydrolyzing] (EC 6.3.5.2)	516	complement(12427..13974)	23_GENE_6
11390	9	CGL2_11390009	Inosine-5'-monophosphate dehydrogenase (EC 1.1.1	489	complement(14017..15483)	23_GENE_7
11390	10	CGL2_11390010	Conserved protein of unknown function	173	complement(15583..16101)	23_GENE_8
11390	11	CGL2_11390011	Probable AAA ATPase superfamily	300	complement(16097..16996)	23_GENE_9
11390	12	CGL2_11390012	Putative Lon family ATP-dependent protease	218	complement(17020..17673)	23_GENE_10
11390	13	CGL2_11390013	Protein of unknown function	133	complement(17703..18101)	23_GENE_11
11390	14	CGL2_11390014	Probable N-acetyltransferase family protein	167	18242..18742	23_GENE_12

11390	15	CGL2_11390015	DNA ligase (EC 6.5.1.1)	603	complement(18784..20592)	23_GENE_13
11390	16	CGL2_11390016	Hypothetical protein	155	20772..21236	23_GENE_14
11390	17	CGL2_11390017	Protein of unknown function	179	complement(21286..21822)	23_GENE_15
11390	18	CGL2_11390018	Apolipoprotein N-acyltransferase	491	22155..23627	23_GENE_16
11390	19	CGL2_11390019	Peptide chain release factor 2	370	23667..24776	23_GENE_17
11390	20	CGL2_11390020	Putative heat shock protein (Hsp20)	147	24833..25273	23_GENE_18
11390	21	CGL2_11390021	ATP-dependent protease La (EC 3.4.21.53)	813	25269..27707	23_GENE_19
11390	22	CGL2_11390022	Endonuclease III/Nth	241	27652..28374	23_GENE_20
11390	23	CGL2_11390023	Conserved hypothetical protein	69	28518..28724	23_GENE_21
11390	24	CGL2_11390024	Aldo/keto reductase (EC 1.1.1.65)	335	complement(28761..29765)	23_GENE_22
11390	25	CGL2_11390025	Putative transcriptional regulator, AraC family	315	29953..30897	23_GENE_23
11390	26	CGL2_11390026	Putative glycoside hydrolase, family 15	684	complement(30969..33020)	23_GENE_24
11390	28	CGL2_11390028	Histidyl-tRNA synthetase (EC 6.1.1.21)	437	complement(33041..34351)	23_GENE_25
11390	29	CGL2_11390029	Putative glycoside hydrolase, family 15	659	34579..36555	23_GENE_27
11390	31	CGL2_11390031	GTP-binding protein (IepA)	609	37020..38846	23_GENE_28
11390	32	CGL2_11390032	Signal peptidase I (EC 3.4.21.89)	223	38891..39559	23_GENE_29
11390	33	CGL2_11390033	Carbohydrate kinase, PfkB	352	39587..40642	23_GENE_30
11390	34	CGL2_11390034	3-deoxy-D-manno-octulonate cytidylyltransferase	277	40642..41472	23_GENE_31
11390	35	CGL2_11390035	CTP synthase (EC 6.3.4.2)	545	41463..43097	23_GENE_32
11390	36	CGL2_11390036	2-Dehydro-3-deoxyphosphooctonate aldolase (EC 4.1.2.1)	289	43097..43963	23_GENE_33
11390	37	CGL2_11390037	Sugar isomerase, KpsF/GutQ family (EC 5.3.1.13)	332	43963..44958	23_GENE_34
11390	38	CGL2_11390038	Phosphatase kdsc	182	44961..45506	23_GENE_35
11390	39	CGL2_11390039	CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatase	189	45506..46072	23_GENE_36
11390	40	CGL2_11390040	Conserved hypothetical protein	206	46092..46709	23_GENE_37
11390	41	CGL2_11390041	Putative peptidase, M23B family	327	46855..47835	23_GENE_39
11390	42	CGL2_11390042	Putative periplasmic sensor signal transduction histidine kinase	506	47955..49472	23_GENE_40
11390	43	CGL2_11390043	Protein of unknown function	176	49472..49999	23_GENE_41
11390	44	CGL2_11390044	Putative two component, sigma54 specific, transcript	458	49999..51372	23_GENE_42
11390	45	CGL2_11390045	Conserved hypothetical protein	256	complement(51412..52179)	23_GENE_43
11390	46	CGL2_11390046	Hypothetical protein	359	complement(52217..53293)	23_GENE_44
11390	47	CGL2_11390047	Conserved protein of unknown function	327	complement(53375..54355)	23_GENE_45
11390	48	CGL2_11390048	Protein of unknown function	102	54439..54744	23_GENE_46
11390	49	CGL2_11390049	Putative phosphoesterase, PAP2 family	211	54832..55464	23_GENE_47
11390	50	CGL2_11390050	Putative radical SAM family protein	379	55442..56578	23_GENE_48
11390	51	CGL2_11390051	Hypothetical protein	105	56548..56862	23_GENE_49
11390	52	CGL2_11390052	Putative catalytic LigB subunit of aromatic ring-opening enzyme	264	complement(56888..57679)	23_GENE_50
11390	53	CGL2_11390053	Probable methyltransferase	388	complement(57735..58898)	23_GENE_51
11390	54	CGL2_11390054	Hypothetical protein	77	complement(59023..59253)	23_GENE_52
11390	55	CGL2_11390055	Putative cytochrome c oxidase, subunit I	479	59439..60875	33_GENE_1
11390	56	CGL2_11390056	Twin-arginine translocation protein TatA/E	73	61085..61303	33_GENE_4
11390	57	CGL2_11390057	Protein of unknown function	143	complement(61360..61788)	33_GENE_5

11390	58	CGL2_11390058	Putative FAD dependent oxidoreductase	413	complement(61788..63026)	33_GENE_6
11390	60	CGL2_11390060	Conserved hypothetical protein	303	complement(63128..64036)	33_GENE_7
11390	61	CGL2_11390061	NADH-flavin oxidoreductase/NADH oxidase	354	complement(64103..65164)	33_GENE_8
11390	62	CGL2_11390062	Putative major facilitator superfamily transporter	496	complement(65312..66799)	33_GENE_9
11390	63	CGL2_11390063	Hypothetical protein	85	complement(66799..67053)	33_GENE_10
11390	64	CGL2_11390064	Protein of unknown function	420	complement(67237..68496)	33_GENE_11
11390	65	CGL2_11390065	Conserved hypothetical protein	195	68836..69420	33_GENE_12
11390	66	CGL2_11390066	Protein of unknown function	273	69648..70466	33_GENE_14
11390	67	CGL2_11390067	Probable PAS/PAC sensor protein	218	70493..71146	33_GENE_15
11390	68	CGL2_11390068	Diguanylate cyclase	426	71221..72498	33_GENE_16
11390	70	CGL2_11390070	Hypothetical protein	258	72781..73554	33_GENE_17
11390	71	CGL2_11390071	Hypothetical protein	147	complement(73698..74138)	33_GENE_18
11390	72	CGL2_11390072	Protein of unknown function	345	74395..75429	33_GENE_19
11390	73	CGL2_11390073	Protein of unknown function	493	75429..76907	33_GENE_20
11390	74	CGL2_11390074	Putative nodulation efficiency protein D	465	77161..78555	33_GENE_21
11390	75	CGL2_11390075	Band 7 family protein	252	78555..79310	33_GENE_22
11390	76	CGL2_11390076	Putative carboxymuconolactone decarboxylase	146	complement(79331..79768)	33_GENE_23
11390	77	CGL2_11390077	Protein of unknown function	175	complement(79768..80292)	33_GENE_24
11390	78	CGL2_11390078	Putative 3-hydroxyisobutyrate dehydrogenas	308	80505..81428	33_GENE_25
11390	79	CGL2_11390079	Probable hydrolase	277	81424..82254	33_GENE_26
11390	79	CGL2_11390079	Probable hydrolase	277	81424..82254	33_GENE_26
11390	81	CGL2_11390081	Protein of unknown function	150	complement(82423..82872)	33_GENE_27
11390	82	CGL2_11390082	Hypothetical protein	126	complement(82968..83345)	33_GENE_28
11390	83	CGL2_11390083	Hypothetical protein	101	83398..83700	33_GENE_29
11390	84	CGL2_11390084	Putative two component, sigma54 specific, transcript	489	complement(83935..85401)	33_GENE_30
11390	85	CGL2_11390085	Multi-sensor signal transduction histidine kinase	660	complement(85401..87380)	33_GENE_31
11390	86	CGL2_11390086	Conserved protein of unknown function	826	complement(87548..90025)	33_GENE_32
11390	87	CGL2_11390087	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	555	complement(90025..91689)	33_GENE_33
11390	88	CGL2_11390088	Hypothetical protein	112	91972..92307	33_GENE_33a
11390	89	CGL2_11390089	Dihydroxy-acid dehydratase (EC 4.2.1.9)	561	92432..94114	33_GENE_36
11390	90	CGL2_11390090	SUA5/yciO/yrdC family	339	complement(94206..95222)	33_GENE_37
11390	91	CGL2_11390091	Dihydroxy-acid dehydratase (EC 4.2.1.9)	558	complement(95296..96969)	33_GENE_38
11390	92	CGL2_11390092	Conserved protein of unknown function	288	complement(97064..97927)	33_GENE_39
11390	93	CGL2_11390093	Conserved protein of unknown function	823	complement(98122..100590)	33_GENE_41
11390	94	CGL2_11390094	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	553	complement(100590..102248)	33_GENE_42
11390	95	CGL2_11390095	Hypothetical protein	99	102681..102977	33_GENE_42a
11390	96	CGL2_11390096	Probable PilT protein-like	105	complement(103189..103503)	33_GENE_44
11390	97	CGL2_11390097	Probable transcriptional regulator (AbrB)	88	complement(103503..103766)	33_GENE_45
11390	98	CGL2_11390098	Putative glycosyltransferase	362	104057..105142	33_GENE_47
11390	98	CGL2_11390098	Putative glycosyltransferase	362	104057..105142	33_GENE_47
11390	100	CGL2_11390100	Putative glycosyl transferase, group 1	401	105224..106426	33_GENE_48

11390	101	CGL2_11390101	Undecaprenyl-phosphate galactose phosphotransferase	503	106419..107927	369_GENE_7
11390	102	CGL2_11390102	ABC transporter permease protein	264	107969..108760	369_GENE_8
11390	103	CGL2_11390103	ABC transporter ATP-binding protein	181	108773..109315	369_GENE_9
11390	104	CGL2_11390104	Putative glycosyltransferase	380	110083..111222	
9490	1	CGL2_09490001	Hypothetical protein	116	674..1021	318_GENE_1
9490	2	CGL2_09490002	Conserved hypothetical protein	87	1283..1543	318_GENE_2
9490	3	CGL2_09490003	Probable CopG family protein	79	1536..1772	318_GENE_3
9490	3	CGL2_09490003	Probable CopG family protein	79	1536..1772	318_GENE_3
9490	5	CGL2_09490005	Probable transposase	220	complement(2157..2816)	318_GENE_4
9490	5	CGL2_09490005	Probable transposase	220	complement(2157..2816)	318_GENE_4
9921	4	CGL2_09921004	Methylated-DNA-[protein]-cysteine S-methyltransfer	164	3045..3536	318_GENE_5
9921	3	CGL2_09921003	Putative Ada DNA repair protein and transcriptional r	475	1598..3022	318_GENE_6
9921	2	CGL2_09921002	Protein of unknown function	108	1087..1410	318_GENE_7
9921	1	CGL2_09921001	Hypothetical protein	142	412..837	318_GENE_8
11284	2	CGL2_11284002	Putative transposase	182	complement(598..1143)	318_GENE_9
11284	3	CGL2_11284003	Probable monooxygenase	420	complement(1470..2729)	191_GENE_2
11284	4	CGL2_11284004	Protein of unknown function	585	complement(2729..4483)	191_GENE_3
11284	5	CGL2_11284005	Glucose-6-phosphate 1-dehydrogenase (EC 1.1.1.49	495	complement(4498..5982)	191_GENE_4
11284	6	CGL2_11284006	Transaldolase	974	complement(6319..9240)	191_GENE_5
11284	7	CGL2_11284007	Transketolase (EC 2.2.1.1)	475	complement(9296..10720)	191_GENE_6
9975	1	CGL2_09975001	6-phosphogluconolactonase (EC 3.1.1.31)	19	complement(41..97)	511_GENE_9
9975	2	CGL2_09975002	Glucokinase (EC 2.7.1.2)	347	complement(348..1388)	511_GENE_8
9975	3	CGL2_09975003	Hypothetical protein	92	complement(1500..1775)	511_GENE_7
9975	4	CGL2_09975004	Hypothetical protein	61	complement(1796..1978)	511_GENE_5a
9975	5	CGL2_09975005	Protein of unknown function	185	complement(2110..2664)	511_GENE_5
9975	6	CGL2_09975006	Protein of unknown function	492	complement(2682..4157)	511_GENE_4
9975	7	CGL2_09975007	Protein of unknown function	487	complement(4360..5820)	511_GENE_2
10139	1	CGL2_10139001	Conserved protein of unknown function	241	complement(44..766)	736_GENE_4
10139	2	CGL2_10139002	DNA/RNA helicase, SNF2 family	263	complement(766..1554)	736_GENE_2
10139	3	CGL2_10139003	DNA/RNA helicase, SNF2 family	631	complement(1520..3412)	736_GENE_2
10139	4	CGL2_10139004	Probable transposase	458	3592..4965	412_GENE_6
10139	5	CGL2_10139005	Transposase	352	complement(5307..6362)	412_GENE_5
10139	7	CGL2_10139007	Diguanylate cyclase/phosphodiesterase with PAS/PAC	250	6459..7208	412_GENE_4
10139	7	CGL2_10139007	Diguanylate cyclase/phosphodiesterase with PAS/PAC	250	6459..7208	412_GENE_4
6867	4	CGL2_06867004	RNA-directed DNA polymerase (EC 2.7.7.49)	195	complement(2032..2616)	NOTE: see end of file-
6867	3	CGL2_06867003	Hypothetical protein	155	complement(1166..1630)	
6867	2	CGL2_06867002	Hypothetical protein	213	complement(116..754)	
11284	8	CGL2_11284008	Putative transposase	146	10780..11217	191_GENE_7
11284	9	CGL2_11284009	RNA-directed DNA polymerase (EC 2.7.7.49)	501	11597..13099	73_GENE_33
11284	10	CGL2_11284010	Probable nucleotidyltransferase superfamily protein	99	complement(13299..13595)	gap between gene 73..
11284	10	CGL2_11284010	Probable nucleotidyltransferase superfamily protein	99	complement(13299..13595)	73_GENE_31

11284	12	CGL2_11284012	Hypothetical protein	129	complement(13774..14160)	73_GENE_29a
11284	13	CGL2_11284013	Conserved protein of unknown function	502	14459..15964	73_GENE_29
11284	14	CGL2_11284014	3-hydroxyisobutyrate dehydrogenase (EC 1.1.1.31)	311	16469..17401	73_GENE_27
11284	15	CGL2_11284015	Probable alpha/beta fold family protein	268	17401..18204	73_GENE_26
11284	16	CGL2_11284016	Conserved protein of unknown function	157	18365..18835	73_GENE_25
11284	17	CGL2_11284017	Protein of unknown function	85	complement(18949..19203)	73_GENE_23a
11284	18	CGL2_11284018	Hypothetical protein	85	complement(19362..19616)	73_GENE_23
11284	19	CGL2_11284019	Putative transposase	290	complement(19609..20478)	73_GENE_22
11284	20	CGL2_11284020	Putative transposase	96	complement(20451..20738)	73_GENE_21
11284	21	CGL2_11284021	Hypothetical protein	66	20895..21092	73_GENE_19
11284	22	CGL2_11284022	Probable PilT protein, N-terminal	128	complement(21183..21566)	73_GENE_18
11284	23	CGL2_11284023	Prevent-host-death family protein	79	complement(21624..21860)	73_GENE_17
11284	24	CGL2_11284024	Hypothetical protein	96	complement(21878..22165)	73_GENE_16
11284	25	CGL2_11284025	Plasmid maintenance system antidote protein, XRE f	96	complement(22443..22730)	73_GENE_14
11284	26	CGL2_11284026	Plasmid maintenance system killer	93	complement(22749..23027)	73_GENE_13
11284	27	CGL2_11284027	Probable transposase	160	23491..23970	73_GENE_12
11284	28	CGL2_11284028	Probable transposase	170	24030..24539	73_GENE_11
11284	29	CGL2_11284029	Probable ATPase protein	159	24945..25421	73_GENE_9
11284	30	CGL2_11284030	Transposase	380	25456..26595	73_GENE_8
11284	31	CGL2_11284031	ATPase	135	26674..27078	73_GENE_7
11284	32	CGL2_11284032	Hypothetical protein	82	complement(27392..27637)	73_GENE_6
11284	33	CGL2_11284033	Probable transposase	335	complement(27738..28742)	73_GENE_5
11284	34	CGL2_11284034	Putative glycosyl transferase, group 1	357	29579..30649	73_GENE_4
11284	35	CGL2_11284035	Putative glycosyl transferase, group 1	431	30699..31991	627_GENE_2
11284	36	CGL2_11284036	Undecaprenyl-phosphate galactose phosphotransf	502	31991..33496	73_GENE_1
11284	37	CGL2_11284037	Putative ABC transporter permease protein	229	33526..34212	627_GENE_4
11284	40	CGL2_11284040	Teichoic-acid-transporting ATPase (EC 3.6.3.40)	201	34442..35044	955_GENE_4
11284	42	CGL2_11284042	Probable transposase	133	35177..35575	659_GENE_7
11284	43	CGL2_11284043	Transposase	314	complement(35582..36523)	659_GENE_6
11284	44	CGL2_11284044	Probable transposase	180	36657..37196	659_GENE_5
11284	46	CGL2_11284046	Conserved hypothetical protein	189	complement(37491..38057)	659_GENE_3
11284	47	CGL2_11284047	Hypothetical protein	109	complement(38060..38386)	659_GENE_2
11284	48	CGL2_11284048	Putative glycosyl transferase, family 2	568	38669..40372	659_GENE_1
11284	49	CGL2_11284049	Putative glycosyl transferase, family 2	1023	40459..43527	
11284	50	CGL2_11284050	Conserved hypothetical protein	441	complement(43627..44949)	
10601	1	CGL2_10601001	Conserved hypothetical protein	50	complement(312..462)	985_GENE_3
10601	2	CGL2_10601002	Hypothetical protein	86	787..1044	985_GENE_4
10601	3	CGL2_10601003	Putative metallo-beta-lactamase family protein	243	1234..1962	178_GENE_1
10601	4	CGL2_10601004	Probable transcriptional regulator, ArsR family	119	1988..2344	178_GENE_2
10601	5	CGL2_10601005	Putative major facilitator superfamily transporter	442	2344..3669	178_GENE_3
10601	6	CGL2_10601006	Hypothetical protein	53	complement(3900..4058)	178_GENE_4

10601	7	CGL2_10601007	Hypothetical protein	76	4109..4336	178_GENE_4a
10601	8	CGL2_10601008	Hypothetical protein	152	4463..4918	178_GENE_5
10601	9	CGL2_10601009	Probable outer membrane efflux protein	481	4994..6436	178_GENE_6
10601	10	CGL2_10601010	Secretion protein (HlyD)	419	6429..7685	178_GENE_7
10601	11	CGL2_10601011	Heavy metal efflux pump, CzcA family	1061	7685..10867	178_GENE_8
10601	12	CGL2_10601012	Conserved protein of unknown function	134	10885..11286	178_GENE_9
10799	26	CGL2_10799026	Hypothetical protein	479	complement(18611..20047)	178_GENE_10
10799	25	CGL2_10799025	Putative IstB-like ATP-binding protein	260	17590..18369	321_GENE_1
10799	24	CGL2_10799024	Probable transposase	284	16742..17593	321_GENE_2
10799	23	CGL2_10799023	Putative transposase	351	15580..16632	321_GENE_3
10799	22	CGL2_10799022	Probable transposase	175	complement(14810..15334)	321_GENE_4
10799	21	CGL2_10799021	Probable transposase	489	complement(13150..14616)	321_GENE_5
10799	20	CGL2_10799020	Putative IstB-like ATP-binding protein	252	complement(12395..13150)	321_GENE_6
10799	19	CGL2_10799019	Hypothetical protein	70	complement(12159..12368)	321_GENE_7
10799	18	CGL2_10799018	Putative transposase	384	complement(10981..12132)	321_GENE_8
10799	17	CGL2_10799017	Putative IstB-like ATP-binding protein	292	complement(10133..11008)	581_GENE_8
10799	16	CGL2_10799016	Probable transposase	161	9670..10152	
10799	15	CGL2_10799015	Conserved protein of unknown function	360	8366..9445	45_GENE_46
10799	14	CGL2_10799014	Protein of unknown function	120	7891..8250	45_GENE_45a
10799	13	CGL2_10799013	Putative transcriptional regulator, TetR family	219	7222..7878	45_GENE_45
10799	12	CGL2_10799012	Conserved hypothetical protein	117	complement(6469..6819)	45_GENE_43
10799	11	CGL2_10799011	Putative metal dependent phosphohydrolase	254	complement(5091..5852)	45_GENE_41
10799	10	CGL2_10799010	Conserved protein of unknown function	188	3936..4499	45_GENE_40
10799	9	CGL2_10799009	Hypothetical protein	79	3570..3806	45_GENE_39
10799	8	CGL2_10799008	Probable transposase	105	complement(3021..3335)	45_GENE_38
10799	7	CGL2_10799007	Probable transposase	115	complement(2658..3002)	45_GENE_37
10799	6	CGL2_10799006	Conserved hypothetical protein	62	complement(2394..2579)	45_GENE_36
10799	5	CGL2_10799005	Putative PiT protein, N-terminal	140	1946..2365	45_GENE_35
10799	4	CGL2_10799004	Probable plasmid stability protein	84	1695..1946	45_GENE_34
10799	3	CGL2_10799003	Conserved protein of unknown function	165	948..1442	45_GENE_33
10799	2	CGL2_10799002	Conserved hypothetical protein	137	578..988	45_GENE_32
10799	1	CGL2_10799001	Probable PiT protein, N-terminal	133	172..570	45_GENE_31
11391	30	CGL2_11391030	Prevent-host-death protein	81	26362..26604	45_GENE_30
11391	29	CGL2_11391029	Hypothetical protein	49	complement(26133..26279)	45_GENE_29
11391	28	CGL2_11391028	Conserved hypothetical protein	92	complement(25809..26084)	45_GENE_28
11391	27	CGL2_11391027	Conserved hypothetical protein	129	complement(25445..25831)	
11391	26	CGL2_11391026	Hypothetical protein	77	25000..25230	45_GENE_27
11391	25	CGL2_11391025	Protein of unknown function	119	24550..24906	45_GENE_26
11391	24	CGL2_11391024	Probable cyclic nucleotide-binding protein	249	23259..24005	45_GENE_25
11391	23	CGL2_11391023	Conserved hypothetical protein	428	complement(21577..22860)	45_GENE_24
11391	22	CGL2_11391022	Putative NADH ubiquinone oxidoreductase, 20 kDa subunit	169	21041..21547	45_GENE_23

11391	21	CGL2_11391021	Putative NADH-ubiquinone oxidoreductase, 49 kDa s	499	19523..21019	45_GENE_22
11391	20	CGL2_11391020	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	485	17998..19452	45_GENE_21
11391	19	CGL2_11391019	Probable hydrogenase 4 membrane component	220	17331..17990	45_GENE_20
11391	18	CGL2_11391018	Putative formate hydrogenlyase subunit 4	320	16368..17327	45_GENE_19
11391	17	CGL2_11391017	NADH dehydrogenase (Quinone) (EC 1.6.99.5)	686	14300..16357	45_GENE_18
11391	16	CGL2_11391016	Plasmid maintenance system antidote protein, XRE f	116	13943..14290	45_GENE_17
11391	15	CGL2_11391015	Hypothetical protein	297	12918..13808	45_GENE_16
11391	14	CGL2_11391014	Conserved protein of unknown function	218	12108..12761	45_GENE_15
11391	13	CGL2_11391013	Conserved protein of unknown function	483	complement(10047..11495)	45_GENE_13
11391	12	CGL2_11391012	Conserved protein of unknown function	358	complement(8989..10062)	45_GENE_12
11391	11	CGL2_11391011	Conserved protein of unknown function	251	complement(8014..8766)	45_GENE_11
11391	10	CGL2_11391010	DNA-3-methyladenine glycosylase (EC 3.2.2.21)	211	complement(7382..8014)	45_GENE_10
11391	9	CGL2_11391009	Protein of unknown function	137	complement(6852..7262)	45_GENE_9
11391	8	CGL2_11391008	Conserved hypothetical protein	211	complement(5782..6414)	45_GENE_8
11391	7	CGL2_11391007	Conserved protein of unknown function	173	complement(5140..5658)	45_GENE_7
11391	6	CGL2_11391006	Conserved hypothetical protein	363	complement(3967..5055)	45_GENE_6
11391	5	CGL2_11391005	Methylated-DNA-[protein]-cysteine S-methyltransfer	164	3485..3976	45_GENE_5
11391	4	CGL2_11391004	Putative Ada DNA repair protein and transcriptional r	477	2055..3485	45_GENE_4
11391	3	CGL2_11391003	Aldo/keto reductase (EC 1.1.1.91)	357	complement(824..1894)	45_GENE_3
11391	2	CGL2_11391002	Hypothetical protein	97	496..786	45_GENE_2
11391	1	CGL2_11391001	Protein of unknown function	112	44..379	45_GENE_1
9831	1	CGL2_09831001	Conserved hypothetical protein	333	370..1368	454_GENE_3
9831	2	CGL2_09831002	Hypothetical protein	44	1721..1852	454_GENE_4
9831	3	CGL2_09831003	Hypothetical protein	53	complement(2219..2377)	454_GENE_5
9831	4	CGL2_09831004	Methyl-accepting chemotaxis sensory transducer witl	231	complement(2591..3283)	454_GENE_6
9831	5	CGL2_09831005	transposase	140	3291..3710	454_GENE_8
11278	42	CGL2_11278042	Putative methyl-accepting chemotaxis protein	247	29709..30449	81_GENE_5
11278	41	CGL2_11278041	Hypothetical protein	77	complement(29322..29552)	81_GENE_6
11278	40	CGL2_11278040	Hypothetical protein	142	28412..28837	81_GENE_7
11278	39	CGL2_11278039	Hypothetical protein	152	27954..28409	81_GENE_8
11278	38	CGL2_11278038	Hypothetical protein	187	complement(26885..27445)	81_GENE_9
11278	37	CGL2_11278037	Hypothetical protein	50	26513..26662	81_GENE_10
11278	36	CGL2_11278036	Hypothetical protein	71	complement(26146..26358)	81_GENE_11
11278	35	CGL2_11278035	Hypothetical protein	86	25771..26028	81_GENE_12
11278	33	CGL2_11278033	Putative phage integrase	106	25429..25746	81_GENE_14
11278	32	CGL2_11278032	Putative phage integrase	248	24690..25433	81_GENE_14
11278	30	CGL2_11278030	Hypothetical protein	108	24045..24368	75_GENE_30
11278	29	CGL2_11278029	Hypothetical protein	72	complement(23675..23890)	75_GENE_28a
11278	28	CGL2_11278028	Putative phage protein Gp37/Gp68	240	22928..23647	75_GENE_28
11278	27	CGL2_11278027	Conserved hypothetical protein	371	21809..22921	75_GENE_27
11278	26	CGL2_11278026	Protein of unknown function	149	21363..21809	75_GENE_26



8581	3	CGL2_08581003	Hypothetical protein	541	complement(2408..4030)	376_GENE_14
8581	2	CGL2_08581002	Hypothetical protein	427	complement(1092..2372)	376_GENE_15
8581	1	CGL2_08581001	Hypothetical protein	53	complement(931..1089)	
5939	1	CGL2_05939001	Hypothetical protein	88	complement(458..721)	
5939	2	CGL2_05939002	Hypothetical protein	175	complement(736..1260)	
10965	24	CGL2_10965024	Putative adenylylsulfate reductase, subunit A	524	complement(18938..20509)	303_GENE_1
10965	23	CGL2_10965023	Probable adenylylsulfate reductase, subunit B	114	complement(18610..18951)	303_GENE_2
10965	22	CGL2_10965022	Sulfate adenylyltransferase (EC 2.7.7.4)	393	complement(17359..18537)	303_GENE_3
10965	21	CGL2_10965021	Putative transcriptional regulator, XRE family	121	16859..17221	303_GENE_4
10965	20	CGL2_10965020	Conserved hypothetical protein	64	complement(16608..16799)	303_GENE_5
10965	19	CGL2_10965019	Putative radical SAM superfamily transporter	445	complement(14911..16245)	303_GENE_6
10965	18	CGL2_10965018	Putative transport protein	506	complement(13352..14869)	303_GENE_7
10965	17	CGL2_10965017	Hypothetical protein	65	complement(13158..13352)	303_GENE_9
10965tRNA		CGL2_10965R001	TRNA Met CAT		complement(13089..13164)	
10965	16	CGL2_10965016	transposase	476	11276..12703	303_GENE_10
7414	1	CGL2_07414001	Hypothetical protein	130	262..651	539_GENE_9
07414tRNA		CGL2_07414R001	TRNA Met CAT		55..130	
7414	2	CGL2_07414002	Hypothetical protein	149	complement(730..1176)	539_GENE_8
7414	3	CGL2_07414003	Hypothetical protein	91	complement(1179..1451)	539_GENE_7
9479	2	CGL2_09479002	Hypothetical protein	134	2537..2938	539_GENE_4
9479	1	CGL2_09479001	Phage/plasmid primase P4, C-terminal	730	366..2555	539_GENE_3
10305	1	CGL2_10305001	Hypothetical protein	149	complement(1119..1565)	
10305	2	CGL2_10305002	Hypothetical protein	226	complement(1568..2245)	
10305	3	CGL2_10305003	Conserved hypothetical protein	229	complement(2921..3607)	
10305	4	CGL2_10305004	DNA primase	717	complement(3607..5757)	
10305	5	CGL2_10305005	Hypothetical protein	64	complement(5772..5963)	51_GENE_2
10305	6	CGL2_10305006	Hypothetical protein	259	complement(6104..6880)	798_GENE_3
10305	7	CGL2_10305007	Conserved protein of unknown function	69	complement(6912..7118)	798_GENE_4
10305	8	CGL2_10305008	Conserved hypothetical protein	67	complement(7118..7318)	798_GENE_5
10305	9	CGL2_10305009	Putative phage integrase	161	complement(7353..7835)	
10965	15	CGL2_10965015	transposition helper protein, IstB	97	complement(10987..11277)	443_GENE_2
10965	14	CGL2_10965014	integrase Rci fragment (partial domain)	155	10438..10902	443_GENE_3
10965	13	CGL2_10965013	Hypothetical protein	72	complement(10199..10414)	443_GENE_4
10965	12	CGL2_10965012	Hypothetical protein	38	complement(10086..10199)	443_GENE_5
10965	11	CGL2_10965011	Hypothetical protein	151	9541..9993	443_GENE_6
10965	10	CGL2_10965010	Hypothetical protein	71	8861..9073	443_GENE_7
10965	9	CGL2_10965009	transposase	209	complement(8174..8800)	443_GENE_8

10965	8	CGL2_10965008	transposase	175	complement(7650..8174)	443_GENE_9
10965	7	CGL2_10965007	Hypothetical protein	224	6745..7416	443_GENE_10
10965	6	CGL2_10965006	Hypothetical protein	126	6368..6745	
10965	5	CGL2_10965005	Protein of unknown function	238	complement(5135..5848)	41_GENE_1
10965	4	CGL2_10965004	Putative sigma54 specific transcriptional regulator, F	454	3651..5012	41_GENE_2
10965	3	CGL2_10965003	Cytochrome bd ubiquinol oxidase, subunit I	534	complement(1859..3460)	41_GENE_4
10965	2	CGL2_10965002	Cytochrome bd ubiquinol oxidase, subunit II	379	complement(727..1863)	41_GENE_5
10965	1	CGL2_10965001	Cyd operon protein (YbgT)	43	complement(556..684)	41_GENE_6
10961	1	CGL2_10961001	Putative sulfide-quinone reductase	424	457..1728	41_GENE_7
10961	2	CGL2_10961002	Putative radical SAM superfamily protein	366	complement(1768..2865)	41_GENE_8
10961	3	CGL2_10961003	Conserved protein of unknown function	150	complement(2902..3351)	41_GENE_9
10961	4	CGL2_10961004	Conserved hypothetical protein	103	complement(3441..3749)	41_GENE_10
10961	5	CGL2_10961005	Probable major facilitator superfamily transporter	430	complement(3733..5022)	41_GENE_11
10961	6	CGL2_10961006	Putative glycosyl transferase, family 9	423	complement(5022..6290)	41_GENE_12
10961	7	CGL2_10961007	Putative two component transcriptional regulator, Lu	211	complement(6413..7045)	41_GENE_13
10961	8	CGL2_10961008	Putative periplasmic sensor signal transduction histic	532	complement(7045..8640)	41_GENE_14
10961	9	CGL2_10961009	Putative amino acid permease	665	complement(8612..10606)	41_GENE_15
10961	10	CGL2_10961010	Conserved protein of unknown function	482	complement(10712..12157)	41_GENE_16
10961	11	CGL2_10961011	Potassium-transporting ATPase, C subunit (EC 3.6.3.	205	complement(12266..12880)	41_GENE_17
10961	12	CGL2_10961012	Potassium-transporting ATPase, A subunit (EC 3.6.3.	567	complement(12939..14639)	41_GENE_18
10961	13	CGL2_10961013	Potassium-translocating P-type ATPase, B subunit (E	670	complement(14860..16869)	41_GENE_19
10961	14	CGL2_10961014	Protein of unknown function	202	complement(17129..17734)	41_GENE_20
10961	15	CGL2_10961015	Hypothetical protein	212	complement(17883..18518)	41_GENE_21
10961	16	CGL2_10961016	Hypothetical protein	199	complement(18784..19380)	41_GENE_22
10961	17	CGL2_10961017	Protein of unknown function	214	complement(19725..20366)	41_GENE_24
10961	18	CGL2_10961018	Putative osmosensitive K+ channel signal transductio	741	20561..22783	41_GENE_25
10961	19	CGL2_10961019	Hypothetical protein	192	22925..23500	41_GENE_26
10961	20	CGL2_10961020	Protein of unknown function	309	23535..24461	41_GENE_27
10961	21	CGL2_10961021	Putative NAD-binding 6-phosphogluconate dehydrogen	307	complement(24476..25396)	41_GENE_28
10961	22	CGL2_10961022	Putative peroxiredoxin	191	complement(25396..25968)	41_GENE_29
10961	23	CGL2_10961023	Probable Dyp-type peroxidase	295	complement(26137..27021)	41_GENE_30
10961	24	CGL2_10961024	Putative CoA-binding protein	148	complement(27114..27557)	41_GENE_31
10961	25	CGL2_10961025	Probable ferredoxin	420	27772..29031	41_GENE_33
10961	27	CGL2_10961027	Conserved protein of unknown function	197	29119..29709	41_GENE_34
10961	28	CGL2_10961028	Cysteine desulfurase (EC 2.8.1.7)	390	29705..30874	41_GENE_35
10961	29	CGL2_10961029	Putative NAD-dependent epimerase/dehydratase	298	30915..31808	41_GENE_36
10961tRNA		CGL2_10961R001	TRNA Leu CAG		complement(32176..32261)	
10961tRNA		CGL2_10961R002	TRNA Arg TCT		complement(32500..32576)	
10961	30	CGL2_10961030	Hypothetical protein	68	complement(32609..32812)	287_GENE_8
10961	31	CGL2_10961031	Putative glutaredoxin	129	complement(32898..33284)	287_GENE_7
10961	32	CGL2_10961032	Protein of unknown function	450	33491..34840	287_GENE_6

10961	33	CGL2_10961033	Hypothetical protein	551	34846..36498	287_GENE_5
10961	34	CGL2_10961034	Protein of unknown function	206	36552..37169	287_GENE_4
10961	35	CGL2_10961035	Peptide methionine sulfoxide reductase (EC 1.8.4.6)	185	complement(37167..37721)	287_GENE_3
10961	36	CGL2_10961036	Diguanylate cyclase/phosphodiesterase	702	38235..40340	287_GENE_2
10961	37	CGL2_10961037	Protein of unknown function	206	40754..41371	86_GENE_19
10961	38	CGL2_10961038	Conserved hypothetical protein	63	41554..41742	86_GENE_18
10961	39	CGL2_10961039	Protein of unknown function	356	41864..42931	86_GENE_17
10961	40	CGL2_10961040	Protein of unknown function	215	42988..43632	86_GENE_16
10961tRNA		CGL2_10961R003	TRNA Lys TTT		complement(44332..44407)	
10961	41	CGL2_10961041	Conserved hypothetical protein	361	complement(44444..45526)	86_GENE_14
10961	42	CGL2_10961042	3-isopropylmalate dehydratase small subunit (EC 4.2	208	complement(45591..46214)	86_GENE_13
10961	43	CGL2_10961043	3-isopropylmalate dehydratase large subunit (EC 4.2	465	complement(46251..47645)	86_GENE_12
10961	44	CGL2_10961044	DTDP-glucose 4,6-dehydratase (EC 4.2.1.46)	357	47836..48906	86_GENE_11
10961	45	CGL2_10961045	Glucose-1-phosphate thymidyltransferase (EC 2.7.7.	299	48906..49802	86_GENE_10
10961	47	CGL2_10961047	DTDP-4-dehydrorhamnose 3,5-epimerase (EC 5.1.3.	183	49802..50350	86_GENE_9
10961	48	CGL2_10961048	Putative major facilitator superfamily transporter	425	complement(50382..51656)	86_GENE_8
10961	49	CGL2_10961049	Conserved protein of unknown function	316	51803..52750	86_GENE_7
10961	50	CGL2_10961050	Diguanylate cyclase/phosphodiesterase with PAS/PAC	878	52830..55463	86_GENE_6
10961	51	CGL2_10961051	Putative phosphoglycerate mutase	156	55498..55965	86_GENE_5
10961	52	CGL2_10961052	Glutamate decarboxylase (EC 4.1.1.15)	457	complement(56012..57382)	86_GENE_4
10961	53	CGL2_10961053	Malto-oligosyltrehalose trehalohydrolase (EC 3.2.1.1.	637	57614..59524	86_GENE_3
10961	54	CGL2_10961054	Malto-oligosyltrehalose synthase (EC 5.4.99.15)	965	59524..62418	86_GENE_2
10961	55	CGL2_10961055	Trehalose synthase (EC 5.4.99.16)	556	62418..64085	213_GENE_8
10961	56	CGL2_10961056	Trehalose synthase (EC 5.4.99.16)	559	64085..65761	213_GENE_7
10961	57	CGL2_10961057	Putative fatty acid desaturase	338	complement(65872..66885)	213_GENE_6
10961	58	CGL2_10961058	Diguanylate cyclase	386	complement(67097..68254)	213_GENE_5
10961	59	CGL2_10961059	Hypothetical protein	280	69037..69876	213_GENE_4
10961	60	CGL2_10961060	Diguanylate cyclase	380	complement(69911..71050)	213_GENE_3
10961	61	CGL2_10961061	Protein of unknown function	211	complement(71244..71876)	206_GENE_8
10961	62	CGL2_10961062	Hypothetical protein	67	complement(71932..72132)	206_GENE_7
10954	1	CGL2_10954001	Putative alpha amylase, catalytic region	663	1250..3238	206_GENE_6
10954	2	CGL2_10954002	Probable alpha amylase, catalytic region	523	3238..4806	206_GENE_5
10954	3	CGL2_10954003	Zinc-containing alcohol dehydrogenase superfamily (	347	5003..6043	206_GENE_4
10954	4	CGL2_10954004	Hypothetical protein	107	6396..6716	206_GENE_3
10954	5	CGL2_10954005	Diguanylate cyclase with PAS/PAC sensor	1029	6892..9978	206_GENE_2
10954	6	CGL2_10954006	Putative enoyl-CoA hydratase/isomerase	288	complement(10723..11586)	206_GENE_1
10954	7	CGL2_10954007	Putative multi-sensor hybrid histidine kinase	849	complement(11980..14526)	7_GENE_62
10954	8	CGL2_10954008	Putative response regulator receiver modulated met	376	complement(14619..15746)	7_GENE_61
10954	9	CGL2_10954009	Hypothetical protein	231	complement(16126..16818)	7_GENE_59
10954	10	CGL2_10954010	Hypothetical protein	295	complement(17224..18108)	7_GENE_58
10954	11	CGL2_10954011	Hypothetical protein	505	complement(18543..20057)	7_GENE_57

10954	12	CGL2_10954012	Probable TPR-domain containing protein	1076	complement(20057..23284)	7_GENE_56
10954	13	CGL2_10954013	Methyltransferase, FkbM family	262	complement(23911..24696)	7_GENE_54
10954	14	CGL2_10954014	Putative ABC transporter, ATP-binding protein	609	complement(24824..26650)	7_GENE_53
10954	15	CGL2_10954015	Hypothetical protein	299	complement(26650..27546)	7_GENE_52
10954	16	CGL2_10954016	SAM-dependent methyltransferase	286	complement(27894..28751)	7_GENE_51
10954	17	CGL2_10954017	Probable glycosyl transferase	439	complement(28918..30234)	7_GENE_50
10954	18	CGL2_10954018	Putative glycosyl transferase, family 2	364	complement(30285..31376)	7_GENE_49
10954	19	CGL2_10954019	Protein of unknown function	351	complement(31418..32470)	7_GENE_48
10954	20	CGL2_10954020	Putative glycosyl transferase, family 2	367	complement(32530..33630)	7_GENE_47
10954	21	CGL2_10954021	Probable glycosyl transferase, family 2	625	complement(33764..35638)	7_GENE_46
10954	22	CGL2_10954022	Protein of unknown function	681	complement(35644..37686)	7_GENE_45
10954	23	CGL2_10954023	Putative two component, sigma54 specific, transcript	471	complement(37766..39178)	7_GENE_44
10954	24	CGL2_10954024	Conserved hypothetical protein	237	complement(39178..39888)	7_GENE_43
10954	25	CGL2_10954025	Eight transmembrane protein (EpsH)	276	complement(39881..40708)	7_GENE_42
10954	26	CGL2_10954026	UTP-glucose-1-phosphate uridylyltransferase (EC 2.7	307	complement(40698..41618)	7_GENE_41
10954	27	CGL2_10954027	Putative periplasmic sensor signal transduction histic	704	complement(42142..44253)	7_GENE_39
10954	28	CGL2_10954028	Putative glycosyl transferase, family 2	329	44593..45579	7_GENE_38
10954	29	CGL2_10954029	Putative glycosyl transferase, family 2	336	complement(45689..46696)	7_GENE_37
10954	30	CGL2_10954030	Hypothetical protein	621	47061..48923	7_GENE_36
10954	31	CGL2_10954031	O-antigen polymerase	503	48994..50502	7_GENE_35
10954	32	CGL2_10954032	Putative glycosyl transferase, group 1	374	50502..51623	7_GENE_34
10954	33	CGL2_10954033	Putative polysaccharide deacetylase	653	51619..53577	7_GENE_33
10954	34	CGL2_10954034	Putative glycosyl transferase, group 1	394	53577..54758	7_GENE_32
10954	35	CGL2_10954035	Probable glycosyltransferase	381	54752..55894	7_GENE_31
10954	36	CGL2_10954036	Putative polysaccharide deacetylase	269	55882..56688	7_GENE_30
10954	37	CGL2_10954037	Conserved hypothetical protein	504	56688..58199	7_GENE_29
10954	38	CGL2_10954038	Putative polysaccharide export protein	285	58366..59220	7_GENE_28
10954	39	CGL2_10954039	Putative glycosyltransferase	447	59257..60597	7_GENE_27
10954	40	CGL2_10954040	Probable lipopolysaccharide biosynthesis protein	660	60620..62599	7_GENE_26
10954	41	CGL2_10954041	Conserved hypothetical protein	128	complement(62821..63204)	7_GENE_25
10954	42	CGL2_10954042	Conserved hypothetical protein	75	complement(63204..63428)	7_GENE_24
10954	43	CGL2_10954043	Hypothetical protein	99	complement(63468..63764)	7_GENE_23
10954	44	CGL2_10954044	Hypothetical protein	170	complement(63772..64281)	7_GENE_21a
10954	45	CGL2_10954045	Conserved hypothetical protein	85	64627..64881	7_GENE_21
10954	46	CGL2_10954046	RNA polymerase sigma factor	193	64881..65459	7_GENE_20
10954	47	CGL2_10954047	Hypothetical protein	153	65590..66048	7_GENE_19
10954	48	CGL2_10954048	Mercuric reductase (EC 1.16.1.1)	557	66148..67818	7_GENE_18
10954	48	CGL2_10954048	Mercuric reductase (EC 1.16.1.1)	557	66148..67818	7_GENE_18
10954	50	CGL2_10954050	Putative transcriptional regulator, MerR family	135	67864..68268	7_GENE_17
10954	51	CGL2_10954051	Putative mechanosensitive ion channel (MscS)	365	complement(68413..69507)	7_GENE_16
10954	52	CGL2_10954052	Diguanylate cyclase	371	complement(69689..70801)	7_GENE_15

10954	53	CGL2_10954053	Hypothetical protein	108	71327..71650	7_GENE_14	
10954	54	CGL2_10954054	DNA adenine methylase (EC 2.1.1.72)	634	71980..73881	7_GENE_13	
10954	55	CGL2_10954055	UDP-galactopyranose mutase (EC 5.4.99.9)	367	complement(74009..75109)	7_GENE_12	
10954	56	CGL2_10954056	UDP-glucuronate 5'-epimerase (EC 5.1.3.12)	341	complement(75173..76195)	7_GENE_11	
10954	58	CGL2_10954058	Probable adenylate cyclase	1202	complement(76310..79915)	7_GENE_10	
10954	59	CGL2_10954059	Putative sigma54 specific transcriptional regulator, F	518	80349..81902	7_GENE_9	
10954	60	CGL2_10954060	Glucosamine--fructose-6-phosphate aminotransferas	615	83321..85165	7_GENE_8	
10954	61	CGL2_10954061	UDP-glucose 6-dehydrogenase (EC 1.1.1.22)	433	85205..86503	7_GENE_7	
10954	62	CGL2_10954062	Protein of unknown function	170	86533..87042	7_GENE_6	
10954	63	CGL2_10954063	UDP-glucose 4-epimerase (EC 5.1.3.2)	316	87101..88048	7_GENE_5	
10954	64	CGL2_10954064	Putative sigma54 specific transcriptional regulator, F	475	complement(88049..89473)	7_GENE_4	
10954	65	CGL2_10954065	Putative protein-tyrosine-phosphatase	189	89750..90316	7_GENE_3	
10954	66	CGL2_10954066	Diguanylate cyclase/phosphodiesterase with PAS/PA(	747	90463..92703	7_GENE_2	
10954	67	CGL2_10954067	Hypothetical protein	213	complement(93158..93796)	7_GENE_1	
10954	68	CGL2_10954068	transposase	117	complement(94809..95159)	2_GENE_128	
		Strain variant path	Strain variant path		Strain variant path		
11068tRNA		CGL2_11068R002	TRNA Glu TTC		135482..135559		
11068	123	CGL2_11068123	Succinyl-CoA synthetase, beta subunit	416	complement(133987..135234)	2_GENE_126	
11068	122	CGL2_11068122	Succinyl-CoA synthetase, alpha subunit (EC 6.2.1.5)	328	complement(132956..133939)	2_GENE_123	
11068	121	CGL2_11068121	Hypothetical protein	50	complement(132772..132921)	2_GENE_122	
11068	120	CGL2_11068120	Aconitate hydratase (EC 4.2.1.3)	641	complement(130542..132464)	2_GENE_121	
11068	119	CGL2_11068119	Probable citrate synthase	269	complement(129639..130445)	2_GENE_120	
11068	118	CGL2_11068118	Conserved hypothetical protein	200	complement(128965..129564)	2_GENE_119	
11068	117	CGL2_11068117	Probable ferredoxin	228	complement(128170..128853)	2_GENE_118	
11068	116	CGL2_11068116	L-aspartate oxidase (EC 1.4.3.16)	540	complement(126551..128170)	2_GENE_117	
11068	115	CGL2_11068115	Succinyl-CoA synthetase, beta subunit (EC 6.2.1.5)	396	complement(125285..126472)	2_GENE_116	
11068	114	CGL2_11068114	Succinyl-CoA synthetase, alpha subunit (EC 6.2.1.5)	305	complement(124371..125285)	2_GENE_115	
11068	113	CGL2_11068113	Putative thioredoxin peroxidase	153	complement(123798..124256)	2_GENE_114	
11068	112	CGL2_11068112	Protein of unknown function	180	123103..123642	2_GENE_113	
11068	111	CGL2_11068111	Conserved hypothetical protein	80	122758..122997	2_GENE_111a	
11068	110	CGL2_11068110	Conserved protein of unknown function	148	complement(122091..122534)	2_GENE_111	
11068	109	CGL2_11068109	S-adenosyl-methyltransferase (MraW)	307	complement(121153..122073)	2_GENE_110	
11068	108	CGL2_11068108	Hypothetical protein	91	complement(120888..121160)	2_GENE_109	
11068	107	CGL2_11068107	Peptidoglycan glycosyltransferase (EC 2.4.1.129)	578	complement(119060..120793)	2_GENE_108	
11068	106	CGL2_11068106	UDP-N-acetylmuramoylalanyl-D-glutamate--2, 6-dia	509	complement(117484..119010)	2_GENE_107	
11068	105	CGL2_11068105	UDP-N-acetylmuramoyl-tripeptide--D-alanyl-D-alanir	495	complement(116000..117484)	2_GENE_106	
11068	104	CGL2_11068104	Phospho-N-acetylmuramoyl-pentapeptide-transfers	357	complement(114927..115997)	2_GENE_105	
11068	103	CGL2_11068103	UDP-N-acetylmuramoylalanine--D-glutamate ligase (	487	complement(113429..114889)	2_GENE_104	
11068	102	CGL2_11068102	Putative cell division protein (FtsW)	396	complement(112242..113429)	2_GENE_103	
11068	101	CGL2_11068101	N-acetylglucosaminyltransferase, MurG (EC 2.4.1.22	371	complement(111130..112242)	2_GENE_102	
11068	100	CGL2_11068100	UDP-N-acetylmuramate--L-alanine ligase (EC 6.3.2.8	464	complement(109615..111006)	2_GENE_101	

11068	99	CGL2_11068099	UDP-N-acetylenolpyruvoylglucosamine reductase (EC 4.2.1.1)	304	complement(108704..109615)	2_GENE_100
11068	98	CGL2_11068098	D-alanine--D-alanine ligase (EC 6.3.2.4)	303	complement(107742..108650)	2_GENE_99
11068	97	CGL2_11068097	Protein of unknown function	286	complement(106879..107736)	2_GENE_98
11068	96	CGL2_11068096	Cell division protein (FtsA)	442	complement(105459..106784)	2_GENE_97
11068	95	CGL2_11068095	Cell division protein (FtsZ)	390	complement(104238..105407)	2_GENE_96
11068	94	CGL2_11068094	Conserved hypothetical protein	216	complement(103587..104234)	2_GENE_95
11068	93	CGL2_11068093	Conserved protein of unknown function	230	complement(102887..103576)	2_GENE_94
11068	92	CGL2_11068092	Pyrroline-5-carboxylate reductase (EC 1.5.1.2)	288	complement(102019..102882)	2_GENE_93
11068	91	CGL2_11068091	Conserved hypothetical protein	72	complement(101796..102011)	2_GENE_92
11068	90	CGL2_11068090	Probable cell-division initiation protein	175	complement(101221..101745)	2_GENE_91
11068	89	CGL2_11068089	Conserved hypothetical protein	102	complement(100897..101202)	2_GENE_90
11068	88	CGL2_11068088	Protein of unknown function	199	100298..100894	2_GENE_89
11068	87a	CGL2_11068087a	Probable transposase	197	99506..100096	
11068	87	CGL2_11068087	Squalene-hopene cyclase (EC 5.4.99.17)	683	complement(96980..99028)	2_GENE_87
11068	86	CGL2_11068086	Protein of unknown function	262	complement(96195..96980)	2_GENE_86
11068	85	CGL2_11068085	Conserved protein of unknown function	446	complement(94858..96195)	2_GENE_85
11068	84	CGL2_11068084	Protein of unknown function	232	94211..94906	2_GENE_84
11068	83	CGL2_11068083	Dihydroflavonol 4-reductase (EC 1.1.1.219)	336	complement(93047..94054)	2_GENE_83
11068	82	CGL2_11068082	4-hydroxy-3-methylbut-2-enyl diphosphate reductase	302	complement(92054..92959)	2_GENE_82
11068	81	CGL2_11068081	Putative radical SAM family protein	479	complement(90578..92014)	2_GENE_81
11068	80	CGL2_11068080	Ceramide glucosyltransferase (EC 2.4.1.80)	412	complement(89327..90562)	2_GENE_80
11068	79	CGL2_11068079	Conserved hypothetical protein	97	complement(88941..89231)	2_GENE_79
11068	78	CGL2_11068078	Conserved hypothetical protein	257	complement(88143..88913)	2_GENE_78
11068	77	CGL2_11068077	Putative cobalamin (Vitamin B12) biosynthesis (CbiX)	276	complement(87206..88033)	2_GENE_77
11068	76	CGL2_11068076	Uroporphyrinogen decarboxylase (EC 4.1.1.37)	356	complement(86136..87203)	2_GENE_76
11068	75	CGL2_11068075	Oxygen-independent coproporphyrinogen III oxidase	459	complement(84684..86060)	2_GENE_75
11068	74	CGL2_11068074	Protein of unknown function	126	84204..84581	2_GENE_74
11068tRNA		CGL2_11068R001	TRNA Ala GGC		complement(83757..83832)	
11068	73	CGL2_11068073	S-adenosylmethionine synthetase (EC 2.5.1.6)	404	complement(82156..83367)	2_GENE_72
11068	72	CGL2_11068072	Adenosylhomocysteinase (EC 3.3.1.1)	418	complement(80813..82066)	2_GENE_71
11068	71	CGL2_11068071	Thiamine biosynthesis protein (ThiS)	76	complement(80579..80806)	2_GENE_70
11068	70	CGL2_11068070	Cysteine synthase (EC 2.5.1.47)	312	complement(79663..80598)	2_GENE_69
11068	69	CGL2_11068069	Putative ThiF family protein	270	complement(78814..79623)	2_GENE_68
11068	68	CGL2_11068068	Threonine synthase (EC 4.2.3.1)	407	complement(77571..78791)	2_GENE_67
11068	67	CGL2_11068067	Putative ThiS family protein	93	complement(77268..77546)	2_GENE_66
11068	66	CGL2_11068066	Conserved protein of unknown function	80	complement(77029..77268)	2_GENE_65
11068	65	CGL2_11068065	Putative molybdopterin biosynthesis protein	267	complement(76201..77001)	2_GENE_64
11068	64	CGL2_11068064	Conserved protein of unknown function	142	complement(75773..76198)	2_GENE_63
11068	63	CGL2_11068063	Putative two component transcriptional regulator, wi	231	complement(75078..75770)	2_GENE_62
11068	62	CGL2_11068062	Putative multi-sensor signal transduction histidine kin	453	complement(73706..75064)	2_GENE_61
11068	61	CGL2_11068061	UDP-glucose 4-epimerase (EC 5.1.3.2)	323	72739..73707	2_GENE_60

11068	60	CGL2_11068060	Apurinic endonuclease (APN1) (EC 3.1.21.2)	318	complement(71466..72419)	2_GENE_59
11068	59	CGL2_11068059	Probable ABC transporter, permease	251	complement(70688..71440)	2_GENE_58
11068	58	CGL2_11068058	ABC transporter, ATP-binding protein (EC 3.6.3.25)	240	complement(69969..70688)	2_GENE_57
11068	57	CGL2_11068057	Conserved protein of unknown function	325	complement(68948..69922)	2_GENE_56
11068	56	CGL2_11068056	Putative metallophosphoesterase	385	complement(67767..68921)	2_GENE_55
11068	55	CGL2_11068055	Protein of unknown function	226	66933..67610	2_GENE_54
11068	54	CGL2_11068054	Diguanylate cyclase/phosphodiesterase with PAS/PAC	1139	63393..66809	2_GENE_53
11068	53	CGL2_11068053	4-hydroxythreonine-4-phosphate dehydrogenase (EC	344	61971..63002	2_GENE_52
11068	52	CGL2_11068052	Cation efflux system protein	302	61091..61996	2_GENE_51
11068	51	CGL2_11068051	Excinuclease ABC, A subunit (UvrA)	935	58287..61091	2_GENE_50
11068	50	CGL2_11068050	Probable outer membrane lipoprotein carrier protein	238	57571..58284	2_GENE_49
11068	49	CGL2_11068049	Putative cell division protein (FtsK)	758	55308..57581	2_GENE_48
11068	48	CGL2_11068048	Metallo-beta-lactamase family protein	562	53608..55293	2_GENE_47
11068	47	CGL2_11068047	Putative dimethyladenosine transferase	256	52841..53608	2_GENE_46
11068	46	CGL2_11068046	Putative TonB protein	367	complement(51509..52609)	2_GENE_45
11068	45	CGL2_11068045	Putative lytic transglycosylase	686	complement(49462..51519)	2_GENE_44
11068	44	CGL2_11068044	Protein of unknown function	91	complement(49181..49453)	2_GENE_43
11068	43	CGL2_11068043	Protein of unknown function	111	complement(48865..49197)	2_GENE_42
11068	42	CGL2_11068042	Probable ATPase, AAA family	444	complement(47299..48630)	2_GENE_41
11068	41	CGL2_11068041	Metal dependent phosphohydrolase	521	complement(45531..47093)	2_GENE_40
11068	40	CGL2_11068040	Conserved protein of unknown function	284	complement(44696..45547)	2_GENE_39
11068	39	CGL2_11068039	Exodeoxyribonuclease VII large subunit (EC 3.1.11.6	503	complement(43181..44689)	2_GENE_38
11068	38	CGL2_11068038	Exodeoxyribonuclease VII small subunit	97	complement(42885..43175)	2_GENE_37
11068	37	CGL2_11068037	Geranyltransferase (EC 2.5.1.10)	303	complement(41932..42840)	2_GENE_36
11068	36	CGL2_11068036	Deoxyxylulose-5-phosphate synthase (EC 2.2.1.7)	630	complement(40040..41929)	2_GENE_35
11068	35	CGL2_11068035	Hemolysin A	251	complement(39265..40017)	2_GENE_34
11068	34	CGL2_11068034	DTDP-glucose 4,6-dehydratase (EC 4.2.1.46)	313	complement(38317..39255)	2_GENE_33
11068	33	CGL2_11068033	Putative divalent-cation tolerance protein (CutA)	113	complement(37979..38317)	2_GENE_32
11068	32	CGL2_11068032	Putative peptidase, M23B family	316	complement(37032..37979)	2_GENE_31
11068	31	CGL2_11068031	Preprotein translocase SecA subunit	908	complement(34290..37013)	2_GENE_30
11068	30	CGL2_11068030	Putative NADH dehydrogenase (ubiquinone), subunit	123	complement(33727..34095)	2_GENE_29
11068	29	CGL2_11068029	NADH dehydrogenase (ubiquinone), B subunit (EC 1.	178	complement(33200..33733)	2_GENE_28
11068	28	CGL2_11068028	NADH dehydrogenase (quinone), chain C (EC 1.6.99.	184	complement(32639..33190)	2_GENE_27
11068	27	CGL2_11068027	NADH dehydrogenase (ubiquinone), D subunit (EC 1.	423	complement(31307..32575)	2_GENE_26
11068	26	CGL2_11068026	Putative NADH dehydrogenase (ubiquinone), E subur	168	complement(30653..31156)	2_GENE_25
11068	25	CGL2_11068025	NADH dehydrogenase (quinone) (EC 1.6.99.5)	617	complement(28689..30539)	2_GENE_24
11068	24	CGL2_11068024	NADH dehydrogenase (quinone), chain G (EC 1.6.99	903	complement(25957..28665)	2_GENE_23
11068	23	CGL2_11068023	NADH dehydrogenase (ubiquinone), H subunit	337	complement(24865..25875)	2_GENE_22
11068	22	CGL2_11068022	NADH dehydrogenase, chain I (EC 1.6.99.3)	186	complement(24279..24836)	2_GENE_21
11068	21	CGL2_11068021	Putative NADH dehydrogenase (ubiquinone), chain J	169	complement(23761..24267)	2_GENE_20
11068	20	CGL2_11068020	Putative NADH dehydrogenase (ubiquinone), chain 4	100	complement(23399..23698)	2_GENE_19

11068	19	CGL2_11068019	NADH dehydrogenase (quinone), chain L (EC 1.6.99.	639	complement(21455..23371)	2_GENE_18
11068	18	CGL2_11068018	NADH dehydrogenase (quinone), chain M (EC 1.6.99	500	complement(19910..21409)	2_GENE_17
11068	17	CGL2_11068017	NADH dehydrogenase (quinone), chain N (EC 1.6.99	481	complement(18424..19866)	2_GENE_16
11068	16	CGL2_11068016	LexA repressor (EC 3.4.21.88)	222	complement(17729..18394)	2_GENE_15
11068	15	CGL2_11068015	Conserved protein of unknown function	156	complement(17268..17735)	2_GENE_14
11068	14	CGL2_11068014	Ammonium transporter	505	complement(15508..17022)	2_GENE_13
11068	13	CGL2_11068013	Putative nitrogen regulatory protein P-II	112	complement(15173..15508)	2_GENE_12
11068	12	CGL2_11068012	Putative helicase, Snf2 family	1049	complement(11956..15102)	2_GENE_11
11068	11	CGL2_11068011	Probable proline dehydrogenase	270	complement(11116..11925)	2_GENE_10
11068	10	CGL2_11068010	Conserved protein of unknown function	80	10838..11077	2_GENE_9
11068	9	CGL2_11068009	Transposase	479	complement(9122..10558)	2_GENE_8
11068	8	CGL2_11068008	Hypothetical protein	157	complement(8533..9003)	2_GENE_7
11068	7	CGL2_11068007	Diguanylate cyclase/phosphodiesterase with PAS/PA(	1035	5408..8512	2_GENE_6
11068	5	CGL2_11068005	Conserved protein of unknown function	346	4239..5276	2_GENE_5
11068	4	CGL2_11068004	Protein of unknown function	215	3508..4152	2_GENE_4
11068	3	CGL2_11068003	Conserved hypothetical protein	499	1968..3464	2_GENE_3
11068	2	CGL2_11068002	Putative TPR domain containing protein	125	1594..1968	2_GENE_2
11068	1	CGL2_11068001	Diguanylate cyclase	393	complement(266..1444)	2_GENE_1
10822	1	CGL2_10822001	Putative TPR domain containing protein	204	complement(826..1437)	186_GENE_13
10822	2	CGL2_10822002	Putative general secretion pathway protein K	346	complement(1542..2579)	186_GENE_11
10822	3	CGL2_10822003	Hypothetical protein	196	complement(2557..3144)	186_GENE_10
10822	4	CGL2_10822004	Protein of unknown function	452	complement(3140..4495)	186_GENE_9
10822	5	CGL2_10822005	Protein of unknown function	290	complement(4506..5375)	186_GENE_8
10822	6	CGL2_10822006	General secretion pathway protein G	159	complement(5553..6029)	186_GENE_7
10822	7	CGL2_10822007	Putative general secretion pathway protein F	400	complement(6067..7266)	186_GENE_6
10822	8	CGL2_10822008	General secretion pathway protein E	571	complement(7290..9002)	186_GENE_5
10822	9	CGL2_10822009	Putative general secretion pathway protein D	555	complement(9010..10674)	186_GENE_4
10822	10	CGL2_10822010	Probable general secretion pathway protein C	323	complement(10674..11642)	186_GENE_3
10822	11	CGL2_10822011	Thiamine biosynthesis protein (ThiS)	70	11796..12005	186_GENE_2
10822tRNA		CGL2_10822R001	TRNA Gly CCC		12087..12161	
10822	14	CGL2_10822014	Hypothetical protein	97	complement(12331..12621)	710_GENE_6
10822	17	CGL2_10822017	replication protein A	455	12952..14316	710_GENE_3
10822	18	CGL2_10822018	replication protein C	335	14270..15274	710_GENE_2
10822	19	CGL2_10822019	Hypothetical protein	44	15252..15383	710_GENE_1
8970	2	CGL2_08970002	Probable cytochrome C, class I	269	1992..2798	46_GENE_28
8970	1	CGL2_08970001	Probable cytochrome C, class I	269	1118..1924	46_GENE_27
11238	109	CGL2_11238109	Probable cytochrome C, class I	225	118679..119353	46_GENE_26
11238	108	CGL2_11238108	Diguanylate cyclase/phosphodiesterase with GAF ser	988	115484..118447	46_GENE_25
11238	107	CGL2_11238107	Conserved hypothetical protein	173	complement(114772..115290)	46_GENE_24
11238	106	CGL2_11238106	Probable phytoene dehydrogenase	496	113294..114781	46_GENE_23
11238	105	CGL2_11238105	Hypothetical protein	351	112205..113257	46_GENE_22

11238	104	CGL2_11238104	Protein of unknown function	556	110490..112157	46_GENE_21
11238	103	CGL2_11238103	Probable cellulose synthase subunit C	335	109270..110274	46_GENE_20
11238	102	CGL2_11238102	Probable cellulose synthase regulatory subunit	755	107006..109270	46_GENE_19
11238	101	CGL2_11238101	Cellulose synthase catalytic subunit (UDP-forming) (I)	714	104865..107006	46_GENE_18
11238	100	CGL2_11238100	Putative cytochrome C, class I	223	complement(103674..104342)	46_GENE_17
11238	99	CGL2_11238099	Putative cytochrome C, class I	272	complement(102794..103609)	46_GENE_16
11238	98	CGL2_11238098	DNA polymerase family B	736	100584..102791	46_GENE_15
11238	97	CGL2_11238097	Conserved hypothetical protein	87	100346..100606	46_GENE_14
11238	96	CGL2_11238096	Hypothetical protein	179	99807..100343	46_GENE_13
11238	95	CGL2_11238095	LexA repressor (EC 3.4.21.88)	205	99187..99801	46_GENE_12
11238	94	CGL2_11238094	Glucose-6-phosphate isomerase (EC 5.3.1.9)	548	97426..99069	46_GENE_11
11238	93	CGL2_11238093	Conserved protein of unknown function	238	96657..97370	46_GENE_10
11238	92	CGL2_11238092	Hypothetical protein	125	96254..96628	46_GENE_7a
11238	91	CGL2_11238091	Putative acriflavin resistance protein	1036	92842..95949	46_GENE_7
11238	90	CGL2_11238090	Protein of unknown function	211	92089..92721	46_GENE_6
11238	89	CGL2_11238089	Protein of unknown function	200	91251..91850	46_GENE_5
11238	88	CGL2_11238088	Protein of unknown function	103	90729..91037	46_GENE_4
11238	87	CGL2_11238087	Arsenical pump membrane protein	439	89215..90531	46_GENE_3
11238	86	CGL2_11238086	Putative transcriptional regulator, ArsR family	269	88402..89208	46_GENE_2
11238	84	CGL2_11238084	transposase	479	86625..88061	297_GENE_3
11238	83	CGL2_11238083	Protein of unknown function	168	86040..86543	297_GENE_4
11238	82	CGL2_11238082	Protein of unknown function	231	complement(85079..85771)	297_GENE_5
11238	81	CGL2_11238081	Putative Kelch domain-containing protein	392	83931..85106	297_GENE_6
11238	80	CGL2_11238080	Conserved hypothetical protein	125	83020..83394	297_GENE_7
11238	79	CGL2_11238079	Putative iron permease, FTR1 family	292	82145..83020	297_GENE_8
11238	78	CGL2_11238078	Putative metallo-beta-lactamase family protein	479	complement(80493..81929)	66_GENE_28
11238	77	CGL2_11238077	Long-chain-fatty-acid--CoA ligase (EC 6.2.1.3)	900	complement(77771..80470)	66_GENE_27
11238	76	CGL2_11238076	Hypothetical protein	209	77156..77782	66_GENE_26
11238	75	CGL2_11238075	Transcriptional regulator, BadM/Rrf2 family	169	complement(76403..76909)	66_GENE_24
11238	74	CGL2_11238074	Conserved hypothetical protein	76	complement(76132..76359)	66_GENE_23
11238	73	CGL2_11238073	Probable oxidoreductase FAD/NAD(P)-binding	248	75285..76028	66_GENE_22
11238	72	CGL2_11238072	Putative cytochrome c	120	complement(74647..75006)	66_GENE_21
11238	71	CGL2_11238071	Conserved protein of unknown function	64	complement(74338..74529)	66_GENE_20
11238	70	CGL2_11238070	Putative flavohemoprotein	133	73794..74192	66_GENE_19
11238	69	CGL2_11238069	Phosphomannomutase (EC 5.4.2.8)	467	72203..73603	66_GENE_18
11238	68	CGL2_11238068	Mannose-1-phosphate guanyltransferase (EC 2.7.7	491	70731..72203	66_GENE_17
11238	67	CGL2_11238067	Hypothetical protein	90	complement(69993..70262)	66_GENE_15
11238	66	CGL2_11238066	Protein of unknown function	245	complement(69190..69924)	66_GENE_14
11238	65	CGL2_11238065	Putative short-chain dehydrogenase	277	68334..69164	66_GENE_13
11238	64	CGL2_11238064	GTP-binding protein (Era)	312	complement(67283..68218)	66_GENE_12
11238	63	CGL2_11238063	Recombination protein O (RecO)	246	complement(66530..67267)	66_GENE_11

11238	62	CGL2_11238062	Hypothetical protein	191	65903..66475	66_GENE_10
11238	61	CGL2_11238061	Protein of unknown function	332	64620..65615	66_GENE_9
11238	60	CGL2_11238060	Conserved protein of unknown function	391	complement(63115..64287)	66_GENE_8
11238	59	CGL2_11238059	GTP-binding protein (TypA)	623	complement(61090..62958)	66_GENE_7
11238	58	CGL2_11238058	Peptidyl-prolyl cis-trans isomerase (EC 5.2.1.8)	218	complement(60423..61076)	66_GENE_6
11238	57	CGL2_11238057	Putative metallo-beta-lactamase family protein	262	complement(59570..60355)	66_GENE_5
11238	56	CGL2_11238056	5-methyltetrahydrofolate--homocysteine methyltran:	815	57123..59567	66_GENE_4
11238	55	CGL2_11238055	Conserved protein of unknown function	282	56278..57123	66_GENE_3
11238	54	CGL2_11238054	Thiamine biosynthesis protein (ThiC)	468	54838..56241	134_GENE_2
11238	53	CGL2_11238053	Probable ATP-dependent Clp protease	1026	51541..54618	134_GENE_3
11238	52	CGL2_11238052	Excinuclease ABC, C subunit (UvrC)	632	49646..51541	134_GENE_4
11238	51	CGL2_11238051	Hypothetical protein	84	complement(49298..49549)	134_GENE_5
11238	50	CGL2_11238050	Shikimate 5-dehydrogenase (EC 1.1.1.25)	290	complement(48387..49256)	134_GENE_6
11238	49	CGL2_11238049	Cell division protein (FtsY)	309	47434..48360	134_GENE_7
11238	48	CGL2_11238048	Conserved protein of unknown function	169	46893..47399	134_GENE_8
11238	47	CGL2_11238047	Metal dependent phosphohydrolase	501	45398..46900	134_GENE_9
11238	46	CGL2_11238046	Putative phosphate starvation-inducible protein (Pho	331	44374..45366	134_GENE_10
11238	45	CGL2_11238045	Probable universal stress protein (UspA)	178	43838..44371	134_GENE_11
11238	44	CGL2_11238044	Putative type IV prepilin peptidase	263	42887..43675	410_GENE_2
11238	43	CGL2_11238043	Protein of unknown function	105	42412..42726	410_GENE_3
11238	42	CGL2_11238042	Putative polyphosphate kinase (PPK2)	275	41539..42363	410_GENE_4
11238	41	CGL2_11238041	Probable oxidoreductase	254	40731..41492	410_GENE_5
11238tRNA		CGL2_11238R001	TRNA Thr TGT		complement(40186..40261)	
11238	40	CGL2_11238040	Putative response regulator receiver protein	326	complement(38975..39952)	410_GENE_6
11238	39	CGL2_11238039	Conserved protein of unknown function	200	complement(38170..38769)	410_GENE_7
11238	38	CGL2_11238038	Protein of unknown function	74	complement(37914..38135)	410_GENE_8
11238	37	CGL2_11238037	Conserved protein of unknown function	167	complement(37308..37808)	467_GENE_5a
11238	36	CGL2_11238036	Transcription termination factor (NusA)	452	complement(35915..37270)	467_GENE_5
11238	35	CGL2_11238035	Translation initiation factor IF-2	874	complement(33257..35878)	467_GENE_4
11238	34	CGL2_11238034	Conserved protein of unknown function	99	complement(32938..33234)	467_GENE_3
11238	33	CGL2_11238033	Probable ribosome-binding factor A	131	complement(32543..32935)	467_GENE_2
11238	32	CGL2_11238032	TRNA pseudouridine synthase B (EC 4.2.1.70)	325	complement(31569..32543)	467_GENE_1
11238	31	CGL2_11238031	Ribosomal protein S15	89	complement(31242..31508)	71_GENE_25
11238	30	CGL2_11238030	Polyribonucleotide nucleotidyltransferase (EC 2.7.7.8)	713	complement(28969..31107)	71_GENE_24
11238	29	CGL2_11238029	Hypothetical protein	39	complement(28811..28927)	71_GENE_23
11238	28	CGL2_11238028	Processing peptidase (EC 3.4.24.64)	411	complement(27357..28589)	71_GENE_22
11238	27	CGL2_11238027	Putative pyridoxal phosphate biosynthesis protein	255	complement(26593..27357)	71_GENE_21
11238	26	CGL2_11238026	Holo-[acyl-carrier-protein] synthase (EC 2.7.8.7)	133	complement(26195..26593)	71_GENE_20
11238	25	CGL2_11238025	Carbohydrate kinase family protein	518	complement(24642..26195)	71_GENE_19
11238	24	CGL2_11238024	Uracil-DNA glycosylase, family 4	245	complement(23835..24569)	71_GENE_18
11238	23	CGL2_11238023	Hypothetical protein	85	complement(23581..23835)	71_GENE_17

11238	22	CGL2_11238022	DNA mismatch repair protein (MutS)	843	complement(21057..23585)	71_GENE_16
11238	21	CGL2_11238021	Protein of unknown function	381	complement(19796..20938)	71_GENE_15
11238	20	CGL2_11238020	Protein of unknown function	390	complement(18605..19774)	71_GENE_14
11238	19	CGL2_11238019	Enoyl-(Acyl-carrier-protein) reductase (EC 1.3.1.9)	265	complement(17770..18564)	71_GENE_13
11238	18	CGL2_11238018	Probable rieske iron-sulfur family protein	309	complement(16788..17714)	71_GENE_12
11238	17	CGL2_11238017	Putative cytochrome b/b6, N-terminal	459	complement(15390..16766)	71_GENE_11
11238	16	CGL2_11238016	Probable thioredoxin	83	15106..15354	71_GENE_10
11238	15	CGL2_11238015	Hypothetical protein	62	complement(14770..14955)	71_GENE_8a
11238	14	CGL2_11238014	Endoribonuclease L-PSP	128	complement(14394..14777)	71_GENE_8
11238	13	CGL2_11238013	Ribosomal protein L28	63	14158..14346	71_GENE_7a
11238	12	CGL2_11238012	Putative ATP-dependent DNA helicase (RecG)	713	complement(11869..14007)	71_GENE_7
11238	11	CGL2_11238011	Protein of unknown function	119	complement(11528..11884)	71_GENE_6
11238	10	CGL2_11238010	Ppx/GppA phosphatase (EC 3.6.1.11)	315	complement(10578..11522)	71_GENE_5
11238	9	CGL2_11238009	Protein of unknown function	587	8839..10599	71_GENE_4
11238	8	CGL2_11238008	Putative polyA polymerase family protein	419	complement(7472..8728)	71_GENE_3
11238	7	CGL2_11238007	Protein of unknown function	166	6882..7379	71_GENE_2
11238	6	CGL2_11238006	Putative acriflavin resistance protein	1027	complement(3665..6745)	428_GENE_7
11238	5	CGL2_11238005	Protein of unknown function	206	complement(2986..3603)	428_GENE_6
11238	4	CGL2_11238004	Putative ferric uptake regulator, Fur family	146	complement(2468..2905)	428_GENE_5
11238	3	CGL2_11238003	Protein of unknown function	154	complement(1923..2384)	428_GENE_3
11238	2	CGL2_11238002	Conserved protein of unknown function	261	1114..1896	428_GENE_2
11238	1	CGL2_11238001	Protein of unknown function	305	186..1100	428_GENE_1
10665	1	CGL2_10665001	Ribosomal protein S1	591	23..1795	274_GENE_1
10665	2	CGL2_10665002	Peptidase S49 (SppA)	295	1859..2743	274_GENE_2
10665	3	CGL2_10665003	Putative integration host factor, beta-subunit	98	2772..3065	274_GENE_2a
10665	4	CGL2_10665004	Signal recognition particle protein	444	3068..4399	274_GENE_3
10665	5	CGL2_10665005	Ribosomal protein S16	81	4448..4690	274_GENE_4
10665	6	CGL2_10665006	Conserved protein of unknown function	76	4741..4968	274_GENE_5
10665	7	CGL2_10665007	Hypothetical protein	108	5199..5522	274_GENE_5a
10665	8	CGL2_10665008	tRNA (guanine-N(1)-)methyltransferase (EC 2.1.1.3)	241	5495..6217	274_GENE_6
10665	9	CGL2_10665009	Ribosomal protein L19	118	6286..6639	274_GENE_7
10665	10	CGL2_10665010	Ribonuclease HII (EC 3.1.26.4)	228	6656..7339	274_GENE_8
10665	11	CGL2_10665011	Hypothetical protein	301	7352..8254	274_GENE_9
10665	12	CGL2_10665012	Putative peptidase M23B family protein	398	8227..9420	274_GENE_10
10776	10	CGL2_10776010	Chaperonin GroEL	204	complement(11391..12002)	
10776	9	CGL2_10776009	Thioredoxin	110	complement(10919..11248)	222_GENE_9
10776	8	CGL2_10776008	Putative DNA repair protein (RecN)	564	complement(9089..10780)	222_GENE_7
10776	7	CGL2_10776007	Conserved protein of unknown function	915	6268..9012	222_GENE_6
10776	6	CGL2_10776006	Arginine decarboxylase (EC 4.1.1.19)	489	4753..6219	222_GENE_5
10776	5	CGL2_10776005	Spermidine synthase (EC 2.5.1.16)	306	3821..4738	222_GENE_4

10776	4	CGL2_10776004	Putative S-adenosylmethionine decarboxylase	154	3391..3852	222_GENE_3
10776	3	CGL2_10776003	Diguanylate cyclase	740	830..3049	222_GENE_2
10776	2	CGL2_10776002	Protein of unknown function	183	81..629	222_GENE_1
10933	1	CGL2_10933001	Protein of unknown function	247	456..1196	44_GENE_1
10933	2	CGL2_10933002	Putative phosphatidylglycerophosphatase A	180	1186..1725	44_GENE_2
10933	3	CGL2_10933003	RecA protein	360	1837..2916	44_GENE_3
10933	4	CGL2_10933004	Alanyl-tRNA synthetase (EC 6.1.1.7)	891	3000..5672	44_GENE_4
10933	5	CGL2_10933005	Protein of unknown function	94	5672..5953	44_GENE_5
10933	6	CGL2_10933006	Putative holliday junction resolvase YqgF	171	5973..6485	44_GENE_6
10933	7	CGL2_10933007	Aminodeoxychorismate lyase	341	6517..7539	44_GENE_7
10933	8	CGL2_10933008	Valyl-tRNA synthetase (EC 6.1.1.9)	904	7571..10282	44_GENE_8
10933	9	CGL2_10933009	Nicotinate-nucleotide pyrophosphorylase (EC 2.4.2.1	292	10282..11157	44_GENE_9
10933	10	CGL2_10933010	Biotin--acetyl-CoA-carboxylase ligase	255	11157..11921	44_GENE_10
10933	11	CGL2_10933011	Transcriptional acitvator, Baf family	259	11921..12697	44_GENE_11
10933	12	CGL2_10933012	Hypothetical protein	60	complement(12739..12918)	44_GENE_12
10933	13	CGL2_10933013	Diguanylate cyclase/phosphodiesterase with PAS/PAC	1449	complement(12985..17331)	44_GENE_13
10933	13	CGL2_10933013	PAS/PAC sensor protein	1449	complement(12985..17331)	44_GENE_13
10933	15	CGL2_10933015	check gene	91	complement(18072..18344)	44_GENE_14
10933	16	CGL2_10933016	Probable secretion protein (HlyD)	329	18642..19628	44_GENE_15
10933	17	CGL2_10933017	Putative outer membrane efflux protein	417	19748..20998	44_GENE_16
10933	18	CGL2_10933018	Malate dehydrogenase (EC 1.1.1.27)	320	21209..22168	44_GENE_17
10933	19	CGL2_10933019	Protein of unknown function	195	22249..22833	44_GENE_18
10933	20	CGL2_10933020	Protein of unknown function	209	22826..23452	44_GENE_19
10933	21	CGL2_10933021	ABC transporter, ATP-binding protein (EC 3.6.3.25)	248	23460..24203	44_GENE_20
10933	22	CGL2_10933022	RNA polymerase, sigma 54 subunit, RpoN	486	24203..25660	44_GENE_21
10933	23	CGL2_10933023	Sigma 54 modulation protein/ribosomal protein S30E	176	25707..26234	44_GENE_22
10933	24	CGL2_10933024	Putative P-loop ATPase protein family	288	26262..27125	44_GENE_23
10933	25	CGL2_10933025	Protein of unknown function	195	27128..27712	44_GENE_24
10933	26	CGL2_10933026	Chorismate synthase (EC 4.2.3.5)	401	27752..28954	44_GENE_25
10933	27	CGL2_10933027	Shikimate kinase (EC 2.7.1.71)	183	28947..29495	44_GENE_26
10933	28	CGL2_10933028	3-dehydroquinate synthetase (EC 4.2.3.4)	364	29535..30626	44_GENE_27
10933	29	CGL2_10933029	Putative GAF sensor protein	421	30658..31920	44_GENE_28
10933	30	CGL2_10933030	Hypothetical protein	123	31966..32334	44_GENE_29
10933	31	CGL2_10933031	Conserved protein of unknown function	260	32340..33119	44_GENE_30
10933	32	CGL2_10933032	Probable acetyltransferase	134	33160..33561	44_GENE_31
10933	33	CGL2_10933033	Putative GTP cyclohydrolase I	149	complement(33626..34072)	44_GENE_32
10933	34	CGL2_10933034	transposase	173	34165..34683	44_GENE_33
10933tRNA		CGL2_10933R001	TRNA Val TAC		complement(34822..34897)	
10933	35	CGL2_10933035	4-hydroxybenzoyl-CoA thioesterase	148	complement(34891..35334)	44_GENE_34
10933tRNA		CGL2_10933R002	TRNA Asp GTC		35492..35568	
10933	36	CGL2_10933036	Putative MotA/TolQ/ExbB proton channel	223	35891..36559	96_GENE_3

10933	37	CGL2_10933037	Putative biopolymer transport protein ExbD/TolR	148	36550..36993	96_GENE_4
10933	38	CGL2_10933038	Probable TonB family protein	278	37003..37836	96_GENE_5
10933	39	CGL2_10933039	Putative TolB protein	447	37829..39169	96_GENE_6
10933	40	CGL2_10933040	Putative TPR-domain containing protein	274	39214..40035	96_GENE_7
10933	41	CGL2_10933041	DNA mismatch repair protein MutL	634	40102..42003	96_GENE_8
10933	42	CGL2_10933042	tRNA delta(2)-isopentenylpyrophosphate transferase	294	41988..42869	96_GENE_9
10933	43	CGL2_10933043	Methylthioadenosine phosphorylase (EC 2.4.2.28)	300	43012..43911	96_GENE_10
10933	44	CGL2_10933044	Putative carbohydrate kinase, PfkB family	313	43940..44878	96_GENE_11
10933	45	CGL2_10933045	Putative TPR-domain containing protein	254	44890..45651	96_GENE_12
10933	46	CGL2_10933046	Conserved protein of unknown function	335	45707..46711	96_GENE_13
10933	47	CGL2_10933047	Protein of unknown function	335	46757..47761	96_GENE_14
10933tRNA		CGL2_10933R003	TRNA Thr CGT		47852..47926	
10933	48	CGL2_10933048	Hypothetical protein	412	complement(47999..49234)	96_GENE_15
Strain variant path			Strain variant path			Strain variant path
11276	210	CGL2_11276210	Probable Holliday junction resolvase	450	complement(229981..231330)	96_GENE_16
11276	210a	CGL2_11276210a	Hypothetical protein	115	complement(229625..229969)	
11276	209a	CGL2_11276209a	Hypothetical protein	126	complement(229169..229546)	
11276	209	CGL2_11276209	Hypothetical protein	89	complement(228885..229151)	
11276	208	CGL2_11276208	Hypothetical protein	242	complement(228142..228867)	
11276	207	CGL2_11276207	Hypothetical protein	220	complement(227480..228139)	
Strain variant path			Strain variant path			Strain variant path
11276	206	CGL2_11276206	Conjugal transfer protein, TraA	976	complement(224503..227430)	81_GENE_26
11276	205	CGL2_11276205	Hypothetical protein	134	223999..224400	81_GENE_25
11276	204	CGL2_11276204	Hypothetical protein	129	223451..223837	81_GENE_24
11276	203	CGL2_11276203	Hypothetical protein	132	222865..223260	81_GENE_22
11276	202	CGL2_11276202	Putative heavy metal efflux protein, CzcA	1060	219665..222844	81_GENE_21
11276	201	CGL2_11276201	Putative heavy metal efflux protein, CzcB	419	218409..219665	81_GENE_20
11276	200	CGL2_11276200	Putative heavy metal efflux protein, CzcC	408	217193..218416	81_GENE_19
11276	199	CGL2_11276199	Hypothetical protein	67	216013..216213	81_GENE_17
11276	198	CGL2_11276198	Hypothetical protein	103	215717..216025	81_GENE_16
11276	197	CGL2_11276197	Putative integrase	388	214554..215717	
10580	1	CGL2_10580001	Conserved protein of unknown function	106	423..740	527_GENE_7
10580	2	CGL2_10580002	Conserved protein of unknown function	129	complement(746..1132)	527_GENE_6
10580	3	CGL2_10580003	Hypothetical protein	67	1101..1301	527_GENE_5a
10580	4	CGL2_10580004	Hypothetical protein	81	complement(1295..1537)	527_GENE_4a
10580	5	CGL2_10580005	Putative phage integrase	345	complement(1555..2589)	527_GENE_4
10580	6	CGL2_10580006	transposase	346	3050..4087	527_GENE_3
10580	7	CGL2_10580007	integrase fragment, INT 22C	474	4580..6001	527_GENE_2
11276	196	CGL2_11276196	Conserved protein of unknown function	322	complement(213327..214292)	6_GENE_66

11276	195	CGL2_11276195	Hypothetical protein	49	complement(213095..213241) 6_GENE_65
11276	194	CGL2_11276194	Putative peptidase, M23B family	332	complement(211567..212562) 6_GENE_64
11276	193	CGL2_11276193	Putative ATP-dependent Clp protease, ATPase subunit	813	complement(208771..211209) 6_GENE_62
11276	192	CGL2_11276192	O-sialoglycoprotein endopeptidase (EC 3.4.24.57)	345	complement(207711..208745) 6_GENE_61
11276	191	CGL2_11276191	Arginyl-tRNA synthetase (EC 6.1.1.19)	595	complement(205810..207594) 6_GENE_60
11276	190	CGL2_11276190	Queuine tRNA-ribosyltransferase (EC 2.4.2.29)	378	complement(204672..205805) 6_GENE_59
11276	189	CGL2_11276189	Preprotein translocase, YajC subunit	96	complement(204385..204672) 6_GENE_58
11276	188	CGL2_11276188	SecD export membrane protein	524	complement(202762..204333) 6_GENE_57
11276	187	CGL2_11276187	SecF export membrane protein	321	complement(201742..202704) 6_GENE_56
11276	186	CGL2_11276186	Hypothetical protein	37	complement(201613..201723) 6_GENE_55
11276	185	CGL2_11276185	Putative RecJ exonuclease	549	complement(199953..201599) 6_GENE_54
11276	184	CGL2_11276184	GTP pyrophosphokinase (EC 2.7.6.5)	762	complement(197708..199993) 6_GENE_53
11276	183	CGL2_11276183	Probable formate dehydrogenase accessory protein	302	complement(196799..197704) 6_GENE_52
11276	182	CGL2_11276182	Hypothetical protein	83	complement(196515..196763) 6_GENE_51
11276	181	CGL2_11276181	Putative transcriptional regulator, TetR family	231	complement(195720..196412) 6_GENE_50
11276	180	CGL2_11276180	Probable cytochrome c-554	200	complement(195121..195720) 6_GENE_49
11276	179	CGL2_11276179	Putative secretion protein HlyD	317	complement(194171..195121) 6_GENE_48
11276	178	CGL2_11276178	Drug resistance transporter, EmrB/QacA family	527	complement(192588..194168) 6_GENE_47
11276	177	CGL2_11276177	Putative outer membrane efflux protein	464	complement(191197..192588) 6_GENE_46
11276	176	CGL2_11276176	Putative secretion protein HlyD	330	complement(190143..191132) 6_GENE_45
11276	175	CGL2_11276175	Drug resistance transporter, EmrB/QacA family	540	complement(188514..190133) 6_GENE_44
11276	174	CGL2_11276174	Heat-inducible transcription repressor HrcA	352	complement(187240..188295) 6_GENE_43
11276	173	CGL2_11276173	Putative GrpE protein	189	complement(186661..187227) 6_GENE_42
11276	172	CGL2_11276172	Chaperone DnaK	640	complement(184649..186568) 6_GENE_41
11276	171	CGL2_11276171	Chaperone DnaJ	372	complement(183376..184491) 6_GENE_40
11276	170	CGL2_11276170	Conserved protein of unknown function	287	complement(182506..183366) 6_GENE_39
11276	169	CGL2_11276169	Protein of unknown function	148	complement(182058..182501) 6_GENE_38
11276	168	CGL2_11276168	Putative thiopurine S-methyltransferase	201	complement(181422..182024) 6_GENE_37
11276	167	CGL2_11276167	Putative cobalamin biosynthesis enzyme	179	complement(180872..181408) 6_GENE_36
11276	166	CGL2_11276166	Nicotinate-nucleotide--dimethylbenzimidazole phosphotransferase	363	complement(179724..180812) 6_GENE_35
11276	165	CGL2_11276165	Putative cobalamin-5-phosphate synthase (CobS)	260	complement(178945..179724) 6_GENE_34
11276	164	CGL2_11276164	Conserved hypothetical protein	136	178477..178884 6_GENE_33
11276	163	CGL2_11276163	Conserved hypothetical protein	84	178226..178477 6_GENE_32
11276	162	CGL2_11276162	Protein of unknown function	128	177856..178239 6_GENE_31
11276	161	CGL2_11276161	Hypothetical protein	148	177351..177794 6_GENE_30
11276	160	CGL2_11276160	Hypothetical protein	108	177008..177331 6_GENE_29
11276	159	CGL2_11276159	Aldo/keto reductase (EC 1.1.1.65)	337	175692..176702 6_GENE_27
11276	158	CGL2_11276158	Putative phosphoglycerate mutase family protein	222	complement(174799..175464) 6_GENE_26
11276	157	CGL2_11276157	Cobyricinic acid a,c-diamide synthase (CbiA)	471	complement(173391..174803) 6_GENE_25
11276	156	CGL2_11276156	Putative precorrin-8X methylmutase (CbiC)	334	complement(172337..173338) 6_GENE_24
11276	155	CGL2_11276155	Isocitrate dehydrogenase (NAD+) (EC 1.1.1.41)	336	complement(170991..171998) 6_GENE_23

11276	154	CGL2_11276154	Probable isocitrate dehydrogenase (NADP)	116	complement(170597..170944) 6_GENE_22
11276tRNA		CGL2_11276R003	tRNA Phe GAA		170086..170161
11276	153	CGL2_11276153	Putative bacterial surface antigen (D15)	781	complement(167449..169791) 6_GENE_20
11276	152	CGL2_11276152	Putative outer membrane protein (OmpH)	200	complement(166771..167370) 6_GENE_19
11276	151	CGL2_11276151	UDP-3-O-[3-hydroxymyristoyl] glucosamine N-acetyltransferase	350	complement(165722..166771) 6_GENE_18
11276	150	CGL2_11276150	Beta-hydroxyacyl-(Acyl-carrier-protein) dehydratase	173	complement(165235..165753) 6_GENE_17
11276	149	CGL2_11276149	UDP-N-acetylglucosamine acetyltransferase (EC 2.3.1.19)	287	complement(164375..165235) 6_GENE_16
11276	148	CGL2_11276148	Conserved protein of unknown function	296	complement(163495..164382) 6_GENE_15
11276	147	CGL2_11276147	Putative oxidoreductase family protein	321	complement(162539..163501) 6_GENE_14
11276	146	CGL2_11276146	Lipid A disaccharide synthase (LpxB) (EC 2.4.1.182)	405	complement(161314..162528) 6_GENE_13
11276	145	CGL2_11276145	glycosyltransferase	357	complement(160204..161274) 6_GENE_12
11276	144	CGL2_11276144	ABC transporter, ATP-binding protein, MsbA family	600	complement(158351..160150) 6_GENE_11
11276	143	CGL2_11276143	Putative 3-deoxy-D-manno-octulose-2'-acid transferase	457	complement(156981..158351) 6_GENE_10
11276	142	CGL2_11276142	Tetraacyldisaccharide-1-P 4'-kinase (EC 2.7.1.130)	357	complement(155911..156981) 6_GENE_9
11276	141	CGL2_11276141	Putative lipid A biosynthesis acetyltransferase	309	complement(154985..155911) 6_GENE_8
11276	140	CGL2_11276140	Hypothetical protein	569	complement(153271..154977) 6_GENE_7
11276	139	CGL2_11276139	Putative heptosyltransferase family protein	402	complement(152075..153280) 6_GENE_6
11276	138	CGL2_11276138	Putative heptosyltransferase family protein	371	complement(150967..152079) 6_GENE_5
11276	137	CGL2_11276137	glycosyltransferase	250	complement(150218..150967) 6_GENE_4
11276	136	CGL2_11276136	Conserved protein of unknown function	283	complement(149331..150179) 6_GENE_3
11276	135	CGL2_11276135	transposase	330	complement(148342..149331) 68_GENE_28
11276	134	CGL2_11276134	Conserved hypothetical protein	273	complement(147388..148206) 68_GENE_27
11276	133	CGL2_11276133	Putative glycosyl transferase, family 2	343	complement(146173..147201) 68_GENE_26
11276	132	CGL2_11276132	Lipopoly saccharide heptosyltransferase II	332	complement(145060..146055) 68_GENE_25
11276	131	CGL2_11276131	Histidinol-phosphate phosphatase	199	complement(144460..145056) 68_GENE_24
11276	130	CGL2_11276130	Conserved protein of unknown function	61	complement(144285..144467) 68_GENE_23
11276	129	CGL2_11276129	Probable lipopolysaccharide heptosyltransferase II	344	complement(143227..144258) 68_GENE_22
11276	128	CGL2_11276128	Putative heptosyltransferase family protein	360	complement(142145..143224) 68_GENE_21
11276	127	CGL2_11276127	Putative polysaccharide deacetylase	240	complement(141426..142145) 68_GENE_20
11276	126	CGL2_11276126	Putative glycosyl transferase, family 1	389	complement(140238..141404) 68_GENE_19
11276	125	CGL2_11276125	Protein of unknown function	95	complement(139954..140238) 68_GENE_18
11276	124	CGL2_11276124	Probable diacylglycerol kinase	255	139173..139937 68_GENE_17
11276	123	CGL2_11276123	Protein of unknown function	289	138088..138954 68_GENE_16
11276	122	CGL2_11276122	Adenosylmethionine--8-amino-7-oxononanoate aminotransferase	444	136682..138013 68_GENE_15
11276	121	CGL2_11276121	Conserved protein of unknown function	295	complement(135687..136571) 68_GENE_14
11276	120	CGL2_11276120	Putative O-antigen polymerase	453	complement(134251..135609) 68_GENE_12
11276	119	CGL2_11276119	Putative PilT protein-like	351	complement(133199..134251) 68_GENE_11
11276	118	CGL2_11276118	2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase	426	complement(131922..133199) 68_GENE_10
11276	117	CGL2_11276117	Serine O-acetyltransferase (EC 2.3.1.30)	234	complement(131211..131912) 68_GENE_9
11276	116	CGL2_11276116	Putative phosphoesterase, PA-phosphatase related	183	complement(130645..131193) 68_GENE_8
11276	115	CGL2_11276115	Conserved protein of unknown function	546	complement(129008..130645) 68_GENE_7

11276	114	CGL2_11276114	Putative glycosyl transferase, family 9	403	complement(127800..129008)	68_GENE_6
11276	113	CGL2_11276113	Putative glycosyl transferase	270	complement(126978..127787)	68_GENE_5
11276	112	CGL2_11276112	Probable glycosyl transferase, family 39	504	complement(125467..126978)	68_GENE_4
11276	111	CGL2_11276111	Phosphoribosylaminoimidazolecarboxamide formyltransferase	522	complement(123827..125392)	68_GENE_3
11276	110	CGL2_11276110	Phosphoribosylglycinamide synthetase (EC 6.3.4.13)	425	complement(122527..123801)	68_GENE_2
11276	108	CGL2_11276108	Putative translation factor (SUA5)	204	complement(121916..122527)	68_GENE_1
11276	107	CGL2_11276107	Protein of unknown function	117	complement(121357..121707)	8_GENE_1
11276	106	CGL2_11276106	Putative methyltransferase	189	complement(120732..121298)	8_GENE_2
11276	105	CGL2_11276105	Phosphopantetheine adenyllyltransferase (EC 2.7.7.3)	166	complement(120235..120732)	8_GENE_3
11276	104	CGL2_11276104	Aspartate aminotransferase (EC 2.6.1.1)	403	complement(119027..120235)	8_GENE_4
11276	103	CGL2_11276103	Conserved protein of unknown function	112	complement(118581..118916)	8_GENE_6
11276	102	CGL2_11276102	Putative ABC transporter, ATP-binding protein	247	117833..118573	8_GENE_7
11276	101	CGL2_11276101	Lipoprotein releasing system, transmembrane protein	412	116598..117833	8_GENE_8
11276	100	CGL2_11276100	Lysyl-tRNA synthetase (EC 6.1.1.6)	507	115078..116598	8_GENE_9
11276	99	CGL2_11276099	Translation initiation factor, aIF-2B/5-methylthioribonucleic acid	350	114012..115061	8_GENE_10
11276	98	CGL2_11276098	Putative glycogen debranching enzyme	680	111910..113949	8_GENE_11
11276	97	CGL2_11276097	Ferrochelatase (EC 4.99.1.1)	356	110825..111892	8_GENE_12
11276	96	CGL2_11276096	Putative permease, YjgP/YjgQ family	362	109726..110811	8_GENE_13
11276	95	CGL2_11276095	Putative permease, YjgP/YjgQ family	378	108593..109726	8_GENE_14
11276	94	CGL2_11276094	TRNA-i(6)A37 modification enzyme (MiaB)	468	107156..108559	8_GENE_15
11276	93	CGL2_11276093	Protein of unknown function	134	106759..107160	8_GENE_16
11276	92	CGL2_11276092	Putative SAM-dependent methyltransferases	191	106214..106786	8_GENE_17
11276	91	CGL2_11276091	Protein of unknown function	208	105494..106117	8_GENE_18
11276	90	CGL2_11276090	Putative cytochrome c, class I	133	complement(104820..105218)	8_GENE_20
11276	89	CGL2_11276089	transposase	446	complement(103323..104660)	8_GENE_21
11276	88	CGL2_11276088	Aspartate aminotransferase (EC 2.6.1.17)	399	complement(101673..102869)	8_GENE_22
11276	87	CGL2_11276087	Protein of unknown function	215	complement(101029..101673)	8_GENE_23
11276	86	CGL2_11276086	Homoserine dehydrogenase (EC 1.1.1.3)	443	complement(99579..100907)	8_GENE_24
11276	85	CGL2_11276085	Threonine synthase (EC 4.2.3.1)	353	complement(98521..99579)	8_GENE_25
11276	84	CGL2_11276084	Probable phosphoglycerate mutase	400	complement(97297..98496)	8_GENE_26
11276	83	CGL2_11276083	Aspartate kinase (EC 2.7.2.4)	412	complement(96068..97303)	8_GENE_27
11276	82	CGL2_11276082	2-isopropylmalate synthase (EC 2.3.3.13)	544	complement(94444..96075)	8_GENE_28
11276	81	CGL2_11276081	Acyl-(Acyl-carrier-protein)--UDP-N-acetylglucosaminidase	270	complement(93639..94448)	8_GENE_29
11276	80	CGL2_11276080	Putative integration host factor, alpha subunit HimA	98	complement(93318..93611)	8_GENE_30
11276	79	CGL2_11276079	Putative transcriptional regulator, MerR family	113	complement(92878..93216)	8_GENE_31
11276tRNA		CGL2_11276R002	TRNA Pro GGG		complement(92808..92884)	
11276	78	CGL2_11276078	Acid phosphatase (SurE) (EC 3.1.3.2)	266	complement(91906..92703)	8_GENE_32
11276	77	CGL2_11276077	Protein of unknown function	189	complement(91329..91895)	8_GENE_33
11276	76	CGL2_11276076	Cysteinyl-tRNA synthetase, class Ia (EC 6.1.1.16)	490	complement(89870..91339)	8_GENE_34
11276	75	CGL2_11276075	Putative tRNA/rRNA methyltransferase (SpoU)	192	complement(89139..89714)	8_GENE_35
11276	74	CGL2_11276074	Putative thioredoxin family protein	214	complement(88357..88998)	8_GENE_36

11276	73	CGL2_11276073	NAD+ synthase (EC 6.3.5.1)	592	complement(86582..88357)	8_GENE_37
11276	72	CGL2_11276072	3,4-dihydroxy-2-butanone 4-phosphate synthase/GT	400	complement(85328..86527)	8_GENE_38
11276	71	CGL2_11276071	6,7-dimethyl-8-ribityllumazine synthase (EC 2.5.1.9)	161	complement(84822..85304)	8_GENE_39
11276	70	CGL2_11276070	Transcription antitermination factor (NusB)	168	complement(84319..84822)	8_GENE_40
11276	69	CGL2_11276069	Protein of unknown function	166	complement(83822..84319)	8_GENE_41
11276	68	CGL2_11276068	Adenylosuccinate lyase (EC 4.3.2.2)	437	complement(82418..83728)	8_GENE_42
11276	67	CGL2_11276067	Phosphoribosylaminoimidazole-succinocarboxamide s	239	complement(81644..82360)	8_GENE_43
11276	66	CGL2_11276066	Phosphoribosylformylglycinamidine synthetase (PurS)	98	complement(81364..81657)	8_GENE_43a
11276	65	CGL2_11276065	Protein of unknown function	446	complement(80024..81361)	8_GENE_45
11276	64	CGL2_11276064	Putative asparaginase	308	complement(79087..80010)	8_GENE_46
11276	63	CGL2_11276063	Acetate kinase (EC 2.7.2.1)	374	77809..78930	8_GENE_47
11276	62	CGL2_11276062	Putative methyltransferase	224	complement(77008..77679)	8_GENE_48
11276	61	CGL2_11276061	Hypothetical protein	970	74052..76961	8_GENE_49
11276	60	CGL2_11276060	TonB protein	222	73316..73981	8_GENE_50
11276	59	CGL2_11276059	TonB system transport protein, ExbD	137	72884..73294	8_GENE_51
11276	58	CGL2_11276058	biopolymer transport protein, ExbB	230	72116..72805	8_GENE_52
11276	57	CGL2_11276057	Putative ABC transporter permease protein	372	70783..71898	8_GENE_53
11276	56	CGL2_11276056	Putative ABC transporter permease protein	378	69650..70783	8_GENE_54
11276	55	CGL2_11276055	BC transporter ATP-binding protein (EC 3.6.3.25)	592	67875..69650	8_GENE_55
11276	54	CGL2_11276054	Secretion protein (HlyD)	301	66983..67885	8_GENE_56
11276	53	CGL2_11276053	Putative outer membrane efflux protein	483	65508..66956	8_GENE_57
11276	52	CGL2_11276052	Putative cytochrome c, class I	110	65093..65422	8_GENE_58
11276	51	CGL2_11276051	Fructose-6-phosphate phosphoketolase (EC 4.1.2.22)	788	complement(62484..64847)	8_GENE_59
11276	50	CGL2_11276050	Fructose-bisphosphate aldolase (EC 4.1.2.13)	305	complement(61517..62431)	8_GENE_60
11276	49	CGL2_11276049	Dihydrolipoyl dehydrogenase (EC 1.8.1.4)	461	complement(60057..61439)	8_GENE_61
11276	48	CGL2_11276048	Conserved protein of unknown function	304	59095..60006	8_GENE_62
11276	47	CGL2_11276047	Glycogen phosphorylase (EC 2.4.1.1)	862	56395..58980	8_GENE_63
11276	46	CGL2_11276046	Phosphoglucomutase, alpha-D-glucose phosphate-sp	547	54729..56369	8_GENE_64
11276	45	CGL2_11276045	Putative transposase	362	complement(53117..54202)	8_GENE_65
11276	44	CGL2_11276044	Probable cytochrome c oxidase, subunit I (cbb-type)	460	complement(51308..52687)	8_GENE_66
11276	43	CGL2_11276043	Putative major facilitator superfamily protein	510	complement(49355..50884)	8_GENE_67
11276	42	CGL2_11276042	Hypothetical protein	110	48898..49227	8_GENE_68
11276	41	CGL2_11276041	ABC transporter, ATP-binding protein	555	47215..48879	8_GENE_69
11276	40	CGL2_11276040	Conserved protein of unknown function	95	complement(46239..46523)	8_GENE_70
11276	39	CGL2_11276039	Conserved protein of unknown function	132	complement(45752..46147)	141_GENE_2
11276	38	CGL2_11276038	Putative OmpA family protein	265	complement(44871..45665)	141_GENE_3
11276	37	CGL2_11276037	Conserved hypothetical protein	227	43720..44400	141_GENE_5
11276	36	CGL2_11276036	Putative metallophosphoesterase	251	complement(42818..43570)	141_GENE_6
11276	35	CGL2_11276035	Conserved hypothetical protein	1175	39220..42744	141_GENE_7
11276	34	CGL2_11276034	DNA repair exonuclease	410	37991..39220	141_GENE_8
11276	33	CGL2_11276033	Conserved hypothetical protein	195	37000..37584	141_GENE_10

11276	32	CGL2_11276032	Conserved hypothetical protein	238	36287..37000	141_GENE_11
11276	31	CGL2_11276031	Conserved hypothetical protein	390	35111..36280	141_GENE_12
11276	30	CGL2_11276030	Conserved hypothetical protein	571	33372..35084	141_GENE_13
11276	29	CGL2_11276029	serine protease	326	32301..33278	141_GENE_14
11276	28	CGL2_11276028	Protein of unknown function	195	31682..32266	69_GENE_29
11276	27	CGL2_11276027	Hypothetical protein	406	30404..31621	69_GENE_28
11276	26	CGL2_11276026	Hypothetical protein	217	29711..30361	69_GENE_26
11276	25	CGL2_11276025	Protein of unknown function	313	complement(28269..29207)	69_GENE_25
11276	24	CGL2_11276024	Conserved hypothetical protein	176	complement(27599..28126)	69_GENE_24
11276	23	CGL2_11276023	Conserved hypothetical protein	267	complement(26722..27522)	69_GENE_21
11276	22	CGL2_11276022	transposase	316	complement(25796..26743)	69_GENE_20
11276	21	CGL2_11276021	transposase	138	complement(25402..25815)	69_GENE_19
11276	20	CGL2_11276020	Conserved hypothetical protein	373	complement(24041..25159)	69_GENE_18
11276	19	CGL2_11276019	Hypothetical protein	120	complement(23424..23783)	69_GENE_17
11276	18	CGL2_11276018	Conserved hypothetical protein	59	complement(22360..22536)	69_GENE_15
11276	17	CGL2_11276017	Conserved hypothetical protein	103	21919..22227	69_GENE_14
11276	16	CGL2_11276016	universal stress protein	287	21011..21871	69_GENE_13
11276	15	CGL2_11276015	sulfate permease	491	19521..20993	69_GENE_12
11276	14	CGL2_11276014	Hypothetical protein	217	complement(18013..18663)	69_GENE_11
		Strain variant path	Strain variant path		Strain variant path	
11276	13a	CGL2_11276013a	Probable transposase	130	complement(17227..17616)	
11276tRNA		CGL2_11276R001	TRNA Arg CCT		17023..17099	
11276	13	CGL2_11276013	Hypothetical protein	56	16792..16959	167_GENE_11
11276	11	CGL2_11276011	N-acetylmuramoyl-L-alanine amidase (EC 3.5.1.28)	437	15391..16701	167_GENE_10
11276	11	CGL2_11276011	N-acetylmuramoyl-L-alanine amidase (EC 3.5.1.28)	437	15391..16701	167_GENE_10
11276	10	CGL2_11276010	Conserved protein of unknown function	132	complement(14672..15067)	167_GENE_8
11276	9	CGL2_11276009	Protein of unknown function	714	complement(12502..14643)	167_GENE_7
11276	8	CGL2_11276008	Putative peptidase M50	243	complement(11699..12427)	167_GENE_6
11276	7	CGL2_11276007	Tryptophanyl-tRNA synthetase (EC 6.1.1.2)	355	complement(10577..11641)	167_GENE_5
11276	6	CGL2_11276006	Acetyl-coenzyme A carboxylase carboxyl transferase	296	complement(9579..10466)	167_GENE_4
11276	5	CGL2_11276005	DNA polymerase III, alpha subunit (EC 2.7.7.7)	1201	5955..9557	167_GENE_3
11276	4	CGL2_11276004	Putative UvrD/REP helicase	649	3953..5899	167_GENE_2
11276	3	CGL2_11276003	Conserved hypothetical protein	288	complement(2946..3809)	824_GENE_4
11276	2	CGL2_11276002	Methyl accepting chemotaxis transducer	714	complement(547..2688)	824_GENE_2
11276	1	CGL2_11276001	probable transposase	128	complement(40..422)	824_GENE_1

#### Strain variant contigs:

Strain variant linked to 11277 at ~142,000						
8975	2	CGL2_08975002	Protein of unknown function	213	complement(1682..2320)	865_GENE_2

8975	1	(=Var CGL2_08975001	Protein of unknown function (cyt 572, full on 7508)	409	46..1272	865_GENE_1
cyt572	A	CGL2_11277153A	Cyt572 variant			
cyt572	B	CGL2_11277153B	Cyt572 variant			
cyt572	C	CGL2_11277153C	Cyt572 variant			
cyt572	D	CGL2_11277153D	Cyt572 variant			
cyt572	E	CGL2_11277153E	Cyt572 variant			
Low depth, links via 7252 to 10391 = 11386 at ~16,000						
7252	1	CGL2_07252001	Hypothetical protein	126	434..811	
7252	2	CGL2_07252002	Hypothetical protein	110	811..1140	
7252	3	CGL2_07252003	Hypothetical protein	69	1140..1346	
7252	4	CGL2_07252004	Hypothetical protein	195	1524..2108	
7252	5	CGL2_07252005	Hypothetical protein	70	2068..2278	
8492	1	CGL2_08492001	Protein of unknown function	366	complement(403..1500)	402_GENE_5
9769	3	CGL2_09769003	DNA primase	1133	complement(1720..5118)	402_GENE_4
9769	2	CGL2_09769002	ATPase involved in ABC transporters	221	complement(585..1247)	402_GENE_2
9769	1	CGL2_09769001	Hypothetical protein	165	complement(58..552)	402_GENE_1
Strain variant linked to 11386-11389						
11389	59a	CGL2_11389059a	Hypothetical protein	161	61743..62225	
11389	58a	CGL2_11389058a	Hypothetical protein	239	61019..61735	
11389	57a	CGL2_11389057a	putative type III restriction-modification system, Res	939	58210..61026	
11389	56a	CGL2_11389056a	putative type III restriction-modification system, me	856	55640..58207	
11389	55a	CGL2_11389055a	Hypothetical protein	241	54708..55430	
11389	54a	CGL2_11389054a	Hypothetical protein	128	54230..54613	
11389	53a	CGL2_11389053a	Hypothetical protein	674	52196..54217	
11389	52a	CGL2_11389052a	Hypothetical protein	301	51267..52169	
11389	51a	CGL2_11389051a	Hypothetical protein	204	50342..50953	
11389	50a	CGL2_11389050a	Putative integrase	404	49123..50334	
11389	49	CGL2_11389049	SsrA-binding protein	163	48031..48519	26_GENE_24
11389	48	CGL2_11389048	Leucyl aminopeptidase (EC 3.4.11.1)	533	46367..47965	26_GENE_25
11389	47	CGL2_11389047	ExsB protein (succinoglycan synthase?)	241	45526..46248	26_GENE_26
11389	46	CGL2_11389046	Putative radical activating enzyme	212	44885..45520	26_GENE_27
11389	45	CGL2_11389045	Protein of unknown function	231	44144..44836	26_GENE_28
11389	44	CGL2_11389044	DNA gyrase, A subunit	816	41593..44040	26_GENE_29
11389	43	CGL2_11389043	DNA gyrase, B subunit (EC 5.99.1.3)	818	39081..41534	26_GENE_30
11389	42	CGL2_11389042	DNA polymerase III, beta chain (EC 2.7.7.7)	387	37847..39007	26_GENE_31
11389	41	CGL2_11389041	Chromosomal replication initiator protein (DnaA) ORI	465	36431..37825	26_GENE_32
Strain variant linked to 10851 ~20 kb or 11346 ~21 kb						
11185	1	CGL2_11185001	Probable Bacterial Conjugative Coupling Protein, Trw	128	complement(311..694)	529_GENE_5
11185	2	CGL2_11185002	Hypothetical protein	258	complement(1186..1959)	490_GENE_1
11185	3	CGL2_11185003	Hypothetical protein	75	complement(2248..2472)	490_GENE_2
11185	4	CGL2_11185004	Hypothetical protein	116	complement(2610..2957)	490_GENE_3

11185	5	CGL2_11185005	Hypothetical protein	112	3294..3629	490_GENE_5
11185	6	CGL2_11185006	Transposase	326	complement(3801..4778)	490_GENE_6
11185	7	CGL2_11185007	Hypothetical protein	46	4924..5061	490_GENE_7
11185	8	CGL2_11185008	Transposase	267	complement(5328..6128)	
11185	9	CGL2_11185009	Putative DNA helicase	455	complement(6166..7530)	
11185	10	CGL2_11185010	Hypothetical protein	107	complement(7530..7850)	
<b>Strain variant linked to 11068 at ~130,000</b>						
9240	5	CGL2_09240005	Integrase	316	complement(2150..3097)	435_GENE_1
9240	4	CGL2_09240004	<b>Hypothetical protein</b>	69	complement(1944..2150)	435_GENE_2
9240	3	CGL2_09240003	<b>Hypothetical protein</b>	40	complement(1841..1960)	435_GENE_3
9240	2	CGL2_09240002	<b>transcriptional activator</b>	274	complement(527..1348)	435_GENE_4
9240	1	CGL2_09240001	<b>transposase</b>	59	308..484	435_GENE_5
11402	1	CGL2_11402001	transcriptional activator	97	427..717	435_GENE_6
6010	2	CGL2_06010002	autoinducer biosynthetic protein/LuxI-type quorum s	234	complement(403..1104)	435_GENE_7
9250	1	CGL2_09250001	Conserved hypothetical protein	354	935..1996	435_GENE_8
<b>Strain variant linked to 9240</b>						
10101	1	CGL2_10101001	transposase	164	complement(24..515)	234_GENE_9
10101	2	CGL2_10101002	pyoverdine chromophore precursor synthetase	1125	993..4367	234_GENE_8
10101	3	CGL2_10101003	transposase (single)	248	complement(4394..5137)	234_GENE_7
10065	6	CGL2_10065006	Hypothetical protein	180	complement(5248..5787)	234_GENE_6
10065	5	CGL2_10065005	acetolactate synthase, large subunit	587	complement(3286..5046)	234_GENE_5
10065	4	CGL2_10065004	acetolactate synthase small subunit	183	complement(2738..3286)	234_GENE_4
10065	3	CGL2_10065003	Conserved hypothetical protein	137	complement(1862..2272)	234_GENE_3
10065	2	CGL2_10065002	biotin synthesis protein/methyltransferase	228	complement(1179..1862)	234_GENE_2
10065	1	CGL2_10065001	DNA binding protein	165	complement(602..1096)	234_GENE_1
<b>Strain variant linked to 10933 end (alternative to link to end of 11276)</b>						
10608	11	CGL2_10608011	Hypothetical protein	412	12940..14175	96_GENE_15
10608	10	CGL2_10608010	Probable Holliday junction resolvase	450	complement(11153..12502)	96_GENE_16
10608	9	CGL2_10608009	Hypothetical protein	79	complement(10900..11136)	96_GENE_17
10608	8	CGL2_10608008	Protein of unknown function	127	complement(10524..10904)	96_GENE_18
10608	7	CGL2_10608007	Probable mobilization protein, MobD	242	complement(9786..10511)	96_GENE_19
10608	6	CGL2_10608006	Hypothetical protein	215	complement(9138..9782)	637_GENE_2
10608	5	CGL2_10608005	Conjugal transfer protein, TraA	976	complement(6161..9088)	81_GENE_26
10608	4	CGL2_10608004	Hypothetical protein	135	5654..6058	81_GENE_25
10608	3	CGL2_10608003	Hypothetical protein	129	5106..5492	81_GENE_24
10608	2	CGL2_10608002	Hypothetical protein	132	4520..4915	81_GENE_22
10608	1	CGL2_10608001	Putative heavy metal efflux protein, CzcA	1060	1320..4499	81_GENE_21
<b>Unclear how linked except for common (divergent) region to 11276/11608</b>						
11216	30	CGL2_11216030	ABC transporter, ATP-binding protein (EC 3.6.3.25)	138	31763..32176	115_GENE_22
11216	29	CGL2_11216029	Hypothetical protein	98	31507..31800	115_GENE_21
11216	28	CGL2_11216028	Putative resolvase	198	30554..31147	115_GENE_20

11216	27	CGL2_11216027	transposase	451	complement(29065..30417)	115_GENE_19
11216	26	CGL2_11216026	Hypothetical protein	108	28621..28944	115_GENE_18
11216	25	CGL2_11216025	Hypothetical protein	104	28121..28432	115_GENE_17
11216	24	CGL2_11216024	Hypothetical protein	94	27844..28125	115_GENE_16
11216	23	CGL2_11216023	Hypothetical protein	57	27647..27817	115_GENE_15
11216	22	CGL2_11216022	GGDEF/EAL domain-containing protein	404	26334..27545	115_GENE_13
11216	21	CGL2_11216021	Hypothetical protein	385	25087..26241	115_GENE_11
11216	20	CGL2_11216020	Hypothetical protein	104	complement(24472..24783)	115_GENE_10
11216	19	CGL2_11216019	DNA primase	1121	complement(21107..24469)	115_GENE_9
11216	18	CGL2_11216018	Putative transcriptional regulator	102	20592..20897	115_GENE_8
11216	17	CGL2_11216017	Hypothetical protein	75	20378..20602	115_GENE_7
11216	16	CGL2_11216016	Hypothetical protein	135	complement(19888..20292)	115_GENE_6
11216	15a	CGL2_11216015a	Hypothetical protein	189	complement(19280..19846)	
11216	15	CGL2_11216015	mobilization protein, MobD	253	complement(18550..19308)	115_GENE_4
11216	14	CGL2_11216014	Hypothetical protein	237	complement(17780..18490)	115_GENE_3
11216	13a	CGL2_11216013a	Hypothetical protein	85	complement(17202..17456)	
11216	13	CGL2_11216013	Conjugal transfer protein, TraB	701	complement(15097..17199)	115_GENE_1
11216	12	CGL2_11216012	Conjugal transfer protein, TraA	976	complement(12167..15094)	81_GENE_26
11216	11	CGL2_11216011	Hypothetical protein	135	11660..12064	81_GENE_25
11216	10	CGL2_11216010	Hypothetical protein	129	11112..11498	81_GENE_24
11216	9	CGL2_11216009	Hypothetical protein	132	10526..10921	81_GENE_22
11216	8	CGL2_11216008	Putative heavy metal efflux protein, CzcA	1060	7326..10505	81_GENE_21
11216	7	CGL2_11216007	Putative heavy metal efflux protein, CzcB	419	6070..7326	81_GENE_20
11216	6	CGL2_11216006	Putative heavy metal efflux protein, CzcC	408	4854..6077	81_GENE_19
11216	5	CGL2_11216005	Hypothetical protein	67	3674..3874	81_GENE_17
11216	4	CGL2_11216004	Hypothetical protein	103	3378..3686	81_GENE_16
11216	3	CGL2_11216003	Recombinase	373	2260..3378	81_GENE_15
11216	2	CGL2_11216002	Putative integrase	248	complement(1269..2012)	
11216	1	CGL2_11216001	Hypothetical protein	86	complement(673..930)	

**Strain variant linked loosely internally to 11276 at ~18,000**

10638	10	CGL2_10638010	Conserved hypothetical protein	168	complement(19400..19903)	69_GENE_10
10638	9	CGL2_10638009	transposase	242	complement(18602..19327)	69_GENE_9
10638	8	CGL2_10638008	restriction endonuclease	285	complement(17519..18373)	69_GENE_8
10638	7	CGL2_10638007	RNA helicase	1717	complement(12316..17466)	69_GENE_7
10638	6	CGL2_10638006	Hypothetical protein	59	complement(11945..12121)	69_GENE_5
10638	5	CGL2_10638005	transposase	254	complement(10886..11647)	69_GENE_4
10638	4	CGL2_10638004	Hypothetical protein	142	complement(10461..10886)	69_GENE_3
10638	3	CGL2_10638003	Conserved hypothetical protein	67	complement(9940..10140)	69_GENE_2
10638	2	CGL2_10638002	Superfamily II DNA/RNA helicases	957	complement(7079..9949)	69_GENE_1
10638	1	CGL2_10638001	Superfamily II DNA/RNA helicases	1309	complement(3153..7079)	

**Small, unplaced genome fragments, likely to be *Leptospirillum* group II:**

8298	6	CGL3_08298006	Hypothetical protein	148	complement(2927..3370)	898_GENE_1
8298	5	CGL3_08298005	mobilization protein, MobC	146	complement(2155..2592)	898_GENE_2
8298	4	CGL3_08298004	mobilization protein, MobD	220	complement(1468..2127)	898_GENE_3
8298	3	CGL3_08298003	mobilization protein MobE	207	complement(848..1468)	898_GENE_5
8298	2	CGL3_08298002	Hypothetical protein	110	complement(516..845)	898_GENE_6
8298	1	CGL3_08298001	DNA helicase/TrwC	179	complement(29..565)	898_GENE_7
6909	5	CGU_06909005	Conserved hypothetical protein	106	complement(1386..1703)	888_GENE_5
6909	4	CGU_06909004	Hypothetical protein	110	complement(1057..1386)	888_GENE_4
6909	3	CGU_06909003	Hypothetical protein	157	complement(549..1019)	888_GENE_3
6909	1	CGU_06909001	Hypothetical protein	153	complement(31..488)	
9588	1	CGLU_09588001	helicase	844	25..2556	830_GENE_5
9588	2	CGLU_09588002	Protein of unknown function	136	2691..3098	830_GENE_4
9588	3	CGLU_09588003	Hypothetical protein	164	complement(3290..3781)	830_GENE_3
9588	4	CGLU_09588004	Conserved hypothetical protein	383	complement(3808..4956)	830_GENE_2
9588	5	CGLU_09588005	Hypothetical protein	128	complement(4972..5355)	830_GENE_1
9588	6	CGLU_09588006	Hypothetical protein	120	complement(5349..5708)	
9588	7	CGLU_09588007	Hypothetical protein	166	complement(5736..6233)	
9144	1	CGLU_09144001	RNA helicase	294	complement(78..959)	759_GENE_5
9144	2	CGLU_09144002	Hypothetical protein	399	complement(1003..2199)	759_GENE_4
9144	3	CGLU_09144003	Hypothetical protein	87	complement(2306..2566)	759_GENE_2
9144	4	CGLU_09144004	ATP-dependent protease La	381	complement(2566..3708)	759_GENE_1
9074	7	CGLU_09074007	Hypothetical protein	84	3258..3508	
9074	6	CGLU_09074006	thiol-disulfide interchange protein, DsbG	328	1996..2979	728_GENE_6
9074	5	CGLU_09074005	Hypothetical protein	89	1730..1996	728_GENE_5
9074	4	CGLU_09074004	Hypothetical protein	99	1327..1623	728_GENE_4
9074	3	CGLU_09074003	Hypothetical protein	67	1055..1255	728_GENE_3
9074	2	CGLU_09074002	Conserved hypothetical protein	209	396..1022	728_GENE_2
9074	1	CGLU_09074001	Conserved hypothetical protein	55	248..412	728_GENE_1
9375	1	CGLU_09375001	Putative phosphoribulokinase	987	246..3206	745_GENE_2
9375	2	CGLU_09375002	Hypothetical protein	87	complement(3314..3574)	745_GENE_3
9375	3	CGLU_09375003	Hypothetical protein	477	complement(3613..5043)	745_GENE_4
8925	1	CGL2_08925001	Probable plasmid stabilization protein, StbA	332	complement(28..1023)	

8925	2	CGL2_08925002	DotB (type II secretion)	367	complement(1300..2400)	569_GENE_5
8925	3	CGL2_08925003	Tral	275	complement(2400..3224)	569_GENE_4
8758	4	CGL2_08758001	sensory box/GGDEF domain/EAL domain protein	346	558..1595	569_GENE_3
8758	5	CGL2_08758002	Protein of unknown function	235	1901..2605	569_GENE_2
8758	6	CGL2_08758003	Putative chemotaxis protein MotB	244	2665..3396	569_GENE_1
9428	4	CGLU_09428004	Hypothetical protein	300	complement(3206..4105)	
9428	3	CGLU_09428003	Hypothetical protein	126	complement(2568..2945)	
9428	2	CGLU_09428002	Putative DNA primase	511	complement(1036..2568)	673_GENE_1
9428	1	CGLU_09428001	Hypothetical protein	231	complement(1..693)	673_GENE_3
8706	4	CGLU_08706004	Hypothetical protein	66	complement(3127..3324)	673_GENE_4
8706	3	CGLU_08706003	Hypothetical protein	100	complement(2377..2676)	673_GENE_5
8706	3	CGLU_08706002	Putative mobilization relaxase, MobA	272	complement(1562..2377)	673_GENE_6
8706	1	CGLU_08706001	Putative type IV secretory pathway VirD4	449	complement(161..1507)	
9446	1	CGLU_09446001	Hypothetical protein	151	complement(70..522)	
9446	2	CGLU_09446002	Conserved hypothetical protein	114	complement(909..1250)	
9446	3	CGLU_09446003	Putative hydrolase	281	complement(1373..2215)	
9446	4	CGLU_09446004	Putative SAM-dependent methyltransferase	227	complement(2251..2931)	
9446	5	CGLU_09446005	Hypothetical protein	111	complement(2990..3322)	
9446	6	CGLU_09446006	Hypothetical protein	103	complement(3513..3821)	592_GENE_1
9446	7	CGLU_09446007	Hypothetical protein	110	complement(4005..4334)	592_GENE_2
9446	8	CGLU_09446008	Putative N-acetyl transferase	144	complement(4429..4860)	592_GENE_3
8858	4	CGLU_08858004	Hypothetical protein	170	1298..1807	592_GENE_4
8858	3	CGLU_08858003	Putative hydrolase	95	949..1233	592_GENE_5
8858	2	CGLU_08858002	Hypothetical protein	54	677..838	592_GENE_6
8858	1	CGLU_08858001	Putative N-acetyl transferase	162	192..677	592_GENE_7
9713	5	CGL3_09713005	Conserved hypothetical protein	517	complement(4991..6541)	
9713	4	CGL3_09713004	Probable DNA primase	302	complement(3611..4516)	
9713	3	CGL3_09713003	Hypothetical protein	105	complement(2736..3050)	811_GENE_1
9713	2	CGL3_09713002	Putative mobilization relaxase, MobA	292	complement(1861..2736)	811_GENE_2
9713	1	CGL3_09713001	Putative Type IV secretion system, VirD4	599	complement(69..1865)	811_GENE_3
9378	1	CGL2_09378001	Hypothetical protein	398	complement(502..1695)	684_GENE_1
9378	2	CGL2_09378002	Hypothetical protein	425	complement(1695..2969)	684_GENE_2
9378	3	CGL2_09378003	Conserved protein of unknown function	238	complement(2969..3682)	684_GENE_3
9378	4	CGL2_09378004	Conserved protein of unknown function	161	complement(3682..4164)	684_GENE_4
9378	5	CGL2_09378005	Conserved protein of unknown function	136	complement(4221..4628)	684_GENE_5
9378	6	CGL2_09378006	Conserved protein of unknown function	195	complement(4638..5222)	684_GENE_6

9792	8	CGLU_09792008	Conserved hypothetical protein	71	complement(6197..6409)	478_GENE_8
9792	7	CGLU_09792007	Hypothetical protein	76	complement(5983..6210)	478_GENE_7
9792	6	CGLU_09792006	Protein of unknown function	97	complement(5181..5471)	478_GENE_6
9792	5	CGLU_09792005	Hypothetical protein	93	4893..5171	478_GENE_5
9792	4	CGLU_09792004	Putative plasmid helicase TrwC	1153	1435..4893	478_GENE_4
9792	3	CGLU_09792003	Hypothetical protein	64	1239..1430	478_GENE_3
9792	2	CGLU_09792002	Hypothetical protein	58	1051..1224	478_GENE_2
9792	1	CGLU_09792001	Hypothetical protein	287	191..1051	478_GENE_1