MUD LOG

WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name:	WELLINGTON KGS 1-32		
Location:	SW NE NE SEC 32-31S-1W, SUMNER COUNTY, KS		
License Number:	15-191-22591-0000	Region:	MID-CONTINENT
Spud Date:	12/29/2010	Drilling Completed:	2/9/2011
Surface Coordinates:	LATITUDE : 37.3154639 LONGITUDE : -97.4423481		
Bottom Hole Coordinates:	LATITUDE : 37.3154639 LONGITUDE : -97.4423481		
Ground Elevation (ft):	1259	K.B. Elevation (ft):	1272
Logged Interval (ft):	0 To: 5239	Total Depth (ft):	5239
Formation:	PRE-CAMBRIAN (GRANITE)		
Type of Drilling Fluid:	CHEMICAL (BENTONITE) MUD		

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OPERATOR

Company: BEREXCO LLC.
Address: 2020 N. BRAMBLEWOOD ST.
WICHITA,
KS, 67208

GEOLOGIST

Name: GANGANATH KORALEGEDARA / KENT CRISLER
Company: BEREXCO LLC.
Address: 2020 N. BRAMBLEWOOD ST
WICHITA
KS, 67208

CORE

Contractor: Devilbiss Coring Service, 400 S Vermont Ave., Oklahoma city, OK, 73108, 1-405-946-5
Core #: 1-36
Formation: MISSISSIPPIAN - PRE CAMBRIAN
Core Interval: From: 3540 To: 5179 Cut: 1639 Recovered: 1465
Bit type: PDC
Size: 7 7/8"
Coring Time: 35 Days

Cores

3540-3600 CORE 1 (RECOVERED 60), 3600-3661 CORE 2 (RECOVERED 60), 3160.85'-3692.4' CORE 3 (RECOVERED 31.55'), 3692.4'-3752' CORE 4 (RECOVERED 59.6'), 3752'-3812' CORE 5 (RECOVERED 60'), 3812-3872.55' CORE 6 (RECOVERED 60.55'), 3872.55'-3929.75' CORE 7 (RECOVERED 57.2'), 3929.75'-3990' CORE 8 (RECOVERED 60.25'), 3990'-4020' CORE 9 (RECOVERED 30'), 4020'-4079.6' CORE 10 (RECOVERED 4079.6'-4138.8' CORE 11 (RECOVERED 59.2 '), 4138.8'-4185.1' CORE 12 (RECOVERED 46.3'), 4185.1'-4243.35' CORE 13 (RECOVERED 58.25'), 4243.35'-4264' CORE 14 (RECOVERED 20.65'), 4267'-4293' CORE 15 (RECOVERED 14.85') , 4294'-4354' CORE 16 (RECOVERED 60'), 4354'-4414.4' CORE 17 (RECOVERED 60.4'), 4414.4'-4463.75' CORE 18 (RECOVERED 49.35'), 4463.75'- 4521' CORE 19 (RECOVERED 56.25'), 4521'- 4575.5' CORE 20 (RECOVERED 54.5'), 4575.5'-4585.4' CORE 21 (RECOVERED 9.9'), 4585.4'-4594.4' CORE 22 (RECOVERED 9'), 4595.4'-4603.6' CORE 23 (RECOVERED 9.2') , 4603.6'-4625.3' CORE 24 (RECOVERED 21.7'), 4625.3'-4657' CORE 25 (RECOVERED 31.7'), 4680'-4688' CORE 26 (RECOVERED 8'), 4727'-4748.9' CORE 27 (RECOVERED 21.9'), 4749'-4799.75' CORE 28 (RECOVERED 50.85'), 4799.75'-4818.9' CORE 29 (RECOVERED 19.15'), 4900'-4959' CORE 30 (RECOVERED 59'), 4959'-4986.5' CORE 31 (RECOVERED 27.5'), 4986.5'-4998' CORE 32 (RECOVERED 11.5'), 5050'-5083.25' CORE 33 (RECOVERED 5084'-5144' CORE 34 (RECOVERED 61.25') , 5140'-5179' CORE 35 (RECOVERED 34.4'),

DSTs

DST #1 MSSP, 4664-4690, Times: 30-60-60-180, Rec 800' , MCW, FP 69-239/258-414, SIP 1047/1049#
DST #2 Arbuckle, 4465-4575, T 30-60-60-180, Rec 180' M, 450' SW+Sulf 3270' SW, Cl 115,000, FP 1504-1867/ 1767-1867, SIP 1867/1867#
DST #3 Arbuckle conv stradd, 4280-4390, T 30-60-60-180, Rec 360' WC Sulf, 360' Sulf CW, 3286' Sulf CW, Cl 68,000, FP 1069-1784/ 1781-1783, SIP 1782/1783#
DST #4 Arbuckle conv stradd, 4175-4190, T 30-60-60-180, Rec 270' Dolo C W, 90' Dolo CW, 90' MCW, Cl 44,000, FP 18-90/ 93-218, SIP 1714/1718#

TOPs

HEEBNER 2406 (-1134), IATAN 2680 (-1408), STALNAKER 2691(-1419), LANSING KC 3041 -1769), STARK SH 3168 (-1896), BKC 3284 (-2012), PAWNEE 3450(-2178), FTSC 3490(-2218), CHEROKEE 3504(-2232), MSSP 3658(-2386), SIMPSON SS 4064 (-2792), SIMPSON SH 4100 (-2828), ARBUCKLE 4164 (-2892), REAGAN SS 5140 (-3868), GRANITE 5174 (-3902)

ROCK TYPES

Anhy, Bent, Brec, Cht, Clyst, Coal, Congl, Dol, Gyp, Igne, Lmst, Meta, Mrlst, Salt, Shale, Shcol, Shgy, Sltst, Ss, Till

ACCESSORIES

MINERAL: Anhy, Arggrn, Arg, Bent, Bit, Brecfrag, Calc, Carb, Chtdk, Chtlt, Dol, Feldspar, Ferrpel, Ferr, Glau, Gyp, Hvymin, Kaol, Marl, Minxl, Nodule, Phos, Pyr, Salt, Sandy, Silt, Sil, Sulphur, Tuff

FOSSIL: Algae, Amph, Belm, Bioclst, Brach, Bryozoa, Cephal, Coral, Crin, Echin, Fish, Foram, Fossil, Gastro, Oolite, Ostra, Pelec, Pellet, Pisolite, Plant, Strom

STRINGER: Anhy, Arg, Bent, Coal, Dol, Gyp, Ls, Mrst, Sltstrg, Ssstrg

TEXTURE: Boundst, Chalky, Cryxln, Earthy, Finexln, Grainst, Lithogr, Microxln, Mudst, Packst, Wackest

OTHER SYMBOLS

POROSITY: Earthy, Fenest, Fracture, Inter, Moldic, Organic, Pinpoint, Vuggy
SORTING: Well, Moderate, Poor
ROUNDING: Rounded, Subrnd, Subang, Angular
OIL SHOW: Even, Spotted, Ques, Dead
INTERVAL: Dst, Core
EVENT: Rft, Sidewall

Curve Track 1	Depth	Porosity	Lithology	Geological Descriptions	TG, C1-C5
ROP (min/ft)					TG (Units), C1 (units), C2 (units), C3 (units), C4 (units), C5 (units)

samples lagged by the geologist

Sh, gy, drk gy, frm

LS, tan-buff, f-crypto xln, hard, dns, few pcs of drk frsh, chrt, LS, tan, fxln, scrtd foss, scrtd vuggy por, ns

Sh, grn, gy drk gy, grn, silty, pyritic, gy silty, scrtd foss

LS, buff, fxln, hrd dns, with LS, wht-tan, fxln, chlky-sub chalky, dns

Sh, grn, lt grn, gy, lt grn, soft, sticky, stringers of gy siltstone

LS, tan, f-med xln, scrtd foss, sub chalky, hrd with LS, buff, fxln, hrd, dns

Sh, blk, carb, firm, pyritic

LS, buff, f-med xln, foss, hrd, dns, ns
SS, wht-clr, f grn, rndd-sub rndd, calc cement, tight, some clr ss with int xln, & vuggy poro, ns, stringers of Siltstone, gy, with LS, wht, fxln, soft, chalky

LS, wht-tan, fxln, foss, pp & vuggy poro, ns, LS, wht, fxln, hrd, dns, stylolite, stringers of pyrite

Sh, grn, gy, grn, silty, pyritic

LS, tan, fxln, hrd, sctrd vuggy poro, ns
Sh, grn, gy, with Siltstone grn

LS, buff, f-crypt xln, hrd, dns

Sh, gy-drk gy, frm

LS, wht-tan, f-med xln, v foss, partly oolit, int xln, omoldic and vuggy poro, ns

Sh, gy, drk gy, sctrd red, some stringers of grn-gy siltstone

Sh, gy, grn, and lt grn, intrbdd with Ls, tan, f-med xln, foss, pp & vuggy poro, ns

Sh, gy - drk gy, frm, stringers of lt grn-clr, v f grn SS with calc cement, tight

LS, tan-buff, fxln, foss, hrd, dns,some drk fresh, chrt
Sh, drk gy, gy, intr bdd with some grn, siltstone

Sh, grn, gy sctrd red, with clr-lt grn siltstone, pyritic

Sh, gy, scrtd grn with some intrbdd siltstone

Sh, gy, drk gy and sctrd grn and red, some pcs of blk sh, gy Sh, with thin lyrs of blk sh, pyritis, few pcs of LS, wht, f-med xln, foss, chalky, ns

Sh, g, drk gy, AA, some lt grn silt stone

LS, buff-brwn, f-med xln, foss, hrd, dns, ns
LS, tan, fxln, hrd, dns with gy, sh

Sh, grn gy, few pcs of blk, hrd, frm, SS, wht, clr, lt grn, f grn, calc cement, tight

SS, wht-clr, f-med gran, sub rndd-ang, poorly srtd, int xln & vuggy poro, partl glauc, some with wht calc cement,tight, ns

SS, wht-clr, f-med grn, ang-sub rndd, int xln and vuggy poro, Sh, grn, lt grn, soft

LS, tan, fxln, hrd, dns, sctrd foss, ns

SS, clr-lt grn, f grn, poorly srtd, tight, with some stringers of gy sh, SS, clr, med grn, well srtd, sub rndd-ang, int xln & vugy poro, ns

LS, wht, fxln, hrd, dns, sctrd foss, sub chalky

SS, clr, med grn, rndd-sub rndd, well srtd, int xln poro, partly glauc, ns

SS, clr-wht, f grn, prly srtd, with gy sh strngrs, tight
SS, clr, med grn, rndd-sub rndd, well srtd, int xln poro, partly glauc, ns

Sh, lt gy, silty, Siltstone, lt grn

Sh, gy, pyritic

LS, buff, f-med xln, hrd, dns

Sh, gy, pyritic, partly silty

Sh, gy, LS, tan, f xln, scrtd pp poro, ns

Sh, gy, pyritic

Sh, drk gy, gy, argl, pyritic, few pcs of grn and red Sh, Siltstone, lt gy-clr, strngrs of blk sh

Sh, blk, carb

LS, LS, tan, sucro-med xln, foss, pp & vuggy poro, ns, LS, wht, f xln, soft chalky

LS, tan-buff, f xln, hrd, dns, sctrd foss, ns, pcs of drk fresh chrt

LS, off wht-tan sucro-med xln, foss, partly oolit, vuggy and pp poro, partly chalky, ns

LS, wht, f-crypto xln, hrd, dns, with fresh lt chrt
LS, tan, mix xln, foss, vuggy, int xln and intra xln poro, ns

LS, wht-tan, crypto xln, hrd, sctrd foss, sctrd vuggy poro, dns, ns
LS, tan, off wht, sucro-f xln, foss, vuggy & pp poro, sub chalky - chalky, ns

LS, tan-wht, f-crypto xln, hrd, dns, mostly fress, wht-lt tan chert
LS, brwn-buff, sucro-f xln,foss, vuggy poro, ns
LS, tan, f-crypto xln, hrd, dns

LS, tan, sucro-f xln, pp & scrtd vuggy poro, ns
Sh, gy, drk gy, pyritic

LS, tan-buff, f-med xln, hrd, dns, sctrd vuggy poro, ns, LS, wht-tan, fxln, sub chalky, ns

LS, tan, f-med xln, foss, oolit, (packstone), tight, no visi poro, ns
LS, tan-buff, f xln, hrd, dns, partly cherty, some fresh, lt, chrt
Sh, blk, carb, pyritic
SS, clr-wht, f grn, sub rndd-angular, prly srtd, calc cement, tight, ns
LS, buff, f-med xln, sctrd foss, hrd, dns
LS, tan, sucro, foss, pp poro, ns

LS, tan,buff, f-med xln, sctrd foss, sctrd vuggy poro, hrd, dns, ns

LS, buff, f-crypto xln, hrd, dns, few fractured, some stylolite, few pcs of wht chalky LS

Sh, grn, gy drk gy, mostly blk carb, pyritic
LS, tan, f-med xln, hrd, dns
Sh, gy, drk gy, pyritic

LS, tan, med xln, hrd, dns
Sh, blk, carb, pyritic

LS,tan, f xln, sctrd foss, hrd, dns

Sh, grn-lt grn, with lt grn siltstone

LS, lt grn-lt tan, f-crypto xln, hrd, dns
Sh, grn, gy, and some drk gy, grn, silty

LS, tan, sucro-f xln, pp & scrtd vuggy poro, ns, LS, tan-lt grn, f-crypto xln, hrd, dns

Sh, blk, carb, pyritic, sh, grn, gy, lt grn, silty
LS, tan-buff, f-med xln, scrtd foss, sctrd vuggy poro, ns, LS, tan, f-crypto xln, hrd, dns

Sh, gy, drk gy, pyritic, with gy-grn siltstone

LS, buff-drk gy, f-crypto xln, hrd, dns

LS, tan, sucro-med xln, foss, pp & scrtd vuggy poro, ns LS, buff, crypto-f xln hrd, dns, cherty

Sh, gy, drk gy, blk

LS, tan sucro-f xln, foss, vuggy and pp poro, ns

LS, tan-buff, f-crypto xln, hrd, dns, partly cherty, with fresh lt & drk chert

Sh, blk, crb, gy & drk gy, pyritic, some clr- lt grn siltstone

LS, tan-buff, f-crypto xln, hrd, dns, LS, tan sucro-f xln, scrtd vuggy & pp poro, ns

Sh, blk, carb
LS, buff, f-med xln, foss, oolit, (packstone) hrd, dns, no visi poro
Sh, grn, gy, drk gy

LS, buff, f-crypto xln, hrd, dns, LS, tan sucro-med xln, foss, vuggy & pp poro, ns

CORE 1 (RECOVERED ENTIRE 60 FEET 3540'-3600')

CORE 2 (RECOVERED ENTIRE 60 FEET 3600'-3660.85')

3160.85'-3692.4' CORE 3 (RECOVERED 31.55')

3692.4'-3752' CORE 4 (RECOVERED 59.6')

3752'-3812' CORE 5 (RECOVERED 60')

3812-3872.55' CORE 6 (RECOVERED 60.55')

3872.55'-3929.75' CORE 7 (RECOVERED 57.2')

3929.75'-3990' CORE 8 (RECOVERED 60.25')

3990'-4020' CORE 9 (RECOVERED 30')

Dolo, dark, fxln, with SS inclusions, clr-lt tan, f grn, angular -sub angular, saturated with oil, blk oil stain, good odor, with thin layers of blk carb sh

4020'-4079.6' CORE 10 (RECOVERED 59.6')

4079.6'-4138.8' CORE 11 (RECOVERED 59.2')

4138.8'-4185.1' CORE 12 (RECOVERED 46.3')

Sh, grn-pale grn

SS, clr, f grn, pr poro, calc cent, ns
Dolo, brwn, f xln, hrd, dns

Dolo, brwn, f-med xln, oolit, vuggy poro, ns

4185.1'-4243.35' CORE 13 (RECOVERED 58.25')

Dolo, lt brwn, fxln, oolitic, vuggy and oomoldic poro, ns

4243.35'-4264' CORE 14 (RECOVERED 20.65') CORE JAMMED AND LOST 2'

4267'-4293' CORE 15 (RECOVERED 14.85') CORE JAMMED AND LOST 11.15' FROM 4281.6'-4292.75' DRILLED 1', CLEAN UP HOLE

4294'-4354' CORE 16 (RECOVERED 60')

Dolo, lt gry, f-med xln, no visi poro, even, trace pyrite,

4354'-4414.4' CORE 17 (RECOVERED 60.4')

Dolo, drk gy, f-med xln, pyritic, no visi poro. ns

Dolo, cream, med-corse xln, vuggy & frac poro, gy drk chrt

Dolo, lt gy, no visi poro, thin grn, gy sh, w minor pyrit

Dolo, tan-brwn, f-med xln, dns with blue gy, massive chert nodules

4414.4'-4463.75' CORE 18 (RECOVERED 49.35')

Dolo, lt gy, vf xln, sm healed frac planes, pr-no poro

Dolo, drk brwn, f xln,hrd, dns, silisic, cherty

4463.75'- 4521' CORE 19 (RECOVERED 56.25')

Dolo, drk brwn, oolit, silic replacement, pr-fr poro, ns

Sh, drk gy, slt pyritic, cors xln, dolo inclu.

Dolo, gy, vfxln, sctrd vuggy poro, partly sil repla.

4521'- 4575.5' CORE 20 (RECOVERED 54.5')

Dolo, gy, f xln, hrd, dns, sili rplced,

Dolo, gy, fxln, hrd, dns, with frac, frac plane w euhedral xl growth

Dolo, tan, f xln, hrd, dns, good vuggy poro

Dolo, drk brwn, f xln, massive, hrd, dns, no visi poro

4575.5'-4585.4' CORE 21 (RECOVERED 9.9') CORE JAMMED
Dolo, tan, f-med xln, hrd, pp & vuggy poro, ns
4585.4'-4594.4' CORE 22 (RECOVERED 9') CORE JAMED

Dolo, tan, sucro-coars xln, int xln & vuggy poro, fractured, fresh euhed dolo., thin lyrs of grn sh, fresh wht chrt nodules at the bottom

4595.4'-4603.6' CORE 23 (RECOVERED 9.2') CORE JAMMED
Dolo, tan, F-coars xln, vuggy poro, fractured, fresh euhed dolo., thin lys of grn & blk sh

4603.6'-4625.3' CORE 24 (RECOVERED 21.7') CORE JAMMED

4625.3'-4657' CORE 25 (RECOVERED 31.7') lost circ drilled 4659'-4680'
Dolo, tan, f-med xln, hrd, vuggy poro, fractured, fresh euhedral dolo cryst in frac planes and vuggs, stylolites & thin lays of gy sh

Dolo, tan, f-med xln, AA, some fresh wht chert

Dolo, wht-tan, f-med xln,hrd, dns, oolitic, (packstone), no visi poro, pcs of fresh, wht & drk chert

4680'-4688' CORE 26 (RECOVERED 8') CORE JAMMED Drilled 4688'-4724'
Dolo, wht-tan, f-med xln,hrd, dns, oolitic, (packstone) no visi poro, abnd fresh, wht & drk chert , sm opaq oolt, sm transl, sharp wt

Dol, wht-tan, sucro-med xln, unif, int xln poro, sctrd vuggy poro, ns

4727'-4748.9' CORE 27 (RECOVERED 21.9') CORE JAMMED

Dol, wht-tan, sucro-med xln, unif, int xln poro, sctrd vuggy poro,partly cherty, ns

4749'-4799.75' CORE 28 (RECOVERED 50.85') CORE JAMMED

Dol, wht-tan, sucro-med xln, unif, int xln poro, sctrd vuggy poro,bands of white fresh chert, ns

Dol, wht-tan, sucro-med xln, vuggy poro, recrys of dolo and qrts in vuggs, fresh white and dark chert, ns

4799.75'-4818.9' CORE 29 (RECOVERED 19.15') CORE JAMMED Drilled ahead to 4900'

Dolo, tan, f-med xln, with lots of up hole sh from tripping in-out

Dolo, tan, f-med xln, hrd, dns, scrtd vuggy poro, fract, lots of uphole, blk & grn sh

Dolo, lt crm, f xln, oolitic, fractured, qrtz filling, re xln, qrtz & euhedral dolo, (fracture filling), ns
Dolo, wht-crm, vf xln, hrd, fractured, scrtd qrts grains, med-corse grain, clr, fractured, ns

Dolo, tan-lt tan, f-med xln, soft, sctrd vuggy poro, few well rndd qrtz grains, fair-gd poro, ns

4900'-4959' CORE 30 (RECOVERED 59')
reset TG

Dolo, wht- lt gy, med-crs xln, fair int xln, & vuggy poro, some apparent wht chert , ns

Dolo, wht-lt tan, mix xln, hrd, dns, fractured, fracture filled, euhedral dolo. and some qrts xls, hrd, dns, ns

4959'-4986.5' CORE 31 (RECOVERED 27.5') CORE JAMMED

Dolo, lt gy, f-med xln, hrd, dns, fractured, fracture filled, euhedral & f xln, dolo., at the bottom of the core, nodules of fresh, wht chert

4986.5'-4998' CORE 32 (RECOVERED 11.5') CORE JAMMED drilled to 5050'

Dolo. f-crs xln, hrd, dns, fractured, intervals of 1" thick fresh wht chert, fracture filled f grain qrtz xls and thin lyrs of qrtz, & euhedral dolo, ns

Dolo, of wht- lt tan, f-crs xln, hrd, dns, fresh, euhedral dolo xls & some clr well rndd qrtz grains, vuggy poro, fractured, thin lyrs of lt grn sh

5050'-5083.25' CORE 33 (RECOVERED 33.25') CORE JAMMED

Dolo, wht, crs xln, soft, minor frac, few chert, lt gy sh & minor calc

Dolo, tan, med xln, fract, brocken calcite, few chert

5084'-5144' CORE 34 (RECOVERED 61.25')

Dolo, wht, crs xln, soft, minor frac, few chert, lt gy sh & minor calc, Dolo, tan, f-med xln, hrd, fract, fresh qrtz xls

Dolo, tan, f-med xln, hrd, fract, fresh qrtz xls

5140'-5179' CORE 35 (RECOVERED 34.4') CORE JAMMED after cut 4' in to Granite

SS, clr-lt tan, f-med grain, fair sorted, well rndd - sub rndd, some grains slightly elongated faceted, dolo cement, lt stain in more dolomitic sand, no fluo.

Granite, pinc, feld, med-crs xln, wht, plagio feld, med-crs xln, hrd, dns, mica, biotite, some, miscovite,

Granite, pinc, feld, med-crs xln, wht, plagio feld, med-crs xln, hrd, dns, mica, biotite, some, miscovite,