Case No. 84739

IN THE SUPREME COURT OF THE STATE OF NEVADA

ADAM SULLIVAN, P.E., NEVADA STATE ENGINEER, et al.

Appellants,

vs.

LINCOLN COUNTY WATER DISTRICT, et al.

JOINT APPENDIX

VOLUME 45 OF 49

KANE SPRINGS VALLEY
WELL CONSTRUCTION AND
TESTING DATA COMPILATION

Prepared for:
LINCOLN COUNTY WATER
DISTRICT AND VIDLER WATER
COMPANY

URS Job No. 23444639
March 2006

COPY EXZ4

URS

Kane Springs [illegible]itor Well (KMW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Drilling Contractor: Lang Exploratory Drilling

Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
0		GP; prly graded Grv (colluvium/alluvium) dk reds brn (10R3/4) & m gry (N5) Ls	No pen rate info ft bls = Lang depth - 5 ft
10		GP; prly graded Grv; lt gry (N7) & brnsh yel (10YR6/8) Ls w/ grysh red (5R4/2) Dls; grad is crs + f Grv w/ 10% crs Grv; sbang to rnd/Hic but predly sbrnd	No pen rate info
20		No Spl	No pen rate info
30		GP; prly graded Grv; lt gry (N7) & brnsh yel (10YR6/8) Ls w/ grysh red (5R4/2) Dls; grad is crs to f Grv w/10% crs Grv; sbang to rnd, but predly sbrnd	No pen rate info
40		GP a.a.	No pen rate info
50		GP a.a	~~0.8 min/ft~~ HK ~~0.6~~ 0.8 mpf
60		GP a.a. w/ only 5% Lmu crs Grv	1.2 min/ft
70		GP a.a.	~~1.2 min/ft~~ HK ~~0.91~~ 1.1 mpf
80		GP a.a.	~~0.8 min/ft~~ HK ~~0.91~~ 0.8 mpf
90			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
90		GP a.a.	~~0.8~~ 4x min/ft 0.8 mpf 1.25
100		GP a.a. w/ grad crs Sd to f Grv	~~0.8~~ 4x min/ft 0.8 mpf 1.25
110		GP a.a. w/grad crs Sd	~~1.25~~ 4x min/ft 0.8 mpf 0.8
120		GP a.a. w/ Qtzt	~~1.25~~ 4x min/ft ~~1.25~~ 1.25 0.8 1HK
130		GPa.a. w/o Qtzt	~~1.25~~ ~~min/ft~~ 1HK 1.25 mpf ~~0.8~~ 1HK
140		GP a.a.	~~1.43~~ min/ft ~~1HK~~ 1HK ~~1.25~~ 1HK 1.43 mpf ~~0.8~~
150		GP a.a.	~~1.43~~ min/ft 1HK 1.43 mpf ~~0.8~~ 1HK 1.25 mpf
160		GP a.a.	1.25 min/ft
170		GP a.a.	1.25 min/ft
180		GP a.a.	1.0 min/ft
190			

Kane Springs Monitor Well (KMW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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URS

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
190		GP a.a. w/ more lt gry (N7) Ls	1.6 min/ft
200		GP a.a. (colluvium); dk gry (N3) Ls Frags & lmg Cl (wthd Ls?)	0.75 min/ft
210		GP a.a. w/ m dk gry (N4) Ls Frags	0.75 min/ft; Drlr noted grg bcrk @ 213 ft bls
220		GP a.a. ~~w/ m dk gry~~ HK	3.75 min/ft; BHA = 218.09 ft Lang rndd to 220; ft bls = Lang depth -7 ft
230		Dls; dk gry (N3) Dls w/ Calc, Frac planes/faces Fe-oxtion on some Frac planes/faces; Pyr evident w/hand Len; microxln; ang to sbang; appar 1Por: lo; appar 1Perm: lo; appar 2Por: lo to mod; appar 2Perm: lo to mod	3.75 min/ft
240		Dls a.a. w/ Fe ox stning in Calc filled Frac	4.75 min/ft
250		Dls a.a. w/o Calc filled Frac	4.75 min/ft; Drlr reported Frac frm 251 to 253 ft bls
260		Dls; m dk gry (N4) to dk gry (N3) microxln Dls w/Calc & Pyr(evident w/ hand Len); Frac planes/faces w/ Fe-oxtion; ang to sbang; appar 1Por & 1Perm: lo; appar 2Por & 2Perm: lo to mod	5.25 min/ft- hole took 2 ft of mud from tank
270		Dls a.a. w/ Calc more abd; Frac filled w/ Calc	5.25 min/ft
280		Dls a.a. ~~w/~~ HK w/ vugs & ~~str~~ HK soln features	6 min/ft
290			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
290		Dls; mod yelsh brn (10 YR 5/4), m gry, ↑ dk gry (N3) Dls w/ s amts Calc; Fe-oxtion↑ Cht; microxln; ang to sbang; appar ↓Por ↑ ↓Perm: lo	3.35 min/ft
300		Dls a.a	3.35 min/ft
310		Dls a.a. w/ Fe stning more prevalent	3.35 min/ft
320		Dls; ~~mod~~ yelsh brn (10 YR 5/4) ~~sooc~~ gry (N5) Dls; Calc; Fe stning abd; Spl microxln; ang to sbang; appar ↓Por ↑ ↓Perm; lo; Cht	7.1 min/ft; Drlr ntd lt brn mlk
330		Dls; m gry (N5) w/ ~~Sme~~ ~~yelsh brn~~ Dls w/ Calc; Fe stnd; microxln; w/ Cht; ang to sbang; Frac faces/planes w/ Fe stning; appar ↓Por ↑ ↓Perm: lo; appar 2 Por ↑ 2 Perm: lo to mod	7.1 min/ft; ~~fractrd~~ fracd
340		Dls a.a. w/ less Fe stning ~~↑ less mod yelsh brn (10 YR 5/4) dolst~~	7.1 min/ft
350		Dls a.a. w/ calc frags	2.2 min/ft
360		Dls a.a. w/ more Fe stning ~~↑ more mod yelsh brn (10 YR 5/4) dolst~~ w/o calc frags	2.65 min/ft
370		Dls a.a.	2.65 min/ft
380		Dls a.a. w/ lt olv gry (5Y 6/1) dolst	2.25 min/ft
390			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): ~~HK~~ Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
390		dolst AA ↑ incr in mod yelsh brn (10YR 5/4) dolst has lrld off	2.25 mpf
400		dolst AA w/ s calc frags	2.3 mpf
410		dolst AA	2.3 mpf
420		dolst AA	2.7 mpf; Drlr noted s frac @ 423 ft bls
430		dolst AA	2.7 mpf
440		dolst; mdk gry (N4) dolst w/ v s amt of dk yelsh ~~brn~~ or (10YR 6/6) cly (flt gouge?); microxln; fracd; cht; cly is sft & stcky; Fe stning on dolst; ang to sbang; dolst: appar pri & sec por &	2 mpf; drlr noted brn rock @ 448
450		por: hi; appar pri perm: lo; sec por & perm: lo to mod	rm: lo; cly: appar pri; HK pri; 2 mpf
		dolst AA	~~2.05 mpf; smth drlg noted by drlr; mxing 3 sx mud per JT~~ HK
460		dolst; mdk gry (N4); fracd; calc in s vns; Fe stnings HK on fracs; calc on fracs; microxln; ang-sbang; cht; appar pri por & perm: lo	2.05 mpf; smth drlg noted by drlr; mxing 3 sx mud per JT
470		HK dolst AA w/ s amt dk yelsh or (10YR 6/6) cly (flt gouge); cly is sft & stcky; calc frag to 5 mm; cly: appar pri por: hi;	appar sec por & perm: lo to mod 2.05 mpf appar pri perm: lo HK
480		dolst AA w/o calc frags	2.05 mpf
490			

Kane Springs Monitor Well (KMW-1) URS

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hugh Klein

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
490	HK	dolst; m gry (N5) ~~some mod yelsh brn (10YR 5/4)~~ HK ~~dolst~~; frctrd; w/ calc; Fe stnd, microxln; cht; ang-sbang; Fe stning on fracs; appar pri por & perm: lo; appar sec por & per: lo to mod	2.05 mpf
500		dolst ~~&~~ HK AA w/ calc frags & ls	2.6 mpf
510		~~dolst AA~~ HK dolst & ls AA	2.6 mpf
520		dolst & ls AA w/ more Fe stnins	2.5 mpf
530		dolst; m dk gry (N5) dolst; frctrd; w/ chl; Fe stning on fracs; microxln; ang-sbang; appar pri por & perm: lo; appar sec por & perm: lo to mod	2.5 mpf
540		dolst AA w/ s calc frags	4 mpf
550		dolst AA w/o calc frags but w/ calc vnlts up to 1 mm thk	4 mpf
560		dolst AA w/ calc ~~&~~ HK on frac planes	3.25 mpf
570		dolst AA w/ prom cht	3.25 mpf
580		dolst AA w/o calc on fracs or in vnlts; no ~~w/o~~ HK prom cht; also contains s amt of dk yelsh or (10YR 6/6) cly (flt gouge?); cly is	3.25 mpf
590			

sft & stickn w/ appar pri por hi & appar pri perm lo

Kane Springs Monitor Well (KMW-1)

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Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
590		dolst AA	3.25 mpf
600		dolst AA w/o cly & w/calc; some frags 1cm in diam	2.75 mpf
610		dolst AA w/o large calc frags	2.75 mpf
620		dolst AA w/ vugs; calc on fractrs	2.75 mpf
630		dolst AA w/o vugs	2.5 mpf
640		dolst AA w/ dk yelsh or (10YR6/6) cly/ silt gouge?; cly is sft & stcky w/ pri appar por ~~&~~ & pri appar perm to	2.75 mpf
650		dolst AA w/ lt olv grs (5Y 6/1) dolst	2.75 mpf
660		dolst AA w/ lrg calc frags, some up to 1cm in diam	3.5 mpf
670		dolst AA w/o lrg calc frags & w/ calc vnlts & calc on fract & frac's	3.5 mpf
680		dolst AA	3.2 mpf
690			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
690		dolst; m gry (N5) & lt olv gry (5Y 6/1) dolst; fracd; calc & some cht; Fe stnngs; appar pri: por & perm: lo to ~~mod~~ HK; appar sec por & perm: lo to mod	3.2 mpf ang-sbang
700		dolst AA w/ less lt olv gry (5Y 4/1) dolst ~~& calc frags~~ HK	3.05 mpf; slly ~~fractd~~ HK fracd - drlr
710		dolst AA w/ s calc frags	3.15 mpf drlr - slly fracd
720		dolst AA w/o calc frags & w/ more Fe stnngs ~~& cht~~ HK	3.15 mpf
730		dolst AA w/ cht	3.6 mpf
740		dolst AA	3.6 mpf
750		dolst & ~~qtzt~~; AA w/ s amt lt gry (N7) qtzt	4.2 mpf
760		qtzt w/ dolst; lt gry (N7) qtzt w/ s amt m dk gry (~~N3~~ HK N4 to dk gry (N3) dolst; dolst has calc & cht; fracd; microxln; ang-sbang;	4.2 mpf; drlr noted qtzt @ 768 ft bls appar pri por & perm: lo; appar sec
770		dolst w/ qtzt ~~AA but dolst; has~~ HK m ~~dk~~ AIC gry (N5-) & dk gry (N4) dolst w/ s ~~amt~~ HK amt dk gry (N3) dolst & s amt of lt gry (N7) qtzt;	4.25 mpf por & perm: lo to mod cht & calc in dolst;
780		fracd; cht & calc in dolst; ~~per~~ HK appar pri por & perm: lo; appar sec por & perm: lo to mod dolst AA w/o qtzt	4.25 mpf
790			

Kane Springs Monitor Well (KMW-1)

URS

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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
790		dolst AA w/ Fe stnings	4.3 mpf
800		dolst AA w/ s amt ls	4.3 mpf
810		dolst; m lt gry(N6), dk gry(N3) & blk(N1) dolst; fracd; calc(some on frac); microxln; ang-sbang; some calc frags; ppr por & perm: lo; sec por & perm: lo to mod	4.5 mpf
820		dolst AA w/ s amt of lt olv gry(5Y6/1) dolst	4.5 mpf
830		dolst; m lt gry(N6) & lt olv gry(5Y6/1) dolst; calc; frac w/ Fe stnings; cht; ang-sbang; microxln; appar pri por & perm: lo; appar sec por & perm: lo to mod	5 mpf
840		dolst AA	6.4 mpf
850		dolst AA w/ less calc	5.2 mpf
860		dolst; dk gry(N3) dolst; fracd; cht; calc; microxln; ang-sbang; appar pri por & perm: lo; appar sec por & perm: lo to mod	5.1 mpf
870		dolst AA w/ calc vnlts	5.5 mpf
880		dolst AA w/ calc on fracs	3.7 mpf
890			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
890		dolst AA ~~w/ lt olvgry (5Y 6/1) dolst~~ AA	4.3 mpf
900		dolst AA w/ lt olvgry (5Y 6/1) dolst	4.5 mpf
910		dolst AA w/o lt olvgry (5Y 6/1) dolst	4.5 mpf
920		dolst AA	4.5 mpf
930		ls|dolst; m lt gry (N6) | lt olvgry (~~N~~ 5Y 6/1) ls|dolst w/ sand dk lt gry (N6) cly; ls|dolst; microxln, ang-sbang, w/ calc (some in vnlts); appar pri por|perm: lo	3.9 mpf
940		ls|dolst AA cly is soft|sticky, appar pri por hi|appar pri perm lo	3.9 mpf
950		ls|dolst; m lt gry (N6) | lt olv gry (5Y 6/1) ls|dolst; calc; cht; ang-sbang; ~~appar~~ microxln appar pri por|perm: lo	7.1 mpf
960		ls|dolst AA	5.7 mpf
970		dolst; m lt gry (N6) | lt olv gry (5Y 6/1) dolst; fracd; microxln; calc; ang-sbang; appar pri por|perm lo; appar sec por|perm lo to mod	7.5 mpf
980		dolst AA	5.5 mpf
990			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
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Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
990		dolst AA w/ v s vugs	5.9 mpf
1000		dolst AA w/o vugs	5.9 mpf; BH took a big drink at ~1003 ft bls (~½ tank) - some fracs at ~~1000~~ AK 1003 ft bls
1010		dolst AA	7.6 mpf
1020		dolst AA	7.6 mpf
1030		dolst: m gry & dk gry (N3) dolst ~~AK~~, cht; calc fracs; microxln; ang-sbang; appar pri por & perm: lo; appar sec por & perm:	10 mpf lo to mod
1040		dolst AA w/ calc vnlts	~~10~~ AK mpf 7.6
1050		dolst AA w/o calc vnlts	~~7.6~~ AK mpf 8.9
1060		dolst AA w/ calc vnlts	6 mpf
1070		dolst AA w/ s amt of v lt ~~clyst~~ AK gry (N8) cly; cly is sft & sticky; appar pri por hi, appar pri perm lo	5 mpf
1080		dolst w/o cly, w/ vugs	4.6 mpf
1090			

Kane Springs Monitor Well (KMW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1090		dolst AA	4.8 mpf
1100		dolst AA w/ calc frags (1-2 mm)	6.4 mpf; dkr mottled frac 1102 to 1103 ft bls
1110		dolst AA	5.8 mpf; rough drlg 1112 to 1116 ft bls
1120		dolst AA w/ s amt v lt grn (NS) cly; cly is soft & sticky; appar ~~por~~ pri por hi, appar pri perm lo	6.2 mpf
1130		dolst AA w/ lt Fe stning	11 mpf
1140		dolst AA	11 mpf
1150		dolst AA	7.9 mpf
1160		dolst AA	6.5 mpf
1170		dolst AA w/o cly	7.5 mpf
1180		dolst AA	6.2 mpf
1190			

Kane Springs Monitor Well (KMW-1)

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Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1190		dolst AA	6 mpf
1200		dolst; lt gry (N7) & m lt gry (N6) dolst; microxln; ang-sbang; appar pri por & perm: lo	4.7 mpf frac started @ 1209 ft bls
1210		dolst; m dk gry (N4) & dk gry (N3) dolst; fracd; w/ lt calc; microxln; ang-sbang; appar pri por & perm: lo; appar sec por & perm lo to mod	5 mpf frac contd to 1213 mpf
1220		dolst AA w/ cht & ~~dk~~ lt gry s amt dk gy sh or (lower Grd) cly; cly is sft & stcky w/; appar pri por hi & appar pri perm lo	4.5 mpf
1230		dolst AA w/a cht & w/ vugs w/o cly	11 mpf
1240		dolst AA w/o vugs	7 mpf
1250		dolst AA w/ calc frags (~1mm)	6.9 mpf
1260		dolst AA	5.9 mpf
1270		dolst AA w/ a ltl Fe stning & vugs	4.1 mpf
1280		dolst AA w/ more Fe stning	3.9 mpf
1290			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1290		dolst AA w/ calc on fracs; Fe stnins ~~dot~~ ltl leveled off (amt)	4,8 mpf
1300		dolst AA	4,5 mpf
1310		dolst AA	4,9 mpf
1320		dols AA	5,7 mpf
1330		dolst AA w/i pron Fe stnins	6,4 mpf
1340		~~dot~~ cly; dk yelsh gr (10YR6/6) cly (fft gauge?) ltly mud or pnk (5YR 8/4) qtzt; cly is sft ↑ stck w/ qtzt microxlm, any-sbang; clg - appar pri por qtzt - appar pri por ↑ perm - lo	6,9 mpf hi ↑ appar pri perm lo
1350		qtzt; mud or pnk (5YR 8/4) ↑ grysh or pnk (5YR 7/2) pnk qtzt; microxlm; any-sbang; appar pri por ↑ perm: lo	10,1 mpf
1360		qtzt AA ~~grysh or pnk~~	18,4 mpf
1370		qtzt AA w/ grysh or pnk (5YR 7/2) as prim color	14,2 mpf
1380		qtzt ~~&~~ AA w/ v s amt of m ↑ gry dolst; dolst is microxln, any-sbang w/i lo appar pri por ↑ perm	14,2 mpf
1390			

Kane Springs Monitor Well (KMW-1)

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Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1390		dolst; m ltgry (N6) dolst; fracd w/ Fe stning; microxln; ang-sbang; cht; lo appar pri por & perm; lo to mod appar sec por & perm	14.3 mpf
1400		dolst AA w/ more Fe stning	8 mpf
1410		dolst AA w/ more Fe stning than 1400 - 1410	8.4 mpf
1420		dolst; m dk gry (N4) dolst; microxln; fracd; ang-sbang; Fe stning; calc; do appar pri por & perm; lo to mod sec appar sec por & perm	7.3 mpf
1430		dolst AA w/ ~~sl~~ HC calc vnlts	~~6.~~ 8 mpf
1440		dolst AA w/o calc vnlts	6.8 mpf
1450		dolst AA	7.8 mpf
1460		dolst AA w/ dk yelsh or (10 YR 6/6) cly (contam from 1340?); cly is sft & stcky w/ hi appar pri por & lo appar pri perm	9.9 mpf
1474		dolst; m ltgry (N7) & m gry (N5) dolst w/ dk yelsh or (10 YR 6/6) cly; calc - some vnlts; cht; dolst microxln - fracd; ang - sbang;	7.9 mpf cly contam?
1480		dolst - lo appar pri por & perm; cly (contam from 1340?); hi appar pri por & lo appar pri perm; lo to mod sec por & perm	9 mpf
1490		dolst AA	

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Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
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Geologist(s): Houghlein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1490		dolst AA w/ more calc Some on fracs	9.2 mpf; 6 SK of mud this ST; 5 frac @ 1492 ft bls
1500		dolst AA	8.9 mpf; 5 frac @ 1510 ft bls
1510		dolst; m gry (N5) to lt olv gry (5Y 6/1) dolst; calc; cht; some calc vnlts; microxln; ang-sbang; lo appar pri por/perm; lo to mod	13.3 mpf; smwt fracd @ 1513 ft bls & appar sec por/perm
1520		dolst AA w/ Fe stning & calc vns	11.8 mpf
1530		dolst AA w/ mod rdsh brn (10YR 4/6) clyy silt; silt is ~~lo appar~~ mod appar pri por & lo appar pri perm	12.5 mpf
1540		dolst AA w/o silt & w/ more calc vns	10.5 mpf
1550		dolst AA	8 mpf
1560		dolst AA w/ dk yelsh or (10YR 6/6) cly (contam from 1540?); cly is sft & stcky w/ hi appar pri por & lo appar pri perm	9.6 mpf; thin brkx zone @ ~ 1564-1568 ft bls
1580		dolst AA w/o cly & w/ mod rdsh brn (10YR 4/6) ~~clyy siltst~~ chalcesh; sh has thn lams & lo appar pri por & perm	8.4 mpf
1590		dolst AA w/ sh	10.3 mpf

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1590		dolst AA w/o ch & w/ ls	10.3 mpf
1600		dolst AA w/ ls ← ¼ cly	7.5 mpf
1610		dolst; m lt gry (N6) to md dk gry (N4) dolsty w/ ple rdsh brn (10R 5/4) cly; dolst microxln w/ cht; cly lny, sft, stcky; dolst ang-sbang, lo appar pri por & perm; cly thi: appar pri por & perm	8 mpf; cly noted by drlr @ 1615 & 1619 ft bls
1620		dolst ¾ cly; m dk gry (N4) dolst w/ s amt dk gelsh or (10YR 6/6) cly (contam from 1340?); fracd; cht; dolst - lo appar pri por & perm; appar sec por & perm lo to mod	9.5 mpf ang-sbang & lo appar pri perm
1630		dolst AA w/ less cly ¾ cly	11.1 mpf
1640		dolst AA w/ less cly ¾ cly	11.8 mpf
1650		dolst ¾ cly; m dk gry (N4) dolst & ple rdsh brn (10R 5/4) cly; fracd; Fe stning; ang-sbang; dolst-cht & lo appar pri por & perm; cly sft & stcky w/ thi appar pri por & lo appar pri por	10 mpf
1660		~~sec appar sec por & perm lo to mod~~ dolst ¾ cly AA w/ dk gelsh or (10YR 6/6) cly (contam from 1340) too; cly is lny	10 mpf
1670		dolst ¾ cly AA	9.7 mpf
1680		dolst ¾ cly AA w/ cly decreasing	5.8 mpf
1690			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1690		dolst AA wr v ltl cly	4.9 mpf
1700		dolst AA w/ min ml cly	6.2 mpf
1710		dol-st ¶ cly; m dk gry (N4) to dk gry (N3) dolst w/ mnr amts dk yelsh or (10YR 6/6) cly (contam?) li fracd; microxln; cht; calc; ang-sbang;	5 mpf
1720		Fe stning on fracs; dolst - lo appar pri por ¶ cly - hi appar pri por ¶ lo appar pri perm; appar sec port perm lo to mod dolst AA	perm; 6 mpf
1730		dolst ¶ cly AA w/ ple rdsh brn (10R 5/4) cly; cly is firm ¶ not v slcky w/; hi appar pri por ¶ lo appar pri perm	4.9 mpf
1740		dolst ¶ cly AA w/o ple rdsh brn (10R 5/4) cly	6.9 mpf
1750		dolst ¶ cly AA w/ ple rdsh brn (10R 5/4) cly	9.5 mpf
1760		dolst ¶ cly AA	8.7 mpf
1770		ss ¶ dolst; mod brn (~~5YR 4/4~~ 5YR 4/4) calc ss ¶ md dk gry (N4) dolst w/ s amt dk yelsh or (10YR 6/6) cly (contam?); fracd; dolst microxln; ssv	9.4 mpf f grn; rck ang-sbang; cly sft ¶ sticky (over)
1780		dolst; m dk gry (N4) dolst; calc; cht; fracd microxln; ang-sbang; lo appar pri por ¶ perm; lo to mod sec por ¶ perm	9 mpf
1790			

Kane Springs M[illegible]or Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1790		dolst AA	10 mpf
1800		dolst AA w/ ~~solution~~ HK soln fectures (Karstic)	8.1 mpf
1810		dolst AA	6.8 mpf
1820		dolst AA w/ calc vnlts	6 mpf
1830		dolst AA w/ ~~mod~~ Fe stnings	8.6 mpf
1840		dolst AA w/o calc vnlts	7.2 mpf
1850		dolst AA w/ Fe stning on fracs	6.6 mpf
1860		dolst AA w/ dk yelsh or (10 YR 6/6) cly (contam?)	6.8 mpf
1870		dolst AA w/o cly	5.9 mpf
1880		dolst AA w/ mod brn (5 YR 4/4) calc ss; ss is lo appar pri por & perm; vfs	5.5 mpf
1890			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1890		dolst AA	7.2 mpf
1900		dolst AA	5 mpf
1910		dolst AA	5.9 mpf
1920		dolst AA	5.3 mpf
1930		dolst AA w/ Fe staining & calc vnlts	6 mpf
1940		dolst AA w/o calc vnlts	4.7 mpf
1950		dolst AA	5 mpf
1960		dolst AA	5.5 mpf
1970		dolst AA w sml amt of vltsry /NSI cly	5.4 mpf
1980		dolst AA w/o cly	4.1 mpf
1990			

Kane Springs Monitor Well (KMW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hughklein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1990		dolst AA	6.3 mpf
2000		dolst AA	5.5 mpf
2010		TD	—

SE ROA 54050

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Kane Springs tor Well (LPW ~~KMW-1~~)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Drilling Contractor: Lang Exploratory Drilling

Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
0		LgP (all vm); prly graded Lgrl - Sclmxtr of mod yelsh brn (10YR5/4) clay Sd; dskybrn (5YR3/2) calcsh & ltgry (N7) and mod rdsh brn (10R4/6) Ls Lrl; ang - s bang; HK	No pen rate info
10		LgP a.a.	No pen rate info
20		LgP a.a.	No pen rate info
30		LgP a.a w/ dk gry (N3) Dls Lrl	No pen rate info
40		LgP a.a.	No pen rate info
50		LgD a.a.	No pen rate info
60		LgP a.a. wlo Dls	No pen rate info
70		LgP a.a.	No pen rate info
80		LgP a.a. w/ s Amt dky gry (N3) Dls Lrl	11.6 min/ft
90			

Kane Springs Monitor Well (~~KMW-1~~) KPW

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hugh Klein
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URS

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
90		LgP a.a.	1.05 min/ft
100		LgD ~~arg. wk~~ HK a.a. w/ s Amt grysh rd (5R 4/2) Cly; Cly is sft & sticky	1.05 min/ft
110		LgP a.a.	1.1 min/ft
120		LgC; LgvI-Sd-Cly matrc; dskg brn (5YR 3/2) calc Sh, mod rdsh brn (10R 4/6) Ls, & dk grg (N3) Dls w/ grysh rd (5R 4/2) Cl; ang-Sbang. Cly is sft & sticky; Cly calc	4.1 min/ft
130		LgC a.a. w/more Dls LgvI	3 min/ft
140		LgC a.a.	3 min/ft
150		LgC a.a.	3.66 min/ft
160		LgC a.a.	3.66 min/ft
170		LgC a.a.	2.75 min/ft
180		LgC a.a.	2.75 min/ft
190			

Kane Springs Monitor Well (~~KMW~~-1) KPW

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hugh Klein
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URS

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
190		LgC a.a.	2.75 min/ft BHA had a DC added so the length changed which affected the sampling
* 195		LgC a.a. w/ less Cly	5.8 min/ft
205		LgP; prly graded LgVf-f pl-e rdsh brn (10R 5/4) calc SS & m ltgry (N6) Ls w/ 5 Amt Cly; Cly is grysh rd (5R 4/2) soft/sticky; ang to sbang	5.8 min/ft
215		LgP a.a. w/o Cly & w/ dkgry (N3) Dls	5.5 min/ft
225		LgP a.a.	3.7 min/ft (mpf)
235		LgP a.a. but predly Dls	5.9 mpf
245		LgP a.a. but almost all Dls	2.7 mpf
255		LgP a.a. transition to Dls bdrk	6.2 mpf
265		Dls; dkgry (N3) dls; microxln; ang-sbang; w/ Lglc; 1Por & 1Perm: lo	5.5 mpf
275		Dls a.a. w/ Fracs; Lglc vns ~~tooth~~; 1 Por & 1 Perm: lo; 2 Por & 2 Perm: lo to mod	9.75 mpf; Delr ntd Fracs 283 to 285 ft Dls; large frac Qtzt in cuttings (too big for tray)
285			

SE ROA 54054

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Kane Springs Monitor Well (~~KMW-1~~) KPW

Client: Vidler Water Company
Project Number: 23444322.40000

Geologist(s): Hugh Klein
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URS

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
285		Dls a.a. w/; Fracs; ~~larg~~ lge Calc Frag in Spl	5.5 mpf; Drlr noted rough drlg from Fracs 291 to 295 ft bls
295		Dls a.a.	6.6 mpf
305		Dls; dk gry (N3), m gry (N5), ¦ lt olv gry (5Y 6/1) Dls; microxln; sm Calc; Cht; ang - sbang;	6.5 mpf; Drlr noted ~~a~~ FM change btwn 311 ¦ 314 ft bls
	appar	1 Por ¦ 1 Perm: lo; sl.ly fracd (fractures/planes), sm Fe stning	ng on Frac faces / plane appar 2 Por ¦ 2 Perm: lo to mod
315		Dls w/; sm Fe stning noted	5.2 mpf
325		Dls a.a. w/o Fe stning	5.7 mpf
335		Dls a.a. w/Cht more prom	5.6 mpf
345		Dls; m lt gry (N6) ¦ m dk gry (N4) microxln Dls w/ Cht ¦ Calc; Frac glmes/surfs, some w Fe stning; ang to sbang; appar 1 Por ¦ Perm: lo; appar 2 Por ¦ Perm: lo to mod	4.9 mpf
355		Dls a.a.	4.6 mpf
365		Dls, a.a.	4.6 mpf
375		Dls a.a.	4.7 mpf
385			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
385		Dls a.a. w/ Calc vnlts & Calc frags	4.7 mpf
395		Dls a.a. w/ Cly; Cly is ~~mod~~ HK yelsh brn (10YR 5/4) ~~transfer Contam from abv~~; Cly is sft & stcky w/ appar 1Por: hi ; appar 1 Perm: lo	5.2 mpf
405		Dls a.a. w/o Cly	5.6 mpf
415		Dls a.a. w/more OK	5.3 mpf
425		Dls a.a. w/ ~~more OK~~ HK w/ Fracd Calc	6 mpf
435		Dls; ~~a~~ HK mod lt gry (N6) microxln Dls w/Calc & Cht; Calc vnlts too; Thks Frac planes/surfaces; some w. Fe-ox ang-sbang; appar 1Por: ; 1Perm: lo; appar 2 Por: 2 Perm: lo to mod	6.1 mpf
445		Dls a.a.	4.3 mpf
455		Dls a.a. w/ mod yelsh brn (10YR 5/4) Cly ; Cly is sft & stcky ; appar 1Por: hi ; appar 1 Perm: lo	4.3 mpf
465		Dls a.a. w/o Cly	5.6 mpf
475 HK 475 485		Dls a.a. w/ mod yelsh brn ~~Cly~~ (10YR 5/4) Cly; Cly is sft & stcky; Cly appar 1Por: hi ; Cly appar 1 Perm: lo	5.7 mpf

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
485		Dls a.a. ~~w/ mod gelsk brn (10YR5/4) Cly; Hk Cly is sft & stcky; Hk Cly appar 1Por : hi ; Hk Cly appar 1Perm: lo~~ Hk w/ less Cly	4.9 mpf
495		Dls a.a. w/ mod lt gry (N6) Ls ; Ls is microxln w/ lo appar 1Por & 1Perm	4.2 mpf
505		Dls & Ls; m lt gry (N6) & m dk gry (N4) Hk microxln Dls & Ls w/ Calc & Cht; Frac planes / faces present; ang - sbang ; appar 1Por & 1Perm : lo ; appar 2Por & 2Perm : lo to mod	4.9 mpf
515		Dls & a.a. w/ Fe ox on Frac Surfs	6 mpf ; Drlr noted Fracs from 523 ft bls ; very large cuttings, some w/ Fe ox on Fracs
525		Dls & Ls a.a.	4 mpf ; Fracs noted by Drlr continue to 530 ; rough Drlng to 530 from 534 to 535 ft bls
535		Dls & Ls a.a.	7.3 mpf
545		Dls & a.a.	7.2 mpf
555		Dls & Hk Ls a.a. w/ ~~Less~~ Hk less Fe ox & more Calc	7.5 mpf
565		Dls & Ls a.a. w/ Calc Vnlts	10 mpf
575		Dls & Ls a.a.	8.75 mpf
585			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
585		Dls ~~}~~ Ls a.a.	8.75 mpf
595		Ls ~~}~~ Cly; m gry (N5) microxln Ls w/ Calc ~~}~~ mod yelsh brn (10 YR 5/4) Chtk Calc Cly; Ls ang-sbang; Cly sft ~~}~~ stcky; Ls is slily fracd w/ appar 1Por ~~}~~ 1Perm: lo; fracs give appar 2Por ~~}~~ 2Perm: lo to mod; Cly has appar 1Por: hi; appar 2Perm: lo	6.6 mpf
605		Dls; m gry (N5) micro xln Dls; slily fracd w/ some Fe-ox on Frac surfs; ang-sbang; appar 1Por ~~}~~ 1Perm: lo	7.4 mpf
615		Dls a.a. w/ Calc vnlts	6.5 mpf
625		Dls ~~}~~ Cly; lt olv gry (5Y 6/1) microxln Dls w/ mod yelsh brn (10 YR 5/4) Cly; Dls has Calc ~~}~~ Calc vnlts, ang-sbang; Cly is calc, sft ~~}~~ stcky; Dls appar 1Por ~~}~~ 1Perm: lo; Cly appar 1Por: hi; Cly appar 1Perm: lo	9.8 mpf
635		Dls; m dk gry (N4) ~~to Dkgy~~ microxln Dls w/ Calc; slily fracd; ang-sbang; appar 1Por ~~}~~ 1Perm: lo; appar 2Por ~~}~~ 2Perm: lo to mod	8.5 ~~mpf~~ mpf
645		Dls ~~to Lt~~ a.a. w/ Fe ox on Frac Surfs	6.7 mpf
655		Dls a.a. w/; some Cht	7.9 mpf
665		Dls a.a. w/o Cht	8 mpf
675		Dls a.a.	6.8 mpf
685			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
685		Dls; dk gry (N3) microxln Dls w/ Calc ~~Calc~~ Vnlts & a sAmt of mod yelsh brn (10YR 5/4) Cly; slily fracd; Dls is ang-sbang; Cly is	1.2 ~~8~~ HK mpf sft
695		stcky; Dls appar 1Por & 1Perm: lo; Cly appar 1Por: hi; Clay appar 2Perm: lo; appar 2Por & 2Perm: lo + o mod 695-705 Dls a.a. w/o Cly	~~Cr8~~ HK mpf 8.5
705		Dls a.a.	5 ~~7.5~~ HK mpf
715		Dls a.a.	~~8.5~~ HK mpf 7.15
725		Dls a.a.	8 mpf
735		~~Dls a.a.~~ HK Cly & Dls; mod yelsh brn (10YR 5/4) Cly & m gry (N5) microxln Dls; Cly is sft & stcky-dom spl; Dls ang-sbang; Cly appar 1Por: hi & appar 1Perm: lo; Dls: appar 1Por & 1Perm: lo	10 mpf
745		Dls; lt olv gry (5Y 6/1) & m gry (N5) microxln Dls w/ Calc; slily fracd; ang-sbang; Dls appar 1Por & 1Perm: lo; appar 2Por & 2Perm: lo to mod	7 mpf
755		Dls a.a.	8 mpf
765		Dls a.a. ~~& sAmt of mod yelsh brn (10YR 5/4) HK Cly (contam from abv?)~~ Wtr Stn	7.4 mpf
775		Dls a.a. ~~w/o Cly HK w/ sAmt mod yelsh brn (10YR 5/4) Cly (contam from abv)~~ w/o Cly	7.5 mpf
785			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
785		Dls; m lt gry (N6) & lt olv gry (5Y 6/1) microxln Dls; ang - sbang; appar 1Por & 1Perm : lo	9.5 mpf
795		Dls a.a. w/ slily fracd; Calc on Frac Surfs appar 2Por & 2Perm : lo to mod	9.4 mpf
805		Dls a.a. w/o Calc on Frac Surfs	9.2 mpf
815		Dls a.a. w/ Fe ox on Frac Surfs	10 mpf
825		Dls a.a.	9.5 mpf
835		Dls & Cly; md lt gry (N6) Dls & mod yelsh brn (10YR 5/4) Cly; Dls - microxln, ang - sbang; Cly - sft & stck; Dls appar 1Por & 1Perm: lo; Cly appar 1Por: hi (flt gouge?)	13.4 mpf & 1Perm: lo
845		Dls a.a w/o Cly	10.6 mpf
855		Dls a.a. w/ mgry (N5) Dls & s Amt yelsh gry (5Y 8/1) Qtzt	7.6 mpf
865		Qtzt; yelsh gry (5Y 8/1) Qtzt w/ s Amt Calc ang - sbang; microxln; fracd; appar 1Por & 1Perm: lo; appar 2Por & 2Perm: lo to mod	11.1 mpf
875		Qtzt a.a.	9.5 mpf
885			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
885		Dls ǂ Ls; m-crs gry (N5) Dls ǂ Ls; microxln; w/ Calc; fracd; ang-sbang; appar 1Por ǂ 1Perm: lo; appar 2Por ǂ 2Perm: lo to mod	9.5 mpf
895		Dls ǂ Ls a.a. w/ less Ls ǂ Calc on Frac Surfs	8.8 mpf
905		Dls ǂ Ls a.a. w/o Calc on Frac Surf ǂ w/ Fe Ox on Frac Surfs	5.2 mpf; Pshr noted Fracs from 907-911 ft bls based on increased pen rate ǂ cutting size from shaker
915		Dls ǂ Ls a.a.	7.8 mpf
925		Dls ǂ Ls a.a.	5.7 mpf; Drlr noted smwt fracd conditions
935		Dls ǂ Ls a.a.	7.1 mpf
945		Cly ǂ Dls; mod yelsh brn (10YR 5/4) Cly ǂ lt olv gry (5Y 6/1) Dls; Cly is sft ǂ stcky, slily calc, appar 1Por: hi ǂ appar 1Perm: lo; Dls has appar 1Por ǂ 1Perm: lo; ang-sbang	4.9 mpf Cly ~ 50% of Spl
955		Dls ǂ Cly; lt olv gry (5Y 6/1) microxln ~~Dls~~ ǂ mod yelsh brn (10YR 5/4) Cly; Dls is ang-sbang lo appar 1Por ǂ 1Perm; Cly is sft, stcky, slily calc	~~Dls~~ 6.2 mpf w/ hi appar 1Por ǂ low appar 1Perm;
965		2Por ǂ 2Perm: lo to mod; Cly < 150 Spl	~~7.7~~ mpf 6.2
		Dls ǂ Cly a.a. ~~X~~	
978		Dls ǂ Cly a.a. w/ Cly ~ 50% of Spl	7.2 mpf Drlr noted Cly
985			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s):

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
985		Dls ↑ Cly w/ Cly < 10%	5.6 mpf Drlr noted Cly
995		Dls ↑ Cly; lt ov grn (5Y 6/1) microxln Dls ↑ gdsh grn (5Y 8/1) Cly; Dls is slily fract w/ 10 ppm ↑ Por ↑ Perm; Cly is stf ↑ slily stcky; Dls ang - sbang; appar ↑ Por ↑ Perm is poorly tied	5.7 mpf Drlr noted mud thinning Dls > 80% of Spl
1005		Dls ~~crse~~ MK ↑ Cly a.a.	5.8 mpf Drlr noted mud thinning
1015		Dls, ~~crse~~ MK ↑ Cly a.a.	5.5 mpf
1025		Dls ~~crse~~ MK ↑ Cly a.a.	8.7 mpf
1035		Dls a; MK ↑ Cly a.a. w/ Cly ~40% of Spl	7.1 mpf
1045		Dls ↑ Cly a.a.	8.5 mpf
1055		Dls ↑ Cly a.a.	10.5 mpf
1065		Dls ↑ Cly a.a. w/ Fe Ox on Frac Surfs ↑ Cly < 20%	10 mpf
1075		Dls ↑ Cly a.a.	9.2 mpf
1085			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s):
Page: 12 of 21

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1085		Dls, Ls, ↑Cly; dk gry (N3) Dls, lt olv gry (5Y6/1) Ls, ↑ v lt gry (N8) Cly; Dls↑Ls are ang-sbang, mic to appar ↑Por ↑Perm; Cly is sft↑ stcky, slily calc w/ thn	~~8.8~~ mHK 8.8 mpf xln, w/ Calc; Dls↑Ls have appar ↑Por↑ to appar ↑Perm
1095		Dls, Ls, ↑Cly a.a.	~~7.1~~ HK 8 mpf
1105		Dls, Ls, ↑Cly a.a.	8.5 mpf
1115		Dls, Ls, ↑Cly a.a. w/ Cly ~40% of Spl	~~Low~~ HK 9.2 mpf
1125		Dls, Ls, ↑Cly a.a. w/ Cly ≤ 15% of Spl	9.2 mpf
1135		Dls, Ls, ↑Cly a.a. w/ Dls↑Ls fracd; appar ↑Por↑ ↑Perm lo to mod	6.5 mpf
1145		Dls, Ls, ↑Cly a.a.	7.5 mpf
1155		Dls, Ls, ↑Cly a.a. w/ Cly ~ 30% of Spl	6.8 mpf
1165		Dls, Ls, ↑Cly a.a. w/ Cly ≥ 15% of Spl	8.2 mpf
1175		Dls, Ls ↑ Cl a.a. w/ ≤ 10% Cly of Spl	6.7 mpf
1185			

SE ROA 54063

JA_18201

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s):
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1185		Dls, Ls, ↑ Cly a.a.	9.1 mpf
1195		Dls, Ls, ↑ Cly a.a.	9.5 mpf
1205		Dls, Ls, ↑ Cly a.a. w/ Cly ~ 20% of Spl	9.5 mpf
1215		Dls, Ls, ↑ Cly a.a. w/ Cly ~ 10% of Spl	7.25 mpf
1225		Dls, Ls, ↑ Cly a.a.	7.25 mpf
1235		Dls, Ls, ↑ Cly a.a. w/ Cly ~ 40% Spl	8 mpf
1245		Dls, Ls, ↑ Cly a.a. ~~w~~ HC	8 mpf
1255		Dls, Ls, ↑ Cly a.a. w/ Cly ~ 15% Spl	7.2 mpf
1265		Dls, Ls, ↑ Cly a.a.	6 mpf
1275		Dls, Ls, ↑ Cly a.a.	7.5 mpf
1285			

SE ROA 54064

JA_18202

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1285		Dls, Ls, ↑ Cly a.g. ~~↑ dolst ↑ dolo tst~~ HK	9.5 mpf
1295		dolst ↑ ~~dolo~~ HK ls a.g. w/ v. ↑ cly	8.5 mpf
1305		dolst ↑ ~~dolo~~ HK ls a.g. HK AA w/ v. prom Fe stning HK	8.5 mpf
1315		~~d~~ HK dolst ↑ ~~dolo~~ HK ls AA ~~w/~~ o HK w/o signif Fe stning ↑ w/ some vugs	9.75 mpf
1325		dolst ↑ ~~dolo~~ HK ls AA w/i < 10% cly	9.75 mpf
1335		dolst ↑ ~~dolo~~ HK ls ~~AA~~ HK w/i cly AA	9.75 mpf
1345		dolst ↑ ~~dolo~~ HK ls ~~AA~~ HK w/i cly AA	8.75 mpf
1355		dolst ↑ ~~of~~ HK ~~dolo~~ HK ls ~~AA~~ HK w/ cly AA	8.75 mpf
1365		dolst ↑ ls ~~dolo~~ HK w/ cly AA	~~8.75~~ HK 8.5 mpf
1375		dolst ↑ ls ~~dolo~~ HK w/ cly AA	8.5 mpf
1385			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): HUGH KLEIN/GRANT SNYDER
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1385		DOLOSTONE, DK GREY N3-N2, FRACTURED W/ DOLOMITE/CALCITE INFILLING IN FRACS HARD, MILD EFFERVESCENCE W/ 20% HCL VF V ltgy (N8) cly;	6.5 mpf
1395		q/q dolst: lo appar 1 por + 1 pern mod appar 2 por + 2 pern cly: hi appar 1 por / lo appar 1 pern	6.5 mpf dolst: microxln, ang - sbang
1405		q/q	7.5 mpf
1415		CLAY, GRAYISH ORANGE; 10YR 7/4 MIXED W/ DOLOSTONE FRAGMENTS; POSSIBLE FAULT MELANGE (GOUGE) cly: hi appar 1 por + lo appar 1 pern	7.5 mpf
1425		QUARTZITE, GRAYISH ORANGE-PINK 10YR 7/2; Fe STAINING; GRYISH INCLS HARD microxln; ang - sbang lo appar 1 por + 1 pern	GMK
1435		q/q	13.75 mpf
1445		DOLOSTONE - LIMESTONE, MED GREY, NS FRACTURED; MILD EFFERVESCENCE 20% HCl ang - sbang; microxln; lo appar 1 por + 1 pern	13.75 mpf
1455		q/q low to mod appar 2 por + 2 perm w/ Fe stains	11 mpf
1465		q/q	11 mpf
1475		q/q	9.75 mpf
1485			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein/Grant Engy
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1485		dolst ; ls AA w/ more Fe stning	9.75 mpf
1495		dolst ; ls AA w/ tr some sm sc vugs w/o signif Fe stning	7.5 mpf
1505	dolst ; cly	dolst ; dk gry (N3) ; blk (N1) dolst ; microxln ; hd ; ang ; fracd ~~brkn~~ mod w/ dk yelsh or (10YR 6/6) cly indicing ~~fft~~ possible gouge ; 2 por ; 2 perm to ~~1~~ mod	8.5 mpf dolst : lo appar ; por ; ; perm cly : hi appar ; por ; lo appr 2 perm
1515		dolst ; dk gry (N3) dolst w/ vuggy calc incls hd ang cuts ; cly content decrng same 1 ; 2 appar por ; perm AA w/ mod vug pr	8.5 mpf
1525		dolst ; cly AA w/ v lt cly	9 mpf
1535		dolst ; m gry (N5) dolst ; fracd ; vuggy ; recrystzd lo ; por ; mod 2 per ; some Fe stning ; trndng towards dolo ls ; ang ; microxln	8 mpf
1545	dolst-dolo ls	~~dolst~~ ; dk gry (N3) ~~dolst-ls~~ dolst - dolo ls ; ang ; fracd . 2dary calc inds ; primary por ; perm - sec por ; per mod	8 mpf
1555		dolo ls ; m gry (N5) dolo ls ; microxln ; ang ; fracd w/ calc recrystn ; sec por ; perm ; Fe stning ; lo appr pri por ; perm ; sec por ; perm mod	8.5 mpf mod ;
1565		dolst ls AA	8.25 mpf
1575		dolst ; gry sh or (10YR 7/4) dolst ; ; fracd ; microxln ; ang ; Fe stning ; appar pri por ; perm lo ; appar sec por ; perm lo to mod	7 mpf perm lo ;
1585			

Color of rock is m gry (N5) ; Fe stning is dk yelsh or (10YR 6/6)

DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1585		dolst AA w/ calc filled fracs	7 mpf
1595		dolst AA w/ more Fe stnings } calc filled fracs, also w/ some vugs	6.75 mpf
1605		dolst AA	6.75 mpf
1615		dolst AA	5.25 mpf
1625		dolst; m dk gry (N3) dolst; fracd w/ dk rdsh brn (10R3/4) } dk yelsh or (10YR 6/6) Fe stning; ang-sbang; some sm sc vugs; cht; w/ v sm amt dk yelsh or (10YR 6/6) cly (cont'd)	5.25 mpf
1635		dolst AA w/o cly microxln for intv appar pri por & perm: lo appar sec por & perm: mod	6 mpf
1645		dolst AA w/ more Fe stnings	6 mpf
1655		dolst AA w/ lg calc fracs, w/o sm sec vugs	7 mpf
1665		dolst; m dk gry (N3) sl cly fracd dolst w/ v sm amt dk yelsh or (10YR6/6) cly & Fe; fracs mod rdsh brn (10R3/4) Fe stning; dolst pri & sec appar por & perm: lo	7 mpf horiz ang-sbang
1675		cly pri appar por: hi pri appar perm: lo sec por & perm: lo to mod	8.25 mpf
1685		dolst & cly AA w/ more cly; cly ~ 35% of samp	

Kane Springs Production Well (KPW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1685		dolst AA w/ less cly	8.25 mpf
1695		dolst; m gry (N5) & mod yelsh brn (10YR 5/4) dolst; sft, fracd; microxln; ans to sbang; fracs calc filled, Fe stning most appar; pri por & perm lo; sec por & perm	8.75 mpf
1705		dolst AA w/ some cht	6.75 mpf
1715		dolst AA w/ more Fe stning & w/o cht	13 mpf
1725		dolst AA w/ more fracd	13 mpf
1735		dolst AA w/ some vugs & not as fracd as abv	12.25 mpf
1745		dolst AA w/ more calc on frac faces	12.25 mpf
1755		dolst AA w/ cht & calc on frac faces not as prevalent	7.5 mpf
1765		dolst; md yelsh brn (10YR 5/4) w/ a mnr amt of m gry (N5) dolst; fracd; microxln; ans to sbang; calc on frac planes; some Fe stning; appar	7.5 mpf
1775		pri por & perm: lo; appar sec por & perm; some vugs	7.75 mpf
1785			

Kane Springs Production Well (KPW-1)

URS

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1785		dolst; dk gry (N3) f mod gelsh brn (10YR3/2) fracd dolst w/ calc vns f calc vnlts; microxln; ang-sbang; appar pri por f perm: lo; appar sec	7.75 mpf
1795		por f perm: lo to mod; Fe stnins	7.75 mpf
1805		dolst AA	7.25 mpf
1815		dolst AA w/ calc vns up to 2 mm thk ~~thick~~	6 mpf
1825		dolst AA	6 mpf
1835		dolst AA	7.25 mpf
1845		dolst AA	7.25 mpf
1855		dolst AA w/ Calc on frac faces	7.5 mpf
1865		dolst; m gry (N5) fracd dolst w/ some calc; microxln; ang-sbang; appar pri por f perm: lo; appar sec por f perm: mod; Fe stning on fracs	7.5 mpf
1875		~~dolst~~ A dolst AA w/ calc on fracs faces	7 mpf
1885			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1885		dolst AA w/ more calc	7 mpf
1895		dolst AA w/ calc amt dike 1875-1885	6.25 mpf
1905		dolst AA w/ cht	6.25 mpf
1915		dolst AA w/ calc vns	9 mpf
1925		dolst AA w/ a higher deg of fracing & Fe stning, along w/ vugs	9 mpf
1935		dolst AA	6.25 mpf
1945		dolstAA	6.25 mpf
1955		dolst; dk gry (N3) fracd dolst; microxln; calc. some on fracs; ans-slsmg; Fe stning on frac faces; appar pri por| perm: lo; appar sec por| perm: lo to mod	6 mpf
1965		dolst AA w/ calc frags	8 mpf
1975		dolst AA w/o calc frags | w/ calc vnlts & vugs	8 7 mpf
1985			

Kane Springs Production Well (KPW-1)

Client: Vidler Water Company
Project Number: 23444322.40000
Geologist(s): Hugh Klein
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DEPTH (feet bls)	GRAPHIC LOG	LITHOLOGY (color, rock type, grain size, grade, angularity, sorting, apparent porosity and permeability (primary & secondary), etc.)	ADDITIONAL COMMENTS (pen rate, WOB, torque, mud properties, mud level, water production, etc.)
1985		dolst AA w/ more Fe stains	~~78~~ mpf
1995		dolst; m gry (N4) dolst; fracd, w/ calc cht; Fe stning, prev; micro xln; ang-sbang,	9.75 mpf
2005		appar pri por/perm: lo; appar sec por	perm: lo to mod
			9.75 mpf
2015		TD	

SE ROA 54072

JA_18210

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # Li 12	DATE: 9-26-05

Daily Start time: 600	Midnight A.M. / Noon P.M.	Daily Start time: 1130	Midnight A.M. / Noon P.M.	PROJECT: NAME: Vidler

Hole No.	Depth Today	Depth Yesterday	Total Drilled

FROM	TO	ACTIVITY
5:30	6:30	get wrenches, find dog bones
630	4:30	drive to site
430	1600	

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD					WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT					SURFACE PIPE IN HOLE	F.T. / IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.						
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S					DEPTH OF CEMENT GROUT	F.T. / IN.
TYPE			D.C. O.D.	F.T.	pH						
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%					WELL SCREEN IN HOLE	F.T. / IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.						
DEPTH IN			D.C. R.R. O.D.	F.T.						CASING IN HOLE	F.T. / IN.
TOTAL FTG.			D.C. R.R.								
TOTAL HRS.			D.C. R.R.							DEPTH OF GRAVEL	F.T. / IN.
BIT NO.			TOTAL								
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION						
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	°		DEPTH OF TRIM PIPE	F.T. / IN.
TYPE			RPM		DEPTH OF SUR.		DEVIATION	°			
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°			
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	°		INTERMEDIATE CASING	F.T. / IN.
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°			
TOTAL FTG.			Remarks:								
TOTAL HRS.											

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

James McGee Hrs. 12½
Driller's Signature
Elton Jarvis Hrs. 12½
Helper's Signature
Ted Jarvis Hrs. 12½
Helper's Signature
Buddy Jarvis 12½

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
____ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-32 | DATE: 9-27-05

Daily Start time: 6:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 6:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: Vidler

Hole No.	Depth Today	Depth Yesterday	Total Drilled

FROM	TO	ACTIVITY
6:15	6:00	unload truck. set up site

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
2		water gel, Kelly							
1		metal water seal							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD					WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT					SURFACE PIPE IN HOLE	F.T. IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.						
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S					DEPTH OF CEMENT GROUT	F.T. IN.
TYPE			D.C. O.D.	F.T.	pH						
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%					WELL SCREEN IN HOLE	F.T. IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.						
DEPTH IN			D.C. R.R. O.D.	F.T.						CASING IN HOLE	F.T. IN.
TOTAL FTG.			D.C. R.R.								
TOTAL HRS.			D.C. R.R.							DEPTH OF GRAVEL	F.T. IN.
										DEPTH OF TRIM PIPE	F.T. IN.
BIT NO.			TOTAL								
SIZE			WT. OF STRING LBS.		SURVEY INFORMATION					INTERMEDIATE CASING	F.T. IN.
MFG.			WT. OF STRING LESS RODS LBS.		DEPTH OF SUR.		DEVIATION				
TYPE			RPM		DEPTH OF SUR.		DEVIATION				
SER. NO.			HYD. WEIGHT ON BIT LBS.		DEPTH OF SUR.		DEVIATION				
DEPTH OUT			AIR / MUD PRESSURE		DEPTH OF SUR.		DEVIATION				
DEPTH IN			ACTUAL WEIGHT ON BIT LBS.		DEPTH OF SUR.		DEVIATION				
TOTAL FTG.			Remarks:								
TOTAL HRS.											

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
___ Hrs. Hauling Water	___ Hrs. Cat	
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank	

Driller's Signature: [signature] Hrs 11 3/4
Helper's Signature: Elder Jones Hrs 11 3/4
Driver's Signature: Andy Bryant Hrs 11 3/4
[signature] 11 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
___ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 9/26/05

Daily Start time: 6:00 Midnight A.M. Noon P.M. | Daily Start time: 12:00 Midnight A.M. (Noon P.M.) | PROJECT: #1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled

FROM	TO	ACTIVITY
6:00	11:00	SET UP DRILL SITE
11:00	12:00	DESERT TORTOISE WORKER EDUCATION

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

No. DRILLING ASSEM. (at end of hour)

	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING LBS.

WT. OF STRING LESS RODS LBS.

RPM

HYD. WEIGHT ON BIT LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT		
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL		
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks:

___ Hrs. Booster ___ Hrs. Extra Comp.
___ Hrs. Hauling Water ___ Hrs. Cat
___ Hrs. Backhoe ___ Hrs. Mud Pump
___ Hrs. 6" Pump (or 2) ___ Hrs. Mud Tank

Sampling Preformed by Lang

Yes___ No___

Bill Ross Driller's Signature Hrs 6 1/2
QUENTIN HURTADO Helper's Signature Hrs 6 1/2
PADDY SHAW Helper's Signature Hrs 6 1/2

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 9-29-04

Daily Start time: 1200 (Midnight A.M. / Noon P.M.) | Daily Start time: 1200 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
?	40	0	40

FROM	TO	ACTIVITY
1100	1200	truckle & load
1200	700	set pad ready
700	845	drill surface 40'
845	1045	pull stabilizer, run csg
1045	1200	run csg mix sodium Bicarb grout cement

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
10	50#	gel	✓						
3	50#	sodium Bicarb	✓						
2	20" x 20'	casing							

BIT RECORD

BIT NO.		BIT NO.	
SIZE		SIZE	
MFG.		MFG.	
TYPE		TYPE	
SER. NO.		SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN		DEPTH IN	
TOTAL FTG.		TOTAL FTG.	
TOTAL HRS.		TOTAL HRS.	

No. DRILLING ASSEM. (at end of hour)

BIT F.T. | STB. O.D. F.T. | D.C. R.R. O.D. F.T. | D.C. O.D. F.T. | D.C. R.R. O.D. F.T. | D.C. R.R. O.D. F.T. | D.C. R.R. O.D. F.T. | D.C. R.R. | D.C. R.R. | TOTAL

WT. OF STRING LBS.
WT. OF STRING LESS RODS LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	40 F.T.	na IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster
___ Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cal
___ Hrs. Mud Pump
___ Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Driller's Signature Hrs.
Helper's Signature Hrs.
Helper's Signature Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 9/29/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	Ø	40'	Ø

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/James M. Site Safety & Equip Inspect.
12:00	1:00	Finish Mixing Hot Batch. Pumped Hot Batch 150 gal
1:00	2:00	Tag at 30' from Surface
2:00	4:30	Mix 340 gal Cement Pump to Surface. Clean up
4:30	8:00	Set up to Drill. Weld on Flow line Measure B.H.A.
8:00	12:00	Start Tripping B.H.A. Tag Cement at 33'

Quantity	Size	Material Name	LANG	CLIENT
25	50lb	Quik Gel		
50	94lb	Cement		
2	50lb	Calcium Chlor.		

Quantity	Size	Material Name	LANG	CLIENT
1	Roll	Orange Fence	X	
6		T-Post	X	
1		Cal-Bronze	X	

BIT RECORD

BIT NO.	1
SIZE	12 1/4"
MFG.	LANG
TYPE	T.C. Carbide
SER. NO.	R94YE
DEPTH OUT	
DEPTH IN	30'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT	R.R.	F.T.	1.91
3/4	STB.	O.D.	F.T.	1.51
5	D.C.	R.R.	F.T.	6.69
		O.D.		8.90
6	D.C.	O.D.	F.T.	6.65
		O.D.		20.00
	D.C.	R.R.	F.T.	
		O.D.		
	D.C.	R.R.	F.T.	
		O.D.		
	D.C.	R.R.	F.T.	
		O.D.		
	D.C.	R.R.		
	D.C.	R.R.		
	TOTAL			

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster
1 Hrs. Hauling Water
___ Hrs. Backhoe
3 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
6 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Bill Rossi Hrs. 12 3/4
Driller's Signature
Quintin Hurtado Hrs 12 3/4
Helper's Signature
Buddy Shaw Hrs 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 9 29 01
Daily Start time: 1200 Midnight A.M. Noon P.M.	Daily Start time: 1200 Midnight A.M. Noon P.M.	PROJECT: 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	240	40	200

FROM	TO	ACTIVITY
1145	1200	discuss hole with Bill
1200	100	get ready to drill BHA
100	800	drill collars
800	830	call Tyra
830	1000	drill 220 to 240
1000	1100	run 160' of inner tube
1100	1700	switch over to floodes

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
30	50#	gel	/						
1	50#	soda	/						

BIT RECORD			No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	1		1	BIT	F.T.	1.71	WEIGHT				SURFACE PIPE IN HOLE	7G
SIZE	12 3/4		2	8" STB.	O.D. F.T.	1.51	VISC.-SEC.				40 F.T.	IN.
MFG.	Lang		3	DC	O.D. F.T.	6.64	WL-CC's				DEPTH OF CEMENT GROUT	
TYPE	T.C. Carbide		4	DC 8 1/2	O.D. F.T.	19.98	pH				F.T.	IN.
SER. NO.	R74YE		5	DC	O.D. F.T.	6.65	SOLIDS%				WELL SCREEN IN HOLE	
DEPTH OUT			6	DC	O.D. F.T.	20	TEMP.				F.T.	IN.
DEPTH IN	30'		7	DC	O.D. F.T.	6.65					CASING IN HOLE	
TOTAL FTG.			8	DC		19.87					F.T.	IN.
TOTAL HRS.			9	DC		16.20					DEPTH OF GRAVEL	
			10	DC		18.38					F.T.	IN.
			11	DC		19.20					DEPTH OF TRIM PIPE	
BIT NO.			12	TOTAL		218.09					F.T.	IN.
SIZE	12 DC	19.17	WT. OF STRING			LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.	13 DC	20	WT. OF STRING LESS RODS			LBS.	DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
TYPE	14 DC	19.59	RPM				DEPTH OF SUR.		DEVIATION	°		
SER. NO.	15 DC	19.60	HYD. WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT	16	241	AIR MUD PRESSURE				DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.			Remarks:									
TOTAL HRS.												

___ Hrs. Booster	___ Hrs. Extra Comp.
___ Hrs. Hauling Water	___ Hrs. Cat
1 Hrs. Backhoe	8 Hrs. Mud Pump 2.
___ Hrs. 6" Pump (or 2)	11 Hrs. Mud Tank

Sampling Preformed by Lang: Yes ✓ No ___

Driller's Signature: Jane McCox Hrs.
Helper's Signature: Edan Juarez Hrs.
Helper's Signature: Jody Rowe Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
___ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK 32 | DATE: 9/30/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 | NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	315'	240'	75'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/JAMES M. SITE SAFETY & GROUND DISPOSAL
12:00	2:00	SET UP TO DRILL FLOODED REV.
2:00	3:00	DRILLED 4' OF FILL CIRCULATE AND CLEAN HOLE
3:00	11:00	DRILLED 240' - 315'
11:00	12:00	TRIP OUT RODS START TRIPPING AIR TUBE (LOSS CIRCULATION AT 315')

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
70	50LB	QUIKGEL	X						
2	50LB	SODA ASH	X						
2	50LB	DRISPAC-R	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION		
BIT NO.	1	1/2	BIT / BHS	O.D.	1.71	WEIGHT	8.9	8.8	8.1	SURFACE PIPE IN HOLE	40 F.T.	20 IN.
SIZE	12 3/4"	3/4	PUMP SUB	O.D.	6.66 / 10.96	VISC-SEC.	55	57	55			
MFG.	LANG	5	D.C. (DRILL COLLAR)	O.D.	6.65	WL-CC'S			8			
TYPE	T.C. CARBIDE	6	D.C. (DRILL COLLAR)	O.D.	20.00	pH			9	DEPTH OF CEMENT GROUT	37 F.T.	IN.
SER. NO.	R74KE	7	D.C. (DRILL COLLAR)	O.D.	6.65	SOLIDS%			1/4%			
DEPTH OUT		8	XOS (DRILL COLLAR)	O.D.	19.87	TEMP.				WELL SCREEN IN HOLE	F.T.	IN.
DEPTH IN	37'	9	XOS (DRILL COLLAR)	O.D.	16.20	LCM			LCM			
TOTAL FTG.	278	10	XOS (DRILL COLLAR)		18.38					CASING IN HOLE	F.T.	IN.
TOTAL HRS.	11:56	11	XOS (DRILL COLLAR)		19.98							
		13/5	D.C.		78.36					DEPTH OF GRAVEL	F.T.	IN.
		16	T/S		2.44							
BIT NO.			TOTAL		218.09	TIME	3:00	5:00	2:00			
SIZE		WT. OF STRING 35,375 LBS.				SURVEY INFORMATION				DEPTH OF TRIM PIPE	F.T.	IN.
MFG.		WT. OF STRING LESS RODS 31,837 LBS.				DEPTH OF SUR.		DEVIATION	°			
TYPE		RPM 30-50				DEPTH OF SUR.		DEVIATION	°			
SER. NO.		HYD. WEIGHT ON BIT 500 LBS.				DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	F.T.	IN.
DEPTH OUT		AIR MUD PRESSURE 120				DEPTH OF SUR.		DEVIATION	°			
DEPTH IN		ACTUAL WEIGHT ON BIT 1/4 150 LBS.				DEPTH OF SUR.		DEVIATION	°			
TOTAL FTG.		Remarks:										
TOTAL HRS.												

___ Hrs. Booster	9 Hrs. Fuel Comp	Sampling Preformed by Lang
6 Hrs. Hauling Water	___ Hrs. Cat	Yes ___ No X
1 Hrs. Backhoe	___ Hrs. Mud Pump	
___ Hrs. 6" Pump (or 2)	11 Hrs. Mud Tank	

Driller's Signature: Bill Ross, Hrs 12 3/4
Helper's Signature: GUSTAVO HUERTADO, Hrs 12 3/4
Helper's Signature: BUDDY SHAW, Hrs 12 1/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/4 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

/ LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LK-32 | DATE: 9.30.05

Daily Start time: 1200 (Midnight A.M. / Noon P.M.) | Daily Start time: 1200 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	530	315	2.15

FROM	TO	ACTIVITY
1145	1200	safety meeting
1200	100	add 40' of inner tube
100	1200	drill from 315' to

Quantity	Size	Material Name	LANG	CLIENT
63		gel		
3		Soda		
2		Poly		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	1
SIZE	12¼
MFG.	Lang
TYPE	TC Carbide
SER. NO.	R74YE
DEPTH OUT	
DEPTH IN	40'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		218.09

WT. OF STRING LBS.
WT. OF STRING LESS RODS LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR / MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT	8.8	8.9	9.0
VISC.-SEC.	69	161	56
WL-CC'S	10	9	8
pH	9	10	10
SOLIDS%	½	TRC	TRC
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster	___ Hrs. Extra Comp.
4 Hrs. Hauling Water	___ Hrs. Cat
1 Hrs. Backhoe	___ Hrs. Mud Pump
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank

Sampling Preformed by Lang: Yes ✓ No ___

James McLeod, Driller's Signature — Hrs.
Helper's Signature: Eldon Jarvis — Hrs.
Helper's Signature: Jody Jarvis — Hrs.

JUSTIFY HOURS (If Applies)
½ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 10/1/05

Daily Start time: 12:00 (Midnight A.M. / ~~Noon P.M.~~) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	680'	530'	150'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/JAMES M. SITE SAFETY & EQUIP. INSPEC
12:00	7:30	DRILLED 530'-620'
7:30	8:00	SURVEY HOLE AT 590
8:00	12:00	DRILLED 620'-680'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
72	50lb	QUIK GEL							
2	50lb	SODA ASH							
2	50lb	DRISPAC-R							

BIT RECORD

BIT NO.	1
SIZE	12¾"
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	R74YE
DEPTH OUT	
DEPTH IN	40'
TOTAL FTG.	640'
TOTAL HRS.	27:45
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT / BHS	F.T.	1.51	171
3/4	~~SUB~~ / STB	O.D. F.T.	6.64	10.92
5	DC	O.D. F.T.	6.65	
6	~~DC~~ / XO	O.D. F.T.	20.00	
7	DC / HWDP	O.D. F.T.	6.65	
8	JAR / HWDP	O.D. F.T.	19.87	
9	DC / HWDP	O.D. F.T.	16.20	
10	XO / HWDP		18.36	
11	DC / HWDP		19.78	
13/16	D.C		78.36	
16	T/S		2.44	
	TOTAL		218.09	

WT. OF STRING 55,185 LBS.

WT. OF STRING LESS ROD 31,837 LBS.

RPM 50-60

HYD. WEIGHT ON BIT 750 LBS.

AIR / MUD PRESSURE 180

ACTUAL WEIGHT ON BIT 21,225 LBS.

MUD RECORD

WEIGHT	8.6	8.9	8.6
VISC.-SEC.	42	45	51
WL-CC'S	10	10	10
pH	9	9	9
SOLIDS%	1/4%	1/4%	TR.
TEMP.			
W/C	1/32"	1/32"	1/32"
TIME	9:00	6:00	11:00

SURVEY INFORMATION

DEPTH OF SUR.	590'	DEVIATION	1/2 °
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T. / 20 IN.
DEPTH OF CEMENT GROUT	37 F.T. / IN.
WELL SCREEN IN HOLE	F.T. / IN.
CASING IN HOLE	F.T. / IN.
DEPTH OF GRAVEL	F.T. / IN.
DEPTH OF TRIM PIPE	F.T. / IN.
INTERMEDIATE CASING	F.T. / IN.

Remarks:

___ Hrs. Booster	11½ Hrs. ~~Extra~~ Comp.
5 Hrs. Hauling Water	___ Hrs. Cat
1 Hrs. Backhoe	___ Hrs. Mud Pump
___ Hrs. 6" Pump (or 2)	11½ Hrs. Mud Tank

Sampling Preformed by Lang: Yes ___ No X

Bill Rossi (Driller's Signature)	Hrs 12¾
QUENTIN HURTADO (Helper's Signature)	Hrs 12¾
BUDDY SHAW (Helper's Signature)	Hrs 12¾

JUSTIFY HOURS (If Applies)

___ Getting Fuel

___ Chasing for Parts

1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-1-05

Daily Start time: 1200 — Midnight A.M. / Noon P.M.

Daily Start time: 1200 — Midnight A.M. / Noon P.M.

PROJECT: 1451
NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1	833	680	153

FROM	TO	ACTIVITY
1145	1200	displace hole with Bill
1200	1200	drill from 680 to 8.

Quantity	Size	Material Name	LANG	CLIENT
17	50#	gel	✓	
1	50	Soda	✓	
1	50#	Poc	✓	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD	
BIT NO.	1
SIZE	12 3/4
MFG.	Lang
TYPE	T-R744e
SER. NO.	
DEPTH OUT	
DEPTH IN	40
TOTAL FTG.	
TOTAL HRS.	36.22
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

No.	DRILLING ASSEM. (at end of hour)		
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		718.09

MUD RECORD			
WEIGHT	8.7	88	9
VISC.-SEC.	51	52	48
WL-CC'S	911	10	10
pH	9	10	9
SOLIDS%	1/4	TRC	TRC
TEMP.			
	1/16	1/16	
	100	400	100

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	F.T.	IN.
40		20
DEPTH OF CEMENT GROUT	F.T.	IN.
37		2
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

WT. OF STRING	LBS.
WT. OF STRING LESS RODS	LBS.
RPM	60
HYD. WEIGHT ON BIT	LBS. 500
AIR MUD PRESSURE	250
ACTUAL WEIGHT ON BIT	LBS.

Remarks:

SURVEY INFORMATION

DEPTH OF SURV.	690	DEVIATION	1°
DEPTH OF SURV.	800	DEVIATION	1°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°

___ Hrs. Booster
1 Hrs. Hauling Water Load
___ Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang

Yes ✓ No ___

Driller's Signature: Jane McCoy Hrs.
Helper's Signature: Nelson Jaquez Hrs.
Helper's Signature: Jody Barnes Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 10/2/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	945'	830'	115'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/James M. Site Safety/Recap Tailgate
12:00	11:00	Drilled 830' - 940'
11:00	11:30	Survey Hole at 900'
11:30	12:00	Drilled 940' - 945'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
10	50lb	Quik Gel							
1	50lb	Soda Ash							
1	50lb	Drispac-R							

BIT RECORD

BIT NO.	1										
SIZE	12 3/4"										
MFG.	Lang										
TYPE	T.C. Carbide										
SER. NO.	R74KE										
DEPTH OUT											
DEPTH IN	40'										
TOTAL FTG.	905'										
TOTAL HRS.	45:55										
BIT NO.											
SIZE											
MFG.											
TYPE											
SER. NO.											
DEPTH OUT											
DEPTH IN											
TOTAL FTG.											
TOTAL HRS.											

DRILLING ASSEM. (at end of hour)

No.											
1/2	BIT		F.T.	1.31							
3/4	STB.	O.D.	F.T.	8.54							
5	D.C. R.R.	O.D.	F.T.	6.65							
6	D.C.	O.D.	F.T.	20.00							
7	D.C. R.R.	O.D.	F.T.	6.65							
8	D.C. R.R.	O.D.	F.T.	19.87							
9	D.C. R.R.	O.D.	F.T.	16.20							
10	D.C. R.R.			18.36							
11	D.C. R.R.			19.78							
14/15				78.36							
16				2.44							
	TOTAL			218.09							

WT. OF STRING 55,892 LBS.
WT. OF STRING LESS RODS 31,892 LBS.
RPM 40-50
HYD. WEIGHT ON BIT 700 LBS.
AIR MUD PRESSURE 310
ACTUAL WEIGHT ON BIT 9,810 LBS.

MUD RECORD

WEIGHT	8.9	9	9
VISC.-SEC.	44/45	46/46	46/40
WL-CC'S	9.6	9.2	9.2
pH	8	8	9
SOLIDS%	TR	1/4%	1/4%
TEMP.			
W/C	1/32"	1/32"	1/32"
TIME	3:00	5:30	9:00

SURVEY INFORMATION

DEPTH OF SURV.	900'	DEVIATION	3/4°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster	11/2 Hrs. Extra Comp.
___ Hrs. Hauling Water	___ Hrs. Cat
1/2 Hrs. Backhoe	___ Hrs. Mud Pump
___ Hrs. 6" Pump (or 2)	11/2 Hrs. Mud Tanks

Sampling Preformed by Lang: Yes ___ No X

Bill Rossi (Driller's Signature) Hrs. 12 3/4
Creatin Hurtado (Helper's Signature) Hrs. 12 3/4
Buddy Shaw (Helper's Signature) Hrs. 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-32 | DATE: 10-2-05

Daily Start time: 1200 Midnight A.M. Noon (P.M.)
Daily Start time: 1200 Midnight (A.M.) Noon P.M.
PROJECT: 1451
NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1050	965	85

FROM	TO	ACTIVITY
1145	1200	discuss hole with Bill
1200		drill from 965 to 1050

Quantity	Size	Material Name	LANG	CLIENT
62		gel		
2		Pac		
2		Soda		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	1	
SIZE	12 3/4	
MFG.	Lang	
TYPE	T.C. Carbide	
SER. NO.	R74JE	
DEPTH OUT		
DEPTH IN	40	
TOTAL FTG.	1010	
TOTAL HRS.	55.49	
BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		218.09

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT	9	9.2	9.3
VISC.-SCC.	58	52	50
WL-CC'S	10	9	10
pH	9	9	9
SOLIDS%	2.5	5.0	5
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.	1000	DEVIATION	1 1/2
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster
4 Hrs. Hauling Water Loads
½ Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

James McC — Hrs.
Driller's Signature
Edgar Jarvis — Hrs.
Helper's Signature
Sadi Barnes — Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
½ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK32	DATE: 10/3/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: # 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1140	1050'	90'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/JAMES M. SITE SAFETY & EQUIP INSPEC
12:00	11:00	DRILLED 1050' - 1140'
11:00	11:30	SURVEY AT 1100'
11:30	12:00	CHECKED OUT EQUIP MADE CONNECTION START
		DRILLING 1140

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
24	50lb	QUIK GEL							
1	50lb	SODA ASH							
1	50lb	DRISPAC-R							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	1	1/2	BIT	F.T.	3.22	WEIGHT	8.7	8.9	8.9	SURFACE PIPE IN HOLE	20 IN.
SIZE	12 3/4	3/4	S.R. STB.	O.D. F.T.	26.62	VISC.-SEC.	54 57	53 55	56 54	40 F.T.	
MFG.	LANG	5	D.C. R.R.	O.D. F.T.	6.65	WL-CC's	9.6	8.8		DEPTH OF CEMENT GROUT	
TYPE	T.C. CARBIDE	6	D.C.	O.D. F.T.	20.00	pH	9	8	9	37 F.T.	IN.
SER. NO.	R744E	7	D.C. R.R.	O.D. F.T.	6.65	SOLIDS%	1/4%	1/4%	1/4%	WELL SCREEN IN HOLE	
DEPTH OUT		8	D.C. R.R.	O.D. F.T.	19.87	TEMP.				F.T.	IN.
DEPTH IN	40'	9	D.C. R.R.	O.D. F.T.	16.20	W/L	1/32	1/32	1/32	CASING IN HOLE	
TOTAL FTG.	1100	10	D.C. R.R.		18.38					F.T.	IN.
TOTAL HRS.	65:55	11	D.C. R.R.		19.78					DEPTH OF GRAVEL	
		12/15			78.36					F.T.	IN.
		16			2.94					DEPTH OF TRIM PIPE	
BIT NO.			TOTAL		218.09	TIME	3:00	16:00	9:00	F.T.	IN.
SIZE		WT. OF STRING 69,335 LBS.				SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.		WT. OF STRING LESS RODS 31,997 LBS.				DEPTH OF SUR.	1100	DEVIATION	1 1/4	F.T.	IN.
TYPE		RPM 30-40				DEPTH OF SUR.		DEVIATION			
SER. NO.		HYD. WEIGHT ON BIT 750 LBS.				DEPTH OF SUR.		DEVIATION			
DEPTH OUT		AIR MUD PRESSURE 330				DEPTH OF SUR.		DEVIATION			
DEPTH IN		ACTUAL WEIGHT ON BIT 21225 LBS.				DEPTH OF SUR.		DEVIATION			
TOTAL FTG.		Remarks:									
TOTAL HRS.											

___ Hrs. Booster	___ Hrs. Extra Comp	Sampling Preformed by Lang	BILL ROSS Driller's Signature Hrs. 13
5 Hrs. Hauling Water	___ Hrs. Cat		QUENTIN HUERTADO Helper's Signature Hrs. 12 3/4
1 1/2 Hrs. Backhoe	___ Hrs. Mud Pump		BUDDY SILVA Helper's Signature Hrs. 12 3/4
___ Hrs. 6" Pump (or 2)	11 1/2 Hrs. Mud Tank	Yes___ No___	***JUSTIFY HOURS (If Applies)*** 1/4 Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-3-05

Daily Start time: 1200 (Midnight A.M. / Noon P.M.)	Daily Start time: 1200 (Midnight A.M. / Noon P.M.)	PROJECT: 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
K MW-1	1220	1140	80

FROM	TO	ACTIVITY
1145	1200	site inspection because hole will Bail R
1200	1200	drill from 1140 to 1220 Circulate off out at 1030

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
19-	50#	gel	/						
1	50#	Soda	/						
1	40#	Pac	/						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	1		BIT		F.T.	WEIGHT	8.9	9	9	SURFACE PIPE IN HOLE	8 5/8
SIZE	12 3/4		STB.	O.D.	F.T.	VISC.-SEC.	44	48	50	40 F.T.	IN.
MFG.	Long		D.C. R.R.	O.D.	F.T.	WL-CC'S	8.5	9	8.9	DEPTH OF CEMENT GROUT	
TYPE	TC Carbide		D.C.	O.D.	F.T.	pH	9	9	9	37 F.T.	IN.
SER. NO.	R74YE		D.C. R.R.	O.D.	F.T.	SOLIDS%	TR	TR	1/4	WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R.	O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN	40		D.C. R.R.	O.D.	F.T.		1230	540	920	CASING IN HOLE	
TOTAL FTG.			D.C. R.R.							F.T.	IN.
TOTAL HRS.	74.31		D.C. R.R.							DEPTH OF GRAVEL	
										F.T.	IN.
BIT NO.			TOTAL		218.09					DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING		LBS.	SURVEY INFORMATION				F.T.	IN.
MFG.			WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	
TYPE			RPM			DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.			Remarks:								
TOTAL HRS.			yesterday start depth was 943' not 965'								

6 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	James McCoy Driller's Signature Hrs.
3 1/2 Hrs. Hauling Water	___ Hrs. Cat		Ethan Jones Helper's Signature Hrs.
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes ___ No ___	Jack Barnes Helper's Signature Hrs.
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ½ Getting Fuel ___ Chasing for Parts ½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK 32 | DATE: 10/4/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: # 1451 | NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1325'	1220'	105'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/James Site Safety & Equip Inspec
12:00	12:45	Drilled 1220 - 1240
12:45	1:15	Survey at 1200
1:15	12:00	Drilled 1240' - 1325

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
25	50lb	Quikgel							
1	50lb	Soda Ash							
1	50lb	Drispac-R							

BIT RECORD

BIT NO.	1
SIZE	12 3/4
MFG.	Lang
TYPE	T.C. Carbide
SER. NO.	R74YE
DEPTH OUT	
DEPTH IN	40'
TOTAL FTG.	1285'
TOTAL HRS.	85:05
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1/1	BIT		FT.	3.72
3/4	STB.	O.D.	FT.	26.62
5	D.C. R.R.	O.D.	FT.	6.65
6	D.C.	O.D.	FT.	20.00
7	D.C. R.R.	O.D.	FT.	6.65
8	D.C. R.R.	O.D.	FT.	19.87
9	D.C. R.R.	O.D.	FT.	16.20
10	D.C. R.R.			18.38
11	D.C. R.R.			19.98
9/5				98.36
16				2.44
	TOTAL			218.09

WT. OF STRING 76,410 LBS.
WT. OF STRING LESS RODS 31,837 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 850 LBS.
AIR MUD PRESSURE 370
ACTUAL WEIGHT ON BIT 24,055 LBS.

Remarks:

MUD RECORD

WEIGHT	8.8	8.8	8.8
VISC.-SEC.	50/52	53/51	50/48
WL-CC'S	8.8	8	10.8
pH	10	10	10
SOLIDS%	1/4%	1/4%	TR
TEMP.			
W/C	1/32	1/32	1/32
DMC	3:00	6:00	9:00

SURVEY INFORMATION

DEPTH OF SUR.	1200	DEVIATION	1 1/4
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 FT.	20 IN.
DEPTH OF CEMENT GROUT	37 FT.	IN.
WELL SCREEN IN HOLE	FT.	IN.
CASING IN HOLE	FT.	IN.
DEPTH OF GRAVEL	FT.	IN.
DEPTH OF TRIM PIPE	FT.	IN.
INTERMEDIATE CASING	FT.	IN.

11 1/2 Hrs. Booster
3 Hrs. Hauling Water
1 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Bill Rossi Hrs. 13
Driller's Signature
Rubentin Hurtado Hrs. 12 3/4
Helper's Signature
Buddy Sills Hrs. 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK 32 | DATE: 10/4/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
kmw-1	1390'	1325'	65'

FROM	TO	ACTIVITY
11:00	11:45	Turtle Training & Site Training
11:45	12:00	Site Safety & Equip. inspection
12:00	12:45	Dr. 11 1325' – 1340'
12:45	1:15	Survey & check oils & grease equip
1:15	12:00	Dr. 11 1340' – 1390

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
72	gallons	clear Diesel	X						
15	50#	MAX Gel	X						
1	50#	Soda Ash	X						

BIT RECORD

BIT NO.	1				
SIZE	12 3/4				
MFG.	Lang				
TYPE	TK Carbide				
SER. NO.	A74YE				
DEPTH OUT					
DEPTH IN	40'				
TOTAL FTG.					
TOTAL HRS.	95.5				
BIT NO.					
SIZE					
MFG.					
TYPE					
SER. NO.					
DEPTH OUT					
DEPTH IN					
TOTAL FTG.					
TOTAL HRS.					

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT/ST	O.D.	FT.	3.22
4	STB	O.D.	FT.	19.98
3	D.C. H.R.	O.D.	FT.	6.64
6	STB	O.D.	FT.	20.00
5	D.C. H.R.	O.D.	FT.	6.65
7	D.C. H.R.	O.D.	FT.	6.65
8/15	D.P. H.R.	O.D.	FT.	152.51
	D.C. R.R.			
	D.C. R.R.			
16	T/S			2.44
	TOTAL			

WT. OF STRING 69,335 LBS.
WT. OF STRING LESS RODS 31,837 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 370
ACTUAL WEIGHT ON BIT 25,470 LBS.

MUD RECORD

WEIGHT	9.1	9.0	9.0
VISC.-SEC.	55	62	64
WL-CC'S	11.2	8.4	6.00
pH	9	9	10
SOLIDS%	1/4	1/4	Trace
TEMP.			
Time	2:00	5:30	10:00

SURVEY INFORMATION

DEPTH OF SUR.	1300	DEVIATION	1/4
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: Inner Tube 20' B.R, Survey every 1000'

11 1/2 Hrs. Booster
3 Hrs. Hauling Water
3 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp
___ Hrs. Cat
___ Hrs. Mud Pump
11 1/2 Hrs. Mud Tank

Sampling Preformed by Lang
Yes ___ No ___

Dale Jones Hrs.
Driller's Signature
Ben Wilson Hrs.
Helper's Signature
David Silva Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
1/4 Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 10/5/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1455'	1390	65'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/DAILY SITE SAFETY & EQUIP INSPEC.
12:00	8:45	DRILLED 1390 - 1440'
8:45	9:15	SURVEY AT 1400'
9:15	12:00	DRILLED 1440' - 1455'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
17	50lb	QUIK GEL	X						
0	50lb	SODA ASH	X						
1	50lb	DRISPAC-R	X						
5	gal	UNLEAD GASOLINE	X						
70	gal	CLEAR DIESEL	X						

BIT RECORD

BIT NO.	1	
SIZE	12 3/4	
MFG.	LANG	
TYPE	T.C. CARBIDE	
SER. NO.	R74IE	
DEPTH OUT		
DEPTH IN	40'	
TOTAL FTG.	1415'	
TOTAL HRS.	105.45	
BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT/BS	FT	3.22	
3/4	STB.	O.D.	FT	26.42
5	D.C. R.R.	O.D.	FT	6.65
6	D.C.	O.D.	FT	20.00
7	D.C. R.R.	O.D.	FT	6.65
8	D.C. R.R.	O.D.	FT	19.89
9	D.C. R.R.	O.D.	FT	16.20
10	D.C. R.R.			18.38
11	D.C. R.R.			19.98
12/15				78.36
16				2.44
	TOTAL			218.09

WT. OF STRING 77,825 LBS.
WT. OF STRING LESS RODS 31,887 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 390
ACTUAL WEIGHT ON BIT 25,470 LBS.

MUD RECORD

WEIGHT	8.5	9.0	8.9
VISC.-SEC.	50/49	54/53	58/52
WL-CC'S	9.2	8.4	7.2
pH	9	9	9
SOLIDS%	1/4%	1/4%	1/4%
TEMP.			
W/C	1/32	1/32	1/32
Time	3:00	6:00	9:00

SURVEY INFORMATION

DEPTH OF SUR.	1400	DEVIATION	2 1/4
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

Remarks:

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

11 1/2 Hrs. Booster
2 Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Bill Bossi Hrs. 13
Driller's Signature
QUANTIN HURTADO Hrs. 12 3/4
Helper's Signature
BUDDY SHAW Hrs. 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK32	DATE: 10/6/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1590'	1525'	65'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/DAIC SITE SAFETY & EQUIP INSPEC.
12:00	12:00	DRILLED 1525'-1590'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
11	50lb	QUIK GEL							
1	50lb	SODA ASH							
1	50lb	DRISPAC-R							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION		
BIT NO.	1	1/2	BIT/DS	F.T.	3.22	WEIGHT	8.4	9.1	8.7	SURFACE PIPE IN HOLE	40 F.T.	20 IN.
SIZE	12 1/4"	4	STB O.D.	F.T.	19.93	VISC.-SEC.	52/53	53/55	53/54			
MFG.	LANG	3	D.C. O.D.	F.T.	6.64	WL-CC'S	8	7.2	8.8	DEPTH OF CEMENT GROUT	37 F.T.	IN.
TYPE	T.C. CARBIDE	6	D.C. O.D.	F.T.	20.00	pH	8	9	9			
SER. NO.	R74YE	5	D.C. O.D.	F.T.	6.65	SOLIDS%	TR	1/4%	1/1%	WELL SCREEN IN HOLE	F.T.	IN.
DEPTH OUT		7	D.C. O.D.	F.T.	6.65	TEMP						
DEPTH IN	40'	8/5	D.C. O.D.	F.T.	152.51	W/C	1/32	1/32	1/32	CASING IN HOLE	F.T.	IN.
TOTAL FTG.	1550'		D.C. O.D.									
TOTAL HRS.	127:25		D.C. O.D.							DEPTH OF GRAVEL	F.T.	IN.
		16	T/S		2.44							
BIT NO.			TOTAL		218.09	TIME	3:00	6:00	9:00			
SIZE		WT. OF STRING 79,240 LBS.				SURVEY INFORMATION				DEPTH OF TRIM PIPE	F.T.	IN.
MFG.		WT. OF STRING LESS RODS 31,837 LBS.				DEPTH OF SUR.		DEVIATION	°			
TYPE		RPM 30-50				DEPTH OF SUR.		DEVIATION	°			
SER. NO.		HYD. WEIGHT ON BIT 900 LBS.				DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	F.T.	IN.
DEPTH OUT		AIR MUD PRESSURE 450				DEPTH OF SUR.		DEVIATION	°			
DEPTH IN		ACTUAL WEIGHT ON BIT 25,470 LBS.				DEPTH OF SUR.		DEVIATION	°			
TOTAL FTG.		Remarks:										
TOTAL HRS.												

12 Hrs. Booster
2 Hrs. Hauling Water
1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang

Yes___ No___

Bill Rossi Hrs. 12 3/4
Driller's Signature
QUENTIN HURTADO Hrs. 12 3/4
Helper's Signature
BUDDY SHAW Hrs. 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LH-32	DATE: 10/5/05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M. (Noon P.M.)
Daily Start time: 12:00 — Midnight A.M. (Midnight A.M.) / Noon P.M.
PROJECT: 1451
NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1	1525'	1455'	70'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equipment inspection
12:00	12:15	Drill 1455-1460
12:15	12:30	Check oils & grease equip.
12:30	12:00	Drill 1460 - 1525'

Quantity	Size	Material Name	LANG	CLIENT
9	5 gallons	Water	X	
17	50#	mudGel	X	
1	50#	Soda Ash	X	
1	50#	Dispac	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		
BIT NO.	1	1/2	BIT/IBS	F.T.	3.22
SIZE	12 3/4	4	STB O.D.	F.T.	19.93
MFG.	Lang	3	D.C. REED O.D.	F.T.	6.64
TYPE	T/C Cu.B. De	6	DC O.D.	F.T.	20.00
SER. NO.	A74YE	5	D.C. REED O.D.	F.T.	6.65
DEPTH OUT		7	D.C. REED O.D.	F.T.	6.65
DEPTH IN	40'	8/15	HOC O.D.	F.T.	152.51
TOTAL FTG.			D.C. R.R.		
TOTAL HRS.	11.5		D.C. R.R.		
		16	T/S		2.44
			TOTAL		
BIT NO.		WT. OF STRING	73,580 LBS		
SIZE		WT. OF STRING LESS RODS	31,832 LBS		
MFG.		RPM	32-60		
TYPE		HYD. WEIGHT ON BIT	900 LBS.		
SER. NO.		AIR MUD PRESSURE	420		
DEPTH OUT		ACTUAL WEIGHT ON BIT	25,470 LBS.		
DEPTH IN		Remarks:			
TOTAL FTG.					
TOTAL HRS.					

MUD RECORD			
WEIGHT	9.0	9.1	9.1
VISC.-SEC.	55	57	54
WL-CC'S	7.6	4.8	8.8
pH	9	9	9
SOLIDS%	1/4	1/4	1/2
TEMP.			
Time	2:00	6:30	10:00

SURVEY INFORMATION			
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIMPIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

11 3/4 Hrs. Booster
1 Hrs. Hauling Water
1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 3/4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes ___ No ___

Dale Jensen — Driller's Signature — Hrs.
Ana Wilson — Helper's Signature — Hrs.
Paul St. Ho... — Helper's Signature — Hrs.

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # 24-32 — DATE: 10/6/05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M. (Noon P.M.)
Daily Start time: 12:00 — Midnight A.M. / Noon P.M.
PROJECT: 1451
NAME: HRS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw - 1	1655'	1590'	65'

FROM	TO	ACTIVITY
11:45	12:00	Site & Equip inspection
12:00	1:15	Drill 1590 - 1600'
1:15	1:30	check oils & grease equip
1:30	8:00	Drill 1600' - 1640'
8:00	8:30	Sunday @ 1600'
8:30	12:00	Drill 1640' - 1655'

Quantity	Size	Material Name	LANG	CLIENT
66	gallons	clean Diesel	X	
23	50#	MAX-GEL	X	
1	50#	Soda Ash	X	
1	50#	Caustic	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD	
BIT NO.	1
SIZE	12 3/4
MFG.	Lang
TYPE	TK Cut. Bit
SER. NO.	A 74 YE
DEPTH OUT	
DEPTH IN	40'
TOTAL FTG.	
TOTAL HRS.	136 1/2
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

No.	DRILLING ASSEM. (at end of hour)			
1/2	BIT		FT.	3.22
4	STB.	O.D.	FT.	19.93
3	D.C. R.R.	O.D.	FT.	6.64
6	D.C.	O.D.	FT.	20.00
5	D.C. R.R.	O.D.	FT.	6.65
7	D.C. R.R.	O.D.	FT.	6.65
3/6	D.C. R.R.	O.D.	FT.	152.51
	D.C. R.R.			
	D.C. R.R.			
16	T/S			.244
	TOTAL			

WT. OF STRING 75,702 LBS.
WT. OF STRING LESS RODS 31,837 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 520
ACTUAL WEIGHT ON BIT 25,472 LBS.

MUD RECORD			
WEIGHT	9.1	9.3	9.2
VISC.-SEC.	51	53	55
WL-CC'S	5.6	6.8	9.2
pH	10	10	10
SOLIDS%	Trace	1/4	Trace
TEMP.			
Time	2:00	6:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.	1600	DEVIATION	2 3/4
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

11 1/4 Hrs. Booster
1 Hrs. Hauling Water
1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 1/4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Dale Turner — Hrs.
Helper's Signature: Ron Wilson — Hrs.
Helper's Signature: Paul Sullivan — Hrs.

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

SE ROA 54093

JA_18231

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 10/7/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1680'	1655'	25'

FROM	TO	ACTIVITY
11:45	12:00	Discuss H&S w/Daig Site Safety & Equip Inspec
12:00	4:30	Drilled 1655'-1680'
4:30	8:00	Trip out Rods
8:00	12:00	Start Tripping B.H.A.

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
7	50lb	Quik Gel	x						
0	50lb	Soda Ash	x						
0	50lb	Dispal-R	x						

BIT RECORD

BIT NO.	1	
SIZE	12 1/4	
MFG.	LANG	
TYPE	T.C. Carbide	
SER. NO.	R74YE	
DEPTH OUT	1680'	
DEPTH IN	40'	
TOTAL FTG.	1640'	
TOTAL HRS.	140:30	
BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT/BS	F.T.	3.22	
4	STB.	O.D.	F.T.	19.93
3	D.C. R.R.	O.D.	F.T.	6.64
6	D.C.	O.D.	F.T.	20.00
5	D.C.	O.D.	F.T.	6.65
7	D.C.	O.D.	F.T.	6.65
3/5	D.C. R.R.	O.D.	F.T.	152.61
	D.C. R.R.			
	D.C. R.R.			
16	T/S			2.44
	TOTAL			218.09

WT. OF STRING 84,900 LBS.

WT. OF STRING LESS ROT 81,837 LBS.

RPM 30-50

HYD. WEIGHT ON BIT 900 LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON B 25,470 LBS.

MUD RECORD

WEIGHT	9.1		
VISC.-SEC.	57	55	
WL-CC'S	8.8		
pH	9		
SOLIDS%	1/4%		
TEMP.			
LCM	1/32"		
TIME	3:00		

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

4 1/2 Hrs. Booster
2 Hrs. Hauling Water
1 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 1/2 Hrs. Mud Tank

Sampling Preformed by Lang

Yes___ No___

Bill Bassi Driller's Signature Hrs 12 3/4

Sebastian Hurtado Helper's Signature Hrs 12 3/4

Buddy Silva Helper's Signature Hrs 12 3/4

JUSTIFY HOURS (If Applies)

___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

SE ROA 54094

JA_18232

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-32 | DATE: 10/7/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00		Trip out Tools, Inner Tube apart, change Bit
	8:45	Trip in Tools, Trip in Rods To 1600'
8:45		Bleed Rods down To 1650', Air up clean out hole
		And level out Mud Tanks, Ream down To 1670',
	11:00	Bit Plugging Trip, hit Fill @ 1670'
11:00	12:00	Drill out Fill.
12:00	12:15	Discuss w/Bill & Fill out log

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
5	Gallons	Unloader	X						
20	50#	MAXGel	X						
1	50#	pac R	X						
1	50#	Dispac	X						

BIT RECORD	
BIT NO.	1
SIZE	12 3/4
MFG.	Lang
TYPE	t/c Carbide
SER. NO.	~~F624~~ F362K
DEPTH OUT	
DEPTH IN	1680'
TOTAL FTG.	
TOTAL HRS.	2
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

No.	DRILLING ASSEM. (at end of hour)		
12	BIT/BS	F.T.	3.31
4	STB. O.D.	F.T.	19.93
3	D.C. R.R. O.D.	F.T.	6.64
6	D.C. R.R. O.D.	F.T.	20.00
5	D.C. R.R. O.D.	F.T.	6.65
7	D.C. R.R. O.D.	F.T.	6.65
3/5	D.C. R.R. O.D.	F.T.	152.51
	D.C. R.R.		
	D.C. R.R.		
16	T/S		2.44
	TOTAL		318.18

WT. OF STRING 79,240 LBS.
WT. OF STRING LESS RODS 8,837 LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MIST PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD				
WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION			
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: Static 836'
2200-Tools Torque

3 Hrs. Booster
Hrs. Extra Comp.
Hrs. Hauling Water
Hrs. Cat
2 Hrs. Backhoe
Hrs. Mud Pump
Hrs. 6" Pump (or 2)
3/4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes ____ No ____

Driller's Signature: Rob Hannan Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: David Stillman Hrs.

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ____ No ____ ? ____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE 10/8/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1750'	1680'	70'

FROM	TO	ACTIVITY
12:00	12:15	DISCUSS HOLE W/DALE SITE SAFETY & EQUIP INSPEC
12:15	2:30	UNPLUG BIT
2:30	3:30	DRILLED OUT FILL 1675-1680'
3:30	12:00	DRILLED 1680'-1750'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
52	50LB	QUIKGEL							
1	50LB	SODA ASH							
1	50LB	DRISPAC-R							

BIT RECORD

BIT NO.	3
SIZE	12 1/4
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	F362K
DEPTH OUT	
DEPTH IN	1680'
TOTAL FTG.	70'
TOTAL HRS.	9
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1/2	BIT/DS	O.D.	FT	3.31
4	STB.	O.D.	FT	19.93
3	D.C. (6 1/4)	O.D.	FT	6.64
6	D.C.	O.D.	FT	20.00
5	D.C. (6 1/4)	O.D.	FT	16.65
7	D.C. (6 1/4)	O.D.	FT	6.65
9/15	D.C. (6 1/4)	O.D.	FT	152.51
	D.C. R.R.			
	D.C. R.R.			
16	T/S			2.44
	TOTAL			218.18

WT. OF STRING 86,315 LBS.
WT. OF STRING LESS ROD 31,837 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 450
ACTUAL WEIGHT ON BIT 25,470 LBS.

MUD RECORD

WEIGHT	8.6	8.7	8.7
VISC.-SEC.	46/47	49/47	49/46
WL-CC'S	8.8	9.6	8.4
pH	9	9	8
SOLIDS%	1/4%	1/4%	1/4%
TEMP.			
LYC	1/32	1/32	1/32
TIME	4:00	7:30	10:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T. / 20 IN.
DEPTH OF CEMENT GROUT	37 F.T. / IN.
WELL SCREEN IN HOLE	F.T. / IN.
CASING IN HOLE	F.T. / IN.
DEPTH OF GRAVEL	F.T. / IN.
DEPTH OF TRIM PIPE	F.T. / IN.
INTERMEDIATE CASING	F.T. / IN.

Remarks: LIFT TUBE 318' FROM BIT

11 3/4	Hrs. Booster
5	Hrs. Hauling Water
1	Hrs. Backhoe
___	Hrs. 6" Pump (or 2)
___	Hrs. Extra Comp.
___	Hrs. Cat
___	Hrs. Mud Pump
11 3/4	Hrs. Mud Tank

Sampling Preformed by Lang — Yes ___ No ___

Driller's Signature: BILL ROSS	Hrs. 12 3/4
Helper's Signature: QUENTIN HURTADO	Hrs. 12 1/2
Helper's Signature: BUDDY SHAW	Hrs. 12 1/2

JUSTIFY HOURS (If Applies)

1/4	Getting Fuel
___	Chasing for Parts
1/2	Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # 44-32 | DATE: 10/8/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Mmw-1	1820'	1750'	70'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equipment inspection
12:00	1:00	Dr.ll 1750- 1760'
1:15	1:30	check o.ls & grease equip.
1:30	12:00	Dr.ll 1760' - 1820'

Quantity	Size	Material Name	LANG	CLIENT
31	50#	MaxGel	X	
1	50#	Soda Ash	X	
1	50#	Pac-R	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	1
SIZE	12 1/4
MFG.	Smith
TYPE	T/C C.S.De
SER. NO.	F3284
DEPTH OUT	
DEPTH IN	1680'
TOTAL FTG.	
TOTAL HRS.	20
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
1/2	BIT/BS	F.T.	3.31
4	STB. O.D.	F.T.	19.93
3	D.C. R.R. O.D.	F.T.	6.61
6	D.C. O.D.	F.T.	20.00
5	D.C. R.R. O.D.	F.T.	6.65
7	D.C. R.R. O.D.	F.T.	6.65
8/5	D.C. R.R. O.D.	F.T.	15.25 1
	D.C. R.R.		
	D.C. R.R.		
16	T/S		0.44
	TOTAL		218.18

WT. OF STRING 80,655 LBS.
WT. OF STRING LESS RODS 31,857 LBS.
RPM 30-50
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 455
ACTUAL WEIGHT ON BIT 25,470 LBS.

MUD RECORD

WEIGHT	8.8	8.8	8.8
VISC.-SEC.	52	51	56
WL-CC'S	8.4	7.2	5.6
pH	9	9	9
SOLIDS%	1/4	Trace	1/4
TEMP.			
Time	3:00	6:00	10:30

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	F.T.	IN. 20
40		
DEPTH OF CEMENT GROUT	F.T.	IN.
37		
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

11 3/4 Hrs. Booster
1 Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 3/4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Dale Jensen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: Mark Smith Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
T/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK32 | DATE: 10/9/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: # 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	1910'	1820'	90'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/Dale Site Safety & Equip Inspec.
12:00	1:45	Drilled 1820' - 1840'
1:45	2:15	Survey at 1800'
2:15	12:00	Drilled 1840' - 1910'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
14	50lb	Quik Gel	X						
1	50lb	Soda Ash	X						
1	50lb	Dris pac-R	X						
5	9Al	Unleaded Gasoline	X						
70	9Al	Clear Diesel	X						

BIT RECORD

BIT NO.	3
SIZE	12¼"
MFG.	LANG
TYPE	T.C. Carbide
SER. NO.	F362K
DEPTH OUT	
DEPTH IN	1680'
TOTAL FTG.	230'
TOTAL HRS.	30
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
½	BIT	F.T.	3.31
4	STB. O.D.	F.T.	19.93
3	D.C. R.R. O.D.	F.T.	6.64
6	D.C. O.D.	F.T.	20.00
5	D.C. R.R. O.D.	F.T.	6.65
7	D.C. R.R. O.D.	F.T.	6.65
8/15	D.C. R.R. O.D.	F.T.	152.51
	D.C. R.R.		
	D.C. R.R.		
16	T/S		2.44
	TOTAL		218.18

WT. OF STRING 90,560 LBS.
WT. OF STRING LESS RODS 31,837 LBS.
RPM 50-60
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 490
ACTUAL WEIGHT ON BIT 25,170 LBS.

MUD RECORD

WEIGHT	8.8	8.8	8.7
VISC.-SEC.	55/52	58/55	62/55
WL-CC's	5.6	6.4	8.8
pH	9	9	9
SOLIDS%	1¼%	1¼%	1¼%
TEMP.			
W/C	2/32	2/32	4/32
TIME	3:30	7:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.	1800	DEVIATION	3 °
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

11½ Hrs. Booster
2 Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (for 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Driller's Signature: Bill Rossi Hrs. 13
Helper's Signature: Quentin Hurtado Hrs. 12¾
Helper's Signature: Buddy Shaw Hrs. 12¾

JUSTIFY HOURS (If Applies)
¼ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LR-32 | DATE: 10/9/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	2018	1910'	108'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & equipment Inspection
12:00	12:30	Dr.11 1910 - 1920'
12:30	12:45	check oils & grease equipment
12:45	11:15	Dr.11 1920' - ~~2018~~ 2018' From Table
11:15	11:30	Circulate Hole
11:30	12:00	Trip out

Quantity	Size	Material Name	LANG	CLIENT
25	50#	Quick Gel	X	
~~0~~	50#	Soda Ash	X	
1	50#	Dispac	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	3
SIZE	12¼
MFG.	Lang
TYPE	T/C Carbide
SER. NO.	F362K
DEPTH OUT	
DEPTH IN	1630'
TOTAL FTG.	
TOTAL HRS.	39
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
½	Bit/BS		FT.	3.31
4	STB.	O.D.	FT.	19.93
3	D.C. R.R.	O.D.	FT.	6.64
6	D.C.	O.D.	FT.	20.00
5	D.C. R.R.	O.D.	FT.	6.65
7	D.C. R.R.	O.D.	FT.	6.65
3/15	D.C. R.R.	O.D.	FT.	152.51
	D.C. R.R.			
	D.C. R.R.			
16	T/S			2.44
	TOTAL			218.18

WT. OF STRING ____ LBS.

WT. OF STRING LESS RODS 31,837 LBS.

RPM

HYD. WEIGHT ON BIT ____ LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT	8.9	8.9	8.9
VISC.-SEC.	53	54	55
WL-CC's	6.8	6.8	6.8
pH	10	9	10
SOLIDS%	¼	1/11	1/11
TEMP.			
Time	2:30	7:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40' F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: 5' From Table To ground

11¼ Hrs. Booster
1 Hrs. Hauling Water
2 Hrs. Backhoe
____ Hrs. 6" Pump (of 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
1¼ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Dale Jensen Hrs.
Driller's Signature
Ron Wilson Hrs.
Helper's Signature
Dave Stillman Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK 32	DATE: 10/10/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1	Ø	2018' T.D.	Ø

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/Dale Site Safety & Requid Inspec
12:00	5:00	Trip out 7" Rods
5:00	8:00	Trip out B.H.A.
8:00	8:30	Setup For Survey
8:30	12:00	Clean up Drill Site (wait on Survey)

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
68	9AL	Clear Diesel							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD					WELL CONSTRUCTION	
BIT NO.	3		BIT		F.T.	WEIGHT					SURFACE PIPE IN HOLE 40 F.T.	20 IN.
SIZE	12¾		STB.	O.D.	F.T.	VISC.-SEC.						
MFG.	LANG		D.C. R.R.	O.D.	F.T.	WL-CC'S					DEPTH OF CEMENT GROUT 37 F.T.	IN.
TYPE	T.C. CARBIDE		D.C.	O.D.	F.T.	pH						
SER. NO.	F362K		D.C. R.R.	O.D.	F.T.	SOLIDS%					WELL SCREEN IN HOLE F.T.	IN.
DEPTH OUT	2016'		D.C. R.R.	O.D.	F.T.	TEMP.						
DEPTH IN	1680'		D.C. R.R.	O.D.	F.T.						CASING IN HOLE F.T.	IN.
TOTAL FTG.	338'		D.C. R.R.									
TOTAL HRS.	39		D.C. R.R.								DEPTH OF GRAVEL F.T.	IN.
BIT NO.			TOTAL									
SIZE			WT. OF STRING		LBS.	SURVEY INFORMATION					DEPTH OF TRIM PIPE F.T.	IN.
MFG.			WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION		°		
TYPE			RPM			DEPTH OF SUR.		DEVIATION		°		
SER. NO.			HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION		°	INTERMEDIATE CASING F.T.	IN.
DEPTH OUT			AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION		°		
DEPTH IN			ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION		°		
TOTAL FTG.			Remarks:									
TOTAL HRS.												

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Driller's Signature: Bill Rossi Hrs. 12¾
___ Hrs. Hauling Water	___ Hrs. Cat		Helper's Signature: Quentin Hurtado Hrs. 12¾
2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Helper's Signature: Randy Shaw Hrs. 12¾
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # L1-32	DATE: 10/10/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip. inspection
12:00	4:15	Setting up To Run N.Q. & Surface equip, while Surveying
4:15	6:15	Run in √NQ To 1980'
6:15	8:15	Set up To Run 4½ Casing
8:15	12:00	Run Casing From 0 - 853'
12:00	12:15	Discuss w/ √James running Casing & Finish log

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING LBS.
WT. OF STRING LESS RODS LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	2000' F.T.	NQ IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: 100 NQ on Deck & in hole, 101 on site

___ Hrs. Booster
___ Hrs. Hauling Water
3 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
___ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Dale Jensen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: David Stidham Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-11-05

Daily Start time: 1200 (Midnight A.M. / Noon P.M.)	Daily Start time: 1200 (Midnight A.M. / Noon P.M.)	PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1			

FROM	TO	ACTIVITY
1145	1215	site safety
1215	830	run casing from 853 to 1920
830	930	load casing
930	1200	gravel pac ~~from 1920 to~~

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
5		Superbac 1/8 SRI							
1									

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	20 IN.
SIZE			STB. O.D.	F.T.	VISC-SEC.				40 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				37 F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	5 1/2
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				100 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	5 1/2
TOTAL FTG.			D.C. R.R.						1820 F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	7 9
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				1800 F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	-	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	-	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
DEPTH OUT			AIR / MUD PRESSURE		DEPTH OF SUR.		DEVIATION	-		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

____ Hrs. Booster	____ Hrs. Extra Comp.	Sampling Preformed by Lang	James McCoy Driller's Signature ____ Hrs.
____ Hrs. Hauling Water	____ Hrs. Cat		Mike Pelstead Helper's Signature ____ Hrs.
____ Hrs. Backhoe	____ Hrs. Mud Pump	Yes____ No____	Brian Swartz Helper's Signature ____ Hrs.
____ Hrs. 6" Pump (or 2)	____ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ____ Getting Fuel ____ Chasing for Parts ½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LH-32	DATE: 10/6/05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M. (Noon P.M. circled)
Daily Start time: 12:00 — Midnight A.M. (circled) / Noon P.M.
PROJECT: 1451
NAME: UAS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equipment inspection
12:00	12:00	Gravel pack 1205' - 1220'

Quantity	Size	Material Name	LANG	CLIENT
1	5 1/2"	Bull nose	X	
101.9	5 1/2"	T&C Casing Screen	X	
1818.1	5 1/2"	T&C Blank Casing	X	
4	2" x 6"	Landing TABS	X	
11	~~15~~ 30ft³	# SAT 1/8 Gravel	X	

Quantity	Size	Material Name	LANG	CLIENT
37	gallons	Clear Diesel	X	

BIT RECORD

BIT NO.		BIT NO.	
SIZE		SIZE	
MFG.		MFG.	
TYPE		TYPE	
SER. NO.		SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN		DEPTH IN	
TOTAL FTG.		TOTAL FTG.	
TOTAL HRS.		TOTAL HRS.	

No. DRILLING ASSEM. (at end of hour)

BIT		F.T.	
STB.	O.D.	F.T.	
D.C. R.R.	O.D.	F.T.	
D.C.	O.D.	F.T.	
D.C. R.R.	O.D.	F.T.	
D.C. R.R.	O.D.	F.T.	
D.C. R.R.	O.D.	F.T.	
D.C. R.R.			
D.C. R.R.			
TOTAL			

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR / MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC's				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	MP IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: Hole Feels like it was Bridged off up Above, pulling 20' @ a time gravel packing

____ Hrs. Booster
____ Hrs. Hauling Water
4 Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Dale Jensen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: Darel Stalheim Hrs.

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-12
Daily Start time: 1200 Midnight (A.M.) Noon P.M.	Daily Start time: 1200 Midnight A.M. Noon (P.M.)	PROJECT: 1451 NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
K11W-1			

FROM	TO	ACTIVITY
1145	1200	site + safety
1200	700	gravel pac to 955
700	930	hole plug to 881
930	1015	mix and pump 26 Bag tot total
1015	1130	got ready to mix wit two mixer
1130	1200	tag 880

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
26	98#	cement	/						
50	50#	hole plug	/						
2	50#	calcium	/						
5	1/S.S.	1/8 SRI gravel	/						

BIT RECORD	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

No.	DRILLING ASSEM. (at end of hour)		
	BIT	F.T.	
	STB. O.D.	F.T.	
	D.C. R.R. O.D.	F.T.	
	D.C. O.D.	F.T.	
	D.C. R.R. O.D.	F.T.	
	D.C. R.R. O.D.	F.T.	
	D.C. R.R. O.D.	F.T.	
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

MUD RECORD			
WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	101.9 F.T.	5 1/2 IN.
CASING IN HOLE	1818.1 F.T.	IN.
DEPTH OF GRAVEL	955 F.T.	IN.
DEPTH OF TRIM PIPE	820 F.T.	820 IN.
INTERMEDIATE CASING	F.T.	IN.

WT. OF STRING	LBS.
WT. OF STRING LESS RODS	LBS.
RPM	
HYD. WEIGHT ON BIT	LBS.
AIR / MUD PRESSURE	
ACTUAL WEIGHT ON BIT	LBS.

SURVEY INFORMATION			
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

Remarks:

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)

____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

[signature] Hrs.
Driller's Signature
[signature] Mike ... Hrs.
Helper's Signature
Brian Schwartz Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/2 Getting Fuel
____ Chasing for Parts
X Drive Time (after the 1st one hour)

CLIENT REP: ______________________ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-32 | DATE: 10/12/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00		check static, Try To pump through NQ., NQ plugged
	1:30	up, Trip out NQ.
1:30	3:00	Unplug N.Q. 40' cemented, Trip Back in To 820'
3:00	5:30	mix & pump cement
5:30	7:00	unload Semi & wait for cement To harden
7:00	8:45	Tag Cement @ 419', mix & pump cement
8:45	10:00	Wait for cement To harden, Tag Cement @ 269'
10:00	11:30	Hole plug 269' - 235'
11:30	12:00	Set up To mix Cement, mix cement

Quantity	Size	Material Name	LANG	CLIENT
8	50#	Calcium	X	
12	Super Sax	Cement	X	
35	50#	Hole Plug 3/8	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
PIPE
HYD. WEIGHT ON BIT ____ LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	10 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	161.9 F.T.	5 1/2 IN.
CASING IN HOLE	1818.1 F.T.	5 1/2 IN.
DEPTH OF GRAVEL	955' F.T.	IN.
DEPTH OF TRIM PIPE	220 F.T.	NQ IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

____ Hrs. Booster
1 Hrs. Hauling Water
3 Hrs. Backhoe
4 3/4 Hrs. ~~Air Comp~~ (or 2) Mixers
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
4 3/4 Hrs. ~~Mud Tank~~ Hyd. plant

Sampling Preformed by Lang
Yes____ No____

Dale Tesson Hrs.
Driller's Signature
Ron Wilson Hrs.
Helper's Signature
Darrel Stalker Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-13

Daily Start time: 1200 Midnight A.M. / Noon P.M. (Noon P.M.) | Daily Start time: 1200 Midnight A.M. / Noon P.M. (Noon P.M.) | PROJECT NAME: 1461

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1			

FROM	TO	ACTIVITY
1145	1200	site & safety
1200	930	clean out from 235 to surface
930	1000	cut casing down weld on 5½ male threads
1000	1200	run rig to 1200'

Quantity	Size	Material Name	LANG	CLIENT
10	SS	cement	/	
10	SS	calcium		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING	LBS.
WT. OF STRING LESS RODS	LBS.
RPM	
HYD. WEIGHT ON BIT	LBS.
AIR MUD PRESSURE	
ACTUAL WEIGHT ON BIT	LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40' F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	161.9 F.T.	IN.
CASING IN HOLE	1818.9 F.T.	IN.
DEPTH OF GRAVEL	955' F.T.	IN.
DEPTH OF TRIM PIPE	0 F.T.	IN.
INTERMEDIATE CASING	0 F.T.	IN.

Remarks:

____ Hrs. Booster
1 Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Driller's Signature: James McCoy Hrs.
Helper's Signature: Mike Salyer Hrs.
Helper's Signature: Brian Schwartz Hrs.

JUSTIFY HOURS (If Applies)
½ Getting Fuel
____ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-32 | DATE: 10/13/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	1:15	Set up to develop
1:15	7:00	Develop @ 1200', 1600', 1920' & U.Q.
7:00	8:30	Surge hole
8:30	12:00	Develop @ 1920' Max., Set up 300 Dalt

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR / MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	881' F.T.	IN.
WELL SCREEN IN HOLE	101.9' F.T.	5½ IN.
CASING IN HOLE	1818.1' F.T.	5½ IN.
DEPTH OF GRAVEL	955' F.T.	IN.
DEPTH OF TRIM PIPE	1920 F.T.	NO IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

10¾ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
6½ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
10¾ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Dale Jonsen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: Darrell Stalker Hrs.

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-32	DATE: 10-14-21

Daily Start time: 1200 — Midnight A.M. / Noon P.M.

Daily Start time: 1200 — Midnight A.M. / Noon P.M.

PROJECT: 1451
NAME:

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KMW-1			

FROM	TO	ACTIVITY
1145	1200	site & prep.
1200	1200	airlift surging the well every 2 hrs at 1920

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.		BIT NO.	
SIZE		SIZE	
MFG.		MFG.	
TYPE		TYPE	
SER. NO.		SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN		DEPTH IN	
TOTAL FTG.		TOTAL FTG.	
TOTAL HRS.		TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-
DEPTH OF SUR.		DEVIATION	-

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40 F.T.	20 IN.
DEPTH OF CEMENT GROUT	37 F.T.	IN.
WELL SCREEN IN HOLE	101.9 F.T.	IN.
CASING IN HOLE	1818.1 F.T.	IN.
DEPTH OF GRAVEL	955' F.T.	IN.
DEPTH OF TRIM PIPE	1920 F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

12 Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: James McGee — Hrs.
Helper's Signature: Mike Hatstead — Hrs.
Helper's Signature: Brian Echevarria — Hrs.

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
12 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LH-32	DATE: 10-14-05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M.

Daily Start time: 12:00 — Midnight A.M. / Noon P.M.

PROJECT: 1451

NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kmw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site safety & equip inspection
12:00	7:00	develop @ 1920', Surge hole every 2 Hrs
7:00		~~Rig out~~ Tripout To 1220', Take static,
		Tripout To 1000', Take static, Tripout,
	9:45	Take static @ 998'
9:45	12:00	Rig down
12:00	12:15	Rig down

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.

WT. OF STRING LESS RODS ____ LBS.

RPM

HYD. WEIGHT ON BIT ____ LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC's			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	40	F.T. 20 IN.
DEPTH OF CEMENT GROUT	881	F.T. 5½ IN.
WELL SCREEN IN HOLE	101.9	F.T. 5½ IN.
CASING IN HOLE	1818.1	F.T. 5½ IN.
DEPTH OF GRAVEL	955	F.T. 5½ IN.
DEPTH OF TRIM PIPE	~~1000~~	F.T. IN.
INTERMEDIATE CASING		F.T. IN.

Remarks: (4 Hrs Setting up 300 site)

7 Hrs. Booster
___ Hrs. Hauling Water
4 Hrs. Backhoe
7 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
7 Hrs. Mud Tank

Sampling Preformed by Lang

Yes___ No___

Dale Jenson Driller's Signature Hrs.

Bob Wilson Helper's Signature Hrs.

Darryl Stalbow Helper's Signature Hrs.

JUSTIFY HOURS (If Applies)

___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # Ln-300 | DATE: 10/15/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: LAS

Hole No.	Depth Today	Depth Yesterday	Total Drilled

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	6:30	Setting up To Drill & unloading Semi's

Quantity	Size	Material Name	LANG	CLIENT
4	5½'	T-Posts	X	
50'	48"	Orange Fence	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING: LBS.
WT. OF STRING LESS RODS: LBS.
RPM
HYD. WEIGHT ON BIT: LBS.
AIR MIST PRESSURE
ACTUAL WEIGHT ON BIT: LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT		
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL		
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks:

___ Hrs. Booster
___ Hrs. Hauling Water
4 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
___ Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Dale Jensen — Driller's Signature — Hrs. 7¼
Ben Wilson — Helper's Signature — Hrs. 7¼
Darrel Stalker — Helper's Signature — Hrs. 7¼

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # Lm-500 | DATE: 10/16/05

Daily Start time: 6:00 (Midnight / A.M. / Noon / P.M.)	Daily Start time: 6:00 (Midnight / A.M. / Noon / P.M.)	PROJECT: 145' NAME: 4RS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
	20'	0	20

FROM	TO	ACTIVITY
5:45	6:00	Site Safety & Equip. inspection
6:00	3:00	Set up To Drill
3:00		Drill Surface 0 – 20', pull off Smooth
	6:15	stabilizer and add Bit & reBar) stabilizer

Quantity	Size	Material Name	LANG X	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
31	50 #	Quick Gel / ~~Bentonite~~ Bits							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO. 1	R97830R		BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	
SIZE	38"		STB. O.D.	F.T.	VISC.-SEC.				F.T.	IN.
MFG.	Lang		D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE	T/C		D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	
TOTAL FTG.			D.C. R.R.						F.T.	IN.
TOTAL HRS.	1½		D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.			Remarks:							
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Driller's Signature: Duke Jonson ___ Hrs.
1 Hrs. Hauling Water	___ Hrs. Cat		Helper's Signature: Tom Wilson ___ Hrs.
5 Hrs. Backhoe	___ Hrs. Mud Pump	Yes____ No____	Helper's Signature: Dave Stalker ___ Hrs.
2 Hrs. 6" Pump (or 2")	4 Hrs. Mud Tank		Helper's Signature: Mike

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM 500 | DATE: 10/17/05

Daily Start time: 6:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 6:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
	82'	20'	62'

FROM	TO	ACTIVITY
6:00	6:15	Site Safety & Equip Inspection
6:15	7:45	Work on Rig & Rear Pump, mix mud
7:45	5:00	Drill 20'-82' From Table
5:00	6:45	Trip out Tools
6:45	7:00	clean up

Quantity	Size	Material Name	LANG	CLIENT
83	50#	Quick Gel	X	
77	Gallons	clear Diesel	X	
15	Gallons	Lubricant	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	1	RG7830R
SIZE		38"
MFG.		Lang
TYPE		T/C Steel Tooth
SER. NO.		
DEPTH OUT		
DEPTH IN		0
TOTAL FTG.		
TOTAL HRS.		7
BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		F.T.	5-18
2	STB	O.D.	F.T.	20.83
3	D.C. R.R.	O.D.	F.T.	19.85
4	D.C.	O.D.	F.T.	20.07
5	D.C. R.R.	O.D.	F.T.	20.08
	D.C. R.R.	O.D.	F.T.	
	D.C. R.R.	O.D.	F.T.	
	D.C. R.R.			
	D.C. R.R.			
6	T/S			7.04
7	9/7			1.45
	TOTAL			94.5

WT. OF STRING LBS.
WT. OF STRING LESS RODS LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC's			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT		
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL		
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks: 5' Ground To Table

___ Hrs. Booster
23 Hrs. Hauling Water
3 Hrs. Backhoe
9 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
10 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Dale Jenson Hrs.
Driller's Signature
Ron Wilson Hrs.
Helper's Signature
Mike Walsh Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/2 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/18/05
Daily Start time: 6:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled

FROM	TO	ACTIVITY
5:45	6:00	Site Safety & Equip inspection
6:00		Trip in Bit & TIs & RuD for a Wiper Run
	8:00	Circulate hole, Trip out
8:00	12:00	Running Casing & land
12:00	12:15	Safety meeting

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
80.3'	34" x 1/2"	Blank Casing	X						
8	2"x2"	Centering Blades	X						
1	A.B.	Pumping head	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80.3 F.T.	IN.
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	
TOTAL FTG.			D.C. R.R.						F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
									DEPTH OF TRIM PIPE	
BIT NO.			TOTAL						F.T.	IN.
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION		F.T.	IN.
TYPE			RPM		DEPTH OF SUR.		DEVIATION			
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION			
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION			
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION			
TOTAL FTG.			Remarks:							
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Dale Jensen Hrs.
___ Hrs. Hauling Water	___ Hrs. Cat		Driller's Signature
1 Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Ben Wilson Hrs.
1 Hrs. 6" Pump (or 2)	2 Hrs. Mud Tank		Helper's Signature
			Mike Halstad Hrs.
			Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/18/05
Daily Start time: 12:00 Midnight A.M. (Noon P.M.)	Daily Start time: 12:00 (Midnight A.M.) Noon P.M.	PROJECT: ~~#~~1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	Ø	80'	Ø

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole Lu/Dane Site Safety & Equip Inspec
12:00	12:15	SAFETY MEETING
12:15	3:00	Level Casing Mix and pump 15 Bag Hot Batch Cement
3:00	6:30	Cement To Surface
6:30	10:30	Wait on Cement (Hook up Flow line, Clean up, Set up to Drill Down B.H.A.
10:30	12:00	Measure B.H.A. Start Tripping in B.H.A.

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
15	94lb	CEMENT							
5	50lb	CALCIUM CHL.							
4	2000#	SUPERSAC CEMENT							
5	50lb	SODIUM BICARB.							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.	2		BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34
SIZE	26"		STB. O.D.	F.T.	VISC.-SEC.				80 F.T.	IN.
MFG.	LANG		D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE	T.C. CARBIDE		D.C. R.R. O.D.	F.T.	pH				77 F.T.	IN.
SER. NO.	7195548I		D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	
DEPTH OUT	C		D.C. R.R. O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN	80'		D.C. R.R. O.D.	F.T.					CASING IN HOLE	
TOTAL FTG.			D.C. R.R.						F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	-	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	-	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	-		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Bill Rossi Driller's Signature Hrs. 12 3/4
___ Hrs. Hauling Water	___ Hrs. Cat		Quentin Hurtado Helper's Signature Hrs. 12 3/4
1 Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Jeff Braud Helper's Signature Hrs. 12 3/4
1/2 Hrs. 6" Pump (or 2)	6 1/2 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # Ln. 300	DATE: 10/19/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12.00 (Midnight A.M. / Noon P.M.) | PROJECT: 145 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	125'	82'	43'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00		Trip in 31" Reamer 2 26" stab 2 Top sub w/ 60' of Rods
	1:45	hit cement @ 80.32' From Table
1:45	3:00	Drill To 85'
3:00	4:30	Trip out Take of 31" Reamer
4:30	6:45	Trip in
6:45	12:00	Drill 85' - 125'

Quantity	Size	Material Name	X LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
20	50 #	Quick Gel	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION		
BIT NO.	2	1	(BIT)	F.T.	3.62	WEIGHT				SURFACE PIPE IN HOLE	80 F.T.	34 IN.
SIZE	26"	3	STB O.D.	F.T.	20.80	VISC.-SEC.				DEPTH OF CEMENT GROUT	77 F.T.	34 IN.
MFG.	Lang	2	D.C. O.D.	F.T.	5.27	WL-CC'S				WELL SCREEN IN HOLE	F.T.	IN.
TYPE	T.C. Carbide	5	SUB O.D.	F.T.	9.17	pH				CASING IN HOLE	F.T.	IN.
SER. NO.	71955 4R1	4	D.C. O.D.	F.T.	5.26	SOLIDS%				DEPTH OF GRAVEL	F.T.	IN.
DEPTH OUT		6	D.C. O.D.	F.T.	5.27	TEMP.				DEPTH OF TRIM PIPE	F.T.	IN.
DEPTH IN	80'	7/10	D.C. R.R. O.D.	F.T.	76.96					INTERMEDIATE CASING	F.T.	IN.
TOTAL FTG.		11	D.C. R.R. T/S		7.04							
TOTAL HRS.	5	12	D.C. R.R. H/S		1.83							
		13	9 5/8		20.00							
		14	9x7		1.45							
BIT NO.	S/S		TOTAL		156.67'							
SIZE	B/T	WT. OF STRING			LBS.	SURVEY INFORMATION						
MFG.	Lang	WT. OF STRING LESS RODS			LBS.	DEPTH OF SUR.		DEVIATION	°			
TYPE		RPM				DEPTH OF SUR.		DEVIATION	°			
SER. NO.	287773 RR 12345	HYD. WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°			
DEPTH OUT		AIR MUD PRESSURE				DEPTH OF SUR.		DEVIATION	°			
DEPTH IN		ACTUAL WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°			
TOTAL FTG.		Remarks:										
TOTAL HRS.												

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Dale Jensen Driller's Signature Hrs.
___ Hrs. Hauling Water	___ Hrs. Cat		Ron Wilson Helper's Signature Hrs.
3 Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Mike Halsted Helper's Signature Hrs.
7 Hrs. 6" Pump (of 2)	7 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/19/05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	190'	125'	65'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/ Dale J. Site Safety & Equip Inspec.
12:00	4:30	Finish Drilling Down B.H.A.
4:30	8:00	Drilled 150'-190'
8:00	8:30	Switched over to Drill Flooded Rev. (Stoped to start Tripping
8:30	12:00	Tripped Back to Add Roller Reamer to B.H.A.

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
6	50lb	QUIK GEL	X						
1	5018	DRISPAC-R	X						
70	9A1	CLEAR DIESEL	X						

BIT RECORD	
BIT NO.	2
SIZE	26"
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	719554R1
DEPTH OUT	
DEPTH IN	80'
TOTAL FTG.	110'
TOTAL HRS.	8:28
~~BIT NO.~~	Stock Sub
SIZE	B/T
MFG.	LANG
TYPE	
SER. NO.	2877378RR12345
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	4

No.	DRILLING ASSEM. (at end of hour)		
1	BIT	FT.	3.62
3	STB. O.D.	FT.	20.80
2	D.C. R.R. O.D.	FT.	5.27
5	D.C. O.D.	FT.	9.17
4	D.C. R.R. O.D.	FT.	5.26
6	D.C. R.R. O.D.	FT.	5.27
9/10	D.C. R.R. O.D.	FT.	96.96
11	D.C. R.R. T/S		7.04
12	D.C. R.R. H/S		1.83
13	9 5/8		20.00
H	9x7		1.45
	TOTAL		156.67

MUD RECORD				
WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	80 F.T.	34' IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

WT. OF STRING LBS.
WT. OF STRING LESS RODS 70,610 LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

Remarks: 120' OF INTERTUBE 16' FROM BIT

___ Hrs. Booster	___ Hrs. Extra Comp.
___ Hrs. Hauling Water	___ Hrs. Cat
1/2 Hrs. Backhoe	___ Hrs. Mud Pump
6 Hrs. 6" Pump (or 2)	8 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Bill Rossi Hrs 13 1/4
Helper's Signature: QUENTIN HURTADO Hrs 12 3/4
Helper's Signature: JEFF BRAUD Hrs 12 3/4

JUSTIFY HOURS (If Applies)
1/2 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # Lm-300 | DATE: 10/20/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	275'	190'	85'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip Inspection
12:00	1:30	Trip in
1:30	2:15	Drill 190'-200'
2:15	3:00	Switch over To Flooded Rig, Air up 20 up clean up hole
3:00	5:15	Drill 200'-220', losing mud @ 207'
5:15		Trip out To Top Sub, change shaker screens, mix
	6:15	mud, check static @ 76'
6:15	8:15	Trip Back To Bottom, Drill 220'-240'
8:15	8:30	Survey @ 200'
8:30	12:00	Drill 240'-275'
12:00	12:15	clean up mud Bags & Discuss hole w/ Bill

Quantity	Size	Material Name	LANG	CLIENT
143	50#	Quick Gel	X	
1	50#	Soda Ash	X	
~~0~~	50#	Poly R	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	2
SIZE	26"
MFG.	Lang
TYPE	TK CarBide
SER. NO.	7195541
DEPTH OUT	
DEPTH IN	80'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	3/5
SIZE	8 1/2
MFG.	Lang
TYPE	
SER. NO.	227773R12345
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		FT.	3.62
3	STB	O.D.	FT.	20.80
2	D.C. HWD	O.D.	FT.	5.27
5	D.C. 5 1/2	O.D.	FT.	9.17
4	D.C. HWD	O.D.	FT.	5.26
6	D.C. HWD	O.D.	FT.	5.27
7-8-10-11	D.P. HWD	O.D.	FT.	76.96
9	D.C. HWD			3.75
12/13	D.C. 9 1/2 R.R. / HS			8.87
14	9 7/8			20.00
15	9X7			1.45
	TOTAL			160.42

WT. OF STRING 81,355 LBS.

WT. OF STRING LESS ROSS 74,410 LBS.

RPM 50-60

HYD. WEIGHT ON BIT ~~74,410~~ LBS. 600

AIR MUD PRESSURE 120

ACTUAL WEIGHT ON BIT 76,810 LBS.

MUD RECORD

WEIGHT	9.0		
VISC-SEC.	63		
WL-CC'S	10.4		
pH	9		
SOLIDS%	1/2		
TEMP.			
Time	8:00		

SURVEY INFORMATION

DEPTH OF SUR.	200	DEVIATION	0°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T. 14 IN.
DEPTH OF CEMENT GROUT	77 F.T. 21 IN.
WELL SCREEN IN HOLE	F.T. IN.
CASING IN HOLE	F.T. IN.
DEPTH OF GRAVEL	F.T. IN.
DEPTH OF TRIM PIPE	F.T. IN.
INTERMEDIATE CASING	F.T. IN.

Remarks:

___ Hrs. Booster
3 Hrs. Hauling Water
3 Hrs. Backhoe
1 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
8.5 Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Dale Jensen Hrs.
Driller's Signature
Ron Wilson Hrs.
Helper's Signature
Mike Halstad Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LM 300 | DATE: 10/20/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	370'	275'	95'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/Dale Site Safety & Equip Inspec.
12:00	8:45	Drilled 275'-340'
8:45	9:15	Survey @ 300'
9:15	12:00	Drilled 340'-370'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
72	50lb	QUICK GEL	x						
2	50lb	DRISPAC-R	x						
1	50lb	SODA ASH	x						

BIT RECORD

BIT NO.	2
SIZE	26"
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	7195548
DEPTH OUT	
DEPTH IN	80'
TOTAL FTG.	290
TOTAL HRS.	25
BIT NO.	STAB SUB
SIZE	BIT
MFG.	LANG
TYPE	
SER. NO.	287773R12345
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	25

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		FT.	3.62
2/3	H.W. STR.	O.D.	FT.	5.27 / 70.50
4	D.C. (HD)	O.D.	FT.	5.26
5	STAB-IF SLEEVE	O.D.	FT.	9.17
6	D.C. (XO)	O.D.	FT.	5.27
7/8	D.C. (XO)	O.D.	FT.	39.92
9	D.C. (XO)	O.D.	FT.	3.75
10/11	D.C. (XO)			39.04
12/13	DET/S (XO)	N/S		7.09 / 1.85
14	9 5/8			20.00
15	9x7			1.45
	TOTAL			160.42

WT. OF STRING 122,000 LBS.
WT. OF STRING LESS RODS 114,000 LBS.
RPM 50-70
HYD. WEIGHT ON BIT 850 LBS.
AIR MUD PRESSURE 120
ACTUAL WEIGHT ON BIT 52,190 LBS.

MUD RECORD

WEIGHT	8.8	9.1
VISC-SEC.	49 / 48	57 / 56
WL-CC'S	11.4	8.4
pH	9	8
SOLIDS%	1/4%	1/2%
TEMP.		
WLC	1/32	1/32
TIME	5:30	10:00

SURVEY INFORMATION

DEPTH OF SUR.	300	DEVIATION	3/4°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster
1 Hrs. Hauling Water
1 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Bill Rossi Hrs 12 3/4
Helper's Signature: QUENTIN HURTADO Hrs 12 3/4
Helper's Signature: JEFF BRAID Hrs 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

SE ROA 54118

JA_18256

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 10/21/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	480'	370'	110'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety, & Equip inspection
12:00	1:00	Drill 370' - 380'
1:00	1:15	check oils & grease Equip
1:15	7:00	Drill 380' - 440'
7:00	7:15	Survey @ 400'
7:15	12:00	Drill 440' - 480'

Quantity	Size	Material Name	LANG	CLIENT
45	50#	Quick Gel	X	
2	50#	Soda Ash	X	
2	50#	~~Poly~~ Dispac	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	2	S/S
SIZE	26"	B/T
MFG.	Lang	Lang
TYPE	T/C CarBide	
SER. NO.	7195548 1	287773 A1-5
DEPTH OUT		
DEPTH IN	80'	
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		FT	3.62
3	STB	O.D.	FT	20.80
2	D.C. HWD	O.D.	FT	5.27
5	~~D.C.~~ 3/5	O.D.	FT	9.17
4	D.C. HWD	O.D.	FT	5.26
6	D.C. HWD	O.D.	FT	5.27
7,8 9,11	HCR	O.D.	FT	76.96
9	D.C. HWD			3.75
12/13	~~STB~~ 14/15			8.87
14	9 5/8			20.00
15	9x7			1.45
	TOTAL			160.42

WT. OF STRING 85,960 LBS.
WT. OF STRING LESS RODS 74,410 LBS.
RPM 50-60
HYD. WEIGHT ON BIT 600 LBS.
AIR MUD PRESSURE 1
ACTUAL WEIGHT ON BIT 36,840 LBS.

MUD RECORD

WEIGHT	9.3	9.7	9.6
VISC.-SEC.	54	60	60
WL-CC'S	6	11.6	12.8
pH	10	10	9
SOLIDS%	1/2	1/2	1/2
TEMP.			
Time	2:00	6:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.	400	DEVIATION	1/4°
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 FT.	34 IN.
DEPTH OF CEMENT GROUT	77 FT.	34 IN.
WELL SCREEN IN HOLE	FT.	IN.
CASING IN HOLE	FT.	IN.
DEPTH OF GRAVEL	FT.	IN.
DEPTH OF TRIM PIPE	FT.	IN.
INTERMEDIATE CASING	FT.	IN.

Remarks: Over Feeding Hole To get weight down

1/2 hr for mike's interview

___ Hrs. Booster
3 Hrs. Hauling Water
3 Hrs. Backhoe
0 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 1/2 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Driller's Signature: Dale Jensen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: M. Pe Halstad Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LM-300 | DATE: 10/21/05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M. (Noon P.M.)
Daily Start time: 12:00 — Midnight A.M. (Midnight A.M.) / Noon P.M.
PROJECT: ~~H~~ 1451
NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	585'	480'	105'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/Dale J. Site Safety & Equip Inspec.
12:00	5:00	Drilled 480' - 540'
5:00	5:30	Survey @ 500'
5:30	12:00	Drilled 540' - 585'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
21	50lb	Quik Gel	x						
1	50lb	Soda Ash	x						
2	50lb	Dr:spac-R	x						
10	9A1	Unleaded Gasoline	x						
68	9A1	Clear Diesel	x						

BIT RECORD

BIT NO.	2
SIZE	26"
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	7195548R1
DEPTH OUT	
DEPTH IN	80'
TOTAL FTG.	505'
TOTAL HRS.	4.5
BIT NO.	Stock Sub
SIZE	BIT
MFG.	LANG
TYPE	
SER. NO.	2B7773R12345
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	45

DRILLING ASSEM. (at end of hour)

No.			
1	BIT	FT.	362
2/3	STB. O.D.	FT.	527 / 20.80
4	D.C. R.R. O.D.	FT.	526
5	D.C. O.D.	FT.	9.17
6	D.C. R.R. O.D.	FT.	5.27
7/8	D.C. R.R. O.D.	FT.	39.92
9	D.C. R.R. O.D.	FT.	9.75
10/11	D.C. R.R.		37.04
12/13	D.C. R.R.		7.04 / 1.83
14			20.00
15			1.45
	TOTAL		160.42

WT. OF STRING 87,495 LBS.
WT. OF STRING LESS RODS 79,410 LBS.
RPM 60-95
HYD. WEIGHT ON BIT 800 LBS.
AIR MUD PRESSURE 180
ACTUAL WEIGHT ON BIT 49,120 LBS.

Remarks:

MUD RECORD

WEIGHT	9.8	9.7	9.8
VISC.-SEC.	43/46	48/50	49/55
WL-CC'S	12.4	9.2	11.6
pH	9	8	9
SOLIDS%	3¼%	1%	3¼%
TEMP.			
W/C	1/32	1/32	1/32
Time	3:00	4:00	9:00

SURVEY INFORMATION

DEPTH OF SUR.	500'	DEVIATION	½ °
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80	FT. 94 IN.
DEPTH OF CEMENT GROUT	77	FT. IN.
WELL SCREEN IN HOLE		FT. IN.
CASING IN HOLE		FT. IN.
DEPTH OF GRAVEL		FT. IN.
DEPTH OF TRIM PIPE		FT. IN.
INTERMEDIATE CASING		FT. IN.

___ Hrs. Booster
3 Hrs. Hauling Water
1 Hrs. Backhoe
1 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Driller's Signature: Billy Rossi Hrs 13¼
Helper's Signature: Quentin Hurtado Hrs 12¾
Helper's Signature: Jeff Braud Hrs 12¾

JUSTIFY HOURS (If Applies)
½ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LM - 300 | DATE: 5/22/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: UAS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
HPW-1	665'	585'	80'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	1:45	Drill 585' - 600'
1:45	2:00	check oils & grease equip
2:00	12:00	Dr. ll 600' - 665'

Quantity	Size	Material Name	LANG	CLIENT
47	50#	Quick Gel	X	
2	50#	Drispac	X	
1	50#	Soda Ash	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	2	
SIZE	26"	
MFG.	Lang	
TYPE	7/c Ca-Bide	
SER. NO.	719554A1	
DEPTH OUT		
DEPTH IN	80'	
TOTAL FTG.		
TOTAL HRS.	56	
BIT NO.	5/5	
SIZE	B/T	
MFG.	Lang	
TYPE		
SER. NO.	287773A1-5	
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.			
1	MT	F.T.	3.62
3	STB O.D.	F.T.	20.80
2	D.C. RR O.D.	F.T.	5.27
5	D.C. 8 3/4 O.D.	F.T.	9.17
4	D.C. RR O.D.	F.T.	5.26
6	D.C. RR O.D.	F.T.	5.27
28 10 11	D.C. RR O.D.	F.T.	76.96
9	D.C. RR		3.75
12/13	D.C. 7 3/4 RR 4.5		8.87
14	9 7/8		20.00
15	9x7		1.45
	TOTAL		160.42

WT. OF STRING 92,100 LBS.
WT. OF STRING LESS RODS 74,410 LBS.
RPM 70-80
HYD. WEIGHT ON BIT 400-500 LBS.
AIR MUD PRESSURE 230
ACTUAL WEIGHT ON BIT 74,560 - 30,700 LBS.

MUD RECORD

WEIGHT	9.7	9.7	9.6
VISC.-SEC.	53	54	54
WL-CC's			
pH	9	9	9
SOLIDS%	1/2	1/4	1/4
TEMP.			
Time	2:00	6:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.	600'	DEVIATION	3/4°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	34 IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

____ Hrs. Booster
.5 Hrs. Hauling Water
3 Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
1 1/2 Hrs. Mud Tank

Sampling Preformed by Lang: / Yes ____ No ____

Dale Jensen Hrs.
Driller's Signature
Ron Wilson Hrs.
Helper's Signature
M. Hs. 11 1/2 STAND Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 10/22/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	750'	665'	85'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/Dale J. Site Safety & Equip Inspec
12:00	9:30	Drilled 665' - 740'
9:30	9:45	Survey @ 700'
9:45	12:00	Drilled 740 - 750'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
43	50lb	Quick Gel	x						
2	50lb	Soda Ash	x						
#3	50lb	Drispac-R	x						
70	gal.	Clear Diesel	x						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	2	1	BIT	F.T.	3.62	WEIGHT	9.5	9.5	9.5	SURFACE PIPE IN HOLE	34 IN.
SIZE	26"	2/3	STB. O.D.	F.T.	5.27/20.80	VISC.-SEC.	48/60	50/50	54/54	80 F.T.	
MFG.	LANG	4	D.C. R.R. O.D.	F.T.	5.26	WL-CC'S	NC FILTR.	7.6	8.4	DEPTH OF CEMENT GROUT	
TYPE	T.C. CARBIDE	5	D.C. O.D.	F.T.	9.17	pH	8	9	9	77 F.T.	IN.
SER. NO.	7195548R1	6	D.C. R.R. O.D.	F.T.	5.27	SOLIDS%	1/2%	1/4%	1/4%	WELL SCREEN IN HOLE	
DEPTH OUT		7/8	D.C. R.R. O.D.	F.T.	39.92	TEMP.				F.T.	IN.
DEPTH IN	80'	9	D.C. R.R. O.D.	F.T.	3.75	W/C	1/32	1/32	1/32	CASING IN HOLE	
TOTAL FTG.		10/11	D.C. R.R.		37.04					F.T.	IN.
TOTAL HRS.	166	12/13	D.C. R.R.		7.04 / 1.83					DEPTH OF GRAVEL	
		14			20.00					F.T.	IN.
		15			1.45					DEPTH OF TRIM PIPE	
~~BIT NO.~~	Shock Sub		TOTAL		160.42	Time	3:00	6:00	10:00	F.T.	IN.
SIZE	B/T	WT. OF STRING			92,100 LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.	LANG	WT. OF STRING LESS ROD			84410 LBS.	DEPTH OF SUR.	700	DEVIATION	1 °	F.T.	IN.
TYPE		RPM			60-80	DEPTH OF SUR.		DEVIATION	°		
SER. NO.	289725R12345	HYD. WEIGHT ON BIT			500 LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE			270	DEPTH OF SUR.		DEVIATION	°		
DEPTH IN		ACTUAL WEIGHT ON BIT			30700 LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:									
TOTAL HRS.	166										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Billy Rossi Driller's Signature — Hrs. 13¼
___ Hrs. Hauling Water	___ Hrs. Cat		Roberto Hurtado Helper's Signature — Hrs. 12¾
½ Hrs. Backhoe	___ Hrs. Mud Pump	Yes / No ___	Jeff Braud Helper's Signature — Hrs. 12¾
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ½ Getting Fuel; ___ Chasing for Parts; ½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # 1425-P | DATE: 5/23/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: LAS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	~~825~~ 825'	750'	75'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equipment inspection
12:00	1:00	Drill 750-760
1:00	1:15	check oils & grease equip
1:15	12:00	Drill 760' - 825'

Quantity	Size	Material Name	LANG	CLIENT
39	50 #	Quick gel	X	
1	50 #	Soda Ash	X	
1	50 #	Desipac	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	2	
SIZE	26"	
MFG.	Lang T/C Carbide	
TYPE	7145-4 R1	
SER. NO.		
DEPTH OUT		
DEPTH IN	80'	
TOTAL FTG.		
TOTAL HRS.	77	
BIT NO.	S/S	
SIZE	BIT	
MFG.	Lang	
TYPE		
SER. NO.	287773 R1-5	
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.	77	

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		F.T.	3.62
3	STB.	O.D.	F.T.	20.80
2	D.C.	O.D.	F.T.	5.27
5	D.C. 5 5/8	O.D.	F.T.	9.17
4	D.C.	O.D.	F.T.	5.26
6	D.C.	O.D.	F.T.	5.28
78	HWDP	O.D.	F.T.	76.96
9	D.C.			3.75
12/13	D.C.T.S./ R.R.			8.87
14	9 5/8			20.00
15	9x7			1.45
	TOTAL			160.42

WT. OF STRING 95170 LBS.

WT. OF STRING LESS RODS 74,400 LBS.

RPM 50-60

HYD. WEIGHT ON BIT 850 LBS.

AIR MUD PRESSURE 310

ACTUAL WEIGHT ON BIT 52,190 LBS.

MUD RECORD

WEIGHT	9.3	9.5	9.5
VISC.-SEC.	55	55	55
WL-CC's	6	8.2	80
pH	10	9	9
SOLIDS%	1/4	1/4	1/4
TEMP.			
Time	2:00	6:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	3x1 IN.
DEPTH OF CEMENT GROUT	77 F.T.	3x1 IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

10¾ Hrs. Booster
4 Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11¾ Hrs. Mud Tank

Sampling Preformed by Lang

Yes___ No___

Dale Jensen Hrs.
Driller's Signature
Ben Wilson Hrs.
Helper's Signature
Mike Halsted Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM 300 | DATE: 10/23/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	860'	825'	35'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/DNE J. SITE SAFETY & EQUIP INSPEC.
12:00	2:00	DRILLED 825'-840'
2:00	2:30	SURVEY @ 800'
2:30	6:45	DRILLED 840'-860'
6:45	8:00	TRIP OUT 7" RODS
8:00	9:00	TRIPPED OUT INTERTUBE
9:00	12:00	START TRIPPING B.HA.

Quantity	Size	Material Name	LANG	CLIENT
14	50lb	QUICK GEL	X	
1	50lb	SODA ASH	X	
1	50lb	DEISPAC-R	X	

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	2
SIZE	26"
MFG.	LANG
TYPE	T.C. CARBIDE
SER. NO.	7195948R1
DEPTH OUT	860'
DEPTH IN	80'
TOTAL FTG.	780'
TOTAL HRS.	82:45
~~BIT NO.~~	STOCK SUB
SIZE	8 1/4
MFG.	LANG
TYPE	
SER. NO.	287773R12345
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	780'
TOTAL HRS.	82:45

DRILLING ASSEM. (at end of hour)

No.			
1	BIT	F.T.	3.62
2/3	STB. O.D.	F.T.	5.27 / 20.80
4	D.C. R.R. O.D.	F.T.	5.26
5	D.C. O.D.	F.T.	9.17
6	D.C. R.R. O.D.	F.T.	5.27
7/8	D.C. R.R. O.D.	F.T.	39.92
9	D.C. R.R. O.D.	F.T.	3.75
10/11	D.C. R.R.		37.04
12/13	D.C. R.R.		7.04 / 1.83
14			20.00
15			1.45
	TOTAL		160.42

WT. OF STRING 93,635 LBS.
WT. OF STRING LESS ROD 74,410 LBS.
RPM 50-70
HYD. WEIGHT ON BIT 400 LBS.
AIR MIST PRESSURE 350
ACTUAL WEIGHT ON BIT 24,560 LBS.

MUD RECORD

WEIGHT	9.1		
VISC-SEC.	/		
WL-CC'S			
pH	9		
SOLIDS%	1/4%		
TEMP.			
TIME	6:00		

SURVEY INFORMATION

DEPTH OF SUR.	800	DEVIATION	1 °
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

___ Hrs. Booster
___ Hrs. Hauling Water
1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
3 Hrs. CASING
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Bill Ross Hrs. 12 3/4
Driller's Signature
MARTIN HURTADO Hrs. 12 3/4
Helper's Signature
JEFF BRAUD Hrs. 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-25 P | DATE: 5/24/15

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 | NAME: GAS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KpW-1	880'	860'	20'

FROM	TO	ACTIVITY
11:45	12:00	Site Safety Equip inspection
12:00		Trip out Tools From 96', change shock Sub
	6:45	& Bit out, Trip in Tools
6:45	8:00	Trip in Rods To 860', no Fill
8:00	12:00	Drill 860' - 880'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
9	50 #	Quick Gel	X						
~~0~~	50 #	Soda Ash	X						
~~0~~	50 #	Drispac	X						

BIT RECORD

BIT NO.	3
SIZE	26"
MFG.	Lang
TYPE	76 Carbide
SER. NO.	719552
DEPTH OUT	
DEPTH IN	860
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	S/S
SIZE	B/T
MFG.	Lang
TYPE	
SER. NO.	227772 RRR
DEPTH OUT	
DEPTH IN	860
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		F.T.	3.88
7	STB.	O.D.	F.T.	20.80
2	D.C. HWDP	O.D.	F.T.	~~5.30~~ 5.27
5	B.S. 5 3/4	O.D.	F.T.	~~9.26~~ 9.30
4	D.C. HWDP	O.D.	F.T.	~~5.27~~ 5.26
6	D.C. HWDP	O.D.	F.T.	~~76.96~~ 5.27
78 10 11	D.C. HWDP	O.D.	F.T.	~~7.85~~ 76.96
9	D.C. HWDP			~~3.87~~ 3.75
12 13	B.S. T.S. / H.S.			~~8.20~~ 8.81
14	9 3/8			~~20.00~~ 20.00
15	9x7			1.45
	TOTAL			160.81

WT. OF STRING	98,240 LBS.
WT. OF STRING LESS RODS	74,40 LBS.
RPM	40-60
HYD. WEIGHT ON BIT	850 LBS.
AIR MUD PRESSURE	330
ACTUAL WEIGHT ON BIT	52,190 LBS.

MUD RECORD

WEIGHT	9.4		
VISC.-SEC.	53		
WL-CC'S	9.6		
pH	9		
SOLIDS%	1/4		
TEMP.			
Time	10:00		

SURVEY INFORMATION

DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80' F.T.	54 IN.
DEPTH OF CEMENT GROUT	77 F.T.	34 IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

4 Hrs. Booster
3 Hrs. Hauling Water
2 Hrs. Backhoe
4 Hrs. ~~C Pump (or 2)~~ Center Fuldge
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Dale Jensen Hrs.
Driller's Signature
Tom Wilson Hrs.
Helper's Signature
Mike Hilsted Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/24/05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	970'	880	90'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/Dan J. Site Safety & Equip Inspec.
12:00	8:30	Drilled 880' - 940'
8:30	8:45	Survey @ 900'
8:45	12:00	Drilled 940' - 970'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
	50lb	Quik Gel							
	50lb	Soda Ash							
	50lb	Drispac-R							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	3	1	BIT		3.88	WEIGHT	9.4	9.4	9.5	SURFACE PIPE IN HOLE	3/4
SIZE	26"	2/3	STB.	O.D.	527/20.80	VISC./SEC.	53/54	56/54	56/55	80 F.T.	IN.
MFG.	LANG	4	D.C. R.R.	O.D.	5.26	WL-CC'S	8.6	8	8.4	DEPTH OF CEMENT GROUT	
TYPE	T.C. CARBIDE	5	D.C.	O.D.	9.30	pH	9	9	9	77 F.T.	IN.
SER. NO.	719552	6	D.C. R.R.	O.D.	5.27	SOLIDS%	1/4%	1/4%	1/4%	WELL SCREEN IN HOLE	
DEPTH OUT		7/8	D.C. R.R.	O.D.	39.92	TEMP.				F.T.	IN.
DEPTH IN	860'	9	D.C. R.R.	O.D.	3.75	W/C	1/32	1/32	1/32	CASING IN HOLE	
TOTAL FTG.	110'	10/11	D.C. R.R.		37.04					F.T.	IN.
TOTAL HRS.	14	12/13	D.C. R.R.		7.04/1.83					DEPTH OF GRAVEL	
		14			20.00					F.T.	IN.
		15			1.45					DEPTH OF TRIM PIPE	
BIT NO.	Shock Sub		TOTAL		160.81	TIME	4:30	9:00	11:30	F.T.	IN.
SIZE	Baker Taylor	WT. OF STRING			LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.	LANG	WT. OF STRING LESS RODS			74/100 LBS.	DEPTH OF SUR.	900	DEVIATION	1°	F.T.	IN.
TYPE		RPM			50-70	DEPTH OF SUR.		DEVIATION			
SER. NO.	287771RRR	HYD. WEIGHT ON BIT			1000 LBS.	DEPTH OF SUR.		DEVIATION			
DEPTH OUT		AIR MUD PRESSURE				DEPTH OF SUR.		DEVIATION			
DEPTH IN	860'	ACTUAL WEIGHT ON BIT			36,840 LBS.	DEPTH OF SUR.		DEVIATION			
TOTAL FTG.	110'	Remarks:									
TOTAL HRS.	14										

12 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
___ Hrs. Hauling Water	12 Hrs. Cat Cleaning	Yes:___ No___
1 Hrs. Backhoe	___ Hrs. Mud Pump	
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank	

Driller's Signature: Bill Rossi Hrs. 12 3/4
Helper's Signature: Sebastian Hurtado Hrs. 12 3/4
Helper's Signature: Jeff Braud Hrs. 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # Lm-300	DATE: 10-25-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1060	970'	90'

FROM	TO	ACTIVITY
11:45	12:00	Site safety, and equip. insp. Discuss Hole, look @ water source
12:00	1:30	Drill 970'-980'
1:30	1:45	Check fluid levels, and grease
1:45	9:00	Drill 980'-1040'
9:00	9:15	Survey Hole @ 1000'
9:15	12:00	Drill 1040'-1060

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
46	50#	Gel							
3	50#	Drispac							
1	50#	Soda Ash							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	3	1	BIT	F.T.	3.88	WEIGHT	9.5	9.5	9.6	SURFACE PIPE IN HOLE	54 IN.
SIZE	26"	2/3	STB. O.D.	F.T.	5.27 / 20.80	VISC-SEC.	61	55	57	80 F.T.	
MFG.	Lang	4	D.C. R.R. O.D.	F.T.	5.26	WL-CC's	7.4	6.8	7.2	DEPTH OF CEMENT GROUT	
TYPE	T.C. Carbide	5	D.C. R.R. O.D.	F.T.	9.30	pH	9	9	9	77 F.T.	IN.
SER. NO.	719552	6	D.C. R.R. O.D.	F.T.	5.27	SOLIDS%	1/2	1/2	1/2	WELL SCREEN IN HOLE	
DEPTH OUT		7/8	D.C. R.R. O.D.	F.T.	39.92	TEMP.				F.T.	IN.
DEPTH IN	860'	9	D.C. R.R. O.D.	F.T.	3.75	WL	1 1/32	2/32	2 2/32	CASING IN HOLE	
TOTAL FTG.		10/11	D.C. R.R.		37.04	Time	2:30	7:00	11:30	F.T.	IN.
TOTAL HRS.	23	12/13	D.C. R.R.		7.04 / 1185					DEPTH OF GRAVEL	
		14			20.00					F.T.	IN.
		15			1.45					DEPTH OF TRIM PIPE	
BIT NO.	Shock Sub		TOTAL		1160.81					F.T.	IN.
SIZE	Baker Taylor	WT. OF STRING			LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.	Lang	WT. OF STRING LESS RODS			74,400 LBS.	DEPTH OF SUR.	1000'	DEVIATION	1°	F.T.	IN.
TYPE		RPM				DEPTH OF SUR.		DEVIATION	°		
SER. NO.	287771RRRI	HYD. WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE				DEPTH OF SUR.		DEVIATION	°		
DEPTH IN	860'	ACTUAL WEIGHT ON BIT			LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:									
TOTAL HRS.											

11 1/2 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
4 Hrs. Hauling Water	___ Hrs. Cat	
1 Hrs. Backhoe	___ Hrs. Mud Pump	Yes____ No____
___ Hrs. 6" Pump (or 2)	11 3/4 Hrs. Mud Tank	

Driller's Signature: Gene Medina Hrs.
Helper's Signature: Matt Fisher Hrs.
Helper's Signature: Darrell Stalheim Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/25/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1125'	1060'	65'

FROM	TO	ACTIVITY
11:45	12:00	DISCUSS HOLE W/ARRON M. SITE SAFETY & EQUIP INSPEC
12:00	12:00	DRILLED 1060'-1125'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
Ø	50lb	MAXGEL							
1	50lb	SODA ASH							
3	50lb	DRISPAC-R							
1	50lb	DRISPAC-SUPER LV							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION		
BIT NO.	3	1	BIT		F.T. 3.88	WEIGHT	9.6	9.5	9.5	SURFACE PIPE IN HOLE	80 F.T.	34 IN.
SIZE	26"	2/3	STB. O.D.		F.T. 5.27 / 20.80	VISC.-SEC.	51/49	48/50	46/46			
MFG.	LANG	4	D.C. R.R. O.D.		F.T. 5.26	WL-CC'S	9.2	6.8	7.6	DEPTH OF CEMENT GROUT	77 F.T.	IN.
TYPE	T.C. CARBIDE	5	D.C. O.D.		F.T. 9.30	pH	9	9	9			
SER. NO.	719552	6	D.C. R.R. O.D.		F.T. 5.27	SOLIDS%	14%	14%	14%	WELL SCREEN IN HOLE	F.T.	IN.
DEPTH OUT		7/8	D.C. R.R. O.D.		F.T. 39.92	TEMP.	98°	95°	95°			
DEPTH IN	860'	9	D.C. R.R. O.D.		F.T. 3.75	WL	1/32	1/32	1/32	CASING IN HOLE	F.T.	IN.
TOTAL FTG.	265'	10/11	D.C. R.R.		37.04							
TOTAL HRS.	35	12/13	D.C. R.R.		7.01 / 1.03					DEPTH OF GRAVEL	F.T.	IN.
		14			20.00							
		15			1.45							
BIT NO.	STOCK SUB		TOTAL		160.81	TIME	4:50	7:15	11:00	DEPTH OF TRIM PIPE	F.T.	IN.
SIZE	BAKER TAYLOR	WT. OF STRING 104,380 LBS.				SURVEY INFORMATION						
MFG.	LANG	WT. OF STRING LESS RODS 94,400 LBS.				DEPTH OF SUR.		DEVIATION		INTERMEDIATE CASING	F.T.	IN.
TYPE		RPM 60-80				DEPTH OF SUR.		DEVIATION				
SER. NO.	2B7771RRR	HYD. WEIGHT ON BIT 700 LBS.				DEPTH OF SUR.		DEVIATION				
DEPTH OUT		AIR MUD PRESSURE 450				DEPTH OF SUR.		DEVIATION				
DEPTH IN	860'	ACTUAL WEIGHT ON BIT 42,960 LBS.				DEPTH OF SUR.		DEVIATION				
TOTAL FTG.	265'	Remarks:										
TOTAL HRS.	35											

12 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Bill Rossi Hrs. 12 3/4
3 Hrs. Hauling Water	12 Hrs. CEMENTING Gel		Driller's Signature
1/2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes ✓ No ___	QUENTIN HEREDO Hrs. 12 3/4
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank		Helper's Signature
			JEFF BRAUD Hrs. 12 3/4
			Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 10-26-05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1200'	1125	75'

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss H&S
12:00	2:00	Drill 1125-1140'
2:00	2:45	Survey Hole
2:45	11:15	Drill 1140'-1200'
11:15	13:00	Trip out 400' Rods

Quantity	Size	Material Name	LANG	CLIENT
19	50#	Gel		
3	50#	DrisPac		
1	50#	Soda		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	3
SIZE	26"
MFG.	Lang
TYPE	T.C. Carbide
SER. NO.	719553
DEPTH OUT	
DEPTH IN	860'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	Shock Sub
SIZE	B.T.
MFG.	Lang
TYPE	
SER. NO.	ZB7771 RRR
DEPTH OUT	
DEPTH IN	860'
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	TOTAL		160.81

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR AMJO PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

Remarks:

MUD RECORD

WEIGHT	9.6	9.6	9.6
VISC.-SEC.	47	52	55
WL-CC'S	7.2	6.8	6.8
pH	9	9	9
SOLIDS%	1/4	1/2	1/2
TEMP.			
C/C	1/16	1/32	1/32
Time	1:00	6:45	10:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

11 Hrs. Booster
3 Hrs. Hauling Water
1 Hrs. Backhoe
1 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11¼ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Aaron Martinez Hrs.
Driller's Signature
Matt Fisher Hrs.
Helper's Signature
Daryl Stalheim Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM 300 | DATE: 10/26/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: # 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	Ø	1200'	Ø

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/ Aaron M. Site Safety & Equip Inspec.
12:00	3:00	Trip Rods, Intertube, Top Sub
3:00	12:00	Add 2 Drill Collars To B.H.A, Trip in Intertube 9 5/8 Rod and 7" Rods

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
4	50lb	MAXGEL							
Ø	50lb	Soda Ash							
1	50lb	Drispac-R							
70	gal	Clear Diesel							

BIT RECORD

BIT NO.	3	Sllock Sub
SIZE	21"	B/T
MFG.	Lang	Lang
TYPE	T.C. Carbide	
SER. NO.	719552	28777RRR
DEPTH OUT		
DEPTH IN	860'	860'
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEM. (at end of hour)

No.			
1	BIT	F.T.	9.88
2/3	STB. O.D.	F.T.	5.29 / 90.80
4	D.C. R.R. O.D.	F.T.	5.76
5	D.C. O.D.	F.T.	9.30
6	D.C. R.R. O.D.	F.T.	5.27
7/8	D.C. R.R. O.D.	F.T.	39.92
10/11	D.C. R.R. O.D.	F.T.	37.04
12/13	D.C. R.R.		7.04 / 1.83
14	D.C. R.R.		20.00
15			1.45
9			3.75
	TOTAL		160.81 (202.36)

WT. OF STRING ____ LBS.

WT. OF STRING LESS RODS 74,400 LBS.

RPM

HYD. WEIGHT ON BIT ____ LBS.

AIR / MUD PRESSURE

ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT | VISC.-SEC. | WL-CC'S | pH | SOLIDS% | TEMP.

SURVEY INFORMATION

DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°
DEPTH OF SUR.	DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: Add Drill Collars #12) 70.22 #13) 21.33 New B.H.A Total 202.36

Also Add 40' Intertube

B.H.A 104,380 New Weight

____ Hrs. Booster	____ Hrs. Extra Comp.	Sampling Preformed by Lang	Driller's Signature: Bill Rossi Hrs. 13 1/4
____ Hrs. Hauling Water	4 Hrs. Geol Samples		Helper's Signature: Cuentas Hurtado Hrs. 12 3/4
____ Hrs. Backhoe	____ Hrs. Mud Pump	Yes ✓ No ____	Helper's Signature: Jeff Braud Hrs. 12 3/4
____ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** 1/2 Getting Fuel ____ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 10-27-05

Daily Start time: 12:00 (Midnight, A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: # 1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1265	1200'	65'

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Hole
12:00	1:15	Finish tripping in
1:15	7:30	Drill 1200' - 1240'
7:30	8:00	Survey Hole
8:00	12:00	Drill 1240 -
12:00	12:15	Safety meeting

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
27	50#	Gel							
2	50#	Soda							
6	50#	Bar R							

BIT RECORD

BIT NO.	3
SIZE	26"
MFG.	Long
TYPE	T.C. Carbide
SER. NO.	719552
DEPTH OUT	
DEPTH IN	860'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	Shock Sub
SIZE	B/T
MFG.	
TYPE	
SER. NO.	28777 IRRR
DEPTH OUT	
DEPTH IN	860'
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
1	BIT	F.T.	3.88
3	STB. O.D.	F.T.	20.80
2	D.C. O.D.	F.T.	5.27
5	8 1/2 O.D.	F.T.	9.30
4	8 1/2 O.D.	F.T.	5.26
6	D.C. O.D.	F.T.	5.27
7/8	D.D. HWDP O.D.	F.T.	39.92
9	D.C. O.D.		3.75
10/11	D.C. O.D.		78.59
14	T/S		7.04
	HWDP 9 5/8 x 7		23.28
	TOTAL		202.36

WT. OF STRING 14" 260' 165,780 lbs.

WT. OF STRING LESS HOOK 14" 1700' 109,380 LBS.

RPM 70-80

HYD. WEIGHT ON BIT 700-1000 LBS.

AIR MUD PRESSURE 380

ACTUAL WEIGHT ON BIT 36,840 - 55,260 LBS.

Remarks:

MUD RECORD

WEIGHT	9.4	9.4	
VISC-SEC.	48	48	
WL-CC'S	6.0	6.8	
pH	10	9	
SOLIDS%	1/2	1/2	
TEMP.	92°	93°	
W/C	1/32	1/32	
Time	5:00	9:30	

SURVEY INFORMATION

DEPTH OF SUR.	1600'	DEVIATION	1°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	54 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

10 1/2 Hrs. Booster
7 Hrs. Hauling Water
1 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 3/4 Hrs. Mud Tank

Sampling Preformed by Lang: Yes X No ___

Driller's Signature: Aaron Martinez Hrs.
Helper's Signature: Matt Fisher Hrs.
Helper's Signature: Darryl Stallheim Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM300 | DATE: 10/27/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPIW-1	1345'	1265'	80'

FROM	TO	ACTIVITY
11:45	12:00	DRLG HOLE W/ AARON M. SITE SAFETY & EQUIP INSPEC.
12:00	11:00	DRILLED 1265' - 1340'
—	—	SURVEY @ 1300'
11:00	12:00	DRILLED 1340-1345'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
20	50LB	MAX GEL							
1	50LB	SODA ASH							
3	50LB	DEXPAC-R							

BIT RECORD

BIT NO.	3	
SIZE	26"	
MFG.	NOV	
TYPE	T.C. CARBIDE	
SER. NO.	719552	
DEPTH OUT		
DEPTH IN	960'	
TOTAL FTG.		
TOTAL HRS.	104:40	
BIT NO.	STOCK SUB	
SIZE	B/T	
MFG.		
TYPE		
SER. NO.	7077778RR	
DEPTH OUT		
DEPTH IN	960'	
TOTAL FTG.		
TOTAL HRS.	104:40	

DRILLING ASSEM. (at end of hour)

No.				
1	BIT		FT.	3.88
2/3	D.C. STB.	O.D.	FT.	5.29/20.80
4	D.C. R.R.	O.D.	FT.	5.26
5	STABILIZER D.C.	O.D.	FT.	9.30
7 6	D.C. R.S.	O.D.	FT.	19.85 8.27
8 9	D.C. R.R.	O.D.	FT.	20.03 9.35
10/11	D.C. R.R.	O.D.	FT.	20.08 16.96
12/13	D.C. R.R.			20.22 21.33
15	D.C. R.R.	9 1/2		9.07 1.83
16	9 5/8			20.00
17	9x7			1.45
	TOTAL			202.96

WT. OF STRING 132,010 LBS.

WT. OF STRING LESS ROD 84,380 LBS.

RPM 75

HYD. WEIGHT ON BIT 850 LBS.

AIR MUD PRESSURE 410

ACTUAL WEIGHT ON BIT 52,190 LBS.

MUD RECORD

WEIGHT	9.4	9.3	9.2
VISC-SEC.	53/50	51/50	53/52
WL-CC'S	10.4	9.8	6.4
pH	9	9	9
SOLIDS%	1/4%	1/4%	1/4%
TEMP.	94°	95°	—
W/C	1/32	1/32	1/32
Time	9:00	6:30	10:00

SURVEY INFORMATION

DEPTH OF SUR.	1300	DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: WIRELINE DRUM BROKEN NO SURVEY @ 1300

12 Hrs. Booster
3 Hrs. Hauling Water
1½ Hrs. Backhoe
½ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Bill Rossi Driller's Signature Hrs 12¾
Adrian Hurtado Helper's Signature Hrs 12¾
Jeff Braud Helper's Signature Hrs 12¾

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 10-28-05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1425	1345'	80'

FROM	TO	ACTIVITY
11:45	12:00	Site safety, road equip. insp. Discuss Hole
12:00	2:30	Drill 1345' - 1360'
2:30	2:45	Survey Hole @ 1300'
2:45	12:00	Drill 1360' - 1425

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
17	50#	Gel							
6	50#	Pac R							
1	50#	Soda							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD			WELL CONSTRUCTION
BIT NO.	3	1	BIT	F.T.	3.88	WEIGHT	9.3	9.5	SURFACE PIPE IN HOLE 80' F.T. 54 IN.
SIZE	7 6"	2/3	STB. O.D.	F.T.	5.27 / 20.80	VISC.-SEC.	55	53	
MFG.	Lang	4	D.C. O.D.	F.T.	5.26	WL-CC'S	7.2	6.4	DEPTH OF CEMENT GROUT 77 F.T. IN.
TYPE	T.C. Carbide	5	6 1/4 O.D.	F.T.	9.30	pH	10	10	
SER. NO.	719552	7	XO O.D.	F.T.	19.85	SOLIDS%	1/2	1/2	WELL SCREEN IN HOLE F.T. IN.
DEPTH OUT		8	D.C. O.D.	F.T.	20.07	TEMP.			
DEPTH IN	860'	10	D.C. O.D.	F.T.	20.08				CASING IN HOLE F.T. IN.
TOTAL FTG.	565	12	D.C.		20.22				
TOTAL HRS.	75	14	D.C. T/S		7.04				DEPTH OF GRAVEL F.T. IN.
		16	9 5/8		20.00				
		17	9x7		1.45				
BIT NO.	Shock Sub		TOTAL		202.36	Time	4:00	7:50	DEPTH OF TRIM PIPE F.T. IN.
SIZE	6 1/4	WT. OF STRING 178,060 LBS.				SURVEY INFORMATION			
MFG.		WT. OF STRING LESS RODS 104,500 LBS.				DEPTH OF SUR.	1300	DEVIATION	3/4
TYPE		RPM 70 - 80				DEPTH OF SUR.		DEVIATION	
SER. NO.	287771 RRR	HYD. WEIGHT ON BIT 600 - 900 LBS.				DEPTH OF SUR.		DEVIATION	
DEPTH OUT		AIR MIST PRESSURE 440				DEPTH OF SUR.		DEVIATION	
DEPTH IN	860'	ACTUAL WEIGHT ON BIT 36,810 55,260 LBS.				DEPTH OF SUR.		DEVIATION	
TOTAL FTG.	565	Remarks:							INTERMEDIATE CASING F.T. IN.
TOTAL HRS.	75								

1 1/2 Hrs. Booster
3 Hrs. Hauling Water
2 1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 3/4 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Aaron Martinez Hrs.
Driller's Signature
Matt Fisher Hrs.
Helper's Signature
Darryl Stelheim Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel Gasoline
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM 300	DATE: 10/28/05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1460'	1425'	35'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole Ctg/ Aaron M. Site Safety & Equip Inspect.
12:00	12:00	Drilled 1425' - 1460'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
Ø	50lb	MAXGEL							
1	50lb	Soda Ash							
2	50lb	Drispac-R							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD			
BIT NO.	3	1	BIT	F.T.	3.88	WEIGHT	9.4	9.4	9.3
SIZE	26"	2/3	STB. O.D.	F.T.	3.29 20.80	VISC.-SEC.	50/50	43/50	50/49
MFG.	CNG	4	D.C. R.R. O.D.	F.T.	5.26	WL-CC's	8.4	8.8	8
TYPE	T.C. Carbide	5	D.C. O.D.	F.T.	9.30	pH	9	10	9
SER. NO.	719552	7/6	D.C. R.R. O.D.	F.T.	19.95 2.74	SOLIDS%	1/4%	1/4%	1/4%
DEPTH OUT		8/9	D.C. R.R. O.D.	F.T.	20.09 3.15	TEMP.	95°	94°	95°
DEPTH IN	860'	10/11	D.C. R.R. O.D.	F.T.	20.05 16.16	4/32	1/32"	1/32"	1/32"
TOTAL FTG.	600	13/14	D.C. R.R.		20.32 21.13				
TOTAL HRS.	82	14/15	D.C. R.R.		7.09 1.63				
		16			20.00				
		17			1.45				
BIT NO.	Block Sub		TOTAL		202.36	TIME	1:00	6:30	10:00
SIZE	B/T	WT. OF STRING	135,080 LBS.			SURVEY INFORMATION			
MFG.		WT. OF STRING LESS RODS	124,880 LBS.			DEPTH OF SUR.	1400'	DEVIATION	
TYPE		RPM	70 - 80			DEPTH OF SUR.		DEVIATION	
SER. NO.	2697721RRR	HYD. WEIGHT ON BIT	800 LBS.			DEPTH OF SUR.		DEVIATION	
DEPTH OUT		AIR MUD PRESSURE	420			DEPTH OF SUR.		DEVIATION	
DEPTH IN	860'	ACTUAL WEIGHT ON BIT	19,120 LBS.			DEPTH OF SUR.		DEVIATION	
TOTAL FTG.	600	Remarks:							
TOTAL HRS.	82								

WELL CONSTRUCTION		
SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

11 Hrs. Booster	___ Hrs. Extra Comp.
2 Hrs. Hauling Water	___ Hrs. Calcium Chloride
___ Hrs. Backhoe	___ Hrs. Mud Pump
1/2 Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank

Sampling Preformed by Lang: Yes X No ___

Bill Rossi Driller's Signature Hrs 12 3/4
Quentin Hurtado Helper's Signature Hrs 12 3/4
Jeff Braud Helper's Signature Hrs 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # Lm-300 | DATE: 10-29-05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: # 1451 NAME: UIS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1525	1460'	65'

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Hole
12:00	12:00	Drill 1460' - 1525'
12:00	12:15	Safety meeting

Quantity	Size	Material Name	LANG	CLIENT
15	50#	Gel		
8	50#	Pac R		
1	50#	Soda		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	3			
SIZE	26"			
MFG.	Long			
TYPE	T.C. Carbide			
SER. NO.	719552			
DEPTH OUT				
DEPTH IN	860'			
TOTAL FTG.	665			
TOTAL HRS.	93			
BIT NO.	Stock Sub			
SIZE	B/T			
MFG.				
TYPE				
SER. NO.	28777 IRR			
DEPTH OUT				
DEPTH IN	860'			
TOTAL FTG.	665			
TOTAL HRS.	93			

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		707.36

WT. OF STRING 181,130 LBS.
WT. OF STRING LESS RODS 94,380 LBS.
RPM 70-80
HYD. WEIGHT ON BIT 6,000-9,000 LBS.
AIR MUD PRESSURE 480
ACTUAL WEIGHT ON BIT 86,540 - 88,750 LBS.

MUD RECORD

WEIGHT	9.3	9.3	9.3
VISC.-SEC.	49	50	51
WL-CC's	6.0	6.8	6.8
pH	8	9	9
SOLIDS%	1/4	1/2	1/2
TEMP.			
w/c	1/32	1/32	1/32
Time	7:00	7:30	11:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80' F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

11 3/4 Hrs. Booster
5 Hrs. Hauling Water
2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
11 3/4 Hrs. Mud Tank

Sampling Preformed by Lang: Yes X No___

Driller's Signature: Aaron Martinez Hrs.
Helper's Signature: Jeff Fisher Hrs.
Helper's Signature: Darryl Stalheim Hrs.

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

SE ROA 54136

JA_18274

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 10-30-05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)

PROJECT: # 1451

NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1580	1580'	0

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Hole
12:00		Trip out inner tube, and tools, change out
	7:00	bit and shock sub.
7:00	9:00	Service equip.
9:00	12:00	Trip in tools and inner tube, and 9⅝ csg.

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
12	50#	Gel							
1	50#	Dispac							

BIT RECORD

BIT NO.	4
SIZE	26"
MFG.	Lang
TYPE	T.C. Carbide
SER. NO.	6027356R
DEPTH OUT	
DEPTH IN	1580'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		FT.
	STB.	O.D.	FT.
	D.C. R.R.	O.D.	FT.
	D.C.	O.D.	FT.
	D.C. R.R.	O.D.	FT.
	D.C. R.R.	O.D.	FT.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		202.35

WT. OF STRING ____ LBS.

WT. OF STRING LESS RODS 104,780 LBS.

RPM

HYD. WEIGHT ON BIT ____ LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°
DEPTH OF SURV.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 FT.	34 IN.
DEPTH OF CEMENT GROUT	77 FT.	IN.
WELL SCREEN IN HOLE	FT.	IN.
CASING IN HOLE	FT.	IN.
DEPTH OF GRAVEL	FT.	IN.
DEPTH OF TRIM PIPE	FT.	IN.
INTERMEDIATE CASING	FT.	IN.

Remarks:

Add 1 Hr. for time change

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Driller's Signature: Aaron R. Martinez Hrs.

Helper's Signature: Matt Fisher Hrs.

Helper's Signature: Danny Stalheim Hrs.

JUSTIFY HOURS (If Applies)

____ Getting Fuel

1 Chasing for Parts, Daylight Savings

½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM300 | DATE: 10/29/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1580'	1525'	55'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole Lu/Aaron M. Site Safety & Equip Inspec
12:00	8:00	Drilled 1525'-1580'
8:00	8:30	Survey @ 1500'
8:30	12:00	Tripped 7" Rods, 9 5/8 Rod

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
Ø	50lb	MAXGEL	X						
1	50lb	Soda Ash	X						
2	50lb	Drispac-R	X						

BIT RECORD

BIT NO.	3
SIZE	26"
MFG.	Lang
TYPE	T.C. Carbide
SER. NO.	719557
DEPTH OUT	1580'
DEPTH IN	860'
TOTAL FTG.	720'
TOTAL HRS.	100:45
BIT NO.	Stock Sub
SIZE	B/T
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	2.89°/IRRR Sub #
DEPTH IN	860'
TOTAL FTG.	
TOTAL HRS.	100:45

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		702.36

WT. OF STRING 138,150 LBS.
WT. OF STRING LESS RODS 104,380 LBS.
RPM 70-80
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 500
ACTUAL WEIGHT ON BIT 55,260 LBS.

MUD RECORD

WEIGHT	9.3	9.4	
VISC.-SEC.	50/49	48/50	
WL-CC'S	6.8	8	
pH	9	9	
SOLIDS%	1/4%	1/4%	
TEMP.	95°	95°	
L/C	1/32"	1/32"	
TIME	2:00	4:00	

SURVEY INFORMATION

DEPTH OF SUR.	1500'	DEVIATION	1
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	34 IN.
80 F.T.	
DEPTH OF CEMENT GROUT	
77 F.T.	IN.
WELL SCREEN IN HOLE	
F.T.	IN.
CASING IN HOLE	
F.T.	IN.
DEPTH OF GRAVEL	
F.T.	IN.
DEPTH OF TRIM PIPE	
F.T.	IN.
INTERMEDIATE CASING	
F.T.	IN.

Remarks:

8 Hrs. Booster
1 Hrs. Hauling Water
1/2 Hrs. Backhoe
___ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
9 Hrs. Set/Converter
___ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes___ No___

Bill Ross: Hrs 12 3/4
Driller's Signature
Helper's Signature Hrs 12 3/4
Helper's Signature Hrs 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 10/30/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1650'	1580'	70'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/ Aaron M. Site Safety & Equip Inspec.
12:00	2:30	Tripped 7" Rods To 1578' 2' of Fill
2:30	3:00	Drilled 2' of Fill
3:00	12:00	Drilled 1580' - 1650'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
1	50lb	Quick Gel	x						
1	50lb	Soda Ash	x						
3	50lb	Drispac-R	x						

BIT RECORD

BIT NO.	4
SIZE	26"
MFG.	LANG
TYPE	T.C. Carbide
SER. NO.	6027356R
DEPTH OUT	
DEPTH IN	1580'
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.				
1	BIT #4		F.T.	4.00
6/3	D.C. R.R. Stab	O.D.	F.T.	3.27 70.80
4	D.C. R.R.	O.D.	F.T.	5.26
5	D.C. R.R.	O.D.	F.T.	9.17
9/16	D.C. R.R.	O.D.	F.T.	14.83 3.27
8/9	D.C. R.R.	O.D.	F.T.	20.04 3.75
10/11	D.C. R.R.	O.D.	F.T.	20.08 16.96
12/13	D.C. R.R.			20.12 2.87
14/15	D.C. R.R.			7.04 1.83
16				20.00
17				1.45
	TOTAL			202.35

WT. OF STRING 135,080 LBS.
WT. OF STRING LESS RODS 104,320 LBS.
RPM 70-80
HYD. WEIGHT ON BIT 900 LBS.
AIR MUD PRESSURE 400
ACTUAL WEIGHT ON BIT 55,260 LBS.

MUD RECORD

WEIGHT	9.3	9.2	9.3
VISC.-SEC.	41/46	49/49	49/49
WL-CC's	6.8	6.4	7.2
pH	8	9	9
SOLIDS%	1/4%	1/4%	1/4%
TEMP.			
W/C	1/32"	1/32"	1/32"
TIME	3:30	9:00	10:00

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks: Lift Tube 500' From Bit

9½ Hrs. Booster
4 Hrs. Hauling Water
½ Hrs. Backhoe
½ Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
10 Hrs. ~~Centrifuge~~
___ Hrs. Mud Pump
10 Hrs. Mud Tank

Sampling Preformed by Lang: Yes X No ___

Bill Ross; Hrs. 12 3/4 — Driller's Signature
Gustavo Bustado; Hrs. 12 3/4 — Helper's Signature
Jeff Braud; Hrs. 12 3/4 — Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 10-31-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1740'	1650'	90'

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Hole
12:00	1:15	Drill 1650' - 1660'
1:15	1:30	Survey Hole @ 1600'
1:30	12:00	Drill 1660' - 1740'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
38	50#	Gel							
10	50#	Poly R.							
1	50#	Soda Ash							

BIT RECORD			No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	4		1	BIT	F.T. 4.00		WEIGHT	9.3	9.2	9.2	SURFACE PIPE IN HOLE	34 IN.
SIZE	26		2/3	R.R. STB. O.D.	F.T. 5.27 20.80		VISC.-SEC.	46	50	51	80 F.T.	
MFG.	Long		4	D.C. R.R. O.D.	F.T. 5.26		WL-CC'S	6.8	6.4	6.8	DEPTH OF CEMENT GROUT	
TYPE	T.C. Carbide		5	D.C. O.D.	F.T. 9.17		pH	9	9	9	77 F.T.	IN.
SER. NO.	6027356R		7/6	D.C. R.R. O.D.	F.T. 19.85 5.27		SOLIDS%	1/4	1/2	1/2	WELL SCREEN IN HOLE	
DEPTH OUT			8/9	D.C. R.R. O.D.	F.T. 5.75 20.07		TEMP.				F.T.	IN.
DEPTH IN	1580'		10/11	D.C. R.R. O.D.	F.T. 16.16 20.80		C/C	1/32	1/16	1/32	CASING IN HOLE	
TOTAL FTG.	160'		12/13	D.C. R.R.	20.22 21.35						F.T.	IN.
TOTAL HRS.	18:15		14/15	D.C. R.R.	7.04 1.85						DEPTH OF GRAVEL	
			16		20.00						F.T.	IN.
			17		1.45						DEPTH OF TRIM PIPE	
BIT NO.	Shock Sub #3			TOTAL	202.35		Time	3:00	7:00	10:30	F.T.	IN.
SIZE	BIT		WT. OF STRING 184,200 LBS.				SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.	Lang		WT. OF STRING LESS RODS 104,580 LBS.				DEPTH OF SUR.	1600'	DEVIATION	1¼	F.T.	IN.
TYPE			RPM 70-80				DEPTH OF SUR.		DEVIATION			
SER. NO.	?		HYD. WEIGHT ON BIT 400-900 LBS.				DEPTH OF SUR.		DEVIATION			
DEPTH OUT			AIR MUD PRESSURE 400				DEPTH OF SUR.		DEVIATION			
DEPTH IN	1580'		ACTUAL WEIGHT ON BIT 24,560 - 55,260 LBS.				DEPTH OF SUR.		DEVIATION			
TOTAL FTG.	160'		Remarks:									
TOTAL HRS.	18:15		(160' inner Tube)									

11¾ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Aaron Martinez Hrs.
7 Hrs. Hauling Water	___ Hrs. Cat		Driller's Signature
2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes X No___	Matt Fisher Hrs.
___ Hrs. 6" Pump (or 2)	11¾ Hrs. Mud Tank		Helper's Signature
			Darryl Stalheim Hrs.
			Helper's Signature
			JUSTIFY HOURS (If Applies)
			___ Getting Fuel
			___ Chasing for Parts
			1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 10/31/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1800'	1740'	60'

FROM	TO	ACTIVITY
11:45	17:00	Discuss Hole / w Lance M. Site Safety & Equip Inspec.
12:00	4:45	Drilled 1740' - 1760'
4:45	5:15	Survey @ 1700
5:15	12:00	Drilled 1760 - 1800'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
46	50lb	Quik Gel	X						
1	50lb	Soda Ash	X						
3	50lb	Drispac-R	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.	4		BIT	F.T.	WEIGHT	9.1	9.2	9.0	SURFACE PIPE IN HOLE	34 IN.
SIZE	26"		STB. O.D.	F.T.	VISC.-SEC.	48/48	48/49	48/45	80 F.T.	
MFG.	LANG		D.C. R.R. O.D.	F.T.	WL-CC'S	10	8	8.8	DEPTH OF CEMENT GROUT	
TYPE	T.C. Carbide		D.C. O.D.	F.T.	pH	9	9	9	77 F.T.	IN.
SER. NO.	6082356R		D.C. R.R. O.D.	F.T.	SOLIDS%	4½	4½	4½	WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN	1580'		D.C. R.R. O.D.	F.T.		C/C	1/32	1/32	CASING IN HOLE	
TOTAL FTG.	220		D.C. R.R.						F.T.	IN.
TOTAL HRS.	28		D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
BIT NO.	Slick SB		TOTAL	202.35	Time	2:00	7:00	11:00		
SIZE	B/T		WT. OF STRING	144,290 LBS.	SURVEY INFORMATION				DEPTH OF TRIM PIPE	
MFG.	LANG		WT. OF STRING LESS RODS	104,380 LBS.	DEPTH OF SUR.	1700	DEVIATION	1¼ °	F.T.	IN.
TYPE			RPM	70-80	DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	
SER. NO.	?		HYD. WEIGHT ON BIT	500 LBS.	DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
DEPTH OUT			AIR MUD PRESSURE	370	DEPTH OF SUR.		DEVIATION	°		
DEPTH IN	1580'		ACTUAL WEIGHT ON BIT	39,900 LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.	220		Remarks:							
TOTAL HRS.	28									

12 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Bill Rossi Hrs. 12¾
4 Hrs. Hauling Water	12 Hrs. Centrifuge		Driller's Signature
½ Hrs. Backhoe	___ Hrs. Mud Pump	Yes X No ___	Quentin Hurtado Hrs. 12¾
___ Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank		Helper's Signature
			Jeff Brand Hrs. 12¾
			Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes_____ No_____ ?_____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11-1-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1880	1800'	80'

FROM	TO	ACTIVITY
11:45	12:00	Site safety, and equip. insp. Discuss hole
12:00	9:00	Drill 1800' - 1860'
9:00	9:15	Survey Hole
9:15	12:00	Drill 1860' - 1880'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
106	50#	Gel							
3	50#	Drispac							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.	4		BIT		F.T.	WEIGHT	9.0	9.1	9.0	SURFACE PIPE IN HOLE	34
SIZE	26"		STB. O.D.		F.T.	VISC.-SEC.	47	51	60	80	F.T. IN.
MFG.	Lang		D.C. R.R. O.D.		F.T.	WL-CC's	8.0	8.4	7.6	DEPTH OF CEMENT GROUT	
TYPE	T.C. Carbide		D.C. O.D.		F.T.	pH	9	9	9	77	F.T. IN.
SER. NO.	6027356R		D.C. R.R. O.D.		F.T.	SOLIDS%	1	3/4	1/4	WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R. O.D.		F.T.	TEMP.					F.T. IN.
DEPTH IN	1580		D.C. R.R. O.D.		F.T.	w/c	1/32	1/16	1/32	CASING IN HOLE	
TOTAL FTG.	300'		D.C. R.R.								F.T. IN.
TOTAL HRS.	39		D.C. R.R.							DEPTH OF GRAVEL	
											F.T. IN.
~~BIT NO.~~ SHANK SUB	3		TOTAL	202.35		Time	7:00	5:00	10:30	DEPTH OF TRIM PIPE	
SIZE	B/T	WT. OF STRING	190,340 LBS.			SURVEY INFORMATION					F.T. IN.
MFG.	Lang	WT. OF STRING LESS RODS	104,382			DEPTH OF SUR.	1800	DEVIATION	1 1/4°	INTERMEDIATE CASING	
TYPE		RPM	70-80			DEPTH OF SUR.		DEVIATION	°		F.T. IN.
SER. NO.	?	HYD. WEIGHT ON BIT	400-900 LBS.			DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE	410			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN	1580	ACTUAL WEIGHT ON BIT	24,560 - 55,260 LBS.			DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.	300	Remarks:									
TOTAL HRS.	39										

11 3/4 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Oscar Martinez Driller's Signature Hrs. 12 3/4
6 Hrs. Hauling Water	___ Hrs. Cat		Matt Fisher Helper's Signature Hrs. 12 3/4
1/2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes X No ___	Darryl Stalheim Helper's Signature Hrs. 12 3/4
___ Hrs. 6" Pump (or 2)	11 3/4 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM300 | DATE: 11/1/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1951 | NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	1950'	1880'	70'

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/Aaron M. Site Safety & Equip. Inspect
12:00	12:00	Drilled 1880'-1950'

Quantity	Size	Material Name	LANG	CLIENT
60	50lb	Quick Gel		
1	50lb	Soda Ash		
2	50lb	Drispac R		

Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	4	BIT NO.	Slick Six
SIZE	26"	SIZE	B/T
MFG.	Lang	MFG.	Lang
TYPE	T.C. Carbide	TYPE	
SER. NO.	10027356R	SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN	1580'	DEPTH IN	1580'
TOTAL FTG.	370	TOTAL FTG.	370'
TOTAL HRS.	47:05	TOTAL HRS.	47.05

DRILLING ASSEM. (at end of hour)

No.			
1	BIT	F.T.	4.00
2/3	STB. O.D.	F.T.	5.24 / 20.80
4	D.C. R.R. O.D.	F.T.	5.26
5	D.C. O.D.	F.T.	9.17
7/8	D.C. R.R. O.D.	F.T.	11.01 / 5.27
9/9	D.C. R.R. O.D.	F.T.	20.97 / 5.75
10/1	D.C. R.R. O.D.	F.T.	20.08 / 16.96
12/13	D.C. R.R.		20.22 / 21.43
14/15	D.C. R.R.		7.04 / 2.83
16			20.00
17			1.45
	TOTAL		202.35

WT. OF STRING 153,500 LBS.
WT. OF STRING LESS RODS 104,381 LBS.
RPM 70-80
HYD. WEIGHT ON BIT 850 LBS.
AIR MUD PRESSURE 410
ACTUAL WEIGHT ON BIT 52,190 LBS.

MUD RECORD

WEIGHT	9.0	9.0	9.1
VISC.-SEC.	49/50	52/50	49/50
WL-CC's	8	8.8	6.8
pH	9	9	9
SOLIDS%	TR	TR	TR
TEMP.			
W/C	1/32	1/32	1/32
TIME	3:30	8:00	11:15

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	
DEPTH OF SUR.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

12 Hrs. Booster
3 Hrs. Hauling Water
1/2 Hrs. Backhoe
1/2 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
12 Hrs. Mud Tank
11 3/4 Hrs. Centrifuge

Sampling Preformed by Lang
Yes X No ___

Driller's Signature: Bill Rossi Hrs 12 3/4
Helper's Signature: Gustavo Hurtado Hrs 12 3/4
Helper's Signature: Hrs

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LM 300 | DATE: 11/2/05

Daily Start time: 12:00 Midnight A.M. / Noon P.M. (Noon P.M.)

Daily Start time: 12:00 Midnight A.M. (Midnight A.M.) / Noon P.M.

PROJECT: #1451

NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	Ø	2020' T.D.	Ø

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole w/ Aaron M. Site Safety & Equip. Inspec. Safety Meeting
12:00	2:45	TRIPPED OUT 7" Rods
2:45	5:00	TRIP OUT 9 5/8 & Intertube
5:00	11:00	TRIPPED OUT B.H.A.
11:00	12:00	Set up to log Hole

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING LBS.

WT. OF STRING LESS RODS LBS.

RPM

HYD. WEIGHT ON BIT LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
6 Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Bill Ross; Hrs. 12 3/4
Driller's Signature

Eulalio Hurtado Hrs. 12 3/4
Helper's Signature

Barry Hall Hrs. 7
Helper's Signature

JUSTIFY HOURS (If Applies)

____ Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11-3-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1	2020'	2020'	0

FROM	TO	ACTIVITY
11:45	12:00	Site safety card sweep Insp Discuss hole
12:00	5:00	Stand by for survey
5:00	5:30	Set up to run NQ
5:30	8:15	Run NQ, ream hard
8:15	12:00	Set up to run casing

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. R.R. O.D.	F.T.	pH				77 F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	
TOTAL FTG.			D.C. R.R.						F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
									DEPTH OF TRIM PIPE	NQ
BIT NO.			TOTAL						1960 F.T.	IN.
SIZE		WT. OF STRING LBS.			SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.		WT. OF STRING LESS RODS LBS.			DEPTH OF SUR.		DEVIATION		F.T.	IN.
TYPE		RPM			DEPTH OF SUR.		DEVIATION			
SER. NO.		HYD. WEIGHT ON BIT LBS.			DEPTH OF SUR.		DEVIATION			
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION			
DEPTH IN		ACTUAL WEIGHT ON BIT LBS.			DEPTH OF SUR.		DEVIATION			
TOTAL FTG.		Remarks:								
TOTAL HRS.										
	SL									

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
2 Hrs. Hauling Water	___ Hrs. Cat	
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank	

Aaron Martinez Hrs.
Driller's Signature
Mike Halstead Hrs.
Helper's Signature
Darryl Stallcup Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel (Gas)
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM 300 | DATE: 11/3/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/ Aaron M. Site Safety & Equip Inspec
12:00	1:00	Finish Setting Up To Run Casing
1:00	12:00	Ran 18" Casing @ 811.83

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
31	3"	Centralizers			1	18"	Bull Nose		
1		Sounder Hose							
30	2"x20.40'	Pregrated S.Pipe							
0	2"x20.40'	Blank Sounder Pipe							
1	2"	Sounder Pipe Bull Nose							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE 80 F.T.	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.					
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT 77 F.T.	IN.
TYPE			D.C. O.D.	F.T.	pH					
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE F.T.	IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.					
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE F.T.	IN.
TOTAL FTG.			D.C. R.R.							
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL F.T.	IN.
BIT NO.			TOTAL							
SIZE			WT. OF STRING LBS.		SURVEY INFORMATION				DEPTH OF TRIM PIPE F.T.	IN.
MFG.			WT. OF STRING LESS RODS LBS.		DEPTH OF SUR.	DEVIATION °				
TYPE			RPM		DEPTH OF SUR.	DEVIATION °			INTERMEDIATE CASING F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT LBS.		DEPTH OF SUR.	DEVIATION °				
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.	DEVIATION °				
DEPTH IN			ACTUAL WEIGHT ON BIT LBS.		DEPTH OF SUR.	DEVIATION °				
TOTAL FTG.		Remarks:								
TOTAL HRS.										

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Bil Rossi Hrs. 12 3/4
Driller's Signature
Quentin Hurtado Hrs. 12 3/4
Helper's Signature
Barry Hall Hrs. 12 3/4
Helper's Signature

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LM-300 | DATE: 11-4-05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss casing
12:00	12:00	Run casing from 811.83' - 1813.'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
30	3"	Centrilizers							
18	2"X20.40	Perf. Sounder Pipe							
42	2"X20.10	Blank Sounder Pipe							

BIT RECORD

BIT NO.		BIT NO.	
SIZE		SIZE	
MFG.		MFG.	
TYPE		TYPE	
SER. NO.		SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN		DEPTH IN	
TOTAL FTG.		TOTAL FTG.	
TOTAL HRS.		TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR / MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	54 IN.
DEPTH OF CEMENT GROUT	77 F.T.	IN.
WELL SCREEN IN HOLE	F.T.	IN.
CASING IN HOLE	F.T.	IN.
DEPTH OF GRAVEL	F.T.	IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

____ Hrs. Booster
____ Hrs. Hauling Water
____ Hrs. Backhoe
____ Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
____ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Aaron Martinez Hrs.
Driller's Signature
Mike Halstead Hrs.
Helper's Signature
Barry Stalheim Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
12 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11/4/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole Lu/Aaron M. Site Safety & Equip Inspec.
12:00	5:00	Run 18" Casing LAND Casing 2010'
5:00	6:00	Set up To Gravel Pack
6:00	12:00	Gravel Pack

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
10	2"x20.40'	Sounder Pipe			941.98	18 5/8	Louvered Casing		
4		Elignment Tabs			1073.02	18 5/8	Blank Casing		
6		Landing Tabs							
10	25001B	Gravel Sacks							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE 80 F.T.	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.					
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE 941.98 F.T.	18 5/8 IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				CASING IN HOLE 1073.02 F.T.	18 5/8 IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					DEPTH OF GRAVEL	
TOTAL FTG.			D.C. R.R.						F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF TRIM PIPE	
									F.T.	IN.
									INTERMEDIATE CASING	
BIT NO.			TOTAL						F.T.	IN.
SIZE		WT. OF STRING		LBS.	SURVEY INFORMATION					
MFG.		WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION	°		
TYPE		RPM			DEPTH OF SUR.		DEVIATION	°		
SER. NO.		HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN		ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Bill Rossi Driller's Signature Hrs. 12 3/4
1 Hrs. Hauling Water	___ Hrs. Cat		Valentin Hurtado Helper's Signature Hrs. 12 3/4
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Barry Hall Helper's Signature Hrs. 12 3/4
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11-5-05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site safety, and equip. insp. Discuss Hole
12:00		Work on unplugging NQ, trip out 500' NQ
	10:00	unplug, and trip back to 1760'
10:00	12:00	Gravel pack

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
4	small	Super Sacks Gravel							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)			MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT		F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB.	O.D.	F.T.	VISC.-SEC.				80 F.T.	
MFG.			D.C. R.R.	O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C.	O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R.	O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	3 5/8 IN.
DEPTH OUT			D.C. R.R.	O.D.	F.T.	TEMP.				941.98 F.T.	
DEPTH IN			D.C. R.R.	O.D.	F.T.					CASING IN HOLE	18 5/8 IN.
TOTAL FTG.			D.C. R.R.							1073.02 F.T.	
TOTAL HRS.			D.C. R.R.							DEPTH OF GRAVEL	
										F.T.	IN.
										DEPTH OF TRIM PIPE	N/A IN.
BIT NO.			TOTAL							1720 F.T.	
SIZE			WT. OF STRING		LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.			WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
TYPE			RPM			DEPTH OF SUR.		DEVIATION	°		
SER. NO.			HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.			Remarks:								
TOTAL HRS.											

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Aaron Martinez Driller's Signature — Hrs.
1 Hrs. Hauling Water	___ Hrs. Cat		Mike Halstead Helper's Signature — Hrs.
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes____ No____	Darryl Stalheim Helper's Signature — Hrs.
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** 1/4 Getting Fuel; ___ Chasing for Parts; 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11/5/05

Daily Start time: 12:00 — Midnight A.M. / Noon P.M.

Daily Start time: 12:00 — Midnight A.M. / Noon P.M.

PROJECT: #1451
NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/ Aaron M. S.E. Safety & Equip Inspec.
12:00	12:00	GRAVEL PACK

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
1	100 lb	Chlorinating Granular			1	18"	Hole Cover Plate		
25	3000#	6-9 Gravel Supersacs							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. R.R. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	10 5/8 IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				941.98 F.T.	
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	18 5/8 IN.
TOTAL FTG.			D.C. R.R.						1073.02 F.T.	
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	IN.
									F.T.	
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	N/A IN.
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				1360 F.T.	
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	-	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	-	F.T.	IN.
SER. NO.			HTD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	-		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	-		
TOTAL FTG.			Remarks:							
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
3 Hrs. Hauling Water	___ Hrs. Cat	
1/2 Hrs. Backhoe	2 Hrs. Mud Pump	Yes___ No___
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank	

Driller's Signature: Bill Ross, Hrs. 12 3/4
Helper's Signature: Quentin Hurtado, Hrs. 12 3/4
Helper's Signature: Barry Hall, Hrs. 12 3/4

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11-6-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Gravel packing
12:00	12:00	Gravel Pack

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
260	Supersac	Gravel							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80' F.T.	IN.
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	18 5/8
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				941.98 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	18 5/8
TOTAL FTG.			D.C. R.R.						1073.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									F.T.	IN.
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				920' F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Oscar Martinez Driller's Signature Hrs.
2 Hrs. Hauling Water	___ Hrs. Cat		Mike Halstead Helper's Signature Hrs.
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Darryl Stalheim Helper's Signature Hrs.
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM300	DATE: 11/6/05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/ Aaron M. Pre Safety & Equip Issue
12:00	12:00	Gravel Pack

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
15	3000#	SRI GRAVEL #16							
5½	3000#	SRI GRAVEL ¼ x ⅛							1

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD					WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT					SURFACE PIPE IN HOLE 80 F.T.	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.					DEPTH OF CEMENT GROUT F.T.	IN.
MFG.			D.C. A.R. O.D.	F.T.	WL-CC's					WELL SCREEN IN HOLE 941.98 F.T.	18⅝ IN.
TYPE			D.C. O.D.	F.T.	pH					CASING IN HOLE 1073.02 F.T.	18⅝ IN.
SER. NO.			D.C. A.R. O.D.	F.T.	SOLIDS%					DEPTH OF GRAVEL F.T.	IN.
DEPTH OUT			D.C. A.R. O.D.	F.T.	TEMP.					DEPTH OF TRIM PIPE 460 F.T.	U.Q IN.
DEPTH IN			D.C. A.R. O.D.	F.T.						INTERMEDIATE CASING F.T.	IN.
TOTAL FTG.			D.C. A.R.								
TOTAL HRS.			D.C. A.R.								
BIT NO.			TOTAL								
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION						
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION				
TYPE			RPM		DEPTH OF SUR.		DEVIATION				
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION				
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION				
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION				
TOTAL FTG.			Remarks:								
TOTAL HRS.			6 x 9 Colorado Silica Sand 2010'-900'								
			#16 SRI GRAVEL 900'-592'								
			¼ x ⅛ SRI GRAVEL 592'-								

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Bill Rossi Driller's Signature Hrs. 12¾
2 Hrs. Hauling Water	___ Hrs. Cat		Quentin Hurtado Helper's Signature Hrs. 12¾
1 Hrs. Backhoe	½ Hrs. Mud Pump	Yes____ No____	Barry Hall Helper's Signature Hrs. 12¾
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts ½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LM-300	DATE: 11-7-05
Daily Start time: 12:00 Midnight A.M. Noon P.M.	Daily Start time: 12:00 Midnight A.M. Noon P.M.	PROJECT: # 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site safety and equip. insp. Discuss Hole
12:00	2:45	Gravel pack, Tag @ 412'
2:45	3:30	Set up to trip in open ended
3:30	3:45	Repairs Put in roughnecks
3:45	12:00	Trip in rods, cleaning mud @ 1200' and 1600', and bottom

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
5	1/4 1/8	SuperSack Gravel							

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD		WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT		SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.		80 F.T.	
MFG.			D.C. H.R. O.D.	F.T.	WL-CC'S		DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH		F.T.	IN.
SER. NO.			D.C. H.R. O.D.	F.T.	SOLIDS%		WELL SCREEN IN HOLE	18"
DEPTH OUT			D.C. H.R. O.D.	F.T.	TEMP.		941.98 F.T.	IN.
DEPTH IN			D.C. H.R. O.D.	F.T.			CASING IN HOLE	16"
TOTAL FTG.			D.C. H.R.				1073.02 F.T.	IN.
TOTAL HRS.			D.C. H.R.				DEPTH OF GRAVEL	
							412' F.T.	IN.
							DEPTH OF TRIM PIPE	
BIT NO.			TOTAL				400' F.T.	IN.
SIZE		WT. OF STRING		LBS.	SURVEY INFORMATION		INTERMEDIATE CASING	
MFG.		WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.	DEVIATION °	F.T.	IN.
TYPE		RPM			DEPTH OF SUR.	DEVIATION °		
SER. NO.		HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.	DEVIATION °		
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.	DEVIATION °		
DEPTH IN		ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.	DEVIATION °		
TOTAL FTG.		Remarks:						
TOTAL HRS.		Exxa Co Colorado Silica Sand 2010-900'						
		#6 SRI Gravel 900'-592'						
		1/4 x 1/8 SRI Gravel 592'-412'						

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Aaron Martinez Hrs.
5 Hrs. Hauling Water	___ Hrs. Cat		Driller's Signature
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Mike Halstead Hrs.
___ Hrs. 6" Pump (or 2)	___ Hrs. Mud Tank		Helper's Signature
			Darryl Stalheim Hrs.
			Helper's Signature

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
1½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LM 300 | DATE: 11/7/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: #1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole W/Marvin M. Site Safety & Equip. Inspec.
12:00	2:00	Air Lift Mud @ 2010' 300 GPM
2:00	6:30	Trip out 2020' 7" Rods
6:30	7:00	Set up To Gravel Pack
7:00	10:30	Gravel pack to 302'
10:30	11:00	Trip out 280' N.G.
11:00	12:00	Set up To Trip in Swab

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
10	9A1	Unleaded Gasoline	K						
16	3000#	#6 SRI Gravel							

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour) — No.

BIT F.T.
STB. O.D. F.T.
D.C. R.R. O.D. F.T.
D.C. O.D. F.T.
D.C. R.R. O.D. F.T.
D.C. R.R. O.D. F.T.
D.C. R.R. O.D. F.T.
D.C. R.R.
D.C. R.R.
TOTAL

WT. OF STRING LBS.
WT. OF STRING LESS RODS LBS.
RPM
HYD. WEIGHT ON BIT LBS.
AIR MUD PRESSURE
ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT
VISC.-SEC.
WL-CC'S
pH
SOLIDS%
TEMP.

SURVEY INFORMATION

DEPTH OF SUR. / DEVIATION ° (×4)

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 F.T.	34 IN.
DEPTH OF CEMENT GROUT	F.T.	IN.
WELL SCREEN IN HOLE	941.98 F.T.	18⅝ IN.
CASING IN HOLE	1073.02 F.T.	18⅝ IN.
DEPTH OF GRAVEL	302 F.T.	#6 IN.
DEPTH OF TRIM PIPE	F.T.	IN.
INTERMEDIATE CASING	F.T.	IN.

Remarks:

6x9 Colorado Silica Sand 2010'-900'
#6 SRI Gravel 900'-592'
1/4x1/8 SRI Gravel 592-412'
#6 SRI Gravel 412-302'

2 Hrs. Booster
4 Hrs. Hauling Water
___ Hrs. Backhoe
1/2 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
2 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driller's Signature: Bill Rossi Hrs 13
Helper's Signature: Quentin Hurtado Hrs 12¾
Helper's Signature: Barry Hall Hrs 12¾

JUSTIFY HOURS (If Applies)
1/4 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-75P	DATE: 11/8/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
HPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	4:30	Trip in Swab
4:30		Develop 2006 - 1990 @ 280 GPM
		1990 - 1970 @ 211 GPM
		1970 - 1950 @ 225 GPM
		1950 - 1930 @ 202 GPM
		1930 - 1910 @ 235 GPM
		1910 - 1890 @ 198 GPM
	12:00	1890 - 1880 @

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
16	gallons	unleaded CFN Ellio	X						
16	gallons	unleaded Chevron Mo	X						
32	gallons	unleaded Chevron Ely	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	18⅝
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				941.98 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	18⅝
TOTAL FTG.			D.C. R.R.						1073.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									302 F.T.	IN.
									DEPTH OF TRIM PIPE	
BIT NO.			TOTAL						F.T.	IN.
SIZE		WT. OF STRING		LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.		WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
TYPE		RPM			DEPTH OF SUR.		DEVIATION	°		
SER. NO.		HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN		ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

7½ Hrs. Booster
___ Hrs. Hauling Water
3 Hrs. Backhoe
4 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
7½ Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Dale Jensen Hrs.
Driller's Signature
Ben Wilson Hrs.
Helper's Signature
Chris Cowell Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
¾ Getting Fuel
¼ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

SE ROA 54155

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LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LK-25P	DATE: 11-8-05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT NAME: URS 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole, Check Fluids, Safety Inspection
12:00	12:00	Finish Developing up to 1890' @ 204 gpm
		1830' @ 229 gpm
		1810 @ 207
		1790 @ 197 1650 @
		1770 @ 199 1630 @
		1750 @ 196
		1730 @ 189
		1710 @ 199
		1690 @ 196
		1670 @ 189

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	18
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				941.92 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	
TOTAL FTG.			D.C. R.R.						1073.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									302 F.T.	IN.
BIT NO.			TOTAL						DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION				F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	°	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

12 Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
___ Hrs. Hauling Water	___ Hrs. Cat	
___ Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___
12 Hrs. 6" Pump (or 2)	12 Hrs. Mud Tank	

Denny Robbins Driller's Signature Hrs.

Barry Hall Helper's Signature Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # 44-25P	DATE: 11-9/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: CRS NAME: 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Safe Site Safety & Equip inspection
12:00	12:15	Develop 1630-1610 @ 185 GPM
12:15	12:30	Check oils & grease equip.
12:30		Develop 1610-1590 @ 162 gpm 1450-1430 @ 128 gpm
		1590-1570 @ 144 gpm 1430-1410 @ 122 gpm
		1570-1550 @ 149 gpm 1410-1390 @ 119 gpm
		1550-1530 @ 134 gpm
		1530-1510 @ 146 gpm
		1590-1490 @ 142 gpm
		1490-1470 @ 142 gpm
	12:00	1470-1450 @ 129 gpm

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD		WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT		SURFACE PIPE IN HOLE	3c1 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.		80 F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S		DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH		F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%		WELL SCREEN IN HOLE	18
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.		941.92 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.			CASING IN HOLE	18
TOTAL FTG.			D.C. R.R.				1072.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.				DEPTH OF GRAVEL	
							302 F.T.	IN.
BIT NO.			TOTAL				DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION		F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.	DEVIATION	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.	DEVIATION	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.	DEVIATION		
DEPTH OUT			AIR MIST PRESSURE		DEPTH OF SUR.	DEVIATION		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.	DEVIATION		
TOTAL FTG.			Remarks:					
TOTAL HRS.								

____ Hrs. Booster	____ Hrs. Extra Comp.	Sampling Preformed by Lang
____ Hrs. Hauling Water	____ Hrs. Cat	Yes____ No____
____ Hrs. Backhoe	____ Hrs. Mud Pump	
____ Hrs. 6" Pump (or 2)	____ Hrs. Mud Tank	

Driller's Signature: Dale Jenson Hrs.
Helper's Signature: Don W. Ison Hrs.
Helper's Signature: Chris Cowell Hrs.

JUSTIFY HOURS (If Applies)
____ Getting Fuel
____ Chasing for Parts
1½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-25P

DATE: 11-9-05

Daily Start time: 11:45 — Midnight A.M. / Noon P.M.

Daily Start time: — Midnight A.M. / Noon P.M.

PROJECT NAME: URS 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole, Check Fluids, Safety, Insp
12:00	12:00	Develop up To
		[redacted] 1250 @ 70
		1230 @ 59
		1370 @ 114 gpm 1210 @ 61
		1350 @ 116 1190 @ 85
		1330 @ 114 1170 @ 71
		1310 @ 112 1150 @ 78 gpm
		1290 @ 108
		1270 @ 90

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.		BIT NO.	
SIZE		SIZE	
MFG.		MFG.	
TYPE		TYPE	
SER. NO.		SER. NO.	
DEPTH OUT		DEPTH OUT	
DEPTH IN		DEPTH IN	
TOTAL FTG.		TOTAL FTG.	
TOTAL HRS.		TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.

WT. OF STRING LESS RODS ____ LBS.

RPM

HYD. WEIGHT ON BIT ____ LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT		
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL		
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks:

___ Hrs. Booster	___ Hrs. Extra Comp.
1½ Hrs. Hauling Water	___ Hrs. Cat
___ Hrs. Backhoe	___ Hrs. Mud Pump
4 Hrs. 6" Pump ~~(at 8)~~	12 Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Driller's Signature: Denny Robbee Hrs.

Helper's Signature: Mike Halstead Hrs.

Helper's Signature: Barry Hall Hrs.

JUSTIFY HOURS (If Applies)

¼ Getting Fuel

___ Chasing for Parts

½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LL-25P	DATE: 11/10/05
Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	Daily Start time: 12:00 (Midnight A.M. / Noon P.M.)	PROJECT: LIRS NAME: 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kpw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	12:15	check oils & grease equip
12:15		Develop 1150-1130' @ 63 gpm
		1130-1110 @ 60 gpm
		1110-1090 @ 57 gpm
		1090-1070 @ 39 gpm
	4:45	Running out of water
4:45	12:00	Dry Swab in Aqua Clear from 1020' - 1310'

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
~~5~~	~~Bottles~~	~~Aqua Clear~~							
5 gallons		Aqua Clear	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE 80' F.T.	34 IN.
SIZE			STB. O.D.	F.T.	VISC-SEC.					
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE 941.92 F.T.	18 IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				CASING IN HOLE 1073.02 F.T.	18 IN.
DEPTH IN			D.C. R.R. O.D.	F.T.					DEPTH OF GRAVEL 302 F.T.	IN.
TOTAL FTG.			D.C. R.R.						DEPTH OF TRIM PIPE	
TOTAL HRS.			D.C. R.R.						F.T.	IN.
									INTERMEDIATE CASING	
									F.T.	IN.
BIT NO.			TOTAL							
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION					
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.		DEVIATION	°		
TYPE			RPM		DEPTH OF SUR.		DEVIATION	°		
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT			AIR MUD PRESSURE		DEPTH OF SUR.		DEVIATION	°		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.			Remarks:							
TOTAL HRS.										

___ Hrs. Booster	___ Hrs. Extra Comp	Sampling Preformed by Lang	Dale Jensen Driller's Signature Hrs.
12 Hrs. Hauling Water	___ Hrs. Cat		Ron Wilson Helper's Signature Hrs.
2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes___ No___	Chris Cowell Helper's Signature Hrs.
2 Hrs. 6" Pump (or 2)	7¼ Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts ___ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes___ No___ ?___

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LH-25P	DATE: 11/11/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) PROJECT: 1451 NAME: Ags

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kpw - 1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip Inspection
12:00	6:30	Dry Swab in Agua Clear 1510' - 1310'
6:30	9:30	Dry Swab back to Bottom @ 5 minutes a Rod
9:30		Develop @ 2006 - 1990 ~~@ PM~~ 250 GPM
	12:00	1990 - 1970 @ 232 GPM

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
14	gallons	Unleaded	X						
2	Gallons	Agua Clear PFD	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD					WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT					SURFACE PIPE IN HOLE	34
SIZE			STB. O.D.	F.T.	VISC.-SEC.					80' F.T.	IN.
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S					DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH					F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%					WELL SCREEN IN HOLE	18
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.					941.92 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.						CASING IN HOLE	18
TOTAL FTG.			D.C. R.R.							1023.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.							DEPTH OF GRAVEL	
										302 F.T.	IN.
BIT NO.			TOTAL							DEPTH OF TRIM PIPE	
SIZE		WT. OF STRING LBS.			SURVEY INFORMATION					F.T.	IN.
MFG.		WT. OF STRING LESS RODS LBS.			DEPTH OF SUR.		DEVIATION	°		INTERMEDIATE CASING	
TYPE		RPM			DEPTH OF SUR.		DEVIATION	°		F.T.	IN.
SER. NO.		HYD. WEIGHT ON BIT LBS.			DEPTH OF SUR.		DEVIATION	°			
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°			
DEPTH IN		ACTUAL WEIGHT ON BIT LBS.			DEPTH OF SUR.		DEVIATION	°			
TOTAL FTG.		Remarks:									
TOTAL HRS.											

2½ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang
2 Hrs. Hauling Water	___ Hrs. Cat	
2 Hrs. Backhoe	___ Hrs. Mud Pump	Yes____ No____
1 Hrs. 6" Pump (or 2)	6½ Hrs. Mud Tank	

Driller's Signature: Dale Jensen Hrs.
Helper's Signature: Ron Wilson Hrs.
Helper's Signature: Chris Cowell Hrs.

JUSTIFY HOURS (If Applies)
___ Getting Fuel
___ Chasing for Parts
½ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-25P

DATE: 11-11-05

Daily Start time: 11:45 (Midnight A.M. / Noon P.M.)

Daily Start time: (Midnight A.M. / Noon P.M.)

PROJECT NAME: URS 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Discuss Hole, Check Fluids, Safety Insp.
12:00	1:45	START Developing @ 1970
1:45	2:30	Work on Blue Pump - Change Out
2:30	12:00	Continue Developing

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
1		SuperSack Sand	✓						

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour) — No.

BIT F.T.

STB. O.D. F.T.

D.C. R.R. O.D. F.T.

D.C. O.D. F.T.

D.C. R.R. O.D. F.T.

D.C. R.R. O.D. F.T.

D.C. R.R. O.D. F.T.

D.C. R.R.

D.C. R.R.

TOTAL

WT. OF STRING LBS.

WT. OF STRING LESS RODS LBS.

RPM

HYD. WEIGHT ON BIT LBS.

AIR MUD PRESSURE

ACTUAL WEIGHT ON BIT LBS.

MUD RECORD

WEIGHT			
VISC.-SEC.			
WL-CC'S			
pH			
SOLIDS%			
TEMP.			

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT		
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL	301.83	
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks:

Gravel Pack Tagged @ 319' added 1 SuperSack & Retagged @ 301.83

11¼ Hrs. Booster

___ Hrs. Hauling Water

1½ Hrs. Backhoe

___ Hrs. 6" Pump (or 2)

___ Hrs. Extra Comp.

___ Hrs. Cat

___ Hrs. Mud Pump

11¼ Hrs. Mud Tank

Sampling Preformed by Lang

Yes____ No____

Driller's Signature: Denny Robblee Hrs.

Helper's Signature: Chris Holstead Hrs.

Helper's Signature: Barry Hall Hrs.

JUSTIFY HOURS (If Applies)

___ Getting Fuel

___ Chasing for Parts

___ Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # L/1-25P | DATE: 11/12/05

Daily Start time: 11:45 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1451 NAME: URS

Hole No.	Depth Today	Depth Yesterday	Total Drilled
Kpw-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	12:15	~~Perforate 1690~~ @ ~~gpm~~ check o.ls & gimmy
12:15		Develop 1710 - 1690 @ 124 Gpm 1550-1530 @ 150 gpm
		1690 - 1670 @ 205 gpm 1530-1510 @ 130 gpm
		1670 - 1650 @ 178 gpm 1510-1490 @ 137 gpm
		1650 - 1630 @ 175 gpm 1490-1470 @ ___ gpm
		1630 - 1610 @ 162 gpm
		1610 - 1590 @ 154 gpm
		1590 - 1570 @ 162 gpm
	12:00	1570 - 1550 @ 162 gpm
(7:30	10:30)	Cement 301' - ?

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
9	Super Sxs	Cement	x						
11	50 #	Calcium	x						
100	gallons	Clear Diesal	x						
8	gallons	unleaded	x						
7	50 #	3/8 Hole plug	x						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD				WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT				SURFACE PIPE IN HOLE	34 IN.
SIZE			STB. O.D.	F.T.	VISC.-SEC.				80' F.T.	
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S				DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH				F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%				WELL SCREEN IN HOLE	18 IN.
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.				941.92 F.T.	
DEPTH IN			D.C. R.R. O.D.	F.T.					CASING IN HOLE	18 IN.
TOTAL FTG.			D.C. R.R.						1072.02 F.T.	
TOTAL HRS.			D.C. R.R.						DEPTH OF GRAVEL	
									302 F.T.	IN.
									DEPTH OF TRIM PIPE	
BIT NO.			TOTAL						F.T.	IN.
SIZE		WT. OF STRING		LBS.	SURVEY INFORMATION				INTERMEDIATE CASING	
MFG.		WT. OF STRING LESS RODS		LBS.	DEPTH OF SUR.		DEVIATION	°	F.T.	IN.
TYPE		RPM			DEPTH OF SUR.		DEVIATION	°		
SER. NO.		HYD. WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
DEPTH OUT		AIR MUD PRESSURE			DEPTH OF SUR.		DEVIATION	°		
DEPTH IN		ACTUAL WEIGHT ON BIT		LBS.	DEPTH OF SUR.		DEVIATION	°		
TOTAL FTG.		Remarks:								
TOTAL HRS.										

9 1/4 Hrs. Booster
1 Hrs. Hauling Water
2 Hrs. Backhoe
4 Hrs. 6" Pump (or 2)
___ Hrs. Extra Comp.
___ Hrs. Cat
___ Hrs. Mud Pump
3 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Dale Jensen Hrs.
Driller's Signature
Hoss Nelson Hrs.
Helper's Signature
Chris Cowell Hrs.
Helper's Signature

JUSTIFY HOURS (If Applies)
1/2 Getting Fuel
___ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT

RIG # LK-25p | DATE: 11-12-05

Daily Start time: Midnight A.M. / Noon P.M. | Daily Start time: Midnight A.M. / Noon P.M. | PROJECT NAME: URS 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Check Fluids, SAFETY Insp, Discuss Hole
12:00	12:00	Develop From 1470' up TO

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
17	2500#	Super Sacks Cement	✓						
18	50#	Calcium	✓						

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	
BIT NO.	
SIZE	
MFG.	
TYPE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS.	

DRILLING ASSEM. (at end of hour)

No.			
	BIT		F.T.
	STB.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.	O.D.	F.T.
	D.C. R.R.		
	D.C. R.R.		
	TOTAL		

WT. OF STRING ____ LBS.
WT. OF STRING LESS RODS ____ LBS.
RPM
HYD. WEIGHT ON BIT ____ LBS.
AIR / MUD PRESSURE
ACTUAL WEIGHT ON BIT ____ LBS.

MUD RECORD

WEIGHT				
VISC.-SEC.				
WL-CC'S				
pH				
SOLIDS%				
TEMP.				

SURVEY INFORMATION

DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°
DEPTH OF SUR.		DEVIATION	°

WELL CONSTRUCTION

	F.T.	IN.
SURFACE PIPE IN HOLE		
DEPTH OF CEMENT GROUT	SURFACE	
WELL SCREEN IN HOLE		
CASING IN HOLE		
DEPTH OF GRAVEL		
DEPTH OF TRIM PIPE		
INTERMEDIATE CASING		

Remarks:
Tagged Cement @ 180.33 mixed up pumped To SURFACE

____ Hrs. Booster
____ Hrs. Hauling Water
2 Hrs. Backhoe
4 Hrs. 6" Pump (or 2)
____ Hrs. Extra Comp.
____ Hrs. Cat
____ Hrs. Mud Pump
12 Hrs. Mud Tank

Sampling Preformed by Lang
Yes____ No____

Driver's Signature: Denny Robblee ____ Hrs.
Helper's Signature: Mike Holdstead ____ Hrs.
Helper's Signature: Barry Hall ____ Hrs.

"JUSTIFY HOURS (If Applies)"
____ Getting Fuel
____ Chasing for Parts
1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes____ No____ ?____

LANG EXPLORATORY DAILY DRILLING REPORT	RIG # LF-25P	DATE: 10/13/05

Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | Daily Start time: 12:00 (Midnight A.M. / Noon P.M.) | PROJECT: 1431 NAME: Stoller

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Site Safety & Equip inspection
12:00	12:30	Develop 1250-1230'
12:30	12:45	check oils & grease equip
12:45		Develop 1230' - 1210' @ 80 gpm 1150-1130 43 gpm
		1210' - 1190' @ 57 gpm 1130 - 1110 41 gpm
		1190 - 1170' @ 46 gpm 1110 - 1090 34 gpm
	8:45	1170 - 1150' @ 44 gpm 1090 - 1070
8:45	12:00	Tripout Swab, Pull out landing plates & 34"

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT
15	50#	Quick crete	X						
12	gallons	unleaded	X						

BIT RECORD		No.	DRILLING ASSEM. (at end of hour)		MUD RECORD		WELL CONSTRUCTION	
BIT NO.			BIT	F.T.	WEIGHT		SURFACE PIPE IN HOLE	
SIZE			STB. O.D.	F.T.	VISC.-SEC.		80 F.T.	IN.
MFG.			D.C. R.R. O.D.	F.T.	WL-CC'S		DEPTH OF CEMENT GROUT	
TYPE			D.C. O.D.	F.T.	pH		302-0 F.T.	IN.
SER. NO.			D.C. R.R. O.D.	F.T.	SOLIDS%		WELL SCREEN IN HOLE	18
DEPTH OUT			D.C. R.R. O.D.	F.T.	TEMP.		941.92 F.T.	IN.
DEPTH IN			D.C. R.R. O.D.	F.T.			CASING IN HOLE	18
TOTAL FTG.			D.C. R.R.				1072.02 F.T.	IN.
TOTAL HRS.			D.C. R.R.				DEPTH OF GRAVEL	
							302 F.T.	IN.
BIT NO.			TOTAL				DEPTH OF TRIM PIPE	
SIZE			WT. OF STRING	LBS.	SURVEY INFORMATION		F.T.	IN.
MFG.			WT. OF STRING LESS RODS	LBS.	DEPTH OF SUR.	DEVIATION °	INTERMEDIATE CASING	
TYPE			RPM		DEPTH OF SUR.	DEVIATION °	F.T.	IN.
SER. NO.			HYD. WEIGHT ON BIT	LBS.	DEPTH OF SUR.	DEVIATION °		
DEPTH OUT			AIR MIST PRESSURE		DEPTH OF SUR.	DEVIATION °		
DEPTH IN			ACTUAL WEIGHT ON BIT	LBS.	DEPTH OF SUR.	DEVIATION °		
TOTAL FTG.			Remarks:					
TOTAL HRS.								

___ Hrs. Booster	___ Hrs. Extra Comp.	Sampling Preformed by Lang	Dale Jensen Hrs. (Driller's Signature)
___ Hrs. Hauling Water	___ Hrs. Cal		Ron Wilson Hrs. (Helper's Signature)
4 Hrs. Backhoe	___ Hrs. Mud Pump	Yes ___ No ___	Chris Cowell Hrs. (Helper's Signature)
2 Hrs. 6" Pump (or 2)	8 Hrs. Mud Tank		***JUSTIFY HOURS (If Applies)*** ___ Getting Fuel ___ Chasing for Parts 1/2 Drive Time (after the 1st one hour)

CLIENT REP: _____ Was the hole(s) completed to desired depth? Yes ___ No ___ ? ___

LANG EXPLORATORY DAILY DRILLING REPORT | RIG # LK-25p | DATE: 11-13-05

Daily Start time: Midnight A.M. Noon P.M. | Daily Start time: Midnight A.M. Noon P.M. | PROJECT NAME: URS 1451

Hole No.	Depth Today	Depth Yesterday	Total Drilled
KPW-1			

FROM	TO	ACTIVITY
11:45	12:00	Check Fluids, Discuss Hole, SAFETY Tasp
12:00	12:45	Check & grease Tubes
12:45	4:00	T.I.P in Pods
4:00	4:30	Check Static & get Ready For Drawdown TEST
4:30	6:30	Drawdown Recovery Test
6:30	8:00	Clean out gravel & Pull water until Clean
8:00	11:30	Top Pods
11:30	12:00	Pack up

Quantity	Size	Material Name	LANG	CLIENT	Quantity	Size	Material Name	LANG	CLIENT

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		
BIT NO.		
SIZE		
MFG.		
TYPE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS.		

DRILLING ASSEMBLY (at end of hole)

No.		
	BIT	FT
	STB. O.D.	FT
	D.C. O.D.	FT
	R.R. O.D.	FT
	S.S. O.D.	FT
	D.C. O.D.	FT
	R.R. O.D.	FT
	S.S. O.D.	FT
	D.C. O.D.	FT
	R.R. O.D.	FT
	TWSM.	

WT. OF STRING: Lbs.
WT. OF STRING Less Hook: Lbs.
RPM:
STK. WEIGHT ON BIT: Lbs.
PRESSURE:
ACTUAL WEIGHT ON BIT: Lbs.

MUD RECORD

TYPE			
WEIGHT			
VIS.			
WL			
SOLIDS			
LCM			

SURVEY INFORMATION

DEPTH OF SURV.		DEVIATION	
DEPTH OF SURV.		DEVIATION	
DEPTH OF SURV.		DEVIATION	
DEPTH OF SURV.		DEVIATION	
DEPTH OF SURV.		DEVIATION	

WELL CONSTRUCTION

SURFACE PIPE IN HOLE	80 FT.	34 IN.
DEPTH OF CEMENT GROUT	301.8 FT.	33 IN.
WELL SCREEN IN HOLE	941.92 FT.	16 IN.
CASING IN HOLE	1072.02 FT.	16 IN.
DEPTH OF GRAVEL	302 FT.	26 IN.
DEPTH OF [redacted] PIPE SUNSET	FT.	IN.
INTERMEDIATE CASING	0 FT.	IN.

Remarks:
2½' Drawdown @ 304 gpm

2½ Hrs. Booster
Hrs. Hauling Water
2 Hrs. Backhoe
2½ Hrs. of Pumps (or 3)
Hrs. Extra Comp.
Hrs. Cat
Hrs. Mud Pump
2½ Hrs. Mud Tank

Sampling Performed by Lang
Yes ___ No ___

Lenny Kobler Hrs.
Duke Hallstadt Hrs.
Cathy Hall Hrs.

JUSTIFY HOURS (if Applies)
½ Getting Fuel
Cleaning for Parts
Yes Drive Term (Start the 1st Rig Hole)

CLIENT REP: ___ When the hole(s) are/are/are to desired depth? Yes ___ No ___ ?

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/11/2005 15:59:23.937	0.000	990.445	0.000
12/11/2005 15:59:31.137	0.120	994.467	4.022
12/11/2005 15:59:38.937	0.250	999.554	9.109
12/11/2005 15:59:46.737	0.380	1,007.593	17.148
12/11/2005 15:59:55.137	0.520	1,017.684	27.239
12/11/2005 16:00:04.137	0.670	1,030.677	40.232
12/11/2005 16:00:13.737	0.830	1,045.976	55.531
12/11/2005 16:00:23.337	0.990	1,062.458	72.013
12/11/2005 16:00:34.137	1.170	1,075.445	85.000
12/11/2005 16:00:45.537	1.360	1,086.886	96.441
12/11/2005 16:00:57.537	1.560	1,095.416	104.971
12/11/2005 16:01:10.137	1.770	1,103.067	112.622
12/11/2005 16:01:23.337	1.990	1,108.874	118.429
12/11/2005 16:01:37.737	2.230	1,110.540	120.095
12/11/2005 16:01:52.737	2.480	1,114.208	123.763
12/11/2005 16:02:08.337	2.740	1,117.539	127.094
12/11/2005 16:02:25.137	3.020	1,118.505	128.060
12/11/2005 16:02:43.137	3.320	1,121.455	131.010
12/11/2005 16:03:01.737	3.630	1,122.795	132.350
12/11/2005 16:03:22.137	3.970	1,125.696	135.251
12/11/2005 16:03:43.137	4.320	1,126.618	136.173
12/11/2005 16:04:05.337	4.690	1,128.806	138.361
12/11/2005 16:04:29.337	5.090	1,129.715	139.270
12/11/2005 16:04:54.537	5.510	1,131.351	140.906
12/11/2005 16:05:20.937	5.950	1,131.066	140.621
12/11/2005 16:05:49.137	6.420	1,133.567	143.122
12/11/2005 16:06:19.137	6.920	1,134.507	144.062
12/11/2005 16:06:50.937	7.450	1,134.964	144.519
12/11/2005 16:07:24.537	8.010	1,136.671	146.226
12/11/2005 16:08:00.537	8.610	1,137.433	146.988
12/11/2005 16:08:36.537	9.210	1,138.884	148.439
12/11/2005 16:09:18.537	9.910	1,140.021	149.576
12/11/2005 16:10:00.537	10.610	1,140.503	150.058
12/11/2005 16:10:42.537	11.310	1,141.053	150.608
12/11/2005 16:11:30.537	12.110	1,141.684	151.239
12/11/2005 16:12:24.537	13.010	1,142.961	152.516
12/11/2005 16:13:12.537	13.810	1,143.573	153.128
12/11/2005 16:14:12.537	14.810	1,144.358	153.913
12/11/2005 16:15:12.537	15.810	1,144.294	153.849
12/11/2005 16:16:12.537	16.810	1,145.185	154.740
12/11/2005 16:17:18.537	17.910	1,145.986	155.541
12/11/2005 16:18:30.537	19.110	1,146.276	155.831
12/11/2005 16:19:48.537	20.410	1,146.863	156.418
12/11/2005 16:21:06.537	21.710	1,147.443	156.998
12/11/2005 16:22:30.537	23.110	1,147.419	156.974
12/11/2005 16:24:00.537	24.610	1,147.634	157.189
12/11/2005 16:25:36.537	26.210	1,148.869	158.424
12/11/2005 16:27:12.537	27.810	1,148.267	157.822
12/11/2005 16:29:00.537	29.610	1,148.882	158.437
12/11/2005 16:30:54.537	31.510	1,149.692	159.247

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/11/2005 16:32:54.537	33.510	1,150.329	159.884
12/11/2005 16:35:00.537	35.610	1,150.228	159.783
12/11/2005 16:37:12.537	37.810	1,151.076	160.631
12/11/2005 16:39:36.537	40.210	1,150.884	160.439
12/11/2005 16:42:06.537	42.710	1,151.694	161.249
12/11/2005 16:44:42.537	45.310	1,151.816	161.371
12/11/2005 16:47:30.537	48.110	1,152.141	161.696
12/11/2005 16:50:30.537	51.110	1,152.201	161.756
12/11/2005 16:53:36.537	54.210	1,152.303	161.858
12/11/2005 16:57:00.537	57.610	1,152.869	162.424
12/11/2005 17:00:30.537	61.110	1,152.958	162.513
12/11/2005 17:04:12.537	64.810	1,153.234	162.789
12/11/2005 17:08:12.537	68.810	1,152.590	162.145
12/11/2005 17:12:24.537	73.010	1,153.002	162.557
12/11/2005 17:16:48.537	77.410	1,154.218	163.773
12/11/2005 17:21:30.537	82.110	1,153.868	163.423
12/11/2005 17:26:30.537	87.110	1,154.433	163.988
12/11/2005 17:31:48.537	92.410	1,154.173	163.728
12/11/2005 17:37:24.537	98.010	1,154.510	164.065
12/11/2005 17:43:24.537	104.010	1,155.865	165.420
12/11/2005 17:49:24.537	110.010	1,155.175	164.730
12/11/2005 17:56:24.537	117.010	1,155.929	165.484
12/11/2005 18:03:24.537	124.010	1,155.858	165.413
12/11/2005 18:10:24.537	131.010	1,156.382	165.937
12/11/2005 18:18:24.537	139.010	1,156.467	166.022
12/11/2005 18:27:24.537	148.010	1,157.189	166.744
12/11/2005 18:35:24.537	156.010	1,156.714	166.269
12/11/2005 18:45:24.537	166.010	1,157.110	166.665
12/11/2005 18:55:24.537	176.010	1,156.951	166.506
12/11/2005 19:05:24.537	186.010	1,157.892	167.447
12/11/2005 19:15:24.537	196.010	1,156.984	166.539
12/11/2005 19:25:24.537	206.010	1,157.489	167.044
12/11/2005 19:35:24.537	216.010	1,157.752	167.307
12/11/2005 19:45:24.537	226.010	1,157.794	167.349
12/11/2005 19:55:24.537	236.010	1,159.065	168.620
12/11/2005 20:05:24.537	246.010	1,158.784	168.339
12/11/2005 20:15:24.537	256.010	1,159.414	168.969
12/11/2005 20:25:24.537	266.010	1,159.595	169.150
12/11/2005 20:35:24.537	276.010	1,159.631	169.186
12/11/2005 20:45:24.537	286.010	1,159.318	168.873
12/11/2005 20:55:24.537	296.010	1,160.410	169.965
12/11/2005 21:05:24.537	306.010	1,160.317	169.872
12/11/2005 21:15:24.537	316.010	1,159.985	169.540
12/11/2005 21:25:24.537	326.010	1,160.223	169.778
12/11/2005 21:35:24.537	336.010	1,160.666	170.221
12/11/2005 21:45:24.537	346.010	1,160.358	169.913
12/11/2005 21:55:24.537	356.010	1,160.196	169.751
12/11/2005 22:05:24.537	366.010	1,159.588	169.143
12/11/2005 22:15:24.537	376.010	1,160.883	170.438
12/11/2005 22:25:24.537	386.010	1,160.862	170.417

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/11/2005 22:35:24.537	396.010	1,159.835	169.390
12/11/2005 22:45:24.537	406.010	1,161.363	170.918
12/11/2005 22:55:24.537	416.010	1,160.945	170.500
12/11/2005 23:05:24.537	426.010	1,160.951	170.506
12/11/2005 23:15:24.537	436.010	1,161.829	171.384
12/11/2005 23:25:24.537	446.010	1,161.580	171.135
12/11/2005 23:35:24.537	456.010	1,161.396	170.951
12/11/2005 23:45:24.537	466.010	1,161.283	170.838
12/11/2005 23:55:24.537	476.010	1,161.404	170.959
12/12/2005 0:05:24.537	486.010	1,162.598	172.153
12/12/2005 0:15:24.537	496.010	1,162.049	171.604
12/12/2005 0:25:24.537	506.010	1,162.087	171.642
12/12/2005 0:35:24.537	516.010	1,162.839	172.394
12/12/2005 0:45:24.537	526.010	1,161.709	171.264
12/12/2005 0:55:24.537	536.010	1,162.178	171.733
12/12/2005 1:05:24.537	546.010	1,161.706	171.261
12/12/2005 1:15:24.537	556.010	1,162.340	171.895
12/12/2005 1:25:24.537	566.010	1,162.294	171.849
12/12/2005 1:35:24.537	576.010	1,162.631	172.186
12/12/2005 1:45:24.537	586.010	1,162.238	171.793
12/12/2005 1:55:24.537	596.010	1,162.222	171.777
12/12/2005 2:05:24.537	606.010	1,162.348	171.903
12/12/2005 2:15:24.537	616.010	1,162.801	172.356
12/12/2005 2:25:24.537	626.010	1,162.983	172.538
12/12/2005 2:35:24.537	636.010	1,162.280	171.835
12/12/2005 2:45:24.537	646.010	1,163.520	173.075
12/12/2005 2:55:24.537	656.010	1,163.223	172.778
12/12/2005 3:05:24.537	666.010	1,162.961	172.516
12/12/2005 3:15:24.537	676.010	1,163.334	172.889
12/12/2005 3:25:24.537	686.010	1,162.869	172.424
12/12/2005 3:35:24.537	696.010	1,162.411	171.966
12/12/2005 3:45:24.538	706.010	1,163.309	172.864
12/12/2005 3:55:24.537	716.010	1,163.594	173.149
12/12/2005 4:05:24.537	726.010	1,163.910	173.465
12/12/2005 4:15:24.537	736.010	1,163.250	172.805
12/12/2005 4:25:24.537	746.010	1,163.304	172.859
12/12/2005 4:35:24.537	756.010	1,163.214	172.769
12/12/2005 4:45:24.537	766.010	1,162.760	172.315
12/12/2005 4:55:24.537	776.010	1,163.649	173.204
12/12/2005 5:05:24.537	786.010	1,163.282	172.837
12/12/2005 5:15:24.537	796.010	1,163.817	173.372
12/12/2005 5:25:24.537	806.010	1,163.937	173.492
12/12/2005 5:35:24.537	816.010	1,163.022	172.577
12/12/2005 5:45:24.537	826.010	1,163.320	172.875
12/12/2005 5:55:24.537	836.010	1,164.051	173.606
12/12/2005 6:05:24.537	846.010	1,164.190	173.745
12/12/2005 6:15:24.537	856.010	1,164.185	173.740
12/12/2005 6:25:24.537	866.010	1,164.018	173.573
12/12/2005 6:35:24.537	876.010	1,163.790	173.345
12/12/2005 6:45:24.537	886.010	1,164.149	173.704

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 6:55:24.537	896.010	1,163.930	173.485
12/12/2005 7:05:24.537	906.010	1,163.685	173.240
12/12/2005 7:15:24.537	916.010	1,163.752	173.307
12/12/2005 7:25:24.537	926.010	1,163.949	173.504
12/12/2005 7:35:24.537	936.010	1,163.746	173.301
12/12/2005 7:45:24.537	946.010	1,164.204	173.759
12/12/2005 7:55:24.537	956.010	1,164.355	173.910
12/12/2005 8:05:24.537	966.010	1,164.435	173.990
12/12/2005 8:15:24.537	976.010	1,163.988	173.543
12/12/2005 8:25:24.537	986.010	1,163.726	173.281
12/12/2005 8:35:24.537	996.010	1,164.832	174.387
12/12/2005 8:45:24.537	1,006.010	1,165.058	174.613
12/12/2005 8:55:24.537	1,016.010	1,164.459	174.014
12/12/2005 9:05:24.537	1,026.010	1,164.594	174.149
12/12/2005 9:15:24.537	1,036.010	1,164.991	174.546
12/12/2005 9:25:24.537	1,046.010	1,164.748	174.303
12/12/2005 9:35:24.537	1,056.010	1,164.463	174.018
12/12/2005 9:45:24.537	1,066.010	1,164.539	174.094
12/12/2005 9:55:24.537	1,076.010	1,164.226	173.781
12/12/2005 10:05:24.537	1,086.010	1,165.182	174.737
12/12/2005 10:15:24.537	1,096.010	1,164.241	173.796
12/12/2005 10:25:24.537	1,106.010	1,165.306	174.861
12/12/2005 10:35:24.537	1,116.010	1,164.755	174.310
12/12/2005 10:45:24.537	1,126.010	1,164.644	174.199
12/12/2005 10:55:24.537	1,136.010	1,164.231	173.786
12/12/2005 11:05:24.537	1,146.010	1,165.092	174.647
12/12/2005 11:15:24.537	1,156.010	1,165.554	175.109
12/12/2005 11:25:24.537	1,166.010	1,164.696	174.251
12/12/2005 11:35:24.537	1,176.010	1,164.992	174.547
12/12/2005 11:45:24.537	1,186.010	1,165.539	175.094
12/12/2005 11:55:24.537	1,196.010	1,165.431	174.986
12/12/2005 12:05:24.537	1,206.010	1,165.250	174.805
12/12/2005 12:15:24.537	1,216.010	1,165.143	174.698
12/12/2005 12:25:24.537	1,226.010	1,164.863	174.418
12/12/2005 12:35:24.537	1,236.010	1,165.080	174.635
12/12/2005 12:45:24.537	1,246.010	1,164.765	174.320
12/12/2005 12:55:24.537	1,256.010	1,165.432	174.987
12/12/2005 13:05:24.537	1,266.010	1,165.371	174.926
12/12/2005 13:15:24.537	1,276.010	1,164.855	174.410
12/12/2005 13:25:24.537	1,286.010	1,165.297	174.852
12/12/2005 13:35:24.537	1,296.010	1,164.805	174.360
12/12/2005 13:45:24.537	1,306.010	1,165.143	174.698
12/12/2005 13:55:24.537	1,316.010	1,165.310	174.865
12/12/2005 14:05:24.537	1,326.010	1,165.316	174.871
12/12/2005 14:15:24.537	1,336.010	1,165.219	174.774
12/12/2005 14:25:24.537	1,346.010	1,165.247	174.802
12/12/2005 14:35:24.537	1,356.010	1,166.145	175.700
12/12/2005 14:45:24.537	1,366.010	1,165.390	174.945
12/12/2005 14:55:24.537	1,376.010	1,165.440	174.995
12/12/2005 15:05:24.537	1,386.010	1,166.205	175.760

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 15:15:24.537	1,396.010	1,165.130	174.685
12/12/2005 15:25:24.537	1,406.010	1,166.003	175.558
12/12/2005 15:35:24.537	1,416.010	1,165.676	175.231
12/12/2005 15:45:24.537	1,426.010	1,165.481	175.036
12/12/2005 15:55:24.537	1,436.010	1,165.640	175.195
12/12/2005 16:05:24.537	1,446.010	1,165.327	174.882
12/12/2005 16:15:24.537	1,456.010	1,164.978	174.533
12/12/2005 16:25:24.537	1,466.010	1,165.520	175.075
12/12/2005 16:35:24.537	1,476.010	1,165.995	175.550
12/12/2005 16:45:24.537	1,486.010	1,165.072	174.627
12/12/2005 16:55:24.537	1,496.010	1,165.643	175.198
12/12/2005 17:05:24.537	1,506.010	1,166.085	175.640
12/12/2005 17:15:24.537	1,516.010	1,165.681	175.236
12/12/2005 17:25:24.537	1,526.010	1,166.074	175.629
12/12/2005 17:35:24.537	1,536.010	1,165.873	175.428
12/12/2005 17:45:24.537	1,546.010	1,165.873	175.428
12/12/2005 17:55:24.537	1,556.010	1,165.877	175.432
12/12/2005 18:05:24.537	1,566.010	1,165.887	175.442
12/12/2005 18:15:24.537	1,576.010	1,166.007	175.562
12/12/2005 18:25:24.537	1,586.010	1,165.766	175.321
12/12/2005 18:35:24.537	1,596.010	1,165.924	175.479
12/12/2005 18:45:24.537	1,606.010	1,165.678	175.233
12/12/2005 18:55:24.537	1,616.010	1,165.465	175.020
12/12/2005 19:05:24.537	1,626.010	1,165.706	175.261
12/12/2005 19:15:24.537	1,636.010	1,166.056	175.611
12/12/2005 19:25:24.537	1,646.010	1,166.162	175.717
12/12/2005 19:35:24.537	1,656.010	1,166.230	175.785
12/12/2005 19:45:24.537	1,666.010	1,166.008	175.563
12/12/2005 19:55:24.537	1,676.010	1,166.491	176.046
12/12/2005 20:05:24.537	1,686.010	1,166.014	175.569
12/12/2005 20:15:24.537	1,696.010	1,166.192	175.747
12/12/2005 20:25:24.537	1,706.010	1,165.539	175.094
12/12/2005 20:35:24.537	1,716.010	1,166.192	175.747
12/12/2005 20:45:24.537	1,726.010	1,166.152	175.707
12/12/2005 20:55:24.537	1,736.010	1,166.060	175.615
12/12/2005 21:05:24.537	1,746.010	1,166.033	175.588
12/12/2005 21:15:24.537	1,756.010	1,165.810	175.365
12/12/2005 21:25:24.537	1,766.010	1,166.197	175.752
12/12/2005 21:35:24.537	1,776.010	1,166.061	175.616
12/12/2005 21:45:24.537	1,786.010	1,165.815	175.370
12/12/2005 21:55:24.537	1,796.010	1,166.387	175.942
12/12/2005 22:05:24.537	1,806.010	1,165.302	174.857
12/12/2005 22:15:24.537	1,816.010	1,165.849	175.404
12/12/2005 22:25:24.537	1,826.010	1,165.986	175.541
12/12/2005 22:35:24.537	1,836.010	1,165.635	175.190
12/12/2005 22:45:24.537	1,846.010	1,166.732	176.287
12/12/2005 22:55:24.537	1,856.010	1,166.639	176.194
12/12/2005 23:05:24.537	1,866.010	1,166.329	175.884
12/12/2005 23:15:24.537	1,876.010	1,165.819	175.374
12/12/2005 23:25:24.537	1,886.010	1,165.989	175.544

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 23:35:24.537	1,896.010	1,166.096	175.651
12/12/2005 23:45:24.537	1,906.010	1,167.419	176.974
12/12/2005 23:55:24.537	1,916.010	1,166.867	176.422
12/13/2005 0:05:24.537	1,926.010	1,166.894	176.449
12/13/2005 0:15:24.537	1,936.010	1,168.169	177.724
12/13/2005 0:25:24.537	1,946.010	1,166.857	176.412
12/13/2005 0:35:24.537	1,956.010	1,166.716	176.271
12/13/2005 0:45:24.537	1,966.010	1,166.496	176.051
12/13/2005 0:55:24.537	1,976.010	1,167.293	176.848
12/13/2005 1:05:24.537	1,986.010	1,167.007	176.562
12/13/2005 1:15:24.537	1,996.010	1,166.774	176.329
12/13/2005 1:25:24.537	2,006.010	1,167.762	177.317
12/13/2005 1:35:24.537	2,016.010	1,167.333	176.888
12/13/2005 1:45:24.537	2,026.010	1,167.184	176.739
12/13/2005 1:55:24.537	2,036.010	1,166.728	176.283
12/13/2005 2:05:24.537	2,046.010	1,167.477	177.032
12/13/2005 2:15:24.537	2,056.010	1,167.375	176.930
12/13/2005 2:25:24.537	2,066.010	1,167.613	177.168
12/13/2005 2:35:24.537	2,076.010	1,167.186	176.741
12/13/2005 2:45:24.537	2,086.010	1,167.613	177.168
12/13/2005 2:55:24.537	2,096.010	1,167.205	176.760
12/13/2005 3:05:24.537	2,106.010	1,168.180	177.735
12/13/2005 3:15:24.537	2,116.010	1,167.606	177.161
12/13/2005 3:25:24.537	2,126.010	1,167.300	176.855
12/13/2005 3:35:24.537	2,136.010	1,167.455	177.010
12/13/2005 3:45:24.537	2,146.010	1,167.538	177.093
12/13/2005 3:55:24.537	2,156.010	1,167.095	176.650
12/13/2005 4:05:24.537	2,166.010	1,167.098	176.653
12/13/2005 4:15:24.537	2,176.010	1,167.343	176.898
12/13/2005 4:25:24.537	2,186.010	1,168.100	177.655
12/13/2005 4:35:24.537	2,196.010	1,167.298	176.853
12/13/2005 4:45:24.537	2,206.010	1,167.528	177.083
12/13/2005 4:55:24.537	2,216.010	1,167.342	176.897
12/13/2005 5:05:24.537	2,226.010	1,167.797	177.352
12/13/2005 5:15:24.537	2,236.010	1,167.237	176.792
12/13/2005 5:25:24.537	2,246.010	1,167.693	177.248
12/13/2005 5:35:24.537	2,256.010	1,168.036	177.591
12/13/2005 5:45:24.537	2,266.010	1,167.538	177.093
12/13/2005 5:55:24.537	2,276.010	1,167.273	176.828
12/13/2005 6:05:24.537	2,286.010	1,167.175	176.730
12/13/2005 6:15:24.537	2,296.010	1,168.056	177.611
12/13/2005 6:25:24.537	2,306.010	1,167.575	177.130
12/13/2005 6:35:24.537	2,316.010	1,167.792	177.347
12/13/2005 6:45:24.537	2,326.010	1,167.342	176.897
12/13/2005 6:55:24.537	2,336.010	1,167.598	177.153
12/13/2005 7:05:24.537	2,346.010	1,167.855	177.410
12/13/2005 7:15:24.537	2,356.010	1,168.106	177.661
12/13/2005 7:25:24.537	2,366.010	1,167.807	177.362
12/13/2005 7:35:24.537	2,376.010	1,168.292	177.847
12/13/2005 7:45:24.537	2,386.010	1,167.825	177.380

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/13/2005 7:55:24.537	2,396.010	1,167.756	177.311
12/13/2005 8:05:24.537	2,406.010	1,167.669	177.224
12/13/2005 8:15:24.537	2,416.010	1,167.896	177.451
12/13/2005 8:25:24.537	2,426.010	1,167.051	176.606
12/13/2005 8:35:24.537	2,436.010	1,167.978	177.533
12/13/2005 8:45:24.537	2,446.010	1,167.094	176.649
12/13/2005 8:55:24.537	2,456.010	1,167.848	177.403
12/13/2005 9:05:24.537	2,466.010	1,167.543	177.098
12/13/2005 9:15:24.537	2,476.010	1,167.524	177.079
12/13/2005 9:25:24.537	2,486.010	1,167.476	177.031
12/13/2005 9:35:24.537	2,496.010	1,167.795	177.350
12/13/2005 9:45:24.537	2,506.010	1,167.937	177.492
12/13/2005 9:55:24.537	2,516.010	1,167.551	177.106
12/13/2005 10:05:24.537	2,526.010	1,167.850	177.405
12/13/2005 10:15:24.537	2,536.010	1,167.984	177.539
12/13/2005 10:25:24.537	2,546.010	1,168.518	178.073
12/13/2005 10:35:24.537	2,556.010	1,168.154	177.709
12/13/2005 10:45:24.537	2,566.010	1,167.650	177.205
12/13/2005 10:55:24.537	2,576.010	1,167.987	177.542
12/13/2005 11:05:24.537	2,586.010	1,167.536	177.091
12/13/2005 11:15:24.537	2,596.010	1,168.293	177.848
12/13/2005 11:25:24.537	2,606.010	1,167.940	177.495
12/13/2005 11:35:24.537	2,616.010	1,166.773	176.328
12/13/2005 11:45:24.537	2,626.010	1,168.401	177.956
12/13/2005 11:55:24.537	2,636.010	1,167.921	177.476
12/13/2005 12:05:24.537	2,646.010	1,167.916	177.471
12/13/2005 12:15:24.537	2,656.010	1,168.215	177.770
12/13/2005 12:25:24.537	2,666.010	1,168.121	177.676
12/13/2005 12:35:24.537	2,676.010	1,167.489	177.044
12/13/2005 12:45:24.537	2,686.010	1,167.035	176.590
12/13/2005 12:55:24.537	2,696.010	1,168.469	178.024
12/13/2005 13:05:24.537	2,706.010	1,168.141	177.696
12/13/2005 13:15:24.537	2,716.010	1,167.609	177.164
12/13/2005 13:25:24.537	2,726.010	1,167.872	177.427
12/13/2005 13:35:24.537	2,736.010	1,168.572	178.127
12/13/2005 13:45:24.537	2,746.010	1,168.747	178.302
12/13/2005 13:55:24.537	2,756.010	1,168.352	177.907
12/13/2005 14:05:24.537	2,766.010	1,167.293	176.848
12/13/2005 14:15:24.537	2,776.010	1,168.470	178.025
12/13/2005 14:25:24.537	2,786.010	1,168.101	177.656
12/13/2005 14:35:24.537	2,796.010	1,167.723	177.278
12/13/2005 14:45:24.537	2,806.010	1,167.356	176.911
12/13/2005 14:55:24.537	2,816.010	1,168.278	177.833
12/13/2005 15:05:24.537	2,826.010	1,168.311	177.866
12/13/2005 15:15:24.537	2,836.010	1,168.242	177.797
12/13/2005 15:25:24.537	2,846.010	1,168.003	177.558
12/13/2005 15:35:24.537	2,856.010	1,168.179	177.734
12/13/2005 15:45:24.537	2,866.010	1,167.765	177.320
12/13/2005 15:55:24.537	2,876.010	1,169.146	178.701
12/13/2005 16:05:24.537	2,886.010	1,167.913	177.468

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/13/2005 16:15:24.537	2,896.010	1,167.734	177.289
12/13/2005 16:25:24.537	2,906.010	1,168.580	178.135
12/13/2005 16:35:24.537	2,916.010	1,168.572	178.127
12/13/2005 16:45:24.537	2,926.010	1,167.389	176.944
12/13/2005 16:55:24.537	2,936.010	1,168.336	177.891
12/13/2005 17:05:24.537	2,946.010	1,167.463	177.018
12/13/2005 17:15:24.537	2,956.010	1,168.547	178.102
12/13/2005 17:25:24.537	2,966.010	1,168.100	177.655
12/13/2005 17:35:24.537	2,976.010	1,168.951	178.506
12/13/2005 17:45:24.537	2,986.010	1,168.883	178.438
12/13/2005 17:55:24.537	2,996.010	1,168.146	177.701
12/13/2005 18:05:24.537	3,006.010	1,168.022	177.577
12/13/2005 18:15:24.537	3,016.010	1,168.811	178.366
12/13/2005 18:25:24.543	3,026.010	1,168.354	177.909
12/13/2005 18:35:24.537	3,036.010	1,168.561	178.116
12/13/2005 18:45:24.537	3,046.010	1,168.826	178.381
12/13/2005 18:55:24.537	3,056.010	1,167.831	177.386
12/13/2005 19:05:24.537	3,066.010	1,167.857	177.412
12/13/2005 19:15:24.537	3,076.010	1,168.679	178.234
12/13/2005 19:25:24.537	3,086.010	1,168.670	178.225
12/13/2005 19:35:24.537	3,096.010	1,168.429	177.984
12/13/2005 19:45:24.537	3,106.010	1,168.670	178.225
12/13/2005 19:55:24.537	3,116.010	1,168.711	178.266
12/13/2005 20:05:24.537	3,126.010	1,168.805	178.360
12/13/2005 20:15:24.537	3,136.010	1,169.302	178.857
12/13/2005 20:25:24.537	3,146.010	1,168.964	178.519
12/13/2005 20:35:24.537	3,156.010	1,168.621	178.176
12/13/2005 20:45:24.537	3,166.010	1,168.719	178.274
12/13/2005 20:55:24.537	3,176.010	1,167.772	177.327
12/13/2005 21:05:24.537	3,186.010	1,168.073	177.628
12/13/2005 21:15:24.537	3,196.010	1,168.604	178.159
12/13/2005 21:25:24.537	3,206.010	1,168.462	178.017
12/13/2005 21:35:24.537	3,216.010	1,169.055	178.610
12/13/2005 21:45:24.537	3,226.010	1,168.164	177.719
12/13/2005 21:55:24.537	3,236.010	1,168.003	177.558
12/13/2005 22:05:24.537	3,246.010	1,168.605	178.160
12/13/2005 22:15:24.537	3,256.010	1,168.948	178.503
12/13/2005 22:25:24.537	3,266.010	1,168.275	177.830
12/13/2005 22:35:24.537	3,276.010	1,168.509	178.064
12/13/2005 22:45:24.537	3,286.010	1,168.747	178.302
12/13/2005 22:55:24.537	3,296.010	1,168.698	178.253
12/13/2005 23:05:24.537	3,306.010	1,168.615	178.170
12/13/2005 23:15:24.537	3,316.010	1,168.682	178.237
12/13/2005 23:25:24.537	3,326.010	1,169.249	178.804
12/13/2005 23:35:24.537	3,336.010	1,168.893	178.448
12/13/2005 23:45:24.537	3,346.010	1,168.292	177.847
12/13/2005 23:55:24.537	3,356.010	1,168.607	178.162
12/14/2005 0:05:24.537	3,366.010	1,168.742	178.297
12/14/2005 0:15:24.537	3,376.010	1,169.198	178.753
12/14/2005 0:25:24.537	3,386.010	1,169.511	179.066

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 0:35:24.537	3,396.010	1,168.421	177.976
12/14/2005 0:45:24.537	3,406.010	1,168.053	177.608
12/14/2005 0:55:24.537	3,416.010	1,168.811	178.366
12/14/2005 1:05:24.537	3,426.010	1,168.640	178.195
12/14/2005 1:15:24.537	3,436.010	1,168.857	178.412
12/14/2005 1:25:24.537	3,446.010	1,169.008	178.563
12/14/2005 1:35:24.537	3,456.010	1,169.148	178.703
12/14/2005 1:45:24.537	3,466.010	1,168.737	178.292
12/14/2005 1:55:24.537	3,476.010	1,168.616	178.171
12/14/2005 2:05:24.537	3,486.010	1,169.423	178.978
12/14/2005 2:15:24.537	3,496.010	1,168.940	178.495
12/14/2005 2:25:24.537	3,506.010	1,168.621	178.176
12/14/2005 2:35:24.537	3,516.010	1,168.557	178.112
12/14/2005 2:45:24.537	3,526.010	1,168.841	178.396
12/14/2005 2:55:24.537	3,536.010	1,168.552	178.107
12/14/2005 3:05:24.537	3,546.010	1,168.607	178.162
12/14/2005 3:15:24.537	3,556.010	1,168.270	177.825
12/14/2005 3:25:24.537	3,566.010	1,168.895	178.450
12/14/2005 3:35:24.537	3,576.010	1,169.464	179.019
12/14/2005 3:45:24.537	3,586.010	1,168.461	178.016
12/14/2005 3:55:24.537	3,596.010	1,168.912	178.467
12/14/2005 4:05:24.537	3,606.010	1,168.940	178.495
12/14/2005 4:15:24.537	3,616.010	1,169.304	178.859
12/14/2005 4:25:24.537	3,626.010	1,170.594	180.149
12/14/2005 4:35:24.537	3,636.010	1,169.343	178.898
12/14/2005 4:45:24.537	3,646.010	1,169.711	179.266
12/14/2005 4:55:24.537	3,656.010	1,169.491	179.046
12/14/2005 5:05:24.537	3,666.010	1,170.177	179.732
12/14/2005 5:15:24.537	3,676.010	1,169.532	179.087
12/14/2005 5:25:24.537	3,686.010	1,169.318	178.873
12/14/2005 5:35:24.537	3,696.010	1,169.637	179.192
12/14/2005 5:45:24.537	3,706.010	1,169.265	178.820
12/14/2005 5:55:24.537	3,716.010	1,169.179	178.734
12/14/2005 6:05:24.537	3,726.010	1,169.793	179.348
12/14/2005 6:15:24.537	3,736.010	1,170.147	179.702
12/14/2005 6:25:24.537	3,746.010	1,170.081	179.636
12/14/2005 6:35:24.537	3,756.010	1,169.732	179.287
12/14/2005 6:45:24.537	3,766.010	1,169.395	178.950
12/14/2005 6:55:24.537	3,776.010	1,169.600	179.155
12/14/2005 7:05:24.537	3,786.010	1,169.479	179.034
12/14/2005 7:15:24.537	3,796.010	1,170.164	179.719
12/14/2005 7:25:24.537	3,806.010	1,169.399	178.954
12/14/2005 7:35:24.537	3,816.010	1,169.807	179.362
12/14/2005 7:45:24.537	3,826.010	1,169.919	179.474
12/14/2005 7:55:24.537	3,836.010	1,170.027	179.582
12/14/2005 8:05:24.537	3,846.010	1,170.276	179.831
12/14/2005 8:15:24.537	3,856.010	1,169.434	178.989
12/14/2005 8:25:24.537	3,866.010	1,169.433	178.988
12/14/2005 8:35:24.537	3,876.010	1,169.105	178.660
12/14/2005 8:45:24.537	3,886.010	1,170.127	179.682

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 8:55:24.537	3,896.010	1,169.236	178.791
12/14/2005 9:05:24.537	3,906.010	1,169.526	179.081
12/14/2005 9:15:24.537	3,916.010	1,170.125	179.680
12/14/2005 9:25:24.537	3,926.010	1,169.515	179.070
12/14/2005 9:35:24.537	3,936.010	1,169.851	179.406
12/14/2005 9:45:24.537	3,946.010	1,169.357	178.912
12/14/2005 9:55:24.537	3,956.010	1,169.326	178.881
12/14/2005 10:05:24.537	3,966.010	1,170.196	179.751
12/14/2005 10:15:24.537	3,976.010	1,169.473	179.028
12/14/2005 10:25:24.537	3,986.010	1,169.908	179.463
12/14/2005 10:35:24.537	3,996.010	1,170.046	179.601
12/14/2005 10:45:24.537	4,006.010	1,170.135	179.690
12/14/2005 10:55:24.537	4,016.010	1,169.892	179.447
12/14/2005 11:05:24.537	4,026.010	1,169.829	179.384
12/14/2005 11:15:24.537	4,036.010	1,170.138	179.693
12/14/2005 11:25:24.537	4,046.010	1,169.754	179.309
12/14/2005 11:35:24.537	4,056.010	1,169.590	179.145
12/14/2005 11:45:24.537	4,066.010	1,170.424	179.979
12/14/2005 11:55:24.537	4,076.010	1,170.044	179.599
12/14/2005 12:05:24.537	4,086.010	1,169.736	179.291
12/14/2005 12:15:24.537	4,096.010	1,169.657	179.212
12/14/2005 12:25:24.537	4,106.010	1,169.795	179.350
12/14/2005 12:35:24.537	4,116.010	1,169.433	178.988
12/14/2005 12:45:24.537	4,126.010	1,170.139	179.694
12/14/2005 12:55:24.537	4,136.010	1,170.148	179.703
12/14/2005 13:05:24.537	4,146.010	1,169.515	179.070
12/14/2005 13:15:24.537	4,156.010	1,170.067	179.622
12/14/2005 13:25:24.537	4,166.010	1,169.724	179.279
12/14/2005 13:35:24.537	4,176.010	1,169.325	178.880
12/14/2005 13:45:24.537	4,186.010	1,169.268	178.823
12/14/2005 13:55:24.537	4,196.010	1,169.997	179.552
12/14/2005 14:05:24.537	4,206.010	1,169.088	178.643
12/14/2005 14:15:24.537	4,216.010	1,169.760	179.315
12/14/2005 14:25:24.537	4,226.010	1,169.467	179.022
12/14/2005 14:35:24.537	4,236.010	1,169.691	179.246
12/14/2005 14:45:24.537	4,246.010	1,169.629	179.184
12/14/2005 14:55:24.537	4,256.010	1,170.103	179.658
12/14/2005 15:05:24.537	4,266.010	1,170.485	180.040
12/14/2005 15:15:24.537	4,276.010	1,170.216	179.771
12/14/2005 15:25:24.537	4,286.010	1,169.774	179.329
12/14/2005 15:35:24.537	4,296.010	1,169.834	179.389
12/14/2005 15:45:24.537	4,306.010	1,169.123	178.678
12/14/2005 15:55:24.537	4,316.010	1,169.641	179.196
12/14/2005 16:05:24.537	4,326.010	1,169.798	179.353
12/14/2005 16:15:24.537	4,336.010	1,169.732	179.287
12/14/2005 16:25:24.537	4,346.010	1,169.431	178.986
12/14/2005 16:35:24.537	4,356.010	1,169.653	179.208
12/14/2005 16:45:24.537	4,366.010	1,169.961	179.516
12/14/2005 16:55:24.537	4,376.010	1,169.373	178.928
12/14/2005 17:05:24.537	4,386.010	1,169.529	179.084

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 17:15:24.537	4,396.010	1,169.328	178.883
12/14/2005 17:25:24.537	4,406.010	1,169.823	179.378
12/14/2005 17:35:24.537	4,416.010	1,170.487	180.042
12/14/2005 17:45:24.537	4,426.010	1,169.546	179.101
12/14/2005 17:55:24.537	4,436.010	1,170.089	179.644
12/14/2005 18:05:24.537	4,446.010	1,169.298	178.853
12/14/2005 18:15:24.537	4,456.010	1,170.367	179.922
12/14/2005 18:25:24.537	4,466.010	1,170.188	179.743
12/14/2005 18:35:24.537	4,476.010	1,169.807	179.362
12/14/2005 18:45:24.537	4,486.010	1,169.706	179.261
12/14/2005 18:55:24.537	4,496.010	1,170.131	179.686
12/14/2005 19:05:24.537	4,506.010	1,170.059	179.614
12/14/2005 19:15:24.537	4,516.010	1,169.448	179.003
12/14/2005 19:25:24.537	4,526.010	1,169.801	179.356
12/14/2005 19:35:24.537	4,536.010	1,169.946	179.501
12/14/2005 19:45:24.537	4,546.010	1,169.582	179.137
12/14/2005 19:55:24.537	4,556.010	1,170.153	179.708
12/14/2005 20:05:24.537	4,566.010	1,170.245	179.800
12/14/2005 20:15:24.537	4,576.010	1,169.903	179.458
12/14/2005 20:25:24.537	4,586.010	1,170.196	179.751
12/14/2005 20:35:24.537	4,596.010	1,170.176	179.731
12/14/2005 20:45:24.537	4,606.010	1,169.832	179.387
12/14/2005 20:55:24.537	4,616.010	1,170.286	179.841
12/14/2005 21:05:24.537	4,626.010	1,169.955	179.510
12/14/2005 21:15:24.537	4,636.010	1,169.895	179.450
12/14/2005 21:25:24.537	4,646.010	1,170.446	180.001
12/14/2005 21:35:24.537	4,656.010	1,170.602	180.157
12/14/2005 21:45:24.537	4,666.010	1,170.600	180.155
12/14/2005 21:55:24.537	4,676.010	1,169.991	179.546
12/14/2005 22:05:24.537	4,686.010	1,170.438	179.993
12/14/2005 22:15:24.537	4,696.010	1,169.813	179.368
12/14/2005 22:25:24.537	4,706.010	1,170.156	179.711
12/14/2005 22:35:24.537	4,716.010	1,170.211	179.766
12/14/2005 22:45:24.537	4,726.010	1,170.083	179.638
12/14/2005 22:55:24.537	4,736.010	1,170.846	180.401
12/14/2005 23:05:24.537	4,746.010	1,169.234	178.789
12/14/2005 23:15:24.537	4,756.010	1,171.181	180.736
12/14/2005 23:25:24.537	4,766.010	1,170.262	179.817
12/14/2005 23:35:24.537	4,776.010	1,170.004	179.559
12/14/2005 23:45:24.537	4,786.010	1,170.298	179.853
12/14/2005 23:55:24.537	4,796.010	1,170.341	179.896
12/15/2005 0:05:24.537	4,806.010	1,169.729	179.284
12/15/2005 0:15:24.537	4,816.010	1,170.153	179.708
12/15/2005 0:25:24.537	4,826.010	1,169.604	179.159
12/15/2005 0:35:24.537	4,836.010	1,169.982	179.537
12/15/2005 0:45:24.537	4,846.010	1,169.933	179.488
12/15/2005 0:55:24.537	4,856.010	1,170.254	179.809
12/15/2005 1:05:24.537	4,866.010	1,170.433	179.988
12/15/2005 1:15:24.537	4,876.010	1,170.136	179.691
12/15/2005 1:25:24.537	4,886.010	1,169.858	179.413

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 1:35:24.537	4,896.010	1,170.215	179.770
12/15/2005 1:45:24.537	4,906.010	1,170.012	179.567
12/15/2005 1:55:24.537	4,916.010	1,170.063	179.618
12/15/2005 2:05:24.537	4,926.010	1,170.326	179.881
12/15/2005 2:15:24.537	4,936.010	1,170.628	180.183
12/15/2005 2:25:24.537	4,946.010	1,170.925	180.480
12/15/2005 2:35:24.537	4,956.010	1,170.624	180.179
12/15/2005 2:45:24.537	4,966.010	1,170.491	180.046
12/15/2005 2:55:24.537	4,976.010	1,169.360	178.915
12/15/2005 3:05:24.537	4,986.010	1,169.939	179.494
12/15/2005 3:15:24.537	4,996.010	1,169.793	179.348
12/15/2005 3:25:24.537	5,006.010	1,170.932	180.487
12/15/2005 3:35:24.537	5,016.010	1,169.906	179.461
12/15/2005 3:45:24.537	5,026.010	1,170.089	179.644
12/15/2005 3:55:24.537	5,036.010	1,170.103	179.658
12/15/2005 4:05:24.537	5,046.010	1,169.952	179.507
12/15/2005 4:15:24.537	5,056.010	1,170.578	180.133
12/15/2005 4:25:24.537	5,066.010	1,169.853	179.408
12/15/2005 4:35:24.537	5,076.010	1,170.670	180.225
12/15/2005 4:45:24.537	5,086.010	1,170.249	179.804
12/15/2005 4:55:24.537	5,096.010	1,169.710	179.265
12/15/2005 5:05:24.537	5,106.010	1,170.598	180.153
12/15/2005 5:15:24.537	5,116.010	1,169.681	179.236
12/15/2005 5:25:24.537	5,126.010	1,170.278	179.833
12/15/2005 5:35:24.537	5,136.010	1,169.573	179.128
12/15/2005 5:45:24.537	5,146.010	1,170.199	179.754
12/15/2005 5:55:24.537	5,156.010	1,169.494	179.049
12/15/2005 6:05:24.537	5,166.010	1,169.933	179.488
12/15/2005 6:15:24.537	5,176.010	1,170.013	179.568
12/15/2005 6:25:24.537	5,186.010	1,170.068	179.623
12/15/2005 6:35:24.537	5,196.010	1,169.438	178.993
12/15/2005 6:45:24.537	5,206.010	1,169.515	179.070
12/15/2005 6:55:24.537	5,216.010	1,169.892	179.447
12/15/2005 7:05:24.537	5,226.010	1,170.481	180.036
12/15/2005 7:15:24.537	5,236.010	1,169.621	179.176
12/15/2005 7:25:24.537	5,246.010	1,170.012	179.567
12/15/2005 7:35:24.537	5,256.010	1,170.065	179.620
12/15/2005 7:45:24.537	5,266.010	1,168.983	178.538
12/15/2005 7:55:24.537	5,276.010	1,170.147	179.702
12/15/2005 8:05:24.537	5,286.010	1,169.628	179.183
12/15/2005 8:15:24.537	5,296.010	1,169.746	179.301
12/15/2005 8:25:24.537	5,306.010	1,170.147	179.702
12/15/2005 8:35:24.537	5,316.010	1,169.869	179.424
12/15/2005 8:45:24.537	5,326.010	1,169.430	178.985
12/15/2005 8:55:24.537	5,336.010	1,170.470	180.025
12/15/2005 9:05:24.537	5,346.010	1,169.832	179.387
12/15/2005 9:15:24.537	5,356.010	1,170.358	179.913
12/15/2005 9:25:24.537	5,366.010	1,169.804	179.359
12/15/2005 9:35:24.537	5,376.010	1,170.172	179.727
12/15/2005 9:45:24.537	5,386.010	1,170.723	180.278

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 9:55:24.537	5,396.010	1,170.193	179.748
12/15/2005 10:05:24.537	5,406.010	1,169.894	179.449
12/15/2005 10:15:24.537	5,416.010	1,168.834	178.389
12/15/2005 10:25:24.537	5,426.010	1,168.784	178.339
12/15/2005 10:35:24.537	5,436.010	1,169.883	179.438
12/15/2005 10:45:24.537	5,446.010	1,169.752	179.307
12/15/2005 10:55:24.537	5,456.010	1,169.729	179.284
12/15/2005 11:05:24.537	5,466.010	1,169.872	179.427
12/15/2005 11:15:24.537	5,476.010	1,169.274	178.829
12/15/2005 11:25:24.537	5,486.010	1,169.234	178.789
12/15/2005 11:35:24.537	5,496.010	1,169.625	179.180
12/15/2005 11:45:24.537	5,506.010	1,169.332	178.887
12/15/2005 11:55:24.537	5,516.010	1,169.573	179.128
12/15/2005 12:05:24.537	5,526.010	1,169.958	179.513
12/15/2005 12:15:24.537	5,536.010	1,168.991	178.546
12/15/2005 12:25:24.537	5,546.010	1,168.994	178.549
12/15/2005 12:35:24.537	5,556.010	1,168.387	177.942
12/15/2005 12:45:24.537	5,566.010	1,168.190	177.745
12/15/2005 12:55:24.537	5,576.010	1,169.790	179.345
12/15/2005 13:05:24.537	5,586.010	1,169.219	178.774
12/15/2005 13:15:24.537	5,596.010	1,168.827	178.382
12/15/2005 13:25:24.537	5,606.010	1,168.852	178.407
12/15/2005 13:35:24.537	5,616.010	1,168.596	178.151
12/15/2005 13:45:24.537	5,626.010	1,169.162	178.717
12/15/2005 13:55:24.537	5,636.010	1,169.427	178.982
12/15/2005 14:05:24.537	5,646.010	1,169.346	178.901
12/15/2005 14:15:24.537	5,656.010	1,168.531	178.086
12/15/2005 14:25:24.537	5,666.010	1,169.774	179.329
12/15/2005 14:35:24.537	5,676.010	1,169.003	178.558
12/15/2005 14:45:24.537	5,686.010	1,169.057	178.612
12/15/2005 14:55:24.537	5,696.010	1,168.590	178.145
12/15/2005 15:05:24.537	5,706.010	1,169.241	178.796
12/15/2005 15:15:24.537	5,716.010	1,168.733	178.288
12/15/2005 15:25:24.537	5,726.010	1,169.450	179.005
12/15/2005 15:35:24.537	5,736.010	1,169.120	178.675
12/15/2005 15:45:24.537	5,746.010	1,169.544	179.099
12/15/2005 15:55:24.537	5,756.010	1,168.858	178.413
12/15/2005 16:05:24.537	5,766.010	1,169.772	179.327
12/15/2005 16:15:24.537	5,776.010	1,168.668	178.223
12/15/2005 16:25:24.537	5,786.010	1,168.974	178.529
12/15/2005 16:35:24.537	5,796.010	1,169.490	179.045
12/15/2005 16:45:24.537	5,806.010	1,169.210	178.765
12/15/2005 16:55:24.537	5,816.010	1,169.644	179.199
12/15/2005 17:05:24.537	5,826.010	1,169.356	178.911
12/15/2005 17:15:24.537	5,836.010	1,169.939	179.494
12/15/2005 17:25:24.537	5,846.010	1,169.359	178.914
12/15/2005 17:35:24.537	5,856.010	1,169.487	179.042
12/15/2005 17:45:24.537	5,866.010	1,168.886	178.441
12/15/2005 17:55:24.537	5,876.010	1,169.294	178.849
12/15/2005 18:05:24.537	5,886.010	1,169.080	178.635

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 18:15:24.537	5,896.010	1,168.833	178.388
12/15/2005 18:25:24.537	5,906.010	1,168.945	178.500
12/15/2005 18:35:24.537	5,916.010	1,169.475	179.030
12/15/2005 18:45:24.537	5,926.010	1,168.793	178.348
12/15/2005 18:55:24.537	5,936.010	1,169.824	179.379
12/15/2005 19:05:24.537	5,946.010	1,169.288	178.843
12/15/2005 19:15:24.537	5,956.010	1,169.729	179.284
12/15/2005 19:25:24.537	5,966.010	1,169.068	178.623
12/15/2005 19:35:24.537	5,976.010	991.030	0.585
12/15/2005 19:45:24.537	5,986.010	992.718	2.273
12/15/2005 19:55:24.537	5,996.010	991.908	1.463
12/15/2005 20:05:24.537	6,006.010	991.736	1.291
12/15/2005 20:15:24.537	6,016.010	991.631	1.186
12/15/2005 20:25:24.537	6,026.010	991.472	1.027
12/15/2005 20:35:24.537	6,036.010	991.398	0.953
12/15/2005 20:45:24.537	6,046.010	991.270	0.825
12/15/2005 20:55:24.537	6,056.010	991.207	0.762
12/15/2005 21:05:24.537	6,066.010	991.340	0.895
12/15/2005 21:15:24.537	6,076.010	991.086	0.641
12/15/2005 21:25:24.537	6,086.010	991.165	0.720
12/15/2005 21:35:24.537	6,096.010	991.026	0.581
12/15/2005 21:45:24.537	6,106.010	991.153	0.708
12/15/2005 21:55:24.537	6,116.010	990.933	0.488
12/15/2005 22:05:24.537	6,126.010	991.111	0.666
12/15/2005 22:15:24.537	6,136.010	990.968	0.523
12/15/2005 22:25:24.537	6,146.010	990.922	0.477
12/15/2005 22:35:24.537	6,156.010	990.940	0.495
12/15/2005 22:45:24.537	6,166.010	990.941	0.496
12/15/2005 22:55:24.537	6,176.010	990.933	0.488
12/15/2005 23:05:24.537	6,186.010	990.899	0.454
12/15/2005 23:15:24.537	6,196.010	990.906	0.461
12/15/2005 23:25:24.537	6,206.010	990.845	0.400
12/15/2005 23:35:24.537	6,216.010	990.829	0.384
12/15/2005 23:45:24.537	6,226.010	990.820	0.375
12/15/2005 23:55:24.537	6,236.010	990.789	0.344
12/16/2005 0:05:24.537	6,246.010	990.757	0.312
12/16/2005 0:15:24.537	6,256.010	990.683	0.238
12/16/2005 0:25:24.537	6,266.010	990.719	0.274
12/16/2005 0:35:24.537	6,276.010	990.669	0.224
12/16/2005 0:45:24.537	6,286.010	990.760	0.315
12/16/2005 0:55:24.537	6,296.010	990.715	0.270
12/16/2005 1:05:24.537	6,306.010	990.759	0.314
12/16/2005 1:15:24.537	6,316.010	990.626	0.181
12/16/2005 1:25:24.537	6,326.010	990.645	0.200
12/16/2005 1:35:24.537	6,336.010	990.683	0.238
12/16/2005 1:45:24.537	6,346.010	990.616	0.171
12/16/2005 1:55:24.537	6,356.010	990.592	0.147
12/16/2005 2:05:24.537	6,366.010	990.552	0.107
12/16/2005 2:15:24.537	6,376.010	990.529	0.084
12/16/2005 2:25:24.537	6,386.010	990.494	0.049

KPW-1 December 2005 Constant-Rate Test (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/16/2005 2:35:24.537	6,396.010	990.665	0.220
12/16/2005 2:45:24.537	6,406.010	990.627	0.182
12/16/2005 2:55:24.537	6,416.010	990.553	0.108
12/16/2005 3:05:24.537	6,426.010	990.533	0.088
12/16/2005 3:15:24.537	6,436.010	990.642	0.197
12/16/2005 3:25:24.537	6,446.010	990.506	0.061
12/16/2005 3:35:24.537	6,456.010	990.524	0.079
12/16/2005 3:45:24.537	6,466.010	990.479	0.034
12/16/2005 3:55:24.537	6,476.010	990.405	-0.040
12/16/2005 4:05:24.537	6,486.010	990.395	-0.050
12/16/2005 4:15:24.537	6,496.010	990.378	-0.067
12/16/2005 4:25:24.537	6,506.010	990.413	-0.032
12/16/2005 4:35:24.537	6,516.010	990.488	0.043
12/16/2005 4:45:24.537	6,526.010	990.420	-0.025
12/16/2005 4:55:24.537	6,536.010	990.422	-0.023
12/16/2005 5:05:24.537	6,546.010	990.392	-0.053
12/16/2005 5:15:24.537	6,556.010	990.364	-0.081
12/16/2005 5:25:24.537	6,566.010	990.378	-0.067
12/16/2005 5:35:24.537	6,576.010	990.382	-0.063
12/16/2005 5:45:24.537	6,586.010	990.347	-0.098
12/16/2005 5:55:24.537	6,596.010	990.297	-0.148
12/16/2005 6:05:24.537	6,606.010	990.289	-0.156
12/16/2005 6:15:24.537	6,616.010	990.443	-0.002
12/16/2005 6:25:24.537	6,626.010	990.402	-0.043
12/16/2005 6:35:24.537	6,636.010	990.367	-0.078
12/16/2005 6:45:24.537	6,646.010	990.337	-0.108
12/16/2005 6:55:24.537	6,656.010	990.321	-0.124
12/16/2005 7:05:24.537	6,666.010	990.354	-0.091
12/16/2005 7:15:24.537	6,676.010	990.319	-0.126
12/16/2005 7:25:24.537	6,686.010	990.313	-0.132
12/16/2005 7:35:24.537	6,696.010	990.310	-0.135
12/16/2005 7:45:24.537	6,706.010	990.353	-0.092
12/16/2005 7:55:24.537	6,716.010	990.310	-0.135
12/16/2005 8:05:24.537	6,726.010	990.310	-0.135
12/16/2005 8:15:24.537	6,736.010	990.298	-0.147
12/16/2005 8:25:24.537	6,746.010	990.260	-0.185

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/11/2005 15:59:24.136	0.003	992.073	0.000
12/11/2005 15:59:39.736	0.263	992.079	0.006
12/11/2005 15:59:56.536	0.543	992.110	0.037
12/11/2005 16:00:14.536	0.843	992.570	0.497
12/11/2005 16:00:33.136	1.153	993.561	1.488
12/11/2005 16:00:53.536	1.493	995.085	3.012
12/11/2005 16:01:14.536	1.843	996.803	4.730
12/11/2005 16:01:36.736	2.213	998.508	6.435
12/11/2005 16:02:00.736	2.613	1,000.091	8.018
12/11/2005 16:02:25.936	3.033	1,001.508	9.435
12/11/2005 16:02:52.336	3.473	1,002.676	10.603
12/11/2005 16:03:20.536	3.943	1,003.730	11.657
12/11/2005 16:03:50.536	4.443	1,004.679	12.606
12/11/2005 16:04:22.336	4.973	1,005.541	13.468
12/11/2005 16:04:55.936	5.533	1,006.316	14.243
12/11/2005 16:05:31.936	6.133	1,007.077	15.004
12/11/2005 16:06:07.936	6.733	1,007.709	15.636
12/11/2005 16:06:49.936	7.433	1,008.323	16.250
12/11/2005 16:07:31.936	8.133	1,008.888	16.815
12/11/2005 16:08:13.936	8.833	1,009.403	17.330
12/11/2005 16:09:01.936	9.633	1,009.884	17.811
12/11/2005 16:09:55.936	10.533	1,010.362	18.289
12/11/2005 16:10:43.936	11.333	1,010.783	18.710
12/11/2005 16:11:43.936	12.333	1,011.186	19.113
12/11/2005 16:12:43.936	13.333	1,011.561	19.488
12/11/2005 16:13:43.936	14.333	1,011.898	19.825
12/11/2005 16:14:49.936	15.433	1,012.233	20.160
12/11/2005 16:16:01.936	16.633	1,012.519	20.446
12/11/2005 16:17:19.936	17.933	1,012.802	20.729
12/11/2005 16:18:37.936	19.233	1,013.067	20.994
12/11/2005 16:20:01.936	20.633	1,013.344	21.271
12/11/2005 16:21:31.936	22.133	1,013.559	21.486
12/11/2005 16:23:07.936	23.733	1,013.775	21.702
12/11/2005 16:24:43.936	25.333	1,014.015	21.942
12/11/2005 16:26:31.936	27.133	1,014.225	22.152
12/11/2005 16:28:25.936	29.033	1,014.363	22.290
12/11/2005 16:30:25.936	31.033	1,014.531	22.458
12/11/2005 16:32:31.936	33.133	1,014.732	22.659
12/11/2005 16:34:43.936	35.333	1,014.852	22.779
12/11/2005 16:37:07.936	37.733	1,015.010	22.937
12/11/2005 16:39:37.936	40.233	1,015.129	23.056
12/11/2005 16:42:13.936	42.833	1,015.257	23.184
12/11/2005 16:45:01.936	45.633	1,015.382	23.309
12/11/2005 16:48:01.936	48.633	1,015.503	23.430
12/11/2005 16:51:07.936	51.733	1,015.577	23.504
12/11/2005 16:54:31.936	55.133	1,015.697	23.624
12/11/2005 16:58:01.936	58.633	1,015.798	23.725
12/11/2005 17:01:43.936	62.333	1,015.868	23.795
12/11/2005 17:05:43.936	66.333	1,015.971	23.898
12/11/2005 17:09:55.936	70.533	1,016.049	23.976

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/11/2005 17:14:19.936	74.933	1,016.118	24.045
12/11/2005 17:19:01.936	79.633	1,016.192	24.119
12/11/2005 17:24:01.936	84.633	1,016.260	24.187
12/11/2005 17:29:19.936	89.933	1,016.332	24.259
12/11/2005 17:34:55.936	95.533	1,016.386	24.313
12/11/2005 17:40:55.936	101.533	1,016.452	24.379
12/11/2005 17:46:55.936	107.533	1,016.555	24.482
12/11/2005 17:53:55.936	114.533	1,016.630	24.557
12/11/2005 18:00:55.936	121.533	1,016.701	24.628
12/11/2005 18:07:55.936	128.533	1,016.755	24.682
12/11/2005 18:15:55.936	136.533	1,016.819	24.746
12/11/2005 18:24:55.936	145.533	1,016.873	24.800
12/11/2005 18:32:55.936	153.533	1,016.894	24.821
12/11/2005 18:42:55.936	163.533	1,016.949	24.876
12/11/2005 18:52:55.936	173.533	1,017.042	24.969
12/11/2005 19:02:55.936	183.533	1,017.107	25.034
12/11/2005 19:12:55.936	193.533	1,017.103	25.030
12/11/2005 19:22:55.936	203.533	1,017.191	25.118
12/11/2005 19:32:55.936	213.533	1,017.197	25.124
12/11/2005 19:42:55.936	223.533	1,017.227	25.154
12/11/2005 19:52:55.936	233.533	1,017.264	25.191
12/11/2005 20:02:55.936	243.533	1,017.327	25.254
12/11/2005 20:12:55.936	253.533	1,017.329	25.256
12/11/2005 20:22:55.948	263.534	1,017.403	25.330
12/11/2005 20:32:55.936	273.533	1,017.422	25.349
12/11/2005 20:42:55.936	283.533	1,017.488	25.415
12/11/2005 20:52:55.936	293.533	1,017.566	25.493
12/11/2005 21:02:55.936	303.533	1,017.558	25.485
12/11/2005 21:12:55.936	313.533	1,017.622	25.549
12/11/2005 21:22:55.936	323.533	1,017.652	25.579
12/11/2005 21:32:55.936	333.533	1,017.674	25.601
12/11/2005 21:42:55.936	343.533	1,017.700	25.627
12/11/2005 21:52:55.936	353.533	1,017.721	25.648
12/11/2005 22:02:55.936	363.533	1,017.701	25.628
12/11/2005 22:12:55.936	373.533	1,017.774	25.701
12/11/2005 22:22:55.936	383.533	1,017.749	25.676
12/11/2005 22:32:55.936	393.533	1,017.823	25.750
12/11/2005 22:42:55.936	403.533	1,017.780	25.707
12/11/2005 22:52:55.936	413.533	1,017.806	25.733
12/11/2005 23:02:55.936	423.533	1,017.827	25.754
12/11/2005 23:12:55.936	433.533	1,017.891	25.818
12/11/2005 23:22:55.936	443.533	1,017.868	25.795
12/11/2005 23:32:55.936	453.533	1,017.879	25.806
12/11/2005 23:42:55.936	463.533	1,017.885	25.812
12/11/2005 23:52:55.936	473.533	1,017.939	25.866
12/12/2005 0:02:55.936	483.533	1,017.925	25.852
12/12/2005 0:12:55.936	493.533	1,017.933	25.860
12/12/2005 0:22:55.936	503.533	1,017.942	25.869
12/12/2005 0:32:55.936	513.533	1,017.969	25.896
12/12/2005 0:42:55.936	523.533	1,017.939	25.866

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 0:52:55.936	533.533	1,017.991	25.918
12/12/2005 1:02:55.936	543.533	1,017.980	25.907
12/12/2005 1:12:55.936	553.533	1,018.028	25.955
12/12/2005 1:22:55.936	563.533	1,018.025	25.952
12/12/2005 1:32:55.936	573.533	1,018.060	25.987
12/12/2005 1:42:55.936	583.533	1,018.062	25.989
12/12/2005 1:52:55.936	593.533	1,018.026	25.953
12/12/2005 2:02:55.936	603.533	1,018.055	25.982
12/12/2005 2:12:55.936	613.533	1,018.068	25.995
12/12/2005 2:22:55.936	623.533	1,018.092	26.019
12/12/2005 2:32:55.936	633.533	1,018.098	26.025
12/12/2005 2:42:55.936	643.533	1,018.119	26.046
12/12/2005 2:52:55.936	653.533	1,018.127	26.054
12/12/2005 3:02:55.936	663.533	1,018.120	26.047
12/12/2005 3:12:55.936	673.533	1,018.153	26.080
12/12/2005 3:22:55.936	683.533	1,018.162	26.089
12/12/2005 3:32:55.936	693.533	1,018.181	26.108
12/12/2005 3:42:55.936	703.533	1,018.197	26.124
12/12/2005 3:52:55.936	713.533	1,018.198	26.125
12/12/2005 4:02:55.936	723.533	1,018.221	26.148
12/12/2005 4:12:55.936	733.533	1,018.219	26.146
12/12/2005 4:22:55.936	743.533	1,018.232	26.159
12/12/2005 4:32:55.936	753.533	1,018.258	26.185
12/12/2005 4:42:55.936	763.533	1,018.265	26.192
12/12/2005 4:52:55.936	773.533	1,018.283	26.210
12/12/2005 5:02:55.936	783.533	1,018.195	26.122
12/12/2005 5:12:55.936	793.533	1,018.305	26.232
12/12/2005 5:22:55.936	803.533	1,018.327	26.254
12/12/2005 5:32:55.936	813.533	1,018.322	26.249
12/12/2005 5:42:55.936	823.533	1,018.338	26.265
12/12/2005 5:52:55.936	833.533	1,018.341	26.268
12/12/2005 6:02:55.936	843.533	1,018.367	26.294
12/12/2005 6:12:55.936	853.533	1,018.373	26.300
12/12/2005 6:22:55.936	863.533	1,018.378	26.305
12/12/2005 6:32:55.936	873.533	1,018.392	26.319
12/12/2005 6:42:55.936	883.533	1,018.398	26.325
12/12/2005 6:52:55.936	893.533	1,018.410	26.337
12/12/2005 7:02:55.936	903.533	1,018.405	26.332
12/12/2005 7:12:55.936	913.533	1,018.387	26.314
12/12/2005 7:22:55.936	923.533	1,018.437	26.364
12/12/2005 7:32:55.936	933.533	1,018.438	26.365
12/12/2005 7:42:55.936	943.533	1,018.443	26.370
12/12/2005 7:52:55.936	953.533	1,018.457	26.384
12/12/2005 8:02:55.936	963.533	1,018.470	26.397
12/12/2005 8:12:55.936	973.533	1,018.431	26.358
12/12/2005 8:22:55.936	983.533	1,018.484	26.411
12/12/2005 8:32:55.936	993.533	1,018.503	26.430
12/12/2005 8:42:55.936	1,003.533	1,018.460	26.387
12/12/2005 8:52:55.936	1,013.533	1,018.505	26.432
12/12/2005 9:02:55.936	1,023.533	1,018.509	26.436

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 9:12:55.936	1,033.533	1,018.518	26.445
12/12/2005 9:22:55.936	1,043.533	1,018.516	26.443
12/12/2005 9:32:55.936	1,053.533	1,018.532	26.459
12/12/2005 9:42:55.936	1,063.533	1,018.492	26.419
12/12/2005 9:52:55.936	1,073.533	1,018.532	26.459
12/12/2005 10:02:55.936	1,083.533	1,018.497	26.424
12/12/2005 10:12:55.936	1,093.533	1,018.518	26.445
12/12/2005 10:22:55.936	1,103.533	1,018.545	26.472
12/12/2005 10:32:55.936	1,113.533	1,018.552	26.479
12/12/2005 10:42:55.936	1,123.533	1,018.534	26.461
12/12/2005 10:52:55.936	1,133.533	1,018.539	26.466
12/12/2005 11:02:55.936	1,143.533	1,018.508	26.435
12/12/2005 11:12:55.936	1,153.533	1,018.492	26.419
12/12/2005 11:22:55.936	1,163.533	1,018.535	26.462
12/12/2005 11:32:55.936	1,173.533	1,018.533	26.460
12/12/2005 11:42:55.936	1,183.533	1,018.531	26.458
12/12/2005 11:52:55.936	1,193.533	1,018.530	26.457
12/12/2005 12:02:55.936	1,203.533	1,018.519	26.446
12/12/2005 12:12:55.936	1,213.533	1,018.527	26.454
12/12/2005 12:22:55.936	1,223.533	1,018.530	26.457
12/12/2005 12:32:55.936	1,233.533	1,018.526	26.453
12/12/2005 12:42:55.936	1,243.533	1,018.481	26.408
12/12/2005 12:52:55.936	1,253.533	1,018.524	26.451
12/12/2005 13:02:55.936	1,263.533	1,018.521	26.448
12/12/2005 13:12:55.936	1,273.533	1,018.526	26.453
12/12/2005 13:22:55.936	1,283.533	1,018.533	26.460
12/12/2005 13:32:55.936	1,293.533	1,018.534	26.461
12/12/2005 13:42:55.936	1,303.533	1,018.539	26.466
12/12/2005 13:52:55.936	1,313.533	1,018.547	26.474
12/12/2005 14:02:55.936	1,323.533	1,018.536	26.463
12/12/2005 14:12:55.936	1,333.533	1,018.555	26.482
12/12/2005 14:22:55.936	1,343.533	1,018.550	26.477
12/12/2005 14:32:55.936	1,353.533	1,018.558	26.485
12/12/2005 14:42:55.936	1,363.533	1,018.522	26.449
12/12/2005 14:52:55.936	1,373.533	1,018.561	26.488
12/12/2005 15:02:55.936	1,383.533	1,018.575	26.502
12/12/2005 15:12:55.936	1,393.533	1,018.531	26.458
12/12/2005 15:22:55.936	1,403.533	1,018.568	26.495
12/12/2005 15:32:55.936	1,413.533	1,018.578	26.505
12/12/2005 15:42:55.936	1,423.533	1,018.552	26.479
12/12/2005 15:52:55.936	1,433.533	1,018.589	26.516
12/12/2005 16:02:55.936	1,443.533	1,018.601	26.528
12/12/2005 16:12:55.936	1,453.533	1,018.570	26.497
12/12/2005 16:22:55.936	1,463.533	1,018.621	26.548
12/12/2005 16:32:55.936	1,473.533	1,018.645	26.572
12/12/2005 16:42:55.936	1,483.533	1,018.605	26.532
12/12/2005 16:52:55.936	1,493.533	1,018.620	26.547
12/12/2005 17:02:55.936	1,503.533	1,018.673	26.600
12/12/2005 17:12:55.936	1,513.533	1,018.633	26.560
12/12/2005 17:22:55.936	1,523.533	1,018.627	26.554

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/12/2005 17:32:55.936	1,533.533	1,018.685	26.612
12/12/2005 17:42:55.936	1,543.533	1,018.642	26.569
12/12/2005 17:52:55.936	1,553.533	1,018.694	26.621
12/12/2005 18:02:55.936	1,563.533	1,018.695	26.622
12/12/2005 18:12:55.936	1,573.533	1,018.674	26.601
12/12/2005 18:22:55.936	1,583.533	1,018.698	26.625
12/12/2005 18:32:55.936	1,593.533	1,018.720	26.647
12/12/2005 18:42:55.936	1,603.533	1,018.722	26.649
12/12/2005 18:52:55.936	1,613.533	1,018.684	26.611
12/12/2005 19:02:55.936	1,623.533	1,018.730	26.657
12/12/2005 19:12:55.936	1,633.533	1,018.735	26.662
12/12/2005 19:22:55.936	1,643.533	1,018.747	26.674
12/12/2005 19:32:55.936	1,653.533	1,018.773	26.700
12/12/2005 19:42:55.936	1,663.533	1,018.764	26.691
12/12/2005 19:52:55.936	1,673.533	1,018.756	26.683
12/12/2005 20:02:55.936	1,683.533	1,018.764	26.691
12/12/2005 20:12:55.936	1,693.533	1,018.775	26.702
12/12/2005 20:22:55.936	1,703.533	1,018.785	26.712
12/12/2005 20:32:55.936	1,713.533	1,018.755	26.682
12/12/2005 20:42:55.936	1,723.533	1,018.796	26.723
12/12/2005 20:52:55.936	1,733.533	1,018.806	26.733
12/12/2005 21:02:55.936	1,743.533	1,018.773	26.700
12/12/2005 21:12:55.936	1,753.533	1,018.823	26.750
12/12/2005 21:22:55.936	1,763.533	1,018.832	26.759
12/12/2005 21:32:55.936	1,773.533	1,018.821	26.748
12/12/2005 21:42:55.936	1,783.533	1,018.823	26.750
12/12/2005 21:52:55.936	1,793.533	1,018.826	26.753
12/12/2005 22:02:55.936	1,803.533	1,018.826	26.753
12/12/2005 22:12:55.936	1,813.533	1,018.820	26.747
12/12/2005 22:22:55.936	1,823.533	1,018.840	26.767
12/12/2005 22:32:55.936	1,833.533	1,018.832	26.759
12/12/2005 22:42:55.936	1,843.533	1,018.805	26.732
12/12/2005 22:52:55.936	1,853.533	1,018.804	26.731
12/12/2005 23:02:55.936	1,863.533	1,018.857	26.784
12/12/2005 23:12:55.936	1,873.533	1,018.852	26.779
12/12/2005 23:22:55.936	1,883.533	1,018.855	26.782
12/12/2005 23:32:55.936	1,893.533	1,018.862	26.789
12/12/2005 23:42:55.936	1,903.533	1,018.902	26.829
12/12/2005 23:52:55.936	1,913.533	1,018.934	26.861
12/13/2005 0:02:55.936	1,923.533	1,018.936	26.863
12/13/2005 0:12:55.936	1,933.533	1,018.944	26.871
12/13/2005 0:22:55.936	1,943.533	1,018.950	26.877
12/13/2005 0:32:55.936	1,953.533	1,018.961	26.888
12/13/2005 0:42:55.936	1,963.533	1,018.920	26.847
12/13/2005 0:52:55.936	1,973.533	1,018.965	26.892
12/13/2005 1:02:55.936	1,983.533	1,018.959	26.886
12/13/2005 1:12:55.936	1,993.533	1,018.961	26.888
12/13/2005 1:22:55.936	2,003.533	1,018.957	26.884
12/13/2005 1:32:55.936	2,013.533	1,018.967	26.894
12/13/2005 1:42:55.936	2,023.533	1,018.964	26.891

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/13/2005 1:52:55.936	2,033.533	1,018.942	26.869
12/13/2005 2:02:55.936	2,043.533	1,018.977	26.904
12/13/2005 2:12:55.936	2,053.533	1,018.942	26.869
12/13/2005 2:22:55.936	2,063.533	1,018.993	26.920
12/13/2005 2:32:55.936	2,073.533	1,018.993	26.920
12/13/2005 2:42:55.936	2,083.533	1,018.992	26.919
12/13/2005 2:52:55.936	2,093.533	1,018.989	26.916
12/13/2005 3:02:55.936	2,103.533	1,018.997	26.924
12/13/2005 3:12:55.936	2,113.533	1,018.998	26.925
12/13/2005 3:22:55.936	2,123.533	1,018.995	26.922
12/13/2005 3:32:55.936	2,133.533	1,018.959	26.886
12/13/2005 3:42:55.936	2,143.533	1,019.000	26.927
12/13/2005 3:52:55.936	2,153.533	1,019.000	26.927
12/13/2005 4:02:55.936	2,163.533	1,019.008	26.935
12/13/2005 4:12:55.936	2,173.533	1,019.008	26.935
12/13/2005 4:22:55.936	2,183.533	1,019.019	26.946
12/13/2005 4:32:55.936	2,193.533	1,019.023	26.950
12/13/2005 4:42:55.936	2,203.533	1,019.035	26.962
12/13/2005 4:52:55.936	2,213.533	1,019.031	26.958
12/13/2005 5:02:55.936	2,223.533	1,019.033	26.960
12/13/2005 5:12:55.936	2,233.533	1,019.037	26.964
12/13/2005 5:22:55.936	2,243.533	1,019.047	26.974
12/13/2005 5:32:55.936	2,253.533	1,019.055	26.982
12/13/2005 5:42:55.936	2,263.533	1,019.054	26.981
12/13/2005 5:52:55.936	2,273.533	1,019.062	26.989
12/13/2005 6:02:55.936	2,283.533	1,019.071	26.998
12/13/2005 6:12:55.936	2,293.533	1,019.071	26.998
12/13/2005 6:22:55.936	2,303.533	1,019.078	27.005
12/13/2005 6:32:55.936	2,313.533	1,019.089	27.016
12/13/2005 6:42:55.936	2,323.533	1,019.083	27.010
12/13/2005 6:52:55.936	2,333.533	1,019.079	27.006
12/13/2005 7:02:55.936	2,343.533	1,019.063	26.990
12/13/2005 7:12:55.936	2,353.533	1,019.112	27.039
12/13/2005 7:22:55.936	2,363.533	1,019.114	27.041
12/13/2005 7:32:55.936	2,373.533	1,019.116	27.043
12/13/2005 7:42:55.936	2,383.533	1,019.130	27.057
12/13/2005 7:52:55.936	2,393.533	1,019.100	27.027
12/13/2005 8:02:55.936	2,403.533	1,019.145	27.072
12/13/2005 8:12:55.936	2,413.533	1,019.139	27.066
12/13/2005 8:22:55.936	2,423.533	1,019.139	27.066
12/13/2005 8:32:55.936	2,433.533	1,019.148	27.075
12/13/2005 8:42:55.936	2,443.533	1,019.154	27.081
12/13/2005 8:52:55.936	2,453.533	1,019.154	27.081
12/13/2005 9:02:55.936	2,463.533	1,019.166	27.093
12/13/2005 9:12:55.936	2,473.533	1,019.149	27.076
12/13/2005 9:22:55.936	2,483.533	1,019.154	27.081
12/13/2005 9:32:55.936	2,493.533	1,019.165	27.092
12/13/2005 9:42:55.936	2,503.533	1,019.117	27.044
12/13/2005 9:52:55.936	2,513.533	1,019.143	27.070
12/13/2005 10:02:55.936	2,523.533	1,019.149	27.076

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/13/2005 10:12:55.936	2,533.533	1,019.114	27.041
12/13/2005 10:22:55.936	2,543.533	1,019.144	27.071
12/13/2005 10:32:55.936	2,553.533	1,019.107	27.034
12/13/2005 10:42:55.936	2,563.533	1,019.136	27.063
12/13/2005 10:52:55.936	2,573.533	1,019.134	27.061
12/13/2005 11:02:55.936	2,583.533	1,019.137	27.064
12/13/2005 11:12:55.936	2,593.533	1,019.127	27.054
12/13/2005 11:22:55.936	2,603.533	1,019.127	27.054
12/13/2005 11:32:55.936	2,613.533	1,019.084	27.011
12/13/2005 11:42:55.936	2,623.533	1,019.127	27.054
12/13/2005 11:52:55.936	2,633.533	1,019.125	27.052
12/13/2005 12:02:55.936	2,643.533	1,019.085	27.012
12/13/2005 12:12:55.936	2,653.533	1,019.117	27.044
12/13/2005 12:22:55.936	2,663.533	1,019.079	27.006
12/13/2005 12:32:55.936	2,673.533	1,019.114	27.041
12/13/2005 12:42:55.936	2,683.533	1,019.078	27.005
12/13/2005 12:52:55.936	2,693.533	1,019.078	27.005
12/13/2005 13:02:55.936	2,703.533	1,019.129	27.056
12/13/2005 13:12:55.936	2,713.533	1,019.124	27.051
12/13/2005 13:22:55.936	2,723.533	1,019.128	27.055
12/13/2005 13:32:55.936	2,733.533	1,019.102	27.029
12/13/2005 13:42:55.936	2,743.533	1,019.100	27.027
12/13/2005 13:52:55.936	2,753.533	1,019.108	27.035
12/13/2005 14:02:55.936	2,763.533	1,019.071	26.998
12/13/2005 14:12:55.936	2,773.533	1,019.069	26.996
12/13/2005 14:22:55.936	2,783.533	1,019.114	27.041
12/13/2005 14:32:55.947	2,793.533	1,019.106	27.033
12/13/2005 14:42:55.936	2,803.533	1,019.072	26.999
12/13/2005 14:52:55.936	2,813.533	1,019.108	27.035
12/13/2005 15:02:55.936	2,823.533	1,019.110	27.037
12/13/2005 15:12:55.936	2,833.533	1,019.128	27.055
12/13/2005 15:22:55.936	2,843.533	1,019.146	27.073
12/13/2005 15:32:55.936	2,853.533	1,019.148	27.075
12/13/2005 15:42:55.936	2,863.533	1,019.151	27.078
12/13/2005 15:52:55.936	2,873.533	1,019.151	27.078
12/13/2005 16:02:55.936	2,883.533	1,019.163	27.090
12/13/2005 16:12:55.936	2,893.533	1,019.163	27.090
12/13/2005 16:22:55.936	2,903.533	1,019.161	27.088
12/13/2005 16:32:55.936	2,913.533	1,019.168	27.095
12/13/2005 16:42:55.936	2,923.533	1,019.142	27.069
12/13/2005 16:52:55.936	2,933.533	1,019.178	27.105
12/13/2005 17:02:55.936	2,943.533	1,019.192	27.119
12/13/2005 17:12:55.936	2,953.533	1,019.186	27.113
12/13/2005 17:22:55.936	2,963.533	1,019.199	27.126
12/13/2005 17:32:55.936	2,973.533	1,019.203	27.130
12/13/2005 17:42:55.936	2,983.533	1,019.215	27.142
12/13/2005 17:52:55.936	2,993.533	1,019.211	27.138
12/13/2005 18:02:55.936	3,003.533	1,019.197	27.124
12/13/2005 18:12:55.936	3,013.533	1,019.223	27.150
12/13/2005 18:22:55.936	3,023.533	1,019.241	27.168

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/13/2005 18:32:55.936	3,033.533	1,019.200	27.127
12/13/2005 18:42:55.936	3,043.533	1,019.255	27.182
12/13/2005 18:52:55.936	3,053.533	1,019.255	27.182
12/13/2005 19:02:55.936	3,063.533	1,019.261	27.188
12/13/2005 19:12:55.936	3,073.533	1,019.278	27.205
12/13/2005 19:22:55.936	3,083.533	1,019.266	27.193
12/13/2005 19:32:55.936	3,093.533	1,019.265	27.192
12/13/2005 19:42:55.936	3,103.533	1,019.271	27.198
12/13/2005 19:52:55.936	3,113.533	1,019.273	27.200
12/13/2005 20:02:55.936	3,123.533	1,019.238	27.165
12/13/2005 20:12:55.936	3,133.533	1,019.277	27.204
12/13/2005 20:22:55.936	3,143.533	1,019.274	27.201
12/13/2005 20:32:55.936	3,153.533	1,019.292	27.219
12/13/2005 20:42:55.936	3,163.533	1,019.307	27.234
12/13/2005 20:52:55.936	3,173.533	1,019.266	27.193
12/13/2005 21:02:55.936	3,183.533	1,019.257	27.184
12/13/2005 21:12:55.936	3,193.533	1,019.312	27.239
12/13/2005 21:22:55.936	3,203.533	1,019.313	27.240
12/13/2005 21:32:55.936	3,213.533	1,019.287	27.214
12/13/2005 21:42:55.936	3,223.533	1,019.337	27.264
12/13/2005 21:52:55.936	3,233.533	1,019.343	27.270
12/13/2005 22:02:55.936	3,243.533	1,019.334	27.261
12/13/2005 22:12:55.936	3,253.533	1,019.330	27.257
12/13/2005 22:22:55.936	3,263.533	1,019.310	27.237
12/13/2005 22:32:55.936	3,273.533	1,019.341	27.268
12/13/2005 22:42:55.936	3,283.533	1,019.348	27.275
12/13/2005 22:52:55.936	3,293.533	1,019.312	27.239
12/13/2005 23:02:55.936	3,303.533	1,019.353	27.280
12/13/2005 23:12:55.936	3,313.533	1,019.352	27.279
12/13/2005 23:22:55.936	3,323.533	1,019.359	27.286
12/13/2005 23:32:55.936	3,333.533	1,019.355	27.282
12/13/2005 23:42:55.936	3,343.533	1,019.362	27.289
12/13/2005 23:52:55.936	3,353.533	1,019.317	27.244
12/14/2005 0:02:55.936	3,363.533	1,019.317	27.244
12/14/2005 0:12:55.936	3,373.533	1,019.361	27.288
12/14/2005 0:22:55.936	3,383.533	1,019.318	27.245
12/14/2005 0:32:55.936	3,393.533	1,019.334	27.261
12/14/2005 0:42:55.936	3,403.533	1,019.359	27.286
12/14/2005 0:52:55.936	3,413.533	1,019.342	27.269
12/14/2005 1:02:55.936	3,423.533	1,019.333	27.260
12/14/2005 1:12:55.936	3,433.533	1,019.364	27.291
12/14/2005 1:22:55.936	3,443.533	1,019.344	27.271
12/14/2005 1:32:55.936	3,453.533	1,019.384	27.311
12/14/2005 1:42:55.936	3,463.533	1,019.386	27.313
12/14/2005 1:52:55.936	3,473.533	1,019.388	27.315
12/14/2005 2:02:55.936	3,483.533	1,019.392	27.319
12/14/2005 2:12:55.936	3,493.533	1,019.370	27.297
12/14/2005 2:22:55.936	3,503.533	1,019.400	27.327
12/14/2005 2:32:55.936	3,513.533	1,019.406	27.333
12/14/2005 2:42:55.936	3,523.533	1,019.416	27.343

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 2:52:55.936	3,533.533	1,019.386	27.313
12/14/2005 3:02:55.936	3,543.533	1,019.419	27.346
12/14/2005 3:12:55.936	3,553.533	1,019.417	27.344
12/14/2005 3:22:55.936	3,563.533	1,019.425	27.352
12/14/2005 3:32:55.936	3,573.533	1,019.430	27.357
12/14/2005 3:42:55.936	3,583.533	1,019.431	27.358
12/14/2005 3:52:55.936	3,593.533	1,019.389	27.316
12/14/2005 4:02:55.936	3,603.533	1,019.404	27.331
12/14/2005 4:12:55.936	3,613.533	1,019.494	27.421
12/14/2005 4:22:55.936	3,623.533	1,019.496	27.423
12/14/2005 4:32:55.936	3,633.533	1,019.459	27.386
12/14/2005 4:42:55.936	3,643.533	1,019.511	27.438
12/14/2005 4:52:55.936	3,653.533	1,019.509	27.436
12/14/2005 5:02:55.936	3,663.533	1,019.469	27.396
12/14/2005 5:12:55.936	3,673.533	1,019.524	27.451
12/14/2005 5:22:55.936	3,683.533	1,019.518	27.445
12/14/2005 5:32:55.936	3,693.533	1,019.492	27.419
12/14/2005 5:42:55.936	3,703.533	1,019.544	27.471
12/14/2005 5:52:55.936	3,713.533	1,019.568	27.495
12/14/2005 6:02:55.936	3,723.533	1,019.578	27.505
12/14/2005 6:12:55.936	3,733.533	1,019.536	27.463
12/14/2005 6:22:55.936	3,743.533	1,019.558	27.485
12/14/2005 6:32:55.936	3,753.533	1,019.537	27.464
12/14/2005 6:42:55.936	3,763.533	1,019.596	27.523
12/14/2005 6:52:55.936	3,773.533	1,019.574	27.501
12/14/2005 7:02:55.936	3,783.533	1,019.579	27.506
12/14/2005 7:12:55.936	3,793.533	1,019.587	27.514
12/14/2005 7:22:55.936	3,803.533	1,019.559	27.486
12/14/2005 7:32:55.936	3,813.533	1,019.599	27.526
12/14/2005 7:42:55.936	3,823.533	1,019.606	27.533
12/14/2005 7:52:55.936	3,833.533	1,019.612	27.539
12/14/2005 8:02:55.936	3,843.533	1,019.629	27.556
12/14/2005 8:12:55.936	3,853.533	1,019.648	27.575
12/14/2005 8:22:55.936	3,863.533	1,019.656	27.583
12/14/2005 8:32:55.936	3,873.533	1,019.660	27.587
12/14/2005 8:42:55.936	3,883.533	1,019.656	27.583
12/14/2005 8:52:55.936	3,893.533	1,019.661	27.588
12/14/2005 9:02:55.936	3,903.533	1,019.664	27.591
12/14/2005 9:12:55.936	3,913.533	1,019.659	27.586
12/14/2005 9:22:55.936	3,923.533	1,019.622	27.549
12/14/2005 9:32:55.936	3,933.533	1,019.621	27.548
12/14/2005 9:42:55.936	3,943.533	1,019.623	27.550
12/14/2005 9:52:55.936	3,953.533	1,019.677	27.604
12/14/2005 10:02:55.936	3,963.533	1,019.644	27.571
12/14/2005 10:12:55.936	3,973.533	1,019.628	27.555
12/14/2005 10:22:55.936	3,983.533	1,019.593	27.520
12/14/2005 10:32:55.936	3,993.533	1,019.619	27.546
12/14/2005 10:42:55.936	4,003.533	1,019.678	27.605
12/14/2005 10:52:55.936	4,013.533	1,019.593	27.520
12/14/2005 11:02:55.936	4,023.533	1,019.602	27.529

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 11:12:55.936	4,033.533	1,019.628	27.555
12/14/2005 11:22:55.936	4,043.533	1,019.583	27.510
12/14/2005 11:32:55.936	4,053.533	1,019.612	27.539
12/14/2005 11:42:55.936	4,063.533	1,019.607	27.534
12/14/2005 11:52:55.936	4,073.533	1,019.559	27.486
12/14/2005 12:02:55.936	4,083.533	1,019.586	27.513
12/14/2005 12:12:55.936	4,093.533	1,019.579	27.506
12/14/2005 12:22:55.936	4,103.533	1,019.583	27.510
12/14/2005 12:32:55.936	4,113.533	1,019.506	27.433
12/14/2005 12:42:55.936	4,123.533	1,019.573	27.500
12/14/2005 12:52:55.936	4,133.533	1,019.506	27.433
12/14/2005 13:02:55.936	4,143.533	1,019.532	27.459
12/14/2005 13:12:55.936	4,153.533	1,019.535	27.462
12/14/2005 13:22:55.936	4,163.533	1,019.497	27.424
12/14/2005 13:32:55.936	4,173.533	1,019.479	27.406
12/14/2005 13:42:55.936	4,183.533	1,019.507	27.434
12/14/2005 13:52:55.936	4,193.533	1,019.480	27.407
12/14/2005 14:02:55.936	4,203.533	1,019.529	27.456
12/14/2005 14:12:55.936	4,213.533	1,019.476	27.403
12/14/2005 14:22:55.936	4,223.533	1,019.514	27.441
12/14/2005 14:32:55.936	4,233.533	1,019.470	27.397
12/14/2005 14:42:55.936	4,243.533	1,019.515	27.442
12/14/2005 14:52:55.936	4,253.533	1,019.500	27.427
12/14/2005 15:02:55.936	4,263.533	1,019.497	27.424
12/14/2005 15:12:55.936	4,273.533	1,019.497	27.424
12/14/2005 15:22:55.936	4,283.533	1,019.473	27.400
12/14/2005 15:32:55.936	4,293.533	1,019.505	27.432
12/14/2005 15:42:55.936	4,303.533	1,019.472	27.399
12/14/2005 15:52:55.936	4,313.533	1,019.474	27.401
12/14/2005 16:02:55.936	4,323.533	1,019.517	27.444
12/14/2005 16:12:55.936	4,333.533	1,019.514	27.441
12/14/2005 16:22:55.936	4,343.533	1,019.510	27.437
12/14/2005 16:32:55.936	4,353.533	1,019.477	27.404
12/14/2005 16:42:55.936	4,363.533	1,019.488	27.415
12/14/2005 16:52:55.936	4,373.533	1,019.489	27.416
12/14/2005 17:02:55.936	4,383.533	1,019.497	27.424
12/14/2005 17:12:55.936	4,393.533	1,019.491	27.418
12/14/2005 17:22:55.936	4,403.533	1,019.511	27.438
12/14/2005 17:32:55.936	4,413.533	1,019.541	27.468
12/14/2005 17:42:55.936	4,423.533	1,019.516	27.443
12/14/2005 17:52:55.936	4,433.533	1,019.551	27.478
12/14/2005 18:02:55.939	4,443.533	1,019.514	27.441
12/14/2005 18:12:55.936	4,453.533	1,019.530	27.457
12/14/2005 18:22:55.936	4,463.533	1,019.530	27.457
12/14/2005 18:32:55.938	4,473.533	1,019.541	27.468
12/14/2005 18:42:55.936	4,483.533	1,019.543	27.470
12/14/2005 18:52:55.936	4,493.533	1,019.577	27.504
12/14/2005 19:02:55.936	4,503.533	1,019.560	27.487
12/14/2005 19:12:55.936	4,513.533	1,019.558	27.485
12/14/2005 19:22:55.936	4,523.533	1,019.534	27.461

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/14/2005 19:32:55.936	4,533.533	1,019.568	27.495
12/14/2005 19:42:55.936	4,543.533	1,019.579	27.506
12/14/2005 19:52:55.936	4,553.533	1,019.555	27.482
12/14/2005 20:02:55.936	4,563.533	1,019.578	27.505
12/14/2005 20:12:55.936	4,573.533	1,019.567	27.494
12/14/2005 20:22:55.936	4,583.533	1,019.575	27.502
12/14/2005 20:32:55.936	4,593.533	1,019.570	27.497
12/14/2005 20:42:55.936	4,603.533	1,019.582	27.509
12/14/2005 20:52:55.936	4,613.533	1,019.579	27.506
12/14/2005 21:02:55.936	4,623.533	1,019.593	27.520
12/14/2005 21:12:55.936	4,633.533	1,019.596	27.523
12/14/2005 21:22:55.936	4,643.533	1,019.587	27.514
12/14/2005 21:32:55.936	4,653.533	1,019.597	27.524
12/14/2005 21:42:55.936	4,663.533	1,019.594	27.521
12/14/2005 21:52:55.936	4,673.533	1,019.598	27.525
12/14/2005 22:02:55.936	4,683.533	1,019.597	27.524
12/14/2005 22:12:55.936	4,693.533	1,019.596	27.523
12/14/2005 22:22:55.936	4,703.533	1,019.589	27.516
12/14/2005 22:32:55.936	4,713.533	1,019.591	27.518
12/14/2005 22:42:55.936	4,723.533	1,019.589	27.516
12/14/2005 22:52:55.936	4,733.533	1,019.586	27.513
12/14/2005 23:02:55.936	4,743.533	1,019.586	27.513
12/14/2005 23:12:55.936	4,753.533	1,019.574	27.501
12/14/2005 23:22:55.936	4,763.533	1,019.588	27.515
12/14/2005 23:32:55.936	4,773.533	1,019.579	27.506
12/14/2005 23:42:55.936	4,783.533	1,019.614	27.541
12/14/2005 23:52:55.936	4,793.533	1,019.575	27.502
12/15/2005 0:02:55.936	4,803.533	1,019.578	27.505
12/15/2005 0:12:55.936	4,813.533	1,019.578	27.505
12/15/2005 0:22:55.936	4,823.533	1,019.563	27.490
12/15/2005 0:32:55.936	4,833.533	1,019.574	27.501
12/15/2005 0:42:55.936	4,843.533	1,019.567	27.494
12/15/2005 0:52:55.936	4,853.533	1,019.571	27.498
12/15/2005 1:02:55.936	4,863.533	1,019.575	27.502
12/15/2005 1:12:55.936	4,873.533	1,019.570	27.497
12/15/2005 1:22:55.936	4,883.533	1,019.570	27.497
12/15/2005 1:32:55.936	4,893.533	1,019.573	27.500
12/15/2005 1:42:55.936	4,903.533	1,019.574	27.501
12/15/2005 1:52:55.936	4,913.533	1,019.584	27.511
12/15/2005 2:02:55.936	4,923.533	1,019.561	27.488
12/15/2005 2:12:55.936	4,933.533	1,019.563	27.490
12/15/2005 2:22:55.936	4,943.533	1,019.552	27.479
12/15/2005 2:32:55.936	4,953.533	1,019.554	27.481
12/15/2005 2:42:55.936	4,963.533	1,019.558	27.485
12/15/2005 2:52:55.936	4,973.533	1,019.558	27.485
12/15/2005 3:02:55.936	4,983.533	1,019.542	27.469
12/15/2005 3:12:55.936	4,993.533	1,019.507	27.434
12/15/2005 3:22:55.936	5,003.533	1,019.575	27.502
12/15/2005 3:32:55.936	5,013.533	1,019.539	27.466
12/15/2005 3:42:55.936	5,023.533	1,019.524	27.451

KPW-1 December 2005 Constant-Rate Test (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 3:52:55.936	5,033.533	1,019.478	27.405
12/15/2005 4:02:55.936	5,043.533	1,019.527	27.454
12/15/2005 4:12:55.936	5,053.533	1,019.518	27.445
12/15/2005 4:22:55.936	5,063.533	1,019.515	27.442
12/15/2005 4:32:55.936	5,073.533	1,019.518	27.445
12/15/2005 4:42:55.936	5,083.533	1,019.519	27.446
12/15/2005 4:52:55.936	5,093.533	1,019.537	27.464
12/15/2005 5:02:55.936	5,103.533	1,019.521	27.448
12/15/2005 5:12:55.936	5,113.533	1,019.521	27.448
12/15/2005 5:22:55.936	5,123.533	1,019.526	27.453
12/15/2005 5:32:55.936	5,133.533	1,019.523	27.450
12/15/2005 5:42:55.936	5,143.533	1,019.558	27.485
12/15/2005 5:52:55.936	5,153.533	1,019.517	27.444
12/15/2005 6:02:55.936	5,163.533	1,019.560	27.487
12/15/2005 6:12:55.936	5,173.533	1,019.535	27.462
12/15/2005 6:22:55.936	5,183.533	1,019.534	27.461
12/15/2005 6:32:55.936	5,193.533	1,019.536	27.463
12/15/2005 6:42:55.936	5,203.533	1,019.527	27.454
12/15/2005 6:52:55.936	5,213.533	1,019.536	27.463
12/15/2005 7:02:55.936	5,223.533	1,019.543	27.470
12/15/2005 7:12:55.936	5,233.533	1,019.537	27.464
12/15/2005 7:22:55.936	5,243.533	1,019.544	27.471
12/15/2005 7:32:55.936	5,253.533	1,019.523	27.450
12/15/2005 7:42:55.936	5,263.533	1,019.549	27.476
12/15/2005 7:52:55.936	5,273.533	1,019.552	27.479
12/15/2005 8:02:55.936	5,283.533	1,019.547	27.474
12/15/2005 8:12:55.936	5,293.533	1,019.551	27.478
12/15/2005 8:22:55.936	5,303.533	1,019.561	27.488
12/15/2005 8:32:55.936	5,313.533	1,019.540	27.467
12/15/2005 8:42:55.936	5,323.533	1,019.512	27.439
12/15/2005 8:52:55.936	5,333.533	1,019.519	27.446
12/15/2005 9:02:55.936	5,343.533	1,019.548	27.475
12/15/2005 9:12:55.936	5,353.533	1,019.550	27.477
12/15/2005 9:22:55.936	5,363.533	1,019.535	27.462
12/15/2005 9:32:55.936	5,373.533	1,019.536	27.463
12/15/2005 9:42:55.936	5,383.533	1,019.527	27.454
12/15/2005 9:52:55.936	5,393.533	1,019.521	27.448
12/15/2005 10:02:55.936	5,403.533	1,019.505	27.432
12/15/2005 10:12:55.936	5,413.533	1,019.493	27.420
12/15/2005 10:22:55.936	5,423.533	1,019.495	27.422
12/15/2005 10:32:55.936	5,433.533	1,019.480	27.407
12/15/2005 10:42:55.936	5,443.533	1,019.473	27.400
12/15/2005 10:52:55.936	5,453.533	1,019.471	27.398
12/15/2005 11:02:55.936	5,463.533	1,019.451	27.378
12/15/2005 11:12:55.936	5,473.533	1,019.448	27.375
12/15/2005 11:22:55.936	5,483.533	1,019.432	27.359
12/15/2005 11:32:55.936	5,493.533	1,019.393	27.320
12/15/2005 11:42:55.936	5,503.533	1,019.376	27.303
12/15/2005 11:52:55.936	5,513.533	1,019.410	27.337
12/15/2005 12:02:55.936	5,523.533	1,019.383	27.310

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 12:12:55.936	5,533.533	1,019.413	27.340
12/15/2005 12:22:55.936	5,543.533	1,019.414	27.341
12/15/2005 12:32:55.936	5,553.533	1,019.353	27.280
12/15/2005 12:42:55.936	5,563.533	1,019.348	27.275
12/15/2005 12:52:55.936	5,573.533	1,019.379	27.306
12/15/2005 13:02:55.936	5,583.533	1,019.374	27.301
12/15/2005 13:12:55.936	5,593.533	1,019.298	27.225
12/15/2005 13:22:55.936	5,603.533	1,019.334	27.261
12/15/2005 13:32:55.936	5,613.533	1,019.380	27.307
12/15/2005 13:42:55.936	5,623.533	1,019.354	27.281
12/15/2005 13:52:55.936	5,633.533	1,019.320	27.247
12/15/2005 14:02:55.936	5,643.533	1,019.339	27.266
12/15/2005 14:12:55.936	5,653.533	1,019.302	27.229
12/15/2005 14:22:55.936	5,663.533	1,019.331	27.258
12/15/2005 14:32:55.936	5,673.533	1,019.350	27.277
12/15/2005 14:42:55.936	5,683.533	1,019.314	27.241
12/15/2005 14:52:55.936	5,693.533	1,019.351	27.278
12/15/2005 15:02:55.936	5,703.533	1,019.316	27.243
12/15/2005 15:12:55.936	5,713.533	1,019.348	27.275
12/15/2005 15:22:55.936	5,723.533	1,019.317	27.244
12/15/2005 15:32:55.936	5,733.533	1,019.309	27.236
12/15/2005 15:42:55.936	5,743.533	1,019.318	27.245
12/15/2005 15:52:55.936	5,753.533	1,019.316	27.243
12/15/2005 16:02:55.936	5,763.533	1,019.353	27.280
12/15/2005 16:12:55.936	5,773.533	1,019.317	27.244
12/15/2005 16:22:55.936	5,783.533	1,019.367	27.294
12/15/2005 16:32:55.936	5,793.533	1,019.328	27.255
12/15/2005 16:42:55.936	5,803.533	1,019.301	27.228
12/15/2005 16:52:55.936	5,813.533	1,019.358	27.285
12/15/2005 17:02:55.936	5,823.533	1,019.369	27.296
12/15/2005 17:12:55.936	5,833.533	1,019.324	27.251
12/15/2005 17:22:55.936	5,843.533	1,019.366	27.293
12/15/2005 17:32:55.936	5,853.533	1,019.349	27.276
12/15/2005 17:42:55.936	5,863.533	1,019.329	27.256
12/15/2005 17:52:55.936	5,873.533	1,019.372	27.299
12/15/2005 18:02:55.936	5,883.533	1,019.334	27.261
12/15/2005 18:12:55.936	5,893.533	1,019.379	27.306
12/15/2005 18:22:55.936	5,903.533	1,019.382	27.309
12/15/2005 18:32:55.936	5,913.533	1,019.345	27.272
12/15/2005 18:42:55.936	5,923.533	1,019.383	27.310
12/15/2005 18:52:55.936	5,933.533	1,019.360	27.287
12/15/2005 19:02:55.936	5,943.533	1,019.353	27.280
12/15/2005 19:12:55.936	5,953.533	1,019.389	27.316
12/15/2005 19:22:55.936	5,963.533	1,019.406	27.333
12/15/2005 19:32:55.936	5,973.533	996.496	4.423
12/15/2005 19:42:55.936	5,983.533	996.665	4.592
12/15/2005 19:52:55.936	5,993.533	995.978	3.905
12/15/2005 20:02:55.936	6,003.533	995.396	3.323
12/15/2005 20:12:55.936	6,013.533	995.102	3.029
12/15/2005 20:22:55.936	6,023.533	994.838	2.765

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/15/2005 20:32:55.936	6,033.533	994.672	2.599
12/15/2005 20:42:55.936	6,043.533	994.532	2.459
12/15/2005 20:52:55.936	6,053.533	994.439	2.366
12/15/2005 21:02:55.936	6,063.533	994.343	2.270
12/15/2005 21:12:55.936	6,073.533	994.282	2.209
12/15/2005 21:22:55.936	6,083.533	994.199	2.126
12/15/2005 21:32:55.936	6,093.533	994.123	2.050
12/15/2005 21:42:55.936	6,103.533	994.024	1.951
12/15/2005 21:52:55.936	6,113.533	993.991	1.918
12/15/2005 22:02:55.936	6,123.533	993.907	1.834
12/15/2005 22:12:55.936	6,133.533	993.871	1.798
12/15/2005 22:22:55.936	6,143.533	993.840	1.767
12/15/2005 22:32:55.936	6,153.533	993.817	1.744
12/15/2005 22:42:55.936	6,163.533	993.741	1.668
12/15/2005 22:52:55.936	6,173.533	993.718	1.645
12/15/2005 23:02:55.936	6,183.533	993.655	1.582
12/15/2005 23:12:55.936	6,193.533	993.628	1.555
12/15/2005 23:22:55.936	6,203.533	993.594	1.521
12/15/2005 23:32:55.936	6,213.533	993.568	1.495
12/15/2005 23:42:55.936	6,223.533	993.519	1.446
12/15/2005 23:52:55.936	6,233.533	993.495	1.422
12/16/2005 0:02:55.936	6,243.533	993.483	1.410
12/16/2005 0:12:55.936	6,253.533	993.450	1.377
12/16/2005 0:22:55.936	6,263.533	993.412	1.339
12/16/2005 0:32:55.936	6,273.533	993.379	1.306
12/16/2005 0:42:55.936	6,283.533	993.374	1.301
12/16/2005 0:52:55.936	6,293.533	993.325	1.252
12/16/2005 1:02:55.936	6,303.533	993.331	1.258
12/16/2005 1:12:55.936	6,313.533	993.267	1.194
12/16/2005 1:22:55.936	6,323.533	993.246	1.173
12/16/2005 1:32:55.936	6,333.533	993.217	1.144
12/16/2005 1:42:55.936	6,343.533	993.218	1.145
12/16/2005 1:52:55.936	6,353.533	993.189	1.116
12/16/2005 2:02:55.936	6,363.533	993.175	1.102
12/16/2005 2:12:55.936	6,373.533	993.158	1.085
12/16/2005 2:22:55.936	6,383.533	993.145	1.072
12/16/2005 2:32:55.936	6,393.533	993.133	1.060
12/16/2005 2:42:55.936	6,403.533	993.085	1.012
12/16/2005 2:52:55.936	6,413.533	993.089	1.016
12/16/2005 3:02:55.936	6,423.533	993.042	0.969
12/16/2005 3:12:55.936	6,433.533	993.062	0.989
12/16/2005 3:22:55.936	6,443.533	993.023	0.950
12/16/2005 3:32:55.936	6,453.533	993.046	0.973
12/16/2005 3:42:55.936	6,463.533	992.983	0.910
12/16/2005 3:52:55.936	6,473.533	992.960	0.887
12/16/2005 4:02:55.936	6,483.533	992.948	0.875
12/16/2005 4:12:55.936	6,493.533	992.922	0.849
12/16/2005 4:22:55.936	6,503.533	992.914	0.841
12/16/2005 4:32:55.936	6,513.533	992.909	0.836
12/16/2005 4:42:55.936	6,523.533	992.843	0.770

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Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/16/2005 4:52:55.936	6,533.533	992.884	0.811
12/16/2005 5:02:55.936	6,543.533	992.829	0.756
12/16/2005 5:12:55.936	6,553.533	992.827	0.754
12/16/2005 5:22:55.936	6,563.533	992.820	0.747
12/16/2005 5:32:55.936	6,573.533	992.824	0.751
12/16/2005 5:42:55.936	6,583.533	992.813	0.740
12/16/2005 5:52:55.936	6,593.533	992.806	0.733
12/16/2005 6:02:55.936	6,603.533	992.742	0.669
12/16/2005 6:12:55.936	6,613.533	992.738	0.665
12/16/2005 6:22:55.936	6,623.533	992.724	0.651
12/16/2005 6:32:55.936	6,633.533	992.752	0.679
12/16/2005 6:42:55.936	6,643.533	992.696	0.623
12/16/2005 6:52:55.936	6,653.533	992.711	0.638
12/16/2005 7:02:55.936	6,663.533	992.731	0.658
12/16/2005 7:12:55.936	6,673.533	992.752	0.679
12/16/2005 7:22:55.936	6,683.533	992.693	0.620
12/16/2005 7:32:55.936	6,693.533	992.698	0.625
12/16/2005 7:42:55.936	6,703.533	992.664	0.591
12/16/2005 7:52:55.936	6,713.533	992.664	0.591
12/16/2005 8:02:55.936	6,723.533	992.667	0.594
12/16/2005 8:12:55.936	6,733.533	992.722	0.649
12/16/2005 8:22:55.936	6,743.533	992.692	0.619
12/16/2005 8:32:55.936	6,753.533	992.657	0.584

Air Development Data for KPW-1

URS

Page 1 of 8

Job _____ Project No. _____ Sheet ___ of ___

Description KPW-1 air lift swab (1) Computed by _____ Date _____

Checked by _____ Date _____

Reference

Date/Item	Time	pH	Sp. Cond. µS/cm	TDS mg/L	Temp °C	mg/L Inches Standing	Appearance
							Intrusion
11/7/05	4:50 begin	8.08	864	563	37.31	~1.5	Brown cloudy 2002 - 1985
	5:10						
	5:30	8.75	854	555	36.41		
275 gpm	5:30	8.81	847	557	40.21	~0.6	
	5:40	8.72	843	547	39.91		
220 gpm	5:50	8.84	842	547	40.09	~0.5	
							1985 - 1975
11/7/05	6:00 begin						brown
	6:20	8.72	820	533	39.91	~0.4	cloudy
241 gpm	6:30	8.67	832	532	39.72		
	6:40	8.85	823	535	40.61	~0.7	
203 gpm	6:50	8.96	816	527	41.06		
	7:00	8.96	822	534	40.20	0.4	
							1975 - 1965
	7:00 begin						lighter brown
	7:25	8.78	812	528	40.15	2.5?	cloudy
191 gpm	7:35	8.93	811	527	40.26		
	7:45	8.96	810	521	41.83	0.2	
278 gpm	7:55	8.91	813	528	41.81		
	8:05	8.89	811	526	40.91	0.2	
							1965 - 1945
	8:10 begin						lighter brown
	8:20	8.70	807	524	40.63	0.4	cloudy
253	8:30	8.86	804	523	43.15		
	8:40	8.88	799	519	42.59	0.3	
	8:50	8.98	799	520	42.14		
235	9:00	8.97	800	520	41.21	0.1	slightly cloudy
	end						

URS

Job _____ Project No. _____ Sheet ____ of ____

Description KPE-1 airlift / swab (1) Computed by _____ Date _____

Checked by _____ Date _____

Reference

Time	pH	SC	TDS	Temp	Turbidity	Appearance	Interval
915							
935	8.96	786	511	38.41	0.2	lightly cloudy	1925 - 1965
945	9.03	778	504	42.48			
955	9.05	779	506	41.67	0.1		
1005	9.11	781	505	40.91			
1015	9.04	784	511	46.87	0.2		1955 - 1885
						Strong cloudy	
1020	Begin						
1040	9.06	776	508	44.78	0.2	heavily	filter paper on screen
1050	9.13	774	504	41.69		clogging	
1100	9.09	782	508	42.31	0.8	before	
1110	9.05	780	507	42.33			
1120	8.93	783	505	42.41	0.3		
							1885 - 1845
1120	Begin						
1140	8.96	783	505	40.67	0.7	lightly cloudy	
1150	8.97	790	513	41.71			
1200	9.02	793	516	41.64	0.4		
1110							
1220							

URS

Job ______ Description KPW-1 airlift + swab (1)

Project No. ______ Computed by ______ Checked by ______

Page 3 of 8 Sheet ___ of ___ Date ___ Date ___ Reference

114 gal/inch ~~1308~~ 1376 HK gal/ft

interval	time	gpm	pH	SC (µS/cm)	TDS (mg/l)	Temp (°C/°F)	Imhoff mg/l	appearance
1840-~~1820~~ 1830 HK	1338	—	—	—	—	—	—	—
(1835 to ~~1815~~ 1825 HK ft bls)	1308	228	8.95	813	517	~~42.3~~ HK 42.34/108.2	—	lt brn cloudy; waited to long to read
1830-1810	1321	—	—	—	—	—	—	—
(1825 to 1805 ft bls)	1341	—	8.97	802	522	~~46/~~ HK 46.08/114.9	0.15	lt brn/tan; cloudy
	1351	210	8.97	766	498	45.94/114.7	—	—
	1401	—	9.00	796	518	47.24/117.0	0.20	lt brn/tan; cloudy
	1406	—	8.99	784	512	46.89/116.4	—	—
	1411	—	8.98	770	501	46.71/116.1	0.15	lt brn/tan; cloudy
	1416	228	8.95	799	519	46.02/114.8	—	—
	1421	—	8.99	796	514	45.78/114.4	0.10	lt brn/tan; cloudy
1810-1790	~~1428~~ 1433 HK	—	—	—	—	—	—	—
(1805 to 1785 ft bls)	~~1448~~ 1455 HK	—	8.77	781	508	44.84/112.7	0.15	lt brn/tan; cloudy
	~~1458~~ ~~148~~ 1505 HK	199	8.90	775	504	45.22/113.4	—	—
	~~1508~~ 1515 HK	—	8.87	763	496	44.29/111.7	0.20	lt brn/milky; cloudy
	~~1518~~ 1525 HK		8.87	761	495	44.96/112.9	—	—
	~~1528~~ 1535 HK		8.97	777	505	44.57/112.2	0.15	lt brn milky cloudy
1790-1770	1540	—	—	—	—	—	—	—
(1785 to 1765 ft bls)	1640	199	8.99	770	500	44.3/111.7	0.10	lt brn milk cloudy
1770-1750	1638	—	—	—	—	—	—	—
(1765 to 1745 ft bls)	1658	207	8.82	778	506	42.87/109.2	0.15	lt brn cloudy
	1708	—	9.00	786	511	42.73/108.9	—	—
	1718	205	~~8.90~~ 8.90 HK	773	502	44.68/112.4	0.25	lt brn cloudy
	~~1728~~ ~~1738~~ HK							

URS

Job ______ Project No. ______

Description KPW-1 airlift & swab (1) Computed by ______ Checked by ______

 Sheet ___ of ___ Date ___ Date ___ Reference

interval	time	gpm	pH	SC (mS/cm)	TDS (mg/l)	temp (°C/°F)	Imhoff	appearance
1750-1730	1784	—	—	—	—	—	—	—
(1745-1725 ft bls)	1804	200	8.92	784	510	43.63/110.5	0.15	lt brn & cloudy
	1814	—	8.90	771	501	44.80/112.6	—	—
	1824	214	8.89	768	501	44.51/112.1	0.20	lt brn & cloudy
1730-1710	1836	—	—	—	—	—	—	—
(1725-1705 ft bls)	1856	203	8.89	776	504	43.73/110.7	0.20	lt brn & cloudy
	1906	—	8.93	767	500	44.16/111.5	—	—
	1916	199	8.87	769	500	44.84/112.7	0.90	~~f~~ m brn & muddy
1710-1690	1933	—	—	—	—	—	—	—
(1705-1685 ft bls)	1953	194	8.73	769	500	42.57/108.6	1.30	m brn & murky
	~~2004~~ 2003	—	8.92	770	501	42.97/109.3	—	—
	2013	196	8.94	772	502	43.36/110.0	0.40	m brn & cloudy
1690-1670	~~2033~~ 2034	—	—	—	—	—	—	—
(1685-1665 ft bls)	2054	189	8.94	769	499	41.57/106.8	0.20	lt brn & cloudy
	2104	—	8.98	777	506	44.13/111.4	—	—
	2114	189	9.00	773	502	44.15/111.5	0.10	lt tan & milky
1670-1650	2136	—	—	—	—	—	—	—
(1665-1645 ft bls)	2156	187	8.81	770	499	41.65/107.0	~~0.20~~ 0.40	lt brn & cloudy
	2206	—	9.08	770	501	43.48/110.3	—	—
	2216	~~—~~ 187	9.06	773	502	43.70/110.7		lt tan & cloudy
1650-1630	2232	—	—	—	—	—	—	—
	2252	188	8.85	~~8~~ 777	505	42.28/108.1	0.25	lt tan & cloudy
	2302	—	9.04	775	504	43.05/109.5	—	—
	2312	192	9.05	778	505	43.89/111.0	0.25	lt brn/tan & cloudy
1630-1610	2331	—	—	—	—	—	—	—
	2351	185	8.96	773	502	44.11/111.4	0.10	lt brn/tan cloudy
	0001	—	9.07	770	500	44.25/111.7	—	—
	0011		9.11	772	502	44.94/112.9		

URS

Job ______
Description KPW-1 airlift & swab (1)
Project No. ______
Computed by bf
Checked by ______

Page 5 of 8
Sheet ___ of ___
Date 11/9/08
Date ______

Interval	Time	GPM	pH	SC µS/cm	TDS mg/L	Temp °C/°F	Imhoff	appearance
1610-1590	0030	—	—	—	—	—	— 0.3	—
(1605-1585)	0050	162	9.20	763	496	43.41/110.13	[illegible]	light brown/cloudy
	0100		9.12	770	500	42.80/109.04	0.4	"
	0110	139	9.13	768	499	42.43/108.37	0.3	"
1590-1570	0132	142.5	[illegible]	[illegible]	[illegible]	[illegible]	—	—
(1585-1565)	0152		9.06	771	501	41.33/106.4	0.9	light brown dark/cloudy
	0202	144	9.13	778	506	42.41/108.4	—	
	0212	—	9.07	769	500	42.10/107.8	0.5	|
1570-1550	0226	—	—	—	—	—	—	light brown dark/cloudy
(1565-1545)	0246	—	9.14	772	502	40.42/104.8	2.5	
	0256	141	9.19	776	504	42.92/109.3	—	
	0306	149	9.13	767	495	42.16/107.9	0.3	|
1550-1530	0330	—	—	—	—	—	—	brown
(1545-1526)	0350	137	9.21	763	496	40.41/104.7	0.9	light brown cloudy
	0400	[illegible]	9.12	772	502	42.07/107.7	—	
	0410	139	9.23	764	498	43.51/110.3	0.3	
1530-1510	0430	—	—	—	—	—	—	light brown cloudy
(1525-1505)	0450	146	9.25	760	494	40.3/	0.3	
	0500	—	9.24	767	499	48.4/		
	0510	146	9.23	779	504	45.1/	0.2	|
1510-1490	0530	—	—	—	—	—	—	light brown cloudy
(1505-1485)	0550	146	9.26	760	493	40.7/	0.2	
	0600	—	9.25	760	494	41.4/	—	
	0610	143	9.21	768	499	43.9/	0.1	|
1490-1470	0630	—	—	—	—	—	—	light brown dark/cloudy
(1485-1465)	0650	139	9.23	761	495	40.7/	0.3	
	0700	—	9.20	768	499	43.6/	—	
	0714	142	9.20	761	499	44.1/	0.6	|

Reference

SE ROA 54204

JA_18342

URS

Job _____ Project No. _____ Sheet ____ of ____

Description KPW-1 Airlift + swab (1) Computed by SF Date 11/9/05

Checked by _____ Date _____

Interval	Time	gpm	pH	SC mS/c	TDS mg/L	T/P Temp	Inhalf	Appearance
	0730	—	—	—	—	—	—	Brown/cloudy
1470-1450	0750	130	9.20	763	496	41.0/105.8	1.8	
(1465-1445)	0800	—	9.23	765	497	43.4/109.8	—	
	0810	114	9.21	759	494	44.2/111.6	1.0	
	0830	—	—	—	—	—	—	Brown/cloudy
1458-1430	0850	128	9.19	757	492	40.5/104.9	0.9	
(1448-1425)	0900	—	9.25	764	497	42.6/108.7	—	
	0910	—	9.26	763	496	43.6/110.5	0.3	
	0930	—	—	—	—	—	—	Brown/cloudy
1430-1410	0950	122	9.29	760	494	41.6/106.9	1.2	
(1425-1405)	1000	—	9.32	766	498	42.4/108.3	—	
	1010	118	9.28	768	499	44.2/111.6	0.8	
	1030	—	—	—	—	—	—	Tight Brown/cloudy
1410-1390	1110	118	9.24	762	495	43.4/110.1	0.8	
(1405-1385)	1120	—	9.33	762	495	44.2/112.5	—	
	1130	115	9.29	763	496	45.1/113.1	0.4	
1390-1370	1217	—	—	—	—	—	—	—
1388-1368	1232	119	9.23	761	495	43.04/109.5	0.3	1+ brn/gy clouds
1385-1365	1247	—	9.26	763	496	44.05/111.3	—	—
(1380-1360)	1257	115	9.25	761	495	44.54/112.2	0.2	1+ brn/gy clouds
1370-1350	1315	—	—	—	—	—	—	—
(1365-1345)	1335	115	9.22	764	497	43.45/109.4	0.5	1+ brn/gy clouds
1360-1340	1345	—	9.19	762	495	44.15/111.5	—	—
	1355	116	9.27	760	494	43.56/110.3	0.5	1+ brn/gy clouds
1350-1330	1414	—	—	—	—	—	—	—
(1345-1325)	1434	113	9.24	756	491	42.95/109.3	1.0	1+ brn/gy clds
1340-1320	1447	—	9.26	760	494	43.94/111.0	—	—
(1335)	1457	114	9.30	763	496	44.16/111.5	0.7	brn/gy clds

URS

Job ______ Description KPW-1 airlift samples (1)

Project No. ______ Computed by HK Checked by ______

Page 7 of 8 Sheet ___ of ___ Date 11/9/05 Date ______

Reference

interval	time	gpm	pH	SC (µS/cm)	TDS (mg/L)	T (°C/°F)	Imhoff	appearance
1330-1310	1514	–	–	–	–	–	–	–
(1325-1305	1534	113	9.31	755	~~756~~ 491	43.08/109.5	0.20	lt brn cldy
ft bls)	1544	–	9.31	760	494	44.24/111.6	–	–
	1554	112	9.29	759	493	43.37/110.1	0.30	lt-m brn cldy
1310-1290	1618	–	–	–	–	–	–	–
(1305-1285	1638	109	9.27	753	489	41.10/106.0	0.20	brown
ft bls)	1648	–	9.33	757	~~493~~ 492	42.98/109.4	–	–
	1658	108	9.29	760	494	42.50/108.5	0.30	brown
1290-1270	1718	–	–	–	–	–	–	–
(1285-1255	1733	91	9.29	751	488	~~42.85/109.1~~ 41.85/107.3	0.20	lt brn cldy
ft bls)	1743	–	9.32	754	490	41.07/105.9	–	–
	1753	90	9.27	759	493	41.52/106.7	0.10	lt brn cldy
1270-1250	1816	–	–	–	–	–	–	–
(1265-1245	1836	70	9.29	745	484	39.04/102.2	1.75	brn cldy
ft bls)	1846	–	9.36	752	489	40.92/105.7	–	–
	1856	70	9.31	755	490	40.57/105.0	0.30	brn cldy
1250-1230	~~1907~~	–	–	–	–	–	–	–
(1245-1225	–	65	–	–	–	–	–	–
ft bls)	–	–	–	–	–	–	–	–
	–	55	–	–	–	–	–	–
1230-1210	2009	–	–	–	–	–	–	–
(1225-1205	2049	60	9.35	750	487	38.87/102.0	0.4	lt brn cldy
ft bls)	2109	61		751	488	39.19/102.5	0.2	lt brn cldy
	–	–	–	–	–	–	–	–
1210-1190	2110	–	–	–	–	–	–	–
	2130	85	–	–	–	–	–	–
	2200	–	9.30	752	489	38.20/100.8	0.3	lt brn cldy
	–	–	–	–	–	–	–	–

URS

Job Description KPLW-1 airlift swab (1)

Project No.

Computed by TH

Checked by

Page 8 of 8

Sheet ___ of ___

Date 11/5/05

Date

Reference

interval time	ppm	pH	SC (µS/cm)	TDS (mg/l)	T (°C / °F) Inhoff	appearance
1140-1170 2316	—	—	—	—	—	—
(1185-1165 2326	—	9.50	7412	4823	34.0?/102.3	1.0	lt brn / cloudy
ft bls) 2346	71	9.45	7414	4824	34.85/102.3	—	—
2356	—	9.38	7451	4848	34.97/102.3	0.340	
1170-1150 2311	—	—	—	—	—	—	—
(1165-1145 2331	—	9.32	7412	4824	34.64/99.9	1.0	lt brn/cloudy
2334	74	9.39	7451	4848	34.82/101.9	—	—
2351	—	9.48	7416	4825	34.82/100.1	0.30	lt brn/cloudy
0015	—	—	—	—	—	—	—
1150-1130 0036	—	9.42	7150	4827	35.2/	0.4	lt brn, cloudy
(1145-1125) 0045	63	9.37	7146	4826	37.2/	—	—
0055	—	9.39	7147	4824	36.4/	0.2	lt brn/gry cloudy
0126	—	—	—	—	—	—	—
1130-1110 0146	—	9.42	7137	4819	36.1/	0.7	brn/cloudy
(1125-1105) 0156	60	9.43	7147	4826	35.8/	—	—
0206		9.47	7143	4821	36.0/	0.1	grey, trace clumps
2126	—	—	—	—	—	—	—
1110-1090 2146		9.44	7144	4818	33.19/	0.2	lt brown cloudy
(1085-1065) 2156	57	9.43	7144	4828	34.43/	—	—
2206		9.50	7146	4821	34.21/	0.1	grey, trace clumps
0325	—	—	—	—	—	—	—
1090-1070 0345	—	9.44	7143	4823	30.51	0.9	brown/cloudy
(1065-1045) 0355	39	9.44	7141	4820	30.19	—	—
0405	—	9.41	7134	4827	30.01	0.4	brown/cloudy

URS

Job ______ Description 14PW-1 final swab

Project No. ______ Computed by ______ Checked by ______

Page 1 of ___ Sheet ___ of ___ Date 11/11/05 Date ______ Reference

Interval	Time	GPM	pH	SC umhos/cm	TDS mg/L	°C/°F Temp	Imhoff	Appearance
	0938	—	—	—	—	—	—	—
2006 - 1990	0958	—	8.06	770	580	39.21/102.58	5.0	brown/cloudy
(2001 - 1985)	1013	250	8.12	752	492	40.03/104.05	—	
	1028	—	8.22	750	486	41.41/106.53	0.1	light brn/tan ~~slightly~~ cloudy
	1048	—	—	—	—	—	—	~~lt brn~~ ~~slightly~~
1990 - 1970	1108	—	8.31	~~[illegible]~~ 746	486	40.14/104.25	0.1	lt brown, cloudy
(1985 - 1965)	1123	232	8.29	742	482	41.93/107.47	—	milky slightly
	1138	—	8.30	739	480	42.06/107.71	0.0	tan cloudy
1970 - 1950	1240	—	—	—	—	—	—	—
(1965 - 1945 ft bls)	1300	—	8.33	733	476	42.37/108.3	0.1	lt brn/tan/cloudy
	1315	233	8.31	731	478	43.26/109.9	—	—
	1323	—	8.37	733	476	43.66/110.6	~0.0	cloudy
1950 - 1930	1333	—	—	—	—	—	—	—
(1945 - 1925 ft bls)	~~1352~~ NK 1345	—	8.46	735	477	44.02/111.2	0.1	lt brn cloudy
	1455	204	8.40	733	476	43.84/110.9	—	—
	1505	—	8.40	732	476	43.57/110.4	~0.0	lt brn cloudy
1910 - 1930	1523	—	—	—	—	—	—	—
(1930 - 1925 ft bls)	1542	198	8.33	731	475	43.35/109.9	0.1	lt brn cloudy
	1552	—	8.30	727	473	43.20/109.8	0.25 NK	lt brn cloudy
	—	—	—	—	—	—	—	—
1890 - 1910	1623	—	—	—	—	—	—	—
(1885 - 1905 ft bls)	1643	—	8.40	730	475	44.09/111.4	0.1	lt brn cloudy
	1658	201	8.41	732	472	44.41/111.9	—	—
	1705	—	8.44	726	472	44.22/111.6	~0.0	milky/cloudy
1880 - 1840	1718	—	—	—	—	—	—	—
(1875 - 1885 ft bls)	~~1725~~ NK 1733		8.34	726	472	43.38/109.00	0.1	lt brn
	1740		8.38	728	473	43.82 111.0	—	—
	~~1748~~ AK	—	—	—	—	—	—	—

URS

Job ______ Project No. ______ Page 2 of ___

Description KPW-1 final swab Computed by ______ Sheet ___ of ___

Checked by ______ Date 11/11/05

Date ______

Reference

interval	time	gpm	pH	SC (mS/cm)	TDS (mg/l)	Temp (°C/°F)	Imhoff	appearance
1810-1830	1819	—	—	—	—	—	—	—
(1805-1835	1839	—	8.31	724	470	41.41/106.5	0.1	beige/cloudy
ft bls)	1854	217	8.45	728	471	43.02/109.5	—	—
	1909	—	8.42	725	471	43.63/110.5	~0.0	milky/cloudy
1790-1810	1921	—	—	—	—	—	—	—
(1785-1805 ft bls)	1941	—	8.46	725	471	44.49/112.1	<0.1	milky/cloudy
	1956	220	8.41	720	467	43.02/109.5	—	—
	2011	—	8.42	724	471	43.75/110.8	~0.0	hazy
1770-1790	2027	—	—	—	—	—	—	—
(1765-1785	2047	—	8.47	716	466	43.06/109.5	0.1	hazy/milky
ft bls)	2102	207	8.36	721	469	43.31/110.0	—	—
	2117	—	8.41	717	466	42.49/108.5	~0.0	hazy
1750-1770	2143	—	—	—	—	—	—	—
(1745-1765 ft bls)	2143	—	8.40	720	468	42.28/108.1	<0.1	hazy/milky
	2158	—	8.44	719	468	44.28/111.7	—	—
	2113	184	8.51	720	468	44.98/113.0	~0.0	hazy
1730-1750	2217	—	—	—	—	—	—	—
(1725-1745	2237	—	8.35	717	466	41.99/107.6	<0.1	hazy/milky
ft bls)	2252	—	8.54	719	462	42.99/109.4	—	—
	2307	NR 192	8.50	718	467	44.33/111.8	~0.0	hazy
1710-1730	2317	—	—	—	—	—	—	—
(1705-1725	2337	—	8.34	715	465	43.53/110.4		milky
ft bls)	2352	190	8.40	720	468	43.45/110.2	—	—
	0007	—						

Interval	Time	Bbm	pH	SC m/cm	TDS mg/l	Temp °F	Turbidity	Appearance	Reference
1710-1690	0030								
	0050		8.53	701	456	40.14/104.25	0.1	m/tky	
(Post-Pilot)	0405	174	8.49	706	461	41.03/105.85			
	0920		8.51	709	462	40.91/105.64	0.0		
	0936								
1690-1670	0952		8.50	709	459	40.11/104.19	0.1	mi/tky/sm	
(Pilot-Post)	0211	205	8.54	704	458	39.81/103.58			
	0222		8.59	709	461	39.41/102.94	0.1	mi/tky	
	0235								
1670-1650	0255		8.71	706	460	39.24/102.64	0.0	Muddy	
(1665-1645)	0310	178	8.55	711	464	39.42/102.96			
	0325		8.41	710	462	39.91/101.32	0.0		
	0338								
1650-1630	0352		8.49	708	460	39.11/103.30	0.1	mi/tky/sm	
(1645-1625)	0411	176	8.54	704	457	39.42/102.96			
	0426		8.58	699	454	38.72/101.09	0.0	mi/tky	
	0437								
1630-1610	0457		8.50	720	468	40.64/105.15	0.2	Fan/clumps	
	0611	162	8.93	707	460	39.85/103.35			
(1625-1605)	0527		8.55	700	455	39.37/102.87	0.0	mi/tky	
	0540								
1610-1590	0550		8.54	708	460	39.74/103.53	0.2	Fan/mi/tky	
	0605	154	8.47	711	462	39.62/103.32			
(1605-1585)	0620		8.65	705	458	39.73/103.51	0.0	mi/tky	
	0633								
1590-1570	0653		8.60	703	459	36.93/102.07	0.1	Fan/mi/tky	
			8.46	711	462	38.64/101.55			
(1585-1565)	0704	180							
	0723		8.62	709	455	38.79/101.82	0.0		

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Page 4 of ____

Job ____ Project No. ____ Sheet ____ of ____

Description KPW-1 Final Gas Computed by ____ Date 11/12/07

Checked by ____ Date ____ Reference

Analyte	Time	Gas	pH	SC µS/cm	TDS mg/L	Temp	Turbidity	Appearance
	0930	—	—	—	—	—	—	—
1570-1550	0950	162	8.54	698	454	39.34/102.81	0.1	tan/murky
(1545-1525)	1005		8.54	711	462	40.63/104.41	—	—
	0820	—	8.51	701	455	41.98/107.56	0.1	murky/tan
	8930	—	—	—	—	—	—	—
1530-1510	8520	—	8.38	710	461	39.24/102.59	0.2	tan
(1525-1505)	905	155	8.37	698	448	39.04/102.27	—	—
	940	—	8.46	710	461	38.69/101.64	0.2	tan cloudy
	950	—	—	—	—	—	—	—
1510-1490	950	—	8.56	699	454	40.72/105.30	1.4	brown/cloudy
(1505-1485)	1007	130	8.64	706	459	40.62/105.12	—	—
	1040	—	8.58	711	462	42.04/109.47	0.1	murky
	1030	—	—	—	—	—	—	—
1490-1470	1050	—	8.61	708	459	41.65/106.97	0.8	tan/cloudy
(1485-1465)	1105	137	8.64	709	461	40.94/105.69	—	—
	1120	—	8.61	708	460	41.71/107.88	0.0	murky
	1120	—	—	—	—	—	—	—
1470-1450	1130	—	—	—	—	—	—	—
	1150	—	8.52	709	461	42.64/108.72	0.3	tan
(1465-1445)	1205	—	8.56	716	465	44.72/112.50	—	—
	1220	—	8.55	713	464	43.93/111.07	0.1	tan
	1240	—	—	—	—	—	—	—
1450-1430	1245	—	—	—	—	—	—	—
		130						

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Job ____ Description KPW-1 final sweep
Project No. ____ Computed by ____ Checked by ____
Page 5 of ____ Sheet ____ of ____ Date 11/12/05 Date ____ Reference ____

Interval	time	gpm	pH	SC (mS/cm)	TDS (mg/l)	T (°C/°F)	Imhoff	appearance
1430–1450	1344	—	—	—	—	—	—	—
(1425 to 1445 ft bls)	1404	—	8.64	713	463	43.88/111.0	0.1	tan & cloudy
	1419	129	8.69	718	466	44.14/111.5	—	—
	1434	—	8.69	717	466	44.29/111.7	<0.1	lt tan & cloudy
1410–1430	1443	—	—	—	—	—	—	—
(1405 to 1425 ft bls)	1503	—	8.69	711	462	43.66/110.6	0.1	tan & cloudy
	1518	127	8.63	712	463	44.17/111.5	—	—
	1533	—	8.66	715	465	44.38/111.9	~0.0	lt cloudy
1390–1410	1546	—	—	—	—	—	—	—
(1385–1405 ft bls)	1606	—	8.60	709	461	42.61/108.7	0.25	lt brn
	1621	118	8.60	705	468	43.95/111.1	—	—
	1636	—	8.68	714	464	44.08/111.3	~0.0	cloudy
1370–1390	1642	112	—	—	—	—	—	—
1350–1370	1748	102	—	—	—	—	—	—
1330–1350	1844	92	—	—	—	—	—	—
1310–1330	1945	—	—	—	—	—	—	—
(1305 to 1325 ft bls)	~~1805~~ 2005	—	8.85	704	457	42.95/109.3	0.2	lt tan & cloudy
	2020	—	8.74	709	461	42.30/108.1	—	—
	2035	91	8.74	710	461	42.36/108.2	~0.0	cloudy/milky
1290–1310	2048	—	—	—	—	—	—	—
(1285 to 1305 ft bls)	2108	—	8.77	712	463	43.31/110.0	0.1	cloudy/milky
	2123	—	8.75	710	461	43.53/110.4	—	—
	2138	84	8.75	709	462	43.68/110.6	~0.0	cloudy/milky
1270–1290	2143	—	—	—	—	—	—	—
(1265–1285 ft bls)	2203	—	8.70	709	460	42.33/108.2	<0.1	lt tan & cloudy
	2218	86	8.75	710	461	42.27/108.1	—	—
	2233	—	8.77	710	461	42.01/107.6	~0.0	milky/tan

Job ____ Project No. ____
Description KPSW-1 Final subs Computed by ____
Checked by ____

Interval	Time	SPM	pH	SG (mS/cm)	TDS (mg/l)	T (°C/°F)	In bbl	Appearance
1250-1255	02463	—	—	—	—	—	—	—
(1245-1250	23203	—	8.165	709	461	42.137/107.847	<0.1	Hazy/cloudy
+5 min)	23218	76	8.172	710	4612	42.130/108.1	—	—
	23233	—	8.178	710	462	42.127/108.1	milky	
1230-1235	23336	—	—	—	—	—	—	—
(1225 to	00000	—	8.178	699	454	38.41/101.14	<0.1	milky
1245)	00012	78	8.169	685	446	39.59/102.38	—	—
	00026	—	8.171	687	446	38.61/101.50	<0.1	watery
	00045	—	—	—	—	—	—	—
1230-1240	00055	—	8.179	685	445	38.4/108.76	<0.1	milky
(1225-1235)	00120	80	8.169	707	457	36.9/98.44	—	—
	00135	—	8.164	682	444	36.14/97.65	<0.1	milky
1240	—	—	—	—	—	—	—	—
1240 to 1250	2000	—	8.171	683	444	35.03 (95.05	<0.1	Lt brown/clear
215	215	57	8.172	702	456	37.0 98.95	—	—
(1235-1245)	230	—	8.178	700	455	36.9/98.44	<0.1	milky
1240	—	—	—	—	—	—	—	—
1245 to 1255	300	—	8.160	703	457	34.81/94.66	0.1	Lt brown
315	315	46	8.164	704	458	35.19/96.33	—	—
(1245-1255)	330	—	8.162	680	442	35.42/95.76	Kept <0.1	milky
1245	—	—	—	—	—	—	—	—
1255 to 1305	405	—	8.152	693	451	34.12/93.78	<0.1	Lt brown
420	420	44	8.173	695	452	34.20/94.57	—	—
(1255-1305)	435	—	8.169	695	451	34.94/94.82	0.0	milky
1245	—	—	—	—	—	—	—	—
1250-1300	505	—	8.170	702	455	34.43/93.97	<0.1	milky/Lt brown
(1245-1305)	535	—	8.176	695	455	34.67/94.41	0.0	milky
1300-1310	545	—	8.175	692	450	33.13/91.64	0.1	Lt. brown
(1255-1315)	605	37	8.167	697	453	35.72/96.38	<0.1	Milky
1310-1320	635	—	—	—	—	—	—	—

KPW-1 Pump Development

Water Quality Parameters During Aquifer Testing

Pg. 1 of 5

Date: 12/6/05
Well Name/Test Type: KPW-1
Static Water Level: 991.35
Start Time:

development - 1 day)
(before 24-hr shifts)

Location: KPW-1
Job Number:
Geologist: HK; SH

Time	Discharge (gpm)	Totalizer (gallons)	Water Level (feet bgs)	Drawdown (feet)	Temp. (C) F	pH	EC (uS/cm)	TDS (ppm)	Comments
12-5 HK	12/5/05	—	-	-	-	—	—	—	STATIC: 991.35
1556	4150	—	1017.66	25.71	131.5	7.91	655	425	spec cap: 17.5
1719	895	—	1052.4	61.05	130.17	7.75	666	430	spec cap: 14.6; turb: 14
1752	512	—	1054.3	62.95	130.21	7.60	658	429	spec cap: 14.2; turb. 7
			1052 991.20						
12/6/05 0950	0905	—	1058.35	64.09	130.60	7.95	690	416	spec cap: 13.4; turb: 9
1022	930	—	1058.5	67.24	130.96	8.10	622	408	spec. cap: 13.8 turb: 11
1036	1050	—	1073.63	82.37	130.76	8.04	642	420	spec cap: 12.7 turb: 10
1136	1122	—	1081.5	90.29	130.67	8.04	620	406	spec cap: 12.4 turb: 19
1150	1117	—	1081.85	90.59	130.31	8.02	650	423	spec cap: 12.3 turb: 17
1230	1117	—	1081.32	90.06	130.95	8.12	648	421	spec. cap: 12.4 turb: 12
1255	—	—	1092.5	101.29	129.93	8.03	652	422	spec. cap: — turb: 27
1356	1233	—	1096.69	105.43	130.56	8.05	646	422	spec. cap: 11.7 turb: 18
1420	1373	—	1117.32	121.06	129.94	8.09	617	404	spec. cap 11.3 turb: 46
1443	1512	—	1130.82	139.56	130.13	8.01	612	411	spec. cap 10.8 turb: 70
1450	—	—	1132.2	—	—	—	—	—	surge area
1520	—	—	—	—	—	—	—	—	Surge cessations.
1540	—	—	992.52	—	—	—	—	—	
1550	—	—	—	—	—	—	—	—	Begin pumping
1556	1058	—	1067.42	76.16	130.90	8.08	387	253	spec. cap: 13.9 turb: 324
1615	1248	—	1086.65	95.39	130.38	8.02	646	421	spec. cap: 13.1 turb: 24
1633	1380	—	1102.65	111.39	130.92	8.00	648	422	spec. cap: 12.9 turb: 32
1690	—	—	—	—	—	—	—	—	Surge once
1710	—	—	—	—	—	—	—	—	Surge second time.
1740	—	—	—	—	—	—	—	—	Begin pumping

W:\forms\Water quality during development

Water Quality Parameters During Aquifer Testing

Date: 12/6/05
Well Name/Test Type: KPW-1 development
Static Water Level:
Start Time:

Location: KPW-1
Job Number:
Geologist: HK, SH

Time	Discharge (gpm)	Totalizer (gallons)	Water Level (feet bgs)	Drawdown (feet)	Temp. (C)	pH	EC (uS/cm)	TDS (ppm)	Comments
1745	1208	–	1082.67	91.41	131.15	8.11	648	422	spec cap: 13.2 Turb: 28
1802	1200	–	1086.02	99.76	131.32	7.97	657	427	spec cap: 12.7 Turb: 44
12/7/05 0740	–	–	991.35	–	–	–	–	–	Begin pumping - water at surface 0748
0755	1054	–	1067.14	75.79	129.47	8.26	540	350	spec. cap: 14.1 Turb: 91
—	—	—	—	–	–	–	—	—	Discharge is slightly rusty.
0810	1593		1123.55	132.2	130.64	8.15	654	425	spec.cap: 12 Turb: 72 D: 31 cld.
0825	1589	–	1142.33	150.98	130.51	8.09	655	426	spec.cap: 10.5 Turb: 138
0842	1740	–	1153.2	161.85	130.59	8.02	654	425	spec.cap: 10.8 Turb: 203
0855	1739	–	1137.5		130.55	8.00	654	425	spec.cap: Turb: 163
0901	–	–	–	–	–	–	–	–	Surge once.
0931	–	–	–	–	–	–	–	–	Surge second time.
1000	–	–	–	–	–	–	–	–	Surge third time.
1030	–	–			–	–	–	–	Resume pumping
1040	1091	–	1066.1	74.75	130.77	8.13	658	428	spec.cap: 14.6 Turb: 501
1055	1088	–	1069.65	78.3	130.29	8.12	398	259	spec. cap: 13.9 Turb: 39
1110	1669	–	1183.46	192.11	130.70	8.07	654	425	spec. Cap: 8.7 Turb: 90
1125	1656	–	1147.6	156.25	130.71	8.01	651	423	spec.cap: 10.6 Turb: 53
1128	—	—	—	—	–	—	—	—	Surge once.

W:\forms\Water quality during development

Water Quality Parameters During Aquifer Testing

Pg. 3 of 5 (bk)

Date: 12/7/05
Well Name/Test Type: development
Static Water Level: 991.35
Start Time:

Location: KPW-1
Job Number: 254443322
Geologist: HK; SH

Time	Discharge (gpm)	Totalizer (gallons)	Water Level (feet bgs)	Drawdown (feet)	Temp. (F)	pH	EC (uS/cm)	TDS (ppm)	Comments
12/7/05	–	–	–	–	–	–	–	–	–
1200	–	–	–	–	–	–	–	–	surge (second)
1240	–	–	–	–	–	–	–	–	third surge
1310	–	–	–	–	–	–	–	–	fourth surge
1340	–	–	–	–	–	–	–	–	grey/brown water
1355	1065	–	1068.7	77.35	129.56	8.20	389	250	SpecCap = 13.17
1413	increasing flow to ~1750 gpm				–	–	–	–	–
1418	1754	–	–	–	–	–	–	–	water is fairly clear
1420	1752	2396570	1145.45	154.1	130.11	8.04	656	425	SpCp 11.27
1425	1750	–	1149.40	158.05	–	–	–	–	SpCp 11.02
1430	1748	–	1150.55	159.20	–	–	–	–	SpCp 10.97
1430	–	–	–	–	–	–	–	–	end of pump → surge
1545	1068	–	1067.8	76.45	130.50	8.15	656	427	Spec cap: 14 Turb: 119 *
1600	1724	–	1148.07	156.67	130.36	8.06	654	425	Spec cap: 11 Turb: 90
1615	1713	–	1147.3	155.95	130.31	8.04	654	425	Spec cap: 11 Turb: 61
1616	–	–	–	–	–	–	–	–	Surge once.
1646	–	–	–	–	–	–	–	–	Surge second time.
1715	–	–			–	–	–	–	Begin pumping.
1724	1785	–	1087.89	96.54	130.27	8.10	656	427	Sp. cp. 13.3 Turb: 292
1736	1751	–	1090.95	99.6	130.38	8.05	653	424	Sp cp. 176 Turb: 37
1745	1796	–	1148.54	157.19	130.56	8.08	654	425	Sp cp. 11 Turb: 60
1755	–	–	–	–	–	–	–	–	Surge (1)
1825	–	–	–	–	–	–	–	–	Surge (2)
1900	–	–	–	–	–	–	–	–	PUMP ON
1905	1365	–	–	–	–	–	–	–	brown w/ 15 sec rusty red pulse

W:\forms\Water quality during development

*At 1530, pumping at ~1,050 gpm discharge was grey/brown w/ a short pulse of rusty red

Water Quality Parameters During Aquifer Testing

Pg. 4 of 5

Date: 12/7/05
Well Name/Test Type: development
Static Water Level: 991.35
Start Time:

Location: KPW-1
Job Number: 234443322
Geologist: HK, SH

Time	Discharge (gpm)	Totalizer (gallons)	Water Level (feet bgs)	Drawdown (feet)	Temp. F	pH	EC (uS/cm)	TDS (ppm)	Comments
1918	1295	—	—	—	129.02	8.23	653	424	—— turb: 414
1922	1298	—	1091.64	100.29	—	—	—	—	Sp Cp: 12.94 ——
1931	1925	—	1148.74	157.39	—	—	—	—	Sp Cp, 12,23 ~~turb~~ HK
1935	1951	—	—	—	129.34	8.19	370	241	—— turb 116
1950	1960	—	1148.78	157.43	—	—	—	—	pumpoff turb 274
11	-	-	-	-	-	-	-	-	Spec Cp 12.44
2020	1993		1148.78	157.40	—	—	—	—	Spec Cp 12.76
2030	1995		~~1148.60~~ 1138.9	147.53	130.53	8.16	654	412	Sp Cp 13.52
2035	2009		1145.49	154.09	—	—	—	—	Sp Cp 13.03 turb 121
2040	2003	—	—	—	130.10	8.13	653	424	
2053	2044		1148.75	157.43	130.25	8.04	652	424	Sp Cp 12.48 turb 188
2106	—	-	-	-	—	—	—	—	stop pump to surge
2135	—	-	—	—	—	—	-	—	second surge
2205	—	—	—	—	—	—	-	—	starting pump
2210	-	-	-	-	-	-	-	-	tan water / rusty pulse
2215	1715	—	1134.82	143.47	130.50	8.22	653	425	11.95 Sp Cp turb 109
2245	1707	-	1147.98	137.63	-	-	-	-	Sp Cp 12.4
2250	-	-	—	—	—	—	—	—	stepping flow up
2300	2041	—	1148.52	138.17	130.53	8.06	652	424	Sp Cp 14.72 turb 109
2310	—	-	—	—	130.53	8.07	652	424	Sp Cp HK turb 87
2320	2037	—	1148.70	138.35	-	-	-	-	Sp Cp 14.72
2321	—	-	-	-	-	-	-	—	starting to surge (1)
2350	-	-	-	-	-	-	-	-	Surge (2)

W:\forms\Water quality during development

Water Quality Parameters During Aquifer Testing

Date: 12/8/05
Well Name/Test Type:
Static Water Level: 991.35
Start Time:

Location:
Job Number:
Geologist:

Time	Discharge (gpm)	Totalizer (gallons)	Water Level (feet bgs)	Drawdown (feet)	Temp. (C)	pH	EC (uS/cm)	TDS (ppm)	Comments
0020	–	–	–	–	–	–	–	–	Surge (2)
0050	–	–	–	–	–	–	–	–	Surge (3)
0120	–	–	–	–	–	–	–	–	Begin pumping – Discharge is grayish clears quickly
0130	2040	–	changing battery		130.88	8.19	655	426	Rusty red plate seen in discharge. Turb: 100
0136	2030	–	1147.6	156.25	130.64	8.21	653	424	Sp. Cp. 12.99 Turb: 130
0140	2027	–	1148.1	156.75	131.06	8.17	652	424	Sp. Cp. 12.93 Turb: 114
0150	2019	–	1148.97	157.62	131.01	8.11	652	424	Sp. Cp. 12.91 Turb: 99
0157	2007	–	1149.5	158.15	130.95	8.10	652	424	Sp. Cp. 12.69 Turb: 82
0200	–	–	–	–	–	–	–	–	Surge (1)
0230	–	–	–	–	–	–	–	–	Surge (2)
0300	–	–	–	–	–	–	–	–	Surge (3)
0330	–	–	–	–	–	–	–	–	Begin pumping. Discharge is grayish/brown 15%
–	–	–	–	–	–	–	–	–	Rusty red plate lasts 2 sec. then clears.
0343	2032	–	1141.66	150.31	130.73	8.25	652	424	Sp. Cp. 1352 Turb. 86
0350	2033	–	1145.99	154.64	130.50	8.22	651	423	Sp Cp. 13.15 Turb: 78
0400	2032	–	1196.47	155.12	130.58	8.14	651	423	Sp Cp. 13.1 Turb: 58
0410	2030	–	1150.52	159.17	130.25	8.11	651	423	Sp Cp. 12.75 Turb: 57
0412	–	–	–	–	–	–	–	–	Surge (1)
0440	–	–	–	–	–	–	–	–	Surge (2)
0510	–	–	–	–	–	–	–	–	Begin pumping – Discharge is
–	–	–	–	–	–	–	–	–	light grayish/brownish. Rusty red plate 20 sec.
0523	2026	–	1143.57	152.22	130.80	8.17	653	424	Sp. Cp. 13.31 Turb: 93
0530	2033	–	1148.3	156.95	130.36	8.20	652	424	Sp Cp. 12.95 Turb: 64
0540	2027	–	1150.51	159.16	130.65	8.14	651	423	Sp. Cp. 12.74 Turb: 53
0553	2033	–	1150.79	159.44	130.44	8.09	651	423	Sp Cp. 12.75 Turb: 52

* KPW *

Sounder make, model, S/N: | Project: | Job No.: | Client:

Well Name	Measurement Point: Description	Measurement Point: TOW Height (ft ags)	DD Measured DTW (ft bmp)	gpm Date/Time	time of pumping DTW (ft bgs)	Comments
12/7/05	STATIC WL 0740	991.35	∅	—	—	
0750		1065.21	73.86	1065	—	← spec cap = 14.4 ~~SPEC CAP~~ spec cap = 14.4
0800		1067.14	75.79	1067	10	SPEC CAP = 14.08
0805		1123.55	132.2	1660	∅	Sp Cap 12.1
0815		1139.53	148.18	1593	10	Sp Cap 10.75
0825		1142.33	150.98	1590	20	Sp Cap 10.53
0840		1153.22	161.87	1738	∅	Sp Cap 10.73
0850		1155.82	164.47	1730	10	Sp Cap 10.52
0855-1020	~~SURGE~~ WK end of pump	1157.8	166.45	1730	15	Sp Cap 10.39
1035		1066.1	74.75	1140	∅	Sp Cp 15.35
1045		1068.4	77.05	1088	10	Sp Cp 14.12
1055		1069.65	78.3	1088	20	Sp Cp 13.84
1105		1083.46	92.1	1668	~~20~~	Sp Cp 10.87
1115		1144.12	152.77	1660	10 KS	Sp Cp 10.87
1125		1147.16	155.81	1657	15	Sp Cp 11.62
1345	first pump after surge	1067.81	76.46	1065	5	Sp Cp 13.92
1355		1068.7	77.35	1065	15	Sp Cp 13.77
1430 1445 WK		1150.25	159.20	1750	15	Sp Cp 10.47
1557		1048.02	156.67	1745	12	Sp Cp 11.13
1615	end of pump	1147.30	155.95	1744		Sp Cp 11.18
1931		1148.34	157.34	1925		Sp Cp 12.23
1950	end of pump	1148.28	157.43	1960		Sp Cp 12.44
2053		1148.35	157.43	2044		Sp Cp 12.98
2245		1147.98	137.63	1707		Sp Cp 12.4
2300		1148.52	138.17	2041		Sp Cp 14.77
2320		1148.70	138.35	2037		Sp Cp 14.72

* KMW *

URS DTW =
Lang DTW - 6.61
* DTW is Lang

Sounder make, model, S/N:

Project:

Job No.:

Client:

Well Name	Measurement Point: Description	Measurement Point: DTW Height (ft ags)	DJ Measured DTW (ft bmp)	Date/Time	DTW (ft bgs)	Comments
12/7/01	STATIC WL from 12/6	998.41	0			
1405	KPW @ 1065 gpm	1011.33	12.92			
1425	KPW @ 1750 gpm	1019.50	21.09			
1552	KPW @ 1757 gpm	1017.02	14.61			
1751	KPW @ 1741 gpm	1020.56	22.15			
2240	KPW @ 1748 gpm	1021.10	22.69			
2314		1026.59	~~28.18~~	28.18		

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Field Water Quality Parameters for the Development of KMW-1

Date	Time	Flow (gpm)	pH	SC ($\mu S/cm$)	TDS* (mg/L)	Temperature (°F)	Comments
10/13/2005	14:25	20	-	-	-	112.4	The mud is thinning.
10/13/2005	14:30	20-25	-	-	-	113.0	The mud is thin and has no significant solids. The flow is increasing slightly and starting to surge.
10/13/2005	14:35	25	-	-	-	113.7	
10/13/2005	14:45	25	-	-	-	114.0	
10/13/2005	14:47	-	-	-	-	-	Shut off air and add a rod.
10/13/2005	15:22	-	-	-	-	-	Air up
10/13/2005	15:33	25-35+	-	-	-	115.8	The mud is thinning.
10/13/2005	15:40	50	-	-	-	116.7	
10/13/2005	15:48	100	-	-	-	117.3	Flow to mud tank
10/13/2005	16:30	50-100	8.5	1,180	790.6	117.8	Light muddy appearance, brown
10/13/2005	17:00	-	8.5	1,160	777.2	117.3	Light muddy appearance, brown
10/13/2005	17:30	100	8.6	1,150	770.5	117.5	Light muddy appearance, brown
10/13/2005	18:00	100	8.6	1,130	757.1	117.6	Light brown, clearing
10/13/2005	19:00	100	8.6	1,120	750.4	117.6	Cloudy brown, clearing
10/13/2005	19:12	-	-	-	-	-	Shut off air
10/13/2005	20:15	-	-	-	-	-	Surged well 10 times by pressuring up to 400 psi; discharge clouded up considerably.
10/13/2005	20:30	100	8.6	1,170	783.9	116.0	Flow still at 100 gpm but looks like increase that was observed at 19:00.
10/13/2005	22:00	100	8.6	1,120	750.4	117.2	Slightly brown but clearing
10/14/2005	01:05	-	-	-	-	-	Surged well 5 times (to 400 psi) then unload; 433 psi to come around; will surge 5 times every 2 hours.
10/14/2005	15:15	100	8.6	1,130	757.1	117.1	Slightly cloudy, light gray
10/14/2005	06:00	-	8.6	1,130	757.1	117.1	Relocated meters and checked the last sample (00:15)
10/14/2005	06:30	-	-	-	-	-	Surged well 5 times; 448 psi to come around
10/14/2005	07:10	-	8.4	1,190	797.3	114.6	First sample after the purge. The water is turbid brown with fine sand.

*TDS was calculated based on the SC, where TDS = 0.67 * SC.

Field Water Quality Parameters for the Development of KMW-1

Date	Time	Flow (gpm)	pH	SC ($\mu S/cm$)	TDS* (mg/L)	Temperature (°F)	Comments
10/14/2005	09:00	-	8.6	1,120	750.4	117.6	Slightly to moderately cloudy.
10/14/2005	09:10	-	-	-	-	-	Surge 5 times
10/14/2005	09:30	-	8.5	1,110	743.7	117.0	Pale brown, cloudy with fine sand
10/14/2005	10:30	-	8.6	1,100	737.0	118.2	Light gray and cloudy
10/14/2005	10:45	-	8.5	1,100	737.0	---	Surge 5 times; turbid brown with fine sand
10/14/2005	11:40	-	8.6	1,100	737.0	118.2	Surge well 5 times; cloudy brownish gray
10/14/2005	12:35	-	8.5	1,090	730.3	118.4	Cloudy gray-brown
10/14/2005	13:30	-	8.5	1,100	737.0	118.5	Slightly cloudy light gray
10/14/2005	13:42	-	-	-	-	-	442 psi to come around; turbid brown with very fine sand & silt
10/14/2005	15:00	-	8.4	1,090	730.3	118.7	Moderately brown and cloudy
10/14/2005	15:15	-	-	-	-	-	End of development.

*TDS was calculated based on the SC, where TDS = 0.67 * SC.

KPW-1 December 2005 Step-Discharge Test 2 (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 7:00:35.814	0.000	990.445	0.000
12/10/2005 7:00:37.617	0.030	991.002	0.557
12/10/2005 7:00:39.474	0.061	992.285	1.840
12/10/2005 7:00:41.517	0.095	993.522	3.077
12/10/2005 7:00:43.614	0.130	993.278	2.833
12/10/2005 7:00:45.834	0.167	993.925	3.480
12/10/2005 7:00:48.234	0.207	995.870	5.425
12/10/2005 7:00:50.758	0.249	997.959	7.514
12/10/2005 7:00:53.394	0.293	1,000.196	9.751
12/10/2005 7:00:56.215	0.340	1,002.680	12.235
12/10/2005 7:00:59.214	0.390	1,006.016	15.571
12/10/2005 7:01:02.398	0.443	1,009.522	19.077
12/10/2005 7:01:05.754	0.499	1,013.591	23.146
12/10/2005 7:01:09.354	0.559	1,018.358	27.913
12/10/2005 7:01:12.954	0.619	1,023.864	33.419
12/10/2005 7:01:16.831	0.684	1,029.272	38.827
12/10/2005 7:01:17.081	0.688	1,030.332	39.887
12/10/2005 7:01:17.332	0.692	1,030.923	40.478
12/10/2005 7:01:17.582	0.696	1,030.181	39.736
12/10/2005 7:01:17.832	0.700	1,030.776	40.331
12/10/2005 7:01:18.082	0.704	1,031.409	40.964
12/10/2005 7:01:18.332	0.709	1,031.300	40.855
12/10/2005 7:01:18.607	0.713	1,032.616	42.171
12/10/2005 7:01:18.832	0.717	1,032.519	42.074
12/10/2005 7:01:19.082	0.721	1,032.337	41.892
12/10/2005 7:01:19.332	0.725	1,034.072	43.627
12/10/2005 7:01:19.582	0.729	1,033.328	42.883
12/10/2005 7:01:19.832	0.734	1,033.180	42.735
12/10/2005 7:01:20.082	0.738	1,034.676	44.231
12/10/2005 7:01:20.332	0.742	1,035.080	44.635
12/10/2005 7:01:20.582	0.746	1,034.560	44.115
12/10/2005 7:01:20.832	0.750	1,035.774	45.329
12/10/2005 7:01:21.082	0.754	1,036.983	46.538
12/10/2005 7:01:21.332	0.759	1,037.326	46.881
12/10/2005 7:01:21.582	0.763	1,037.793	47.348
12/10/2005 7:01:21.832	0.767	1,037.419	46.974
12/10/2005 7:01:22.082	0.771	1,038.137	47.692
12/10/2005 7:01:22.332	0.775	1,038.037	47.592
12/10/2005 7:01:22.582	0.779	1,038.563	48.118
12/10/2005 7:01:22.832	0.784	1,039.116	48.671
12/10/2005 7:01:23.191	0.790	1,041.134	50.689
12/10/2005 7:01:23.552	0.796	1,040.810	50.365
12/10/2005 7:01:23.971	0.803	1,041.471	51.026
12/10/2005 7:01:24.391	0.810	1,041.766	51.321
12/10/2005 7:01:24.811	0.817	1,042.541	52.096
12/10/2005 7:01:25.291	0.825	1,044.290	53.845
12/10/2005 7:01:25.831	0.834	1,044.144	53.699
12/10/2005 7:01:26.311	0.842	1,044.198	53.753
12/10/2005 7:01:26.911	0.852	1,045.958	55.513
12/10/2005 7:01:27.511	0.862	1,046.246	55.801

KPW-1 December 2005 Step-Discharge Test 2 (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 7:01:28.111	0.872	1,045.910	55.465
12/10/2005 7:01:28.771	0.883	1,047.660	57.215
12/10/2005 7:01:29.491	0.895	1,049.033	58.588
12/10/2005 7:01:30.273	0.908	1,050.733	60.288
12/10/2005 7:01:31.051	0.921	1,052.380	61.935
12/10/2005 7:01:31.891	0.935	1,052.266	61.821
12/10/2005 7:01:32.791	0.950	1,054.167	63.722
12/10/2005 7:01:33.751	0.966	1,055.035	64.590
12/10/2005 7:01:34.711	0.982	1,056.165	65.720
12/10/2005 7:01:35.791	1.000	1,056.926	66.481
12/10/2005 7:01:36.931	1.019	1,058.747	68.302
12/10/2005 7:01:38.131	1.039	1,061.049	70.604
12/10/2005 7:01:39.391	1.060	1,061.044	70.599
12/10/2005 7:01:40.711	1.082	1,062.526	72.081
12/10/2005 7:01:42.151	1.106	1,064.443	73.998
12/10/2005 7:01:43.651	1.131	1,066.217	75.772
12/10/2005 7:01:45.212	1.157	1,067.790	77.345
12/10/2005 7:01:46.891	1.185	1,068.782	78.337
12/10/2005 7:01:48.694	1.215	1,070.407	79.962
12/10/2005 7:01:50.551	1.246	1,071.629	81.184
12/10/2005 7:01:52.643	1.280	1,073.966	83.521
12/10/2005 7:01:54.702	1.315	1,074.254	83.809
12/10/2005 7:01:56.911	1.352	1,077.639	87.194
12/10/2005 7:01:59.311	1.392	1,079.145	88.700
12/10/2005 7:02:01.831	1.434	1,080.054	89.609
12/10/2005 7:02:04.471	1.478	1,081.952	91.507
12/10/2005 7:02:07.291	1.525	1,083.301	92.856
12/10/2005 7:02:10.294	1.575	1,085.035	94.590
12/10/2005 7:02:13.471	1.628	1,086.813	96.368
12/10/2005 7:02:16.832	1.684	1,087.739	97.294
12/10/2005 7:02:20.435	1.744	1,090.324	99.879
12/10/2005 7:02:24.031	1.804	1,090.804	100.359
12/10/2005 7:02:28.232	1.874	1,093.121	102.676
12/10/2005 7:02:32.432	1.944	1,092.977	102.532
12/10/2005 7:02:36.633	2.014	1,096.515	106.070
12/10/2005 7:02:41.431	2.094	1,096.016	105.571
12/10/2005 7:02:46.831	2.184	1,096.238	105.793
12/10/2005 7:02:51.631	2.264	1,098.200	107.755
12/10/2005 7:02:57.631	2.364	1,095.077	104.632
12/10/2005 7:03:03.631	2.464	1,094.023	103.578
12/10/2005 7:03:09.632	2.564	1,092.617	102.172
12/10/2005 7:03:16.231	2.674	1,090.625	100.180
12/10/2005 7:03:23.431	2.794	1,088.394	97.949
12/10/2005 7:03:31.231	2.924	1,086.133	95.688
12/10/2005 7:03:39.031	3.054	1,084.947	94.502
12/10/2005 7:03:47.431	3.194	1,083.047	92.602
12/10/2005 7:03:56.431	3.344	1,080.620	90.175
12/10/2005 7:04:06.031	3.504	1,081.266	90.821
12/10/2005 7:04:15.631	3.664	1,084.475	94.030
12/10/2005 7:04:26.431	3.844	1,090.490	100.045

KPW-1 December 2005 Step-Discharge Test 2 (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 7:04:37.831	4.034	1,096.871	106.426
12/10/2005 7:04:49.831	4.234	1,103.642	113.197
12/10/2005 7:05:02.431	4.444	1,108.586	118.141
12/10/2005 7:05:15.631	4.664	1,112.863	122.418
12/10/2005 7:05:30.031	4.904	1,117.283	126.838
12/10/2005 7:05:45.031	5.154	1,120.308	129.863
12/10/2005 7:06:00.631	5.414	1,123.685	133.240
12/10/2005 7:06:17.431	5.694	1,125.478	135.033
12/10/2005 7:06:35.431	5.994	1,128.331	137.886
12/10/2005 7:06:54.031	6.304	1,131.004	140.559
12/10/2005 7:07:14.431	6.644	1,132.852	142.407
12/10/2005 7:07:35.431	6.994	1,134.971	144.526
12/10/2005 7:07:57.631	7.364	1,137.126	146.681
12/10/2005 7:08:21.631	7.764	1,138.749	148.304
12/10/2005 7:08:46.831	8.184	1,139.575	149.130
12/10/2005 7:09:13.231	8.624	1,140.871	150.426
12/10/2005 7:09:41.431	9.094	1,142.604	152.159
12/10/2005 7:10:11.431	9.594	1,143.984	153.539
12/10/2005 7:10:43.231	10.124	1,145.952	155.507
12/10/2005 7:11:16.831	10.684	1,145.722	155.277
12/10/2005 7:11:52.831	11.284	1,146.167	155.722
12/10/2005 7:12:28.831	11.884	1,148.688	158.243
12/10/2005 7:13:10.831	12.584	1,148.437	157.992
12/10/2005 7:13:52.831	13.284	1,148.884	158.439
12/10/2005 7:14:34.831	13.984	1,150.667	160.222
12/10/2005 7:15:22.831	14.784	1,150.268	159.823
12/10/2005 7:16:16.831	15.684	1,152.156	161.711
12/10/2005 7:17:04.831	16.484	1,152.129	161.684
12/10/2005 7:18:04.831	17.484	1,153.057	162.612
12/10/2005 7:19:04.831	18.484	1,152.463	162.018
12/10/2005 7:20:04.831	19.484	1,153.655	163.210
12/10/2005 7:21:10.831	20.584	1,153.635	163.190
12/10/2005 7:22:22.831	21.784	1,154.459	164.014
12/10/2005 7:23:40.831	23.084	1,155.571	165.126
12/10/2005 7:24:58.831	24.384	1,155.625	165.180
12/10/2005 7:26:22.831	25.784	1,156.250	165.805
12/10/2005 7:27:52.831	27.284	1,157.505	167.060
12/10/2005 7:29:28.831	28.884	1,156.256	165.811
12/10/2005 7:31:04.831	30.484	1,156.780	166.335
12/10/2005 7:32:52.831	32.284	1,157.029	166.584
12/10/2005 7:34:46.831	34.184	1,157.672	167.227
12/10/2005 7:36:46.831	36.184	1,158.405	167.960
12/10/2005 7:38:52.831	38.284	1,157.861	167.416
12/10/2005 7:41:04.831	40.484	1,158.227	167.782
12/10/2005 7:43:28.831	42.884	1,157.760	167.315
12/10/2005 7:45:58.831	45.384	1,158.594	168.149
12/10/2005 7:48:34.831	47.984	1,159.938	169.493
12/10/2005 7:51:22.831	50.784	1,159.674	169.229
12/10/2005 7:54:22.831	53.784	1,159.675	169.230
12/10/2005 7:57:28.831	56.884	1,160.799	170.354

KPW-1 December 2005 Step-Discharge Test 2 (pumped well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 8:00:52.831	60.284	1,160.696	170.251
12/10/2005 8:04:22.831	63.784	1,161.521	171.076
12/10/2005 8:08:04.831	67.484	1,161.866	171.421
12/10/2005 8:12:04.831	71.484	1,162.590	172.145
12/10/2005 8:16:16.831	75.684	1,162.964	172.519
12/10/2005 8:20:40.831	80.084	1,162.882	172.437
12/10/2005 8:25:22.831	84.784	1,163.346	172.901
12/10/2005 8:30:22.831	89.784	1,163.536	173.091
12/10/2005 8:35:40.831	95.084	1,163.997	173.552
12/10/2005 8:41:16.831	100.684	1,163.237	172.792
12/10/2005 8:47:16.831	106.684	1,164.670	174.225
12/10/2005 8:53:16.831	112.684	1,164.176	173.731
12/10/2005 9:00:16.831	119.684	1,164.889	174.444
12/10/2005 9:07:16.831	126.684	1,164.571	174.126
12/10/2005 9:14:16.831	133.684	1,164.804	174.359
12/10/2005 9:22:16.831	141.684	1,165.273	174.828
12/10/2005 9:31:16.831	150.684	1,165.203	174.758
12/10/2005 9:39:16.831	158.684	1,166.172	175.727
12/10/2005 9:49:16.831	168.684	1,165.312	174.867
12/10/2005 9:59:16.831	178.684	1,167.316	176.871
12/10/2005 10:09:16.831	188.684	1,167.075	176.630
12/10/2005 10:19:16.831	198.684	1,165.658	175.213
12/10/2005 10:29:16.831	208.684	1,167.004	176.559
12/10/2005 10:39:16.831	218.684	1,167.815	177.370
12/10/2005 10:49:16.831	228.684	1,166.722	176.277
12/10/2005 10:59:16.831	238.684	1,167.767	177.322
12/10/2005 11:09:16.831	248.684	1,168.340	177.895
12/10/2005 11:19:16.831	258.684	1,167.129	176.684
12/10/2005 11:29:16.833	268.684	1,166.512	176.067
12/10/2005 11:39:16.831	278.684	1,167.710	177.265
12/10/2005 11:49:16.831	288.684	1,167.887	177.442
12/10/2005 11:59:16.831	298.684	1,167.851	177.406
12/10/2005 12:09:16.831	308.684	1,167.961	177.516
12/10/2005 12:19:16.831	318.684	1,168.160	177.715
12/10/2005 12:29:16.831	328.684	1,168.690	178.245
12/10/2005 12:39:16.831	338.684	1,168.626	178.181
12/10/2005 12:49:16.831	348.684	1,168.835	178.390
12/10/2005 12:59:16.831	358.684	1,168.884	178.439
12/10/2005 13:09:16.831	368.684	980.929	-9.516
12/10/2005 13:19:16.831	378.684	992.805	2.360
12/10/2005 13:29:16.831	388.684	991.153	0.708
12/10/2005 13:39:16.831	398.684	990.764	0.319
12/10/2005 13:49:16.831	408.684	990.791	0.346
12/10/2005 13:59:16.831	418.684	990.810	0.365
12/10/2005 14:09:16.831	428.684	990.548	0.103

KPW-1 December 2005 Step-Discharge Test 2 (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 7:00:36.464	0.000	992.065	0.000
12/10/2005 7:00:41.264	0.080	992.110	0.045
12/10/2005 7:00:47.264	0.180	992.056	-0.009
12/10/2005 7:00:53.264	0.280	992.063	-0.002
12/10/2005 7:00:59.264	0.380	992.101	0.036
12/10/2005 7:01:05.864	0.490	992.087	0.022
12/10/2005 7:01:13.064	0.610	992.142	0.077
12/10/2005 7:01:20.864	0.740	992.306	0.241
12/10/2005 7:01:28.664	0.870	992.615	0.550
12/10/2005 7:01:37.064	1.010	993.020	0.955
12/10/2005 7:01:46.064	1.160	993.524	1.459
12/10/2005 7:01:55.664	1.320	994.225	2.160
12/10/2005 7:02:05.264	1.480	994.915	2.850
12/10/2005 7:02:16.063	1.660	995.793	3.728
12/10/2005 7:02:27.464	1.850	996.638	4.573
12/10/2005 7:02:39.464	2.050	997.483	5.418
12/10/2005 7:02:52.063	2.260	998.308	6.243
12/10/2005 7:03:05.264	2.480	999.096	7.031
12/10/2005 7:03:19.664	2.720	999.846	7.781
12/10/2005 7:03:34.664	2.970	1,000.499	8.434
12/10/2005 7:03:50.263	3.230	1,001.044	8.979
12/10/2005 7:04:07.063	3.510	1,001.448	9.383
12/10/2005 7:04:25.063	3.810	1,001.736	9.671
12/10/2005 7:04:43.664	4.120	1,001.997	9.932
12/10/2005 7:05:04.063	4.460	1,002.399	10.334
12/10/2005 7:05:25.063	4.810	1,002.990	10.925
12/10/2005 7:05:47.263	5.180	1,003.700	11.635
12/10/2005 7:06:11.263	5.580	1,004.496	12.431
12/10/2005 7:06:36.464	6.000	1,005.273	13.208
12/10/2005 7:07:02.864	6.440	1,005.968	13.903
12/10/2005 7:07:31.063	6.910	1,006.659	14.594
12/10/2005 7:08:01.063	7.410	1,007.251	15.186
12/10/2005 7:08:32.864	7.940	1,007.884	15.819
12/10/2005 7:09:06.463	8.500	1,008.422	16.357
12/10/2005 7:09:42.463	9.100	1,008.956	16.891
12/10/2005 7:10:18.463	9.700	1,009.410	17.345
12/10/2005 7:11:00.463	10.400	1,009.937	17.872
12/10/2005 7:11:42.463	11.100	1,010.333	18.268
12/10/2005 7:12:24.463	11.800	1,010.717	18.652
12/10/2005 7:13:12.463	12.600	1,011.085	19.020
12/10/2005 7:14:06.463	13.500	1,011.490	19.425
12/10/2005 7:14:54.463	14.300	1,011.758	19.693
12/10/2005 7:15:54.463	15.300	1,012.126	20.061
12/10/2005 7:16:54.463	16.300	1,012.411	20.346
12/10/2005 7:17:54.463	17.300	1,012.662	20.597
12/10/2005 7:19:00.463	18.400	1,012.927	20.862
12/10/2005 7:20:12.463	19.600	1,013.173	21.108
12/10/2005 7:21:30.463	20.900	1,013.417	21.352
12/10/2005 7:22:48.463	22.200	1,013.639	21.574
12/10/2005 7:24:12.463	23.600	1,013.858	21.793

KPW-1 December 2005 Step-Discharge Test 2 (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 7:25:42.463	25.100	1,014.071	22.006
12/10/2005 7:27:18.463	26.700	1,014.256	22.191
12/10/2005 7:28:54.463	28.300	1,014.444	22.379
12/10/2005 7:30:42.463	30.100	1,014.611	22.546
12/10/2005 7:32:36.463	32.000	1,014.783	22.718
12/10/2005 7:34:36.463	34.000	1,014.946	22.881
12/10/2005 7:36:42.463	36.100	1,015.057	22.992
12/10/2005 7:38:54.463	38.300	1,015.230	23.165
12/10/2005 7:41:18.463	40.700	1,015.355	23.290
12/10/2005 7:43:48.463	43.200	1,015.478	23.413
12/10/2005 7:46:24.463	45.800	1,015.606	23.541
12/10/2005 7:49:12.463	48.600	1,015.711	23.646
12/10/2005 7:52:12.463	51.600	1,015.811	23.746
12/10/2005 7:55:18.463	54.700	1,015.912	23.847
12/10/2005 7:58:42.463	58.100	1,016.022	23.957
12/10/2005 8:02:12.463	61.600	1,016.107	24.042
12/10/2005 8:05:54.463	65.300	1,016.281	24.216
12/10/2005 8:09:54.463	69.300	1,016.365	24.300
12/10/2005 8:14:06.463	73.500	1,016.491	24.426
12/10/2005 8:18:30.463	77.900	1,016.583	24.518
12/10/2005 8:23:12.463	82.600	1,016.661	24.596
12/10/2005 8:28:12.463	87.600	1,016.698	24.633
12/10/2005 8:33:30.463	92.900	1,016.781	24.716
12/10/2005 8:39:06.463	98.500	1,016.885	24.820
12/10/2005 8:45:06.463	104.500	1,016.940	24.875
12/10/2005 8:51:06.463	110.500	1,017.001	24.936
12/10/2005 8:58:06.463	117.500	1,017.036	24.971
12/10/2005 9:05:06.463	124.500	1,017.128	25.063
12/10/2005 9:12:06.463	131.500	1,017.146	25.081
12/10/2005 9:20:06.463	139.500	1,017.206	25.141
12/10/2005 9:29:06.463	148.500	1,017.304	25.239
12/10/2005 9:37:06.463	156.500	1,017.313	25.248
12/10/2005 9:47:06.463	166.500	1,017.360	25.295
12/10/2005 9:57:06.463	176.500	1,017.451	25.386
12/10/2005 10:07:06.463	186.500	1,017.493	25.428
12/10/2005 10:17:06.463	196.500	1,017.505	25.440
12/10/2005 10:27:06.463	206.500	1,017.553	25.488
12/10/2005 10:37:06.463	216.500	1,017.587	25.522
12/10/2005 10:47:06.463	226.500	1,017.582	25.517
12/10/2005 10:57:06.463	236.500	1,017.656	25.591
12/10/2005 11:07:06.463	246.500	1,017.685	25.620
12/10/2005 11:17:06.463	256.500	1,017.679	25.614
12/10/2005 11:27:06.463	266.500	1,017.730	25.665
12/10/2005 11:37:06.463	276.500	1,017.766	25.701
12/10/2005 11:47:06.463	286.500	1,017.768	25.703
12/10/2005 11:57:06.463	296.500	1,017.764	25.699
12/10/2005 12:07:06.463	306.500	1,017.822	25.757
12/10/2005 12:17:06.463	316.500	1,017.849	25.784
12/10/2005 12:27:06.463	326.500	1,017.825	25.760
12/10/2005 12:37:06.463	336.500	1,017.853	25.788

KPW-1 December 2005 Step-Discharge Test 2 (observation well)

Real Time	Elapsed Time	Level-DTW (ft)	Drawdown: s (ft)
12/10/2005 12:47:06.463	346.500	1,017.877	25.812
12/10/2005 12:57:06.463	356.500	1,017.905	25.840
12/10/2005 13:07:06.463	366.500	1,019.978	27.913
12/10/2005 13:17:06.463	376.500	997.298	5.233
12/10/2005 13:27:06.463	386.500	994.910	2.845
12/10/2005 13:37:06.463	396.500	994.105	2.040
12/10/2005 13:47:06.463	406.500	993.714	1.649
12/10/2005 13:57:06.463	416.500	993.489	1.424
12/10/2005 14:07:06.463	426.500	993.347	1.282