

**Table 3-1
Well Information
Mine Unit 1 Aquifer Tests
Lost Creek ISR, LLC**

Well Name	Well Type	Monitored Sand	Ground Surface Elevation [feet amsl]	Top of Casing Elevation [feet amsl]	NAD 83 Easting [feet]	NAD 83 Northing [feet]	Screened Interval(s) [feet bgs]	Total Screen Length	12/08/08 Depth to Water	12/08/08 Water Level Elevation
PW-101	Production Zone Pumping Well	HJ	6936.67	6,938.06	2,212,158	595,259	385 - 473, 482 - 495	101	184.56	6,753.50
PW-102	Production Zone Pumping Well	HJ	6937.16	6,938.58	2,210,906	595,846	360 - 382, 387 - 393, 397 - 467	98	170.58	6,768.00
HJMO-101	Overlying Monitor Well	LFG	6,948.49	6,949.70	2,211,604	595,702	295 - 326	31	169.61	6,780.09
HJMO-104	Overlying Monitor Well	LFG	6,939.51	6,940.77	2,211,220	595,612	296 - 326	30	162.15	6,778.62
HJMO-105	Overlying Monitor Well	LFG	6,936.84	6,938.00	2,211,275	595,787	300 - 320	20	159.24	6,778.76
HJMO-108	Overlying Monitor Well	LFG	6,950.64	6,951.64	2,211,781	596,003	305 - 333	28	170.10	6,781.54
HJMO-109	Overlying Monitor Well	LFG	6,937.79	6,938.95	2,212,227	595,538	345 - 370	25	161.82	6,777.13
HJMO-110	Overlying Monitor Well	LFG	6,945.92	6,947.13	2,211,998	595,907	300 - 330	30	165.23	6,781.90
HJMO-113	Overlying Monitor Well	LFG	6,936.06	6,936.97	2,212,588	595,518	318 - 356	38	159.84	6,777.13
LC15M	Overlying Monitor Well	LFG	6,935.13	6,936.55	2,212,853	595,526	286 - 340	54	158.06	6,778.49
LC18M	Overlying Monitor Well	LFG	6,947.68	6,948.97	2,211,668	596,021	290 - 332	42	168.15	6,780.82
LC25M	Overlying Monitor Well	LFG	6,934.73	6,936.40	2,211,713	595,323	316 - 349	33	163.57	6,772.83
MO-101	Overlying Monitor Well	LFG	6,938.64	6,940.24	2,213,870	595,207	310 - 340	30	156.31	6,783.93
MO-102	Overlying Monitor Well	LFG	6,939.09	6,940.75	2,213,302	595,389	324 - 360	36	161.70	6,779.05
MO-103	Overlying Monitor Well	LFG	6,933.76	6,935.52	2,212,698	595,388	305 - 350	45	157.02	6,778.50
MO-104	Overlying Monitor Well	LFG	6,936.86	6,937.86	2,212,019	595,504	339 - 369	30	165.41	6,772.45
MO-105	Overlying Monitor Well	LFG	6,949.38	6,950.46	2,212,148	596,085	303 - 330	27	166.90	6,783.56
MO-106	Overlying Monitor Well	LFG	6,941.00	6,941.75	2,211,489	595,963	296 - 326	30	161.90	6,779.85
MO-107	Overlying Monitor Well	LFG	6,935.29	6,936.29	2,210,970	595,815	291 - 327	36	158.56	6,777.73
MO-108	Overlying Monitor Well	LFG	6,933.89	6,934.56	2,210,872	595,476	290 - 330	40	157.88	6,776.68
MO-109	Overlying Monitor Well	LFG	6,931.64	6,932.18	2,210,957	595,223	330 - 355	25	165.84	6,766.34
MO-110	Overlying Monitor Well	LFG	6,936.97	6,938.39	2,210,183	595,637	315 - 340	25	167.38	6,771.01
MO-111	Overlying Monitor Well	LFG	6,935.78	6,936.70	2,209,938	595,367	315 - 330	15	166.73	6,769.97
MO-112	Overlying Monitor Well	LFG	6,935.39	6,936.66	2,209,577	595,528	315 - 335	20	167.61	6,769.05
MO-113	Overlying Monitor Well	LFG	6,921.52	6,922.29	2,209,855	594,940	346 - 366	20	159.19	6,763.10
MO-114	Overlying Monitor Well	LFG	6,939.87	6,941.87	2,212,409	595,656	366 - 386	20	165.77	6,776.10
MO-115	Overlying Monitor Well	LFG	6,940.62	6,942.62	2,212,528	595,847	286 - 306	20	157.14	6,785.48
HJT-106	Overlying Monitor Well	DE	6,933.14	6,935.14	2,212,544	595,286	142 - 162	20	153.43	6,781.71
HJT-107	Overlying Monitor Well	DE	6,942.69	6,944.34	2,213,554	595,554	133 - 163	30	159.40	6,784.94
LC29M	Overlying Monitor Well	DE	6,935.25	6,937.55	2,212,854	595,540	140 - 164	24	155.94	6,781.61
HJMP-101	Production Zone Monitor Well	HJ	6,947.36	6,948.64	2,211,610	595,711	438 - 465	27	179.38	6,769.26
HJMP-104	Production Zone Monitor Well	HJ	6,939.04	6,941.04	2,211,208	595,610	402 - 430	28	173.04	6,768.00
HJMP-105	Production Zone Monitor Well	HJ	6,936.84	6,937.38	2,211,255	595,787	425 - 463	38	168.99	6,768.39
HJMP-108	Production Zone Monitor Well	HJ	6,951.12	6,952.20	2,211,784	596,011	400 - 434	34	181.58	6,770.62
HJMP-109	Production Zone Monitor Well	HJ	6,937.89	6,939.10	2,212,218	595,543	478 - 512	34	184.09	6,755.01
HJMP-110	Production Zone Monitor Well	HJ	6,945.81	6,947.02	2,212,004	595,897	431 - 476	45	176.10	6,770.92
HJMP-113	Production Zone Monitor Well	HJ	6,935.26	6,937.27	2,212,596	595,510	416 - 462	46	179.95	6,757.32
HJT-101	Production Zone Monitor Well	HJ	6,937.12	6,937.56	2,210,883	595,323	437 - 477	40	172.98	6,764.58
HJT-102	Production Zone Monitor Well	HJ	6,937.82	6,939.15	2,211,209	595,409	390 - 417	27	171.32	6,767.83
HJT-103	Production Zone Monitor Well	HJ	6,937.56	6,938.22	2,211,502	595,383	291 - 327	36	189.20	6,749.02
HJT-104	Production Zone Monitor Well	HJ	6,937.48	6,940.15	2,211,976	595,605	410 - 460	50	170.63	6,769.52
HJT-105	Production Zone Monitor Well	HJ	6,937.45	6,938.87	2,212,760	595,740	407 - 438	31	171.61	6,767.26
LC16M	Production Zone Monitor Well	HJ	6,934.73	6,936.15	2,212,869	595,523	410 - 467	57	177.45	6,758.70

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Mine Unit 1 Aquifer Tests
Lost Creek ISR, LLC**

Well Name	Well Type	Monitored Sand	Ground Surface Elevation [feet amsl]	Top of Casing Elevation [feet amsl]	NAD 83 Easting [feet]	NAD 83 Northing [feet]	Screened Interval(s) [feet bgs]	Total Screen Length	12/08/08 Depth to Water	12/08/08 Water Level Elevation
LC19M	Production Zone Monitor Well	HJ	6,949.01	6,950.02	2,211,685	596,020	412 - 463	51	179.85	6,770.17
M-101	Production Zone Monitor Well	HJ	6,948.49	6,949.24	2,214,619	595,288	423 - 438	15	175.43	6,773.81
M-102	Production Zone Monitor Well	HJ	6,951.18	6,952.73	2,214,476	594,822	421 - 438	17	179.38	6,773.35
M-103	Production Zone Monitor Well	HJ	6,944.62	6,946.20	2,214,018	594,644	364 - 378, 414 - 434	34	173.87	6,772.33
M-104	Production Zone Monitor Well	HJ	6,940.66	6,942.11	2,213,543	594,565	368 - 382, 400 - 415, 437 - 453	45	182.24	6,759.87
M-105	Production Zone Monitor Well	HJ	6,932.91	6,933.45	2,213,052	594,631	360 - 372, 388 - 404, 410 - 431	49	176.71	6,756.74
M-106	Production Zone Monitor Well	HJ	6,922.20	6,922.85	2,212,578	594,746	356 - 401	45	167.29	6,755.56
M-107	Production Zone Monitor Well	HJ	6,927.03	6,927.93	2,212,095	594,681	373 - 398	25	178.00	6,749.93
M-108	Production Zone Monitor Well	HJ	6,926.33	6,927.87	2,211,633	594,853	405 - 425	20	179.08	6,748.79
M-109	Production Zone Monitor Well	HJ	6,919.90	6,921.72	2,211,180	594,671	379 - 391, 403 - 423	32	174.75	6,746.97
M-110	Production Zone Monitor Well	HJ	6,921.45	6,922.41	2,210,690	594,699	381 - 392, 408 - 427	30	176.62	6,745.79
M-111	Production Zone Monitor Well	HJ	6,907.84	6,909.59	2,210,270	594,451	416 - 429, 445 - 460	28	170.10	6,739.49
M-112	Production Zone Monitor Well	HJ	6,917.18	6,917.97	2,209,790	594,358	388 - 400, 420 - 488	80	179.49	6,738.48
M-113	Production Zone Monitor Well	HJ	6,926.89	6,928.01	2,209,310	594,510	396 - 406, 417 - 439, 447 - 463, 472 - 480	56	190.48	6,737.53
M-114	Production Zone Monitor Well	HJ	6,929.05	6,930.75	2,208,942	594,834	465 - 485	20	188.75	6,742.00
M-115	Production Zone Monitor Well	HJ	6,937.30	6,939.10	2,208,879	595,321	428 - 451	23	184.94	6,754.16
M-116	Production Zone Monitor Well	HJ	6,932.10	6,934.00	2,208,959	595,807	430 - 445	15	178.70	6,755.30
M-117	Production Zone Monitor Well	HJ	6,943.06	6,944.80	2,209,308	596,148	435 - 453	18	185.56	6,759.24
M-118	Production Zone Monitor Well	HJ	6,944.11	6,945.16	2,209,797	596,146	430 - 447, 454 - 467	30	183.33	6,761.83
M-119	Production Zone Monitor Well	HJ	6,947.00	6,948.65	2,210,266	596,303	432 - 450	18	183.51	6,765.14
M-120	Production Zone Monitor Well	HJ	6,944.98	6,946.52	2,210,727	596,442	410 - 441	31	178.20	6,768.32
M-121	Production Zone Monitor Well	HJ	6,950.21	6,951.71	2,211,199	596,595	436 - 455	19	181.28	6,770.43
M-122	Production Zone Monitor Well	HJ	6,950.74	6,952.39	2,211,677	596,693	433 - 447, 477 - 487	24	180.16	6,772.23
M-123	Production Zone Monitor Well	HJ	6,950.75	6,951.85	2,212,165	596,647	422 - 444	22	178.11	6,773.74
M-124	Production Zone Monitor Well	HJ	6,955.54	6,956.46	2,212,603	596,425	406 - 422	16	181.51	6,774.95
M-125	Production Zone Monitor Well	HJ	6,947.01	6,947.76	2,212,970	596,111	366 - 397, 404 - 419	46	172.01	6,775.75
M-126	Production Zone Monitor Well	HJ	6,948.12	6,949.67	2,213,464	596,087	331 - 348, 365 - 401	53	173.18	6,776.49
M-127	Production Zone Monitor Well	HJ	6,946.21	6,947.66	2,213,932	595,954	408 - 418, 450 - 471	31	172.68	6,774.98
M-128	Production Zone Monitor Well	HJ	6,947.02	6,948.55	2,214,350	595,698	427 - 446	19	173.10	6,775.45
MP-101	Production Zone Monitor Well	HJ	6,938.55	6,940.30	2,213,875	595,194	420 - 438	18	167.93	6,772.37
MP-102	Production Zone Monitor Well	HJ	6,940.18	6,941.02	2,213,299	595,400	408 - 423	15	176.63	6,764.39
MP-103	Production Zone Monitor Well	HJ	6,934.32	6,935.48	2,212,708	595,381	388 - 400	12	177.76	6,757.72
MP-104	Production Zone Monitor Well	HJ	6,936.81	6,938.45	2,212,007	595,515	424 - 440	16	183.29	6,755.16
MP-105	Production Zone Monitor Well	HJ	6,948.99	6,949.49	2,212,158	596,079	402 - 418	16	178.86	6,770.63
MP-106	Production Zone Monitor Well	HJ	6,940.20	6,941.29	2,211,488	595,980	434 - 454	20	172.36	6,768.93
MP-107	Production Zone Monitor Well	HJ	6,935.08	6,936.49	2,210,975	595,822	402 - 420	18	168.42	6,768.07
MP-108	Production Zone Monitor Well	HJ	6,934.15	6,936.15	2,210,882	595,469	424 - 438	14	169.64	6,766.51
MP-109	Production Zone Monitor Well	HJ	6,931.94	6,932.71	2,210,955	595,235	422 - 438	16	184.13	6,748.58
MP-110	Production Zone Monitor Well	HJ	6,937.29	6,938.69	2,210,185	595,648	419 - 438	19	176.91	6,761.78
MP-111	Production Zone Monitor Well	HJ	6,934.86	6,936.28	2,209,951	595,361	391 - 410	19	176.11	6,760.17
MP-112	Production Zone Monitor Well	HJ	6,935.35	6,936.64	2,209,585	595,535	422 - 441	19	177.27	6,759.37
MP-113	Production Zone Monitor Well	HJ	6,921.97	6,923.19	2,209,861	594,950	447 - 466	19	184.03	6,739.16
UKMO-101	Production Zone Monitor Well	HJ	6,940.19	6,942.28	2,212,409	595,656	465 - 487	22	177.76	6,764.52
UKMO-102	Production Zone Monitor Well	HJ	6,940.24	6,940.79	2,212,528	595,847	379 - 420	41	169.20	6,771.59
UKMO-103	Production Zone Monitor Well	HJ	6,949.28	6,950.53	2,212,823	596,269	409 - 430	21	176.35	6,774.18
HJMU-101	Underlying Monitor Well	UKM	6,947.82	6,949.03	2,211,600	595,711	499 - 535	36	200.17	6,748.86

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Lost Creek ISR, LLC**

Well Name	Well Type	Monitored Sand	Ground Surface Elevation [feet amsl]	Top of Casing Elevation [feet amsl]	NAD 83 Easting [feet]	NAD 83 Northing [feet]	Screened Interval(s) [feet bgs]	Total Screen Length	12/08/08 Depth to Water	12/08/08 Water Level Elevation
HJMU-104	Underlying Monitor Well	UKM	6,939.01	6,940.52	2,211,214	595,620	512 - 550	38	195.80	6,744.72
HJMU-105	Underlying Monitor Well	UKM	6,936.37	6,937.58	2,211,264	595,790	502 - 542	40	192.35	6,745.23
HJMU-108	Underlying Monitor Well	UKM	6,949.97	6,951.52	2,211,799	596,011	510 - 540	30	202.36	6,749.16
HJMU-109	Underlying Monitor Well	UKM	6,933.92	6,939.38	2,212,228	595,549	524 - 574	50	189.60	6,749.78
HJMU-110	Underlying Monitor Well	UKM	6,945.97	6,947.56	2,212,008	595,909	492 - 532	40	198.16	6,749.40
HJMU-113	Underlying Monitor Well	UKM	6,935.16	6,936.99	2,212,600	595,521	524 - 555	31	185.69	6,751.30
LC17M	Underlying Monitor Well	UKM	6,935.32	6,936.90	2,212,869	595,542	478 - 531	53	185.03	6,751.87
LC20M	Underlying Monitor Well	UKM	6,949.22	6,950.52	2,211,684	596,034	511 - 543	32	201.69	6,748.83
LC24M	Underlying Monitor Well	UKM	6,942.33	6,944.33	2,212,886	595,906	478 - 531	53	190.56	6,753.77
MU-101	Underlying Monitor Well	UKM	6,938.55	6,940.37	2,213,858	595,192	520 - 540	20	186.65	6,753.72
MU-102	Underlying Monitor Well	UKM	6,939.10	6,940.43	2,213,289	595,391	525 - 553	28	187.66	6,752.77
MU-103	Underlying Monitor Well	UKM	6,934.18	6,935.35	2,212,709	595,389	525 - 560	35	182.91	6,752.44
MU-104	Underlying Monitor Well	UKM	6,936.84	6,937.88	2,212,009	595,501	550 - 580	30	191.71	6,746.17
MU-105	Underlying Monitor Well	UKM	6,948.93	6,950.08	2,212,163	596,087	507 - 545	38	201.21	6,748.87
MU-106	Underlying Monitor Well	UKM	6,940.59	6,941.75	2,211,482	595,972	500 - 546	46	193.94	6,747.81
MU-107	Underlying Monitor Well	UKM	6,935.06	6,936.06	2,210,980	595,811	500 - 540	40	191.68	6,744.38
MU-108 ¹	Underlying Monitor Well	UKM	6,934.72	6,935.35	2,210,869	595,461	495 - 525	30	NA ¹	NA ¹
MU-109	Underlying Monitor Well	UKM	6,931.92	6,932.78	2,210,944	595,230	525 - 545	20	191.02	6,741.76
MU-110	Underlying Monitor Well	UKM	6,937.11	6,939.23	2,210,165	595,647	520 - 540	20	199.62	6,739.61
MU-111	Underlying Monitor Well	UKM	6,936.09	6,937.05	2,209,930	595,358	512 - 532	20	198.17	6,738.88
MU-112	Underlying Monitor Well	UKM	6,935.42	6,936.75	2,209,567	595,538	515 - 535	20	198.42	6,738.33
MU-113	Underlying Monitor Well	UKM	6,921.83	6,923.75	2,209,842	594,951	530 - 550	20	186.13	6,737.62
UKMP-101	Underlying Monitor Well	UKM	6,940.18	6,941.74	2,212,413	595,642	547 - 575	28	191.33	6,750.41
UKMP-102	Underlying Monitor Well	UKM	6,940.51	6,942.10	2,212,526	595,858	475 - 498	23	190.04	6,752.06
UKMU-103	Underlying Monitor Well	MKM	6,948.75	6,950.92	2,212,811	596,259	558 - 590	32	198.50	6,752.42

Notes:

- Easting/northing are NAD 83 WY State Plane coordinates.

¹Well MU-108 was successfully plugged and abandoned on 12/2/08 due to faulty well completion. Not monitored during South Test.

**Table 4-1
Equipment Layout
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
PW-102	HJ	North	Level TROLL [®]
HJT-104	HJ	North	Level TROLL [®]
HJT-105	HJ	South	Level TROLL [®]
M-114	HJ	North	Level TROLL [®]
M-115	HJ	North	Level TROLL [®]
M-116	HJ	North	Level TROLL [®]
M-117	HJ	North	Level TROLL [®]
M-118	HJ	North	Level TROLL [®]
M-119	HJ	North	Level TROLL [®]
M-120	HJ	North	Level TROLL [®]
M-121	HJ	North	Level TROLL [®]
M-122	HJ	North	Level TROLL [®]
M-123	HJ	North	Level TROLL [®]
M-124	HJ	North	Level TROLL [®]
M-125	HJ	North	Level TROLL [®]
M-126	HJ	North	Level TROLL [®]
M-127	HJ	South	Level TROLL [®]
MP-103	HJ	South	Level TROLL [®]
MP-105	HJ	North	Level TROLL [®]
MP-106	HJ	North	Level TROLL [®]
MP-107	HJ	North	Level TROLL [®]
MP-108	HJ	North	Level TROLL [®]
MP-109	HJ	South	Level TROLL [®]
MP-110	HJ	North	Level TROLL [®]
MP-111	HJ	North	Level TROLL [®]
MP-112	HJ	North	Level TROLL [®]
MP-113	HJ	South	Level TROLL [®]
UKMO-101	HJ	South	Level TROLL [®]
UKMO-102	HJ	North	Level TROLL [®]
HJMP-101	HJ	North	E-line
HJMP-104	HJ	North	E-line
HJMP-105	HJ	North	E-line
HJMP-108	HJ	North	E-line
HJMP-109	HJ	South	E-line
HJMP-110	HJ	North	E-line
HJMP-113	HJ	South	E-line
HJT-101	HJ	North	E-line
HJT-102	HJ	North	E-line
HJT-103	HJ	South	E-line
LC16M	HJ	South	E-line
LC19M	HJ	North	E-line
MP-101	HJ	South	E-line
MP-102	HJ	South	E-line

**Table 4-1
Equipment Layout
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
MP-104	HJ	South	E-line
UKMO-103	HJ	North	E-line
MO-103	LFG	South	Level TROLL [®]
MO-105	LFG	North	Level TROLL [®]
MO-106	LFG	North	Level TROLL [®]
MO-107	LFG	North	Level TROLL [®]
MO-108	LFG	North	Level TROLL [®]
MO-109	LFG	South	Level TROLL [®]
MO-110	LFG	North	Level TROLL [®]
MO-111	LFG	North	Level TROLL [®]
MO-112	LFG	North	Level TROLL [®]
MO-113	LFG	South	Level TROLL [®]
MO-114	LFG	South	Level TROLL [®]
MO-115	LFG	North	Level TROLL [®]
HJMO-101	LFG	North	E-line
HJMO-104	LFG	North	E-line
HJMO-105	LFG	North	E-line
HJMO-108	LFG	North	E-line
HJMO-109	LFG	South	E-line
HJMO-110	LFG	North	E-line
HJMO-113	LFG	South	E-line
LC15M	LFG	South	E-line
LC18M	LFG	North	E-line
LC25M	LFG	South	E-line
MO-101	LFG	South	E-line
MO-102	LFG	South	E-line
MO-104	LFG	South	E-line
MU-103	UKM	South	Level TROLL [®]
MU-105	UKM	North	Level TROLL [®]
MU-106	UKM	North	Level TROLL [®]
MU-107	UKM	North	Level TROLL [®]
MU-108	UKM	North	Level TROLL [®]
MU-109	UKM	South	Level TROLL [®]
MU-110	UKM	North	Level TROLL [®]
MU-111	UKM	North	Level TROLL [®]
MU-112	UKM	North	Level TROLL [®]
MU-113	UKM	South	Level TROLL [®]
UKMP-101	UKM	South	Level TROLL [®]
UKMP-102	UKM	North	Level TROLL [®]
HJMU-101	UKM	North	E-line
HJMU-104	UKM	North	E-line
HJMU-105	UKM	North	E-line

**Table 4-1
Equipment Layout
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
HJMU-108	UKM	North	E-line
HJMU-109	UKM	South	E-line
HJMU-110	UKM	North	E-line
HJMU-113	UKM	South	E-line
LC17M	UKM	South	E-line
LC20M	UKM	North	E-line
LC24M	UKM	North	E-line
MU-101	UKM	South	E-line
MU-102	UKM	South	E-line
MU-104	UKM	South	E-line
UKMU-103	MKM	North	E-line
HJT-106	DE	South	E-line
HJT-107	DE	South	E-line
LC29M	DE	South	E-line

**Table 4-2
Equipment Layout
Mine Unit 1 South Test
Lost Creek ISR, LLC**

PW-101 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
PW-101	HJ	South	Level TROLL [®]
HJMP-101	HJ	North	Level TROLL [®]
HJT-102	HJ	North	Level TROLL [®]
HJT-104	HJ	North	Level TROLL [®]
HJT-105	HJ	South	Level TROLL [®]
M-101	HJ	South	Level TROLL [®]
M-102	HJ	South	Level TROLL [®]
M-103	HJ	South	Level TROLL [®]
M-104	HJ	South	Level TROLL [®]
M-105	HJ	South	Level TROLL [®]
M-106	HJ	South	Level TROLL [®]
M-107	HJ	South	Level TROLL [®]
M-108	HJ	South	Level TROLL [®]
M-109	HJ	South	Level TROLL [®]
M-110	HJ	South	Level TROLL [®]
M-111	HJ	South	Level TROLL [®]
M-112	HJ	South	Level TROLL [®]
M-113	HJ	South	Level TROLL [®]
M-114	HJ	North	Level TROLL [®]
M-115	HJ	North	Level TROLL [®]
M-126	HJ	North	Level TROLL [®]
M-127	HJ	South	Level TROLL [®]
M-128	HJ	South	Level TROLL [®]
MP-101	HJ	South	Level TROLL [®]
MP-102	HJ	South	Level TROLL [®]
MP-103	HJ	South	Level TROLL [®]
MP-104	HJ	South	Level TROLL [®]
MP-109	HJ	South	Level TROLL [®]
MP-111	HJ	North	Level TROLL [®]
MP-113	HJ	South	Level TROLL [®]
UKMO-101	HJ	South	Level TROLL [®]
UKMO-102	HJ	North	Level TROLL [®]
HJMP-104	HJ	North	E-line
HJMP-105	HJ	North	E-line
HJMP-108	HJ	North	E-line
HJMP-109	HJ	South	E-line
HJMP-110	HJ	North	E-line
HJMP-113	HJ	South	E-line
HJT-101	HJ	North	E-line
HJT-103	HJ	South	E-line
LC16M	HJ	South	E-line
LC19M	HJ	North	E-line
MP-105	HJ	North	E-line

**Table 4-2
Equipment Layout
Mine Unit 1 South Test
Lost Creek ISR, LLC**

PW-101 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
MP-106	HJ	North	E-line
MP-107	HJ	North	E-line
MP-108	HJ	North	E-line
MP-110	HJ	North	E-line
MP-112	HJ	North	E-line
UKMO-103	HJ	North	E-line
HJMO-101	LFG	North	Level TROLL®
MO-101	LFG	South	Level TROLL®
MO-102	LFG	South	Level TROLL®
MO-103	LFG	South	Level TROLL®
MO-104	LFG	South	Level TROLL®
MO-109	LFG	South	Level TROLL®
MO-111	LFG	North	Level TROLL®
MO-113	LFG	South	Level TROLL®
MO-114	LFG	South	Level TROLL®
MO-115	LFG	North	Level TROLL®
HJMO-104	LFG	North	E-line
HJMO-105	LFG	North	E-line
HJMO-108	LFG	North	E-line
HJMO-109	LFG	South	E-line
HJMO-110	LFG	North	E-line
HJMO-113	LFG	South	E-line
LC15M	LFG	South	E-line
LC18M	LFG	North	E-line
LC25M	LFG	South	E-line
MO-105	LFG	North	E-line
MO-106	LFG	North	E-line
MO-107	LFG	North	E-line
MO-108	LFG	North	E-line
MO-110	LFG	North	E-line
MO-112	LFG	North	E-line
HJMU-101	UKM	North	Level TROLL®
MU-101	UKM	South	Level TROLL®
MU-102	UKM	South	Level TROLL®
MU-103	UKM	South	Level TROLL®
MU-104	UKM	South	Level TROLL®
MU-109	UKM	South	Level TROLL®
MU-111	UKM	North	Level TROLL®
MU-113	UKM	South	Level TROLL®
UKMP-101	UKM	South	Level TROLL®
UKMP-102	UKM	North	Level TROLL®
HJMU-104	UKM	North	E-line

**Table 4-2
Equipment Layout
Mine Unit 1 South Test
Lost Creek ISR, LLC**

PW-101 Test			
Well Name	Completion Zone	Side of Lost Creek Fault	Monitoring Equipment
HJMU-105	UKM	North	E-line
HJMU-108	UKM	North	E-line
HJMU-109	UKM	South	E-line
HJMU-110	UKM	North	E-line
HJMU-113	UKM	South	E-line
LC17M	UKM	South	E-line
LC20M	UKM	North	E-line
LC24M	UKM	North	E-line
MU-105	UKM	North	E-line
MU-106	UKM	North	E-line
MU-107	UKM	North	E-line
MU-110	UKM	North	E-line
MU-112	UKM	North	E-line
UKMU-103	MKM	North	E-line
HJT-106	DE	South	E-line
HJT-107	DE	South	E-line

Note:

- Well MU-108 (UKM Sand) was plugged and abandoned prior to start of testing and not monitored during South Test.

Table 4-3
Distances to Pumping Well and Observed Drawdown
Mine Unit 1 North Test
Lost Creek ISR, LLC

Completion Type	Well Name	Distance from Pumping Well (ft)	Side of Fault	Water Level Instrument	Drawdown Observed Prior to Shut-in [ft]
Production Zone Pumping Well	PW-102	0	North	Level TROLL®	111.1
Production Zone Monitor Wells (HJ Horizon)	MP-107	73	North	Level TROLL®	48.6
	HJMP-105	354	North	E-Line	37.3
	MP-108	378	North	E-Line	40.3
	HJMP-104	383	North	Level TROLL®	40.0
	HJT-101	523	North	E-Line	34.2
	HJT-102	531	North	E-Line	39.6
	MP-106	597	North	Level TROLL®	30.8
	M-120	622	North	Level TROLL®	36.5
	HJMP-101	717	North	E-Line	30.7
	MP-110	748	North	Level TROLL®	25.7
	M-119	786	North	Level TROLL®	30.6
	LC19M	798	North	E-Line	28.8
	M-121	804	North	Level TROLL®	16.0
	HJMP-108	894	North	E-Line	27.0
	MP-111	1,072	North	Level TROLL®	22.8
	HJT-104	1,097	North	Level TROLL®	24.1
	HJMP-110	1,099	North	E-Line	23.6
	M-122	1,145	North	Level TROLL®	11.3
	M-118	1,149	North	Level TROLL®	19.1
	MP-105	1,273	North	Level TROLL®	20.0
	MP-112	1,357	North	Level TROLL®	18.3
	M-123	1,492	North	Level TROLL®	9.8
	UKMO-102	1,622	North	Level TROLL®	12.8
	M-117	1,627	North	Level TROLL®	15.8
	M-124	1,793	North	Level TROLL®	9.1
	M-116	1,948	North	Level TROLL®	11.0
	UKMO-103	1,963	North	E-Line	7.3
	M-125	2,081	North	Level TROLL®	7.4
	M-115	2,094	North	Level TROLL®	10.1
	M-114	2,210	North	Level TROLL®	2.8
	M-126	2,569	North	Level TROLL®	5.7
	MP-109	613	South	Level TROLL®	2.7
	HJT-103	755	South	E-Line	1.6
	MP-104	1,150	South	E-Line	0.4
HJMP-109	1,346	South	E-Line	0.3	
MP-113	1,377	South	Level TROLL®	0.5	
UKMO-101	1,514	South	Level TROLL®	2.4	
HJMP-113	1,723	South	E-Line	0.3	
HJT-105	1,856	South	Level TROLL®	1.9	
MP-103	1,861	South	Level TROLL®	0.3	
LC16M	1,989	South	E-Line	0.2	
MP-102	2,434	South	E-Line	0.0	
M-127	3,028	South	Level TROLL®	0.4	
MP-101	3,040	South	E-Line	0.1	

**Table 4-3
Distances to Pumping Well and Observed Drawdown
Mine Unit 1 North Test
Lost Creek ISR, LLC**

Completion Type	Well Name	Distance from Pumping Well (ft)	Side of Fault	Water Level Instrument	Drawdown Observed Prior to Shut-in [ft]
Overlying Monitor Wells (LFG Sand)	MO-107	71	North	Level TROLL®	1.2
	MO-108	372	North	Level TROLL®	1.1
	HJMO-105	373	North	E-Line	0.9
	HJMO-104	392	North	E-Line	0.8
	MO-106	595	North	Level TROLL®	1.0
	HJMO-101	712	North	E-Line	0.7
	MO-110	753	North	Level TROLL®	0.7
	LC18M	782	North	E-Line	0.5
	HJMO-108	889	North	E-Line	0.1
	MO-111	1,080	North	Level TROLL®	0.5
	HJMO-110	1,093	North	E-Line	0.4
	MO-105	1,264	North	Level TROLL®	0.3
	MO-112	1,367	North	Level TROLL®	0.1
	MO-115	1,622	North	Level TROLL®	0.7
	MO-109	625	South	Level TROLL®	0.6
	LC25M	962	South	E-Line	0.8
	MO-104	1,165	South	E-Line	3.4
	HJMO-109	1,357	South	E-Line	1.8
	MO-113	1,388	South	Level TROLL®	0.7
	MO-114	1,514	South	Level TROLL®	2.0
	HJMO-113	1,713	South	E-Line	0.9
	MO-103	1,850	South	Level TROLL®	0.7
	LC15M	1,973	South	E-Line	0.5
MO-102	2,439	South	E-Line	0.4	
MO-101	3,032	South	E-Line	0.1	
Overlying Monitor Wells (DE Sand)	HJT-106	1,731	South	E-Line	-0.1
	LC29M	1,972	South	E-Line	0.1
	HJT-107	2,664	South	E-Line	0.0
Underlying Monitor Wells (UKM Sand)	MU-107	82	North	Level TROLL®	2.1
	HJMU-105	363	North	E-Line	1.8
	HJMU-104	382	North	E-Line	2.0
	MU-108	387	North	Level TROLL®	24.7a
	MU-106	589	North	Level TROLL®	0.9
	HJMU-101	707	North	E-Line	0.7
	MU-110	767	North	Level TROLL®	0.6
	LC20M	800	North	E-Line	0.6
	HJMU-108	908	North	E-Line	0.5
	MU-111	1,092	North	Level TROLL®	0.6
	HJMU-110	1,103	North	E-Line	0.5
	MU-105	1,280	North	Level TROLL®	0.3
	MU-112	1,374	North	Level TROLL®	0.4
	UKMP-102	1,620	North	Level TROLL®	0.4
	UKMU-103	1,949	North	E-Line	-0.3
	LC24M	1,981	North	E-Line	0.4
	MU-109	617	South	Level TROLL®	0.8
	MU-104	1,155	South	E-Line	0.2
	HJMU-109	1,355	South	E-Line	0.0
	MU-113	1,391	South	Level TROLL®	0.4
	UKMP-101	1,521	South	Level TROLL®	0.1
	HJMU-113	1,725	South	E-Line	0.0
	MU-103	1,860	South	Level TROLL®	0.0
LC17M	1,986	South	E-Line	-0.1	
MU-102	2,426	South	E-Line	0.1	
MU-101	3,023	South	E-Line	0.0	

Notes:

a - Anomalous value due to faulty well completion.

Drawdown for wells instrumented with TROLLs determined by the difference in water level elevations at the start and end of pumping. E-line monitored wells were measured ~1-2 hours before the start and end of pumping.

Table 4-4
Distances to Pumping Well and Observed Drawdown
Mine Unit 1 South Test
Lost Creek ISR, LLC

Completion Type	Well Name	Distance from Pumping Well (ft)	Side of Fault	Water Level Instrument	Drawdown Observed in Feet Prior to Shut-in (ft)
Production Zone Pumping Well	PW-101	0	South	Level TROLL®	63.5
Production Zone Monitor Wells (HJ Horizon)	HJMP-109	291	South	E-Line	41.7
	MP-104	297	South	Level TROLL®	48.1
	UKMO-101	469	South	Level TROLL®	17.4
	HJMP-113	504	South	E-Line	35.3
	MP-103	564	South	Level TROLL®	36.1
	M-107	582	South	Level TROLL®	29.1
	M-106	663	South	Level TROLL®	34.1
	M-108	663	South	Level TROLL®	25.7
	HJT-103	667	South	E-Line	28.1
	LC16M	758	South	E-Line	29.6
	HJT-105	770	South	Level TROLL®	12.2
	M-105	1,092	South	Level TROLL®	30.7
	M-109	1,141	South	Level TROLL®	21.1
	MP-102	1,149	South	Level TROLL®	19.5
	MP-109	1,204	South	Level TROLL®	18.7
	M-104	1,549	South	Level TROLL®	22.5
	M-110	1,571	South	Level TROLL®	15.2
	MP-101	1,718	South	Level TROLL®	8.3
	M-127	1,905	South	Level TROLL®	5.1
	M-103	1,959	South	Level TROLL®	8.5
	M-111	2,054	South	Level TROLL®	8.1
	M-128	2,236	South	Level TROLL®	5.2
	MP-113	2,318	South	Level TROLL®	7.2
	M-102	2,358	South	Level TROLL®	7.1
	M-101	2,461	South	Level TROLL®	6.7
	M-112	2,534	South	Level TROLL®	6.9
	M-113	2,945	South	Level TROLL®	4.8
	HJT-104	391	North	Level TROLL®	2.0
	HJMP-110	656	North	E-Line	0.8
	UKMO-102	694	North	Level TROLL®	0.6
	HJMP-101	711	North	E-Line	0.7
	MP-105	820	North	E-Line	0.5
	HJMP-108	840	North	E-Line	0.4
	LC19M	896	North	E-Line	0.4
	HJT-102	961	North	Level TROLL®	0.5
	MP-106	984	North	E-Line	0.4
	HJMP-104	1,013	North	E-Line	0.4
	HJMP-105	1,046	North	Level TROLL®	0.4
	UKMO-103	1,209	North	E-Line	0.4
	HJT-101	1,277	North	E-Line	1.0
	MP-108	1,294	North	E-Line	0.4
MP-107	1,310	North	E-Line	0.3	
M-126	1,546	North	Level TROLL®	0.5	
MP-110	2,012	North	E-Line	0.2	
MP-111	2,210	North	Level TROLL®	0.5	
MP-112	2,588	North	E-Line	0.2	
M-114	3,245	North	Level TROLL®	1.2	
M-115	3,280	North	Level TROLL®	0.1	

Table 4-4
Distances to Pumping Well and Observed Drawdown
Mine Unit 1 South Test
Lost Creek ISR, LLC

Completion Type	Well Name	Distance from Pumping Well (ft)	Side of Fault	Water Level Instrument	Drawdown Observed in Feet Prior to Shut-in (ft)
Overlying Monitor Wells (LFG Sand)	MO-104	281	South	Level TROLL®	0.8
	HJMO-109	287	South	E-Line	0.9
	LC25M	450	South	E-Line	-0.1
	MO-114	469	South	Level TROLL®	1.9
	HJMO-113	502	South	E-Line	0.8
	MO-103	555	South	Level TROLL®	0.3
	LC15M	744	South	E-Line	0.2
	MO-102	1,151	South	Level TROLL®	0.3
	MO-109	1,202	South	Level TROLL®	-0.1
	MO-101	1,712	South	Level TROLL®	0.0
	MO-113	2,325	South	Level TROLL®	-0.1
	HJMO-110	668	North	E-Line	-0.1
	MO-115	694	North	Level TROLL®	0.0
	HJMO-101	709	North	Level TROLL®	-0.1
	MO-105	825	North	E-Line	0.0
	HJMO-108	834	North	E-Line	-0.1
	LC18M	906	North	E-Line	-0.1
	MO-106	971	North	E-Line	-0.1
	HJMO-104	1,002	North	E-Line	-0.1
	HJMO-105	1,029	North	E-Line	-0.2
MO-108	1,304	North	E-Line	-0.1	
MO-107	1,312	North	E-Line	0.2	
MO-110	2,011	North	E-Line	0.0	
MO-111	2,223	North	Level TROLL®	0.0	
MO-112	2,595	North	E-Line	0.0	
Overlying Monitor Wells (DE Sand)	HJT-106	387	South	E-Line	0.0
	HJT-107	1,426	South	E-Line	0.0
Underlying Monitor Wells (UKM Sand)	MU-104	285	South	Level TROLL®	5.7
	HJMU-109	298	South	E-Line	1.8
	UKMP-101	460	South	Level TROLL®	0.4
	HJMU-113	514	South	E-Line	1.2
	MU-103	566	South	Level TROLL®	1.3
	LC17M	765	South	E-Line	1.2
	MU-102	1,138	South	Level TROLL®	0.9
	MU-109	1,215	South	Level TROLL®	3.8
	MU-101	1,701	South	Level TROLL®	0.6
	MU-113	2,337	South	Level TROLL®	0.7
	HJMU-110	667	North	E-Line	0.5
	UKMP-102	703	North	Level TROLL®	1.1
	HJMU-101	718	North	Level TROLL®	0.4
	MU-105	828	North	E-Line	0.3
	HJMU-108	834	North	E-Line	0.4
	LC20M	908	North	E-Line	0.3
	LC24M	974	North	E-Line	0.5
	MU-106	983	North	E-Line	0.3
	HJMU-104	1,011	North	E-Line	0.2
	HJMU-105	1,040	North	E-Line	0.2
UKMU-103	1,194	North	E-Line	0.4	
MU-107	1,301	North	E-Line	0.2	
MU-110	2,031	North	E-Line	0.1	
MU-111	2,231	North	Level TROLL®	0.1	
MU-112	2,606	North	E-Line	0.1	

Notes:

Drawdown for wells instrumented with TROLLs determined by the difference in water level elevations at the start and end of pumping. E-line monitored wells were measured ~1-2 hours before the start and end of pumping.

**Table 4-5
Calculated Vertical Hydraulic Gradients
Mine Unit 1
Lost Creek ISR, LLC**

Well Cluster	Sand	Date / Time	Well Name	DTW (ft)	TOC Elev (ft amsl)	WT Elev (ft amsl)	Screen Top (ft)	Screen Bottom (ft)	Screen Length (ft)	Screen Midpoint (ft amsl)	Vert. Grad., LFG to HJ	Vert. Grad., LFG to UKM	Vert. Grad., HJ to UKM
M112	LFG	12/8/08 8:36	MO-112	167.61	6936.66	6769.05	315	335	20	6611.66	0.09	0.15	0.23
M112	HJ	12/8/08 8:36	MP-112	177.27	6936.64	6759.37	422	441	19	6505.14			
M112	UKM	12/8/08 8:36	MU-112	198.42	6936.75	6738.33	515	535	20	6411.75			
M105	LFG	12/8/08 10:53	MO-105	166.90	6950.46	6783.56	303	330	27	6633.96	0.14	0.17	0.19
M105	HJ	12/8/08 10:53	MP-105	178.86	6949.49	6770.63	402	418	16	6539.49			
M105	UKM	12/8/08 10:53	MU-105	201.21	6950.08	6748.87	507	545	38	6424.08			
HJ101	LFG	12/8/08 11:45	HJMO-101	169.61	6949.70	6780.09	295	326	31	6639.20	0.08	0.15	0.31
HJ101	HJ	12/8/08 11:45	HJMP-101	179.38	6948.64	6769.26	438	465	27	6497.14			
HJ101	UKM	12/8/08 11:45	HJMU-101	200.17	6949.03	6748.86	499	535	36	6432.03			
M113	LFG	12/8/08 11:25	MO-113	159.19	6922.29	6763.10	346	366	20	6566.29	0.24	0.14	0.02
M113	HJ	12/8/08 11:25	MP-113	184.03	6923.19	6739.16	447	466	19	6466.69			
M113	UKM	12/8/08 11:25	MU-113	186.13	6923.75	6737.62	530	550	20	6383.75			
M104	LFG	12/8/08 11:50	MO-104	165.41	6937.86	6772.45	339	369	30	6583.86	0.22	0.12	0.07
M104	HJ	12/8/08 11:50	MP-104	183.29	6938.45	6755.16	424	440	16	6506.45			
M104	UKM	12/8/08 11:50	MU-104	191.71	6937.88	6746.17	550	580	30	6372.88			
M101	LFG	12/8/08 12:50	MO-101	156.31	6940.24	6783.93	310	340	30	6615.24	0.11	0.15	0.18
M101	HJ	12/8/08 12:50	MP-101	167.93	6940.30	6772.37	420	438	18	6511.30			
M101	UKM	12/8/08 12:50	MU-101	186.65	6940.37	6753.72	520	540	20	6410.37			

Notes:

DTW - Depth to water

TOC - Top of casing

Vertical hydraulic gradients between sand intervals calculated from screen midpoints

**Table 4-6
Pumping Rate Versus Time
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test											
Date/Time	Interval Minutes	Total Minutes	Totalizer 1 (gal)	T1 Rate (gpm)	Totalizer 2 (gal)	T2 Rate (gpm)	Interval Gallons, T1	Interval Gallons, T2	Calculated Rate, T1	Calculated Rate, T2	Notes
11/18/08 10:30	0	0	0	78	0	78	0	0	0	0	BEGIN Test, PW-102
11/18/08 10:56	26	26	1,959	75	1,975	76	1,959	1,975	75.3	76.0	
11/18/08 11:40	70	44	5,264	74	5,281	74	3,305	3,306	75.1	75.1	
11/18/08 12:17	107	37	7,995	74	8,019	74	2,731	2,738	73.8	74.0	
11/18/08 13:01	151	44	11,268	73	11,305	73	3,273	3,286	74.4	74.7	
11/18/08 13:59	209	58	15,473	73	15,523	73	4,205	4,218	72.5	72.7	
11/18/08 14:43	253	44	18,615	72	18,674	73	3,142	3,151	71.4	71.6	
11/18/08 16:15	345	92	25,526	72	25,607	72	6,911	6,933	75.1	75.4	
11/18/08 16:36	366	21	26,723	72	26,805	73	1,197	1,198	57.0	57.0	
11/18/08 17:00	390	24	28428	72	28512	73	1,705	1,707	71.0	71.1	
11/18/08 17:29	419	29	30563	73	30654	73	2,135	2,142	73.6	73.9	
11/18/08 18:00	450	31	32715	72	32821	72	2,152	2,167	69.4	69.9	
11/18/08 18:30	480	30	34862	72	34875	72	2,147	2,054	71.6	68.5	
11/18/08 19:00	510	30	36982	72	37107	73	2,120	2,232	70.7	74.4	
11/18/08 19:30	540	30	39218	72	39250	72	2,236	2,143	74.5	71.4	
11/18/08 20:30	600	60	43525	72	43679	72	4,307	4,429	71.8	73.8	
11/18/08 21:06	636	36	46288	72	46446	72	2,763	2,767	76.7	76.9	
11/18/08 21:30	660	24	47827	72	47988	72	1,539	1,542	64.1	64.2	
11/18/08 22:00	690	30	49959	72	50120	72	2,132	2,132	71.1	71.1	
11/18/08 22:30	720	30	52163	72	52330	72	2,204	2,210	73.5	73.7	
11/18/08 23:00	750	30	54309	72	54476	72	2,146	2,146	71.5	71.5	

**Table 4-6
Pumping Rate Versus Time
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test											
Date/Time	Interval Minutes	Total Minutes	Totalizer 1 (gal)	T1 Rate (gpm)	Totalizer 2 (gal)	T2 Rate (gpm)	Interval Gallons, T1	Interval Gallons, T2	Calculated Rate, T1	Calculated Rate, T2	Notes
11/18/08 23:35	785	35	57943	71	57118	71	3,634	2,642	103.8	75.5	
11/19/08 0:00	810	25	57800	72	58790	71	-143	1,672	-5.7	66.9	
11/19/08 0:34	844	34	61088	71	61260	71	3,288	2,470	96.7	72.6	
11/19/08 1:05	875	31	63258	71	63428	71	2,170	2,168	70.0	69.9	
11/19/08 1:30	900	25	65070	71	67470	71	1,812	4,042	72.5	161.7	
11/19/08 2:00	930	30	67102	71	67282	71	2,032	-188	67.7	-6.3	
11/19/08 2:30	960	30	69189	71	69370	71	2,087	2,088	69.6	69.6	
11/19/08 3:00	990	30	71480	71	71660	71	2,291	2,290	76.4	76.3	
11/19/08 3:30	1020	30	73508	71	73692	71	2,028	2,032	67.6	67.7	
11/19/08 4:05	1055	35	76150	71	76338	71	2,642	2,646	75.5	75.6	
11/19/08 4:35	1085	30	78450	71	78644	71	2,300	2,306	76.7	76.9	
11/19/08 5:30	1140	55	82044	71	82240	71	3,594	3,596	65.3	65.4	
11/19/08 6:30	1200	60	86210	71	86405	71	4,166	4,165	69.4	69.4	
11/19/08 7:02	1232	32	88605	71	88802	71	2,395	2,397	74.8	74.9	
11/19/08 7:29	1259	27	90449	71	90644	71	1,844	1,842	68.3	68.2	
11/19/08 9:48	1398	139	100275	70	100480	70	9,826	9,836	70.7	70.8	
11/19/08 11:21	1491	93	106838	70	107059	70	6,563	6,579	70.6	70.7	
11/19/08 12:24	1554	63	110388	70	110623	70	3,550	3,564	56.3	56.6	
11/19/08 16:40	1810	256	125895	70	126138	70	15,507	15,515	60.6	60.6	
11/19/08 18:10	1900	90	135470	70	135728	70	9,575	9,590	106.4	106.6	
11/19/08 19:02	1952	52	138983	70	139244	70	3,513	3,516	67.6	67.6	

**Table 4-6
Pumping Rate Versus Time
Mine Unit 1 North Test
Lost Creek ISR, LLC**

PW-102 Test											
Date/Time	Interval Minutes	Total Minutes	Totalizer 1 (gal)	T1 Rate (gpm)	Totalizer 2 (gal)	T2 Rate (gpm)	Interval Gallons, T1	Interval Gallons, T2	Calculated Rate, T1	Calculated Rate, T2	Notes
11/19/08 20:00	2010	58	142944	70	143210	70	3,961	3,966	68.3	68.4	
11/19/08 20:58	2068	58	147060	70	147332	70	4,116	4,122	71.0	71.1	
11/19/08 22:10	2140	72	152175	70	152455	70	5,115	5,123	71.0	71.2	
11/20/08 1:28	2338	198	165997	70	166285	70	13,822	13,830	69.8	69.8	
11/20/08 4:49	2539	201	180060	70	183600	70	14,063	17,315	70.0	86.1	
11/20/08 6:21	2631	92	186477	70	186780	70	6,417	3,180	69.8	34.6	
11/20/08 7:48	2718	87	192514	70	192822	70	6,037	6,042	69.4	69.4	
11/20/08 8:39	2769	51	196073	69	196384	70	3,559	3,562	69.8	69.8	
11/20/08 10:30	2880	111	203895	69	204219	69	7,822	7,835	70.5	70.6	END of test

Summary	
T1 Cummulative Average Rate (total gal ÷ total time)	70.8 gpm
T2 Cummulative Average Rate (total gal ÷ total time)	70.9 gpm
Combined Average Rate	70.9 gpm
Total Minutes	2880

Notes:

Totalizers 1 & 2 - 1.5" turbine flow meter (Turbines Incorporated, FW Series)

**Table 4-7
Pumping Rate Versus Time
Mine Unit 1 South Test
Lost Creek ISR, LLC**

PW-101 Test											
Date/Time	Interval Minutes	Total Minutes	Totalizer 1 (gal)	T1 Rate (gpm)	Totalizer 2 (gal)	T2 Rate (gpm)	Interval Gallons, T1	Interval Gallons, T2	Calculated Rate, T1	Calculated Rate, T2	Notes
12/10/08 14:00	0	0	0	63	0	63	0	0	0	0	BEGIN Test, PW-101
12/10/08 14:32	32	32	1954	61	1,966	61	1,954	1,966	61.1	61.4	
12/10/08 15:04	32	64	3966	61	3,973	61	2,012	2,007	62.9	62.7	
12/10/08 17:41	157	221	13380	60	13,417	60	9,414	9,444	60.0	60.2	
12/10/08 19:21	100	321	19647	59	19,725	60	6,267	6,308	62.7	63.1	
12/10/08 20:31	70	391	23399	59	23,513	60	3,752	3,788	53.6	54.1	
12/10/08 21:16	45	436	26230	59	26,361	60	2,831	2,848	62.9	63.3	
12/10/08 23:41	145	581	34679	59	34,890	59	8,449	8,529	58.3	58.8	
12/11/08 2:07	146	727	43285	59	43578	59	8,606	8,688	58.9	59.5	
12/11/08 5:20	193	920	54538	59	54920	59	11,253	11,342	58.3	58.8	
12/11/08 8:34	194	1114	66032	58	66461	59	11,494	11,541	59.2	59.5	
12/11/08 11:48	194	1308	77389	58	77839	58	11,357	11,378	58.5	58.6	
12/11/08 12:25	37	1345	79464	58	79913	58	2,075	2,074	56.1	56.1	
12/11/08 14:10	105	1450	85808	58	86257	58	6,344	6,344	60.4	60.4	
12/11/08 18:16	246	1696	100030	58	100457	58	14,222	14,200	57.8	57.7	
12/11/08 20:48	152	1848	108442	58	108870	58	8,412	8,413	55.3	55.3	
12/11/08 22:40	112	1960	115467	58	115868	58	7,025	6,998	62.7	62.5	
12/12/08 2:08	208	2168	127398	58	127761	58	11,931	11,893	57.4	57.2	
12/12/08 7:43	335	2503	146748	58	147028	58	19,350	19,267	57.8	57.5	
12/12/08 11:48	245	2748	160881	57	161119	57	14,133	14,091	57.7	57.5	
12/12/08 12:55	67	2815	164694	57	164794	57	3,813	3,675	56.9	54.9	

**Table 4-7
Pumping Rate Versus Time
Mine Unit 1 South Test
Lost Creek ISR, LLC**

PW-101 Test											
Date/Time	Interval Minutes	Total Minutes	Totalizer 1 (gal)	T1 Rate (gpm)	Totalizer 2 (gal)	T2 Rate (gpm)	Interval Gallons, T1	Interval Gallons, T2	Calculated Rate, T1	Calculated Rate, T2	Notes
12/12/08 13:58	63	2878	168189	57	168367	57	3,495	3,573	55.5	56.7	
12/12/08 15:19	81	2959	172957	57	173114	57	4,768	4,747	58.9	58.6	
12/12/08 16:42	83	3042	177708	57	177837	57	4,751	4,723	57.2	56.9	
12/12/08 19:19	157	3199	186649	57	186740	57	8,941	8,903	56.9	56.7	
12/12/08 21:36	137	3336	194465	57	194523	57	7,816	7,783	57.1	56.8	
12/13/08 1:13	217	3553	207059	57	207062	57	12,594	12,539	58.0	57.8	
12/13/08 4:52	219	3772	219475	57	219402	57	12,416	12,340	56.7	56.3	
12/13/08 7:20	148	3920	228007	57	227850	57	8,532	8,448	57.6	57.1	
12/13/08 10:27	187	4107	238788	57	238530	57	10,781	10,680	57.7	57.1	
12/13/08 11:45	78	4185	243188	0	242889	0	4,400	4,359	56.4	55.9	END of test

Summary	
T1 Cumulative Average Rate (total gal ÷ total time)	58.1 gpm
T2 Cumulative Average Rate (total gal ÷ total time)	58.0 gpm
Combined Average Rate	58.1 gpm
Total Minutes	4185

Notes:

Totalizers 1 & 2 - 1.5" turbine flow meter (Turbines Incorporated, FW Series)

**Table 7-1
Summary of Pump Test Results
Mine Unit 1 North Test
Lost Creek ISR, LLC**

Well Name	Distance from Pumping Well (ft)	Theis Drawdown			Theis Recovery		
		T (ft ² /d)	K (ft/d)	S	T (ft ² /d)	K (ft/d)	S
PW-102	Pumping	--	--	--	55.0	0.46	--
HJT-104	1097	53.5	0.45	7.2E-05	--	--	--
M-114	2210	98.2	0.82	1.5E-04	--	--	--
M-115	2094	53.3	0.45	5.4E-05	--	--	--
M-116	1948	50.9	0.42	5.8E-05	--	--	--
M-117	1627	56.7	0.47	5.8E-05	--	--	--
M-118	1149	59.6	0.50	9.1E-05	--	--	--
M-119	786	81.5	0.68	6.7E-05	53.0	0.44	--
M-120	622	79.8	0.67	6.8E-05	57.4	0.48	--
M-121	804	97.7	0.81	2.0E-04	57.5	0.48	--
M-122	1145	94.2	0.79	1.6E-04	--	--	--
M-123	1492	92.0	0.77	1.1E-04	--	--	--
M-124	1793	97.5	0.81	8.3E-05	--	--	--
M-125	2081	102.0	0.85	7.6E-05	--	--	--
M-126	2569	104.0	0.87	6.5E-05	--	--	--
MP-105	1273	74.3	0.62	6.1E-05	--	--	--
MP-106	597	67.9	0.57	1.4E-04	57.2	0.48	--
MP-107	73	-- ¹	-- ¹	-- ¹	54.7	0.46	--
MP-108	378	88.1	0.73	1.2E-04	56.2	0.47	--
MP-110	748	75.4	0.63	1.2E-04	52.2	0.44	--
MP-112	1357	60.7	0.51	6.9E-05	--	--	--
UKMO-102	1622	93.8	0.78	6.6E-05	--	--	--
	Maximum	104.0	0.87	2.0E-04	57.5	0.48	--
	Minimum	50.9	0.42	5.4E-05	52.2	0.44	--
	Average	79.1	0.66	9.3E-05	55.4	0.46	--
	Std. Deviation	18.3	0.15	4.0E-05	2.0	0.02	--

Groundwater Linear Velocity, North Side of Fault			
	Average	Maximum	Minimum
Hydraulic Conductivity (K, ft/d)	0.66	0.87	0.42
Average Hydraulic Gradient (dh/dl, ft/ft)	0.0052	0.0052	0.0052
Effective Porosity (n_e , dimensionless)	0.28	0.28	0.28
Calculated Velocity (ft/day)	0.012	0.016	0.008
Calculated Velocity (ft/year)	4.5	5.9	2.9

Notes:

T - Transmissivity

K - Hydraulic conductivity; calculated based on 120 ft aquifer thickness.

S - Storativity

¹ - Theis drawdown was not analyzed due to partial penetration effects and proximity to pumping well.

No analytical solutions calculated for MP-111, due to erratic pressure transducer data.

Linear velocity = $(K * dh/dl) / n_e$

**Table 7-2
Summary of Pump Test Results
Mine Unit 1 South Test
Lost Creek ISR, LLC**

Well Name	Distance from Pumping Well (ft)	Theis Drawdown			Theis Recovery		
		T (ft ² /d)	K (ft/d)	S	T (ft ² /d)	K (ft/d)	S
PW-101	Pumping	--	--	--	61.5	0.51	--
M-101	2461	97.4	0.81	7.16E-05	--	--	--
M-102	2358	95.4	0.80	7.31E-05	--	--	--
M-103	1959	86.8	0.72	8.95E-05	--	--	--
M-104	1549	69.4	0.58	3.55E-05	--	--	--
M-105	1092	69.8	0.58	3.59E-05	60.5	0.50	--
M-106	663	73.7	0.61	6.83E-05	58.3	0.49	--
M-107	582	79.6	0.66	1.22E-04	65.6	0.55	--
M-108	663	79.9	0.67	1.29E-04	66.9	0.56	--
M-109	1141	78.6	0.66	6.80E-05	--	--	--
M-110	1571	108.0	0.90	4.82E-05	--	--	--
M-111	2054	98.0	0.82	8.20E-05	--	--	--
M-112	2534	104.0	0.86	6.46E-05	--	--	--
M-113	2945	114.0	0.95	6.93E-05	--	--	--
M-127	1905	129.0	1.08	1.55E-04	--	--	--
M-128	2236	116.0	0.96	1.11E-04	--	--	--
MP-101	1718	94.7	0.79	1.17E-04	--	--	--
MP-102	1149	77.0	0.64	7.88E-05	--	--	--
MP-103	564	77.0	0.64	7.26E-05	63.3	0.53	--
MP-104	297	89.1	0.74	5.78E-05	58.8	0.49	--
MP-109	1204	70.9	0.59	8.18E-05	--	--	--
MP-113	2318	98.1	0.82	7.34E-05	--	--	--
UKMO-101	469	109.0	0.91	4.26E-04	97.1	0.81	--
HJT-105	770	114.0	0.95	3.02E-04	109.0	0.91	--
	Maximum	129.0	1.08	4.3E-04	109.0	0.91	--
	Minimum	69.4	0.58	3.6E-05	58.3	0.49	--
	Average	92.6	0.77	1.1E-04	71.2	0.59	--
	Std. Deviation	17.1	0.14	8.8E-05	18.5	0.15	--

Groundwater Linear Velocity, South Side of Fault			
	Average	Maximum	Minimum
Hydraulic Conductivity (K, ft/d)	0.77	1.08	0.58
Average Hydraulic Gradient (dh/dl, ft/ft)	0.0087	0.0087	0.0087
Effective Porosity (n_e , dimensionless)	0.28	0.28	0.28
Calculated Velocity (ft/day)	0.024	0.034	0.018
Calculated Velocity (ft/year)	8.7	12.2	6.6

Notes:

T - Transmissivity

K - Hydraulic conductivity; calculated based on 120 ft aquifer thickness.

S - Storativity

Linear velocity = $(K * dh/dl) / n_e$