

**ESSO AUSTRALIA PTY LTD**  
**WELL- SCALLOP-1**  
**SIDEWALL CST DESCRIPTION**

GEOLOGIST: G. WAKELIN-KING / G. SMITH		JOB #/RUN #: 1-5		BIT DIAMETER: 12 <sup>1</sup> / <sub>4</sub> "		CORES SHOT: 60		RECOVERED: 52		MISFIRED: 0		EMPTY: 1		LOST: 7		RECOVERY %: 86.6%		GUN TYPE(S): CST-D		DATE: 27/02/03	
#	DEPTH	REC	ROCK	LITHOLOGY DESCRIPTION and COMMENTS  (clr, hdness, texture, mineralogy, modifiers, cmt)	POR	STAIN		FLUOR			CUT FLUOR		CR .CUT FLUOR		R. RES	SHOW	Post WI Analysis	C			
	mRKB	cm	TYPE			DIST	COLOR	DIST	INTEN	COLOR	INTEN	COLOR	INTEN	COLO R	COLOR	QUAL					
1	3165	2.0	Silty sandstone	Light brown and mottled light grey, very fine to fine grained, hard, predominately quartzose with common lithic grains, densely cemented with silica and dolomite, clay matrix.	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil					
2	3162	Nil	Lost	No recovery.																	
3	3157	2.0	Sandstone	Core shattered, light grey to light brown mottled with black specks, very fine to medium grained, moderately sorted subangular, quartzose with common lithic grains and trace carbonaceous specks, 5mm quartz vein.	Poor	Nil	Nil	30% Spotty	Mod	Yellow	Faint- slow mod	White	Mod	White	Very thin spotty yellow	Very poor					
4	3155.5	Nil	Lost	No recovery																	
5	3151.5	Nil	Lost	No recovery																	
6	3149.5	2.5	Claystone	Medium brown-grey, silty, with very fine carbonaceous specks, firm.																	
7	3146.4		Sandstone	Very light greyish-brown, friable, very fine to fine grained, occasional very coarse quartz grains, moderately sorted, quartzose with common lithic grains and carbonaceous specks, moderate silica cement and moderate dense white clay matrix.	Poor	Nil	Nil	80% patchy	Mod	Yellow-white	Faint immed., mod-slow bloom	White	Mod	White	Thin spotty yellow-white	Poor					
8	3144	1.5	Sandstone	Very light grey-brown, soft, very fine to fine grained, well sorted, angular, trace carbonaceous specks, abundant white clay matrix, trace silica cement.	Very poor	Trace	Red-brown	95%  5%	Uniform dull. Bright spots.	Yellow-white	Very faint immed., mod-very slow bloom	Green-white	Mod	Green-white	Patchy mod. green-white	Fair	Y	JK			
9	3141.4	Nil	Lost	No recovery																	
10	3130.5	2.0	Claystone	Dark brown-grey, silty, slightly carbonaceous, firm.																	
11	3129.1	2.0	Sandstone	Very light brown, very fine silty sandstone, angular and well sorted, quartzose, trace carbonaceous specks, common clay matrix and dolomite cement.	Trace	Trace	Red-brown	Trace	Dull	Gold	Nil	Nil	V.v faint, v.slow	Yellow w	Very faint yellow	Trace					
12	3122	1.5	Sandstone	Pale yellow-grey, very fine-fine grained, moderately sorted angular, quartzose, trace lithic grains, trace carbonaceous grains, moderate white clay matrix, dolomitic cement.	Trace	Nil	Nil	30% spotty	Dull (Tr. gun residue)	Yellow	Nil	Nil	Very faint	Green - yellow	Thin very dull yellow	Poor					
13	3120.5	1.5	Sandstone	Very light grey-brown, friable, fine to occasionally medium grained, angular to rounded, well sorted, quartzose, common grey lithic grains, trace carbonaceous specks, moderate silica cement. Patchy white clay matrix, fluorescence improves in clay matrix.	Fair	Nil	Nil	70% patchy	Dull-mod	Yellow-white	Nil immediate, faint very slow bloom,	Yellow-white	Faint	Yellow w-white	Faint, thin, uniform ,yellow	Poor					
14	3110.5	1.5	Silty claystone	Medium brown-grey, hard, trace carbonaceous laminations, trace amber, dark red-brown, vitreous, conchoidal fracture, moderate orange fluorescence.																	

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	mRKB	cm	TYPE			DIST	COLOR	DIST	INTEN	COLOR	INTEN	COLOR	INTEN	COLO R	COLOR	QUAL					
15	3107.5	Nil	Lost	No recovery																	
16	3105.5	1.0	Sandstone	Very light brown, very fine grained, silty, moderately sorted, angular, quartzose, grey lithic grains, trace carbonaceous specks, trace dolomitic cement, abundant patchy white clay matrix, trace silica cement..	Trace	Nil	Nil	60%	Mod Patchy	Green-white	Faint instant, moderate blooming	Green-white	Mod	Green-white	Yellow, thin, moderately bright	Poor					
17	3103.9	2.0	Claystone	Dark grey, slightly silty, trace carbonaceous specks.																	
18	3101.1	1.0	Sandstone	Very light greyish-yellow, very fine to fine grained, occasionally medium grained, moderately sorted, trace lithic and carbonaceous grains, silica cement, trace quartz overgrowths, trace clay matrix adhering to grains. Bright patchy fluorescence is in disaggregated part of core, inner core (undisturbed) dull and uniform.	Poor	Nil	Nil	80%	Dull to patchy bright	Green-white	Faint instant, moderate blooming	Yellow-white	Mod-dull	Yellow-white	Bright, moderately thick, yellow white	Fair	Y	Jk			
19	3097.2	1.5	Argill. Siltstone	Light brown-grey, 40% clay interlaminated at mm scale with silty claystone.																	
20	3059	1.5	Sandstone	Light grey, firm-friable, very fine to medium grained, predominately very fine, moderately sorted, subrounded to angular, quartzose, anundant grey lithic and carbonaceous grains, trace weathered feldspar, moderate silica cement, trace dolomitic cement..	Poor	Nil	Nil	80% spotty. Some patches.	Dull Bright	Yellow-white	Slow streaming (from brighter yellow patches)	Yellow-white	Mod	Yellow-white	Mod, thin, uniform, yellow-white	Fair					
21	3052.5	1.0	Siltstone	Light grey-brown speckled, common very fine carbonaceous, quartz and feldspathic grains. 30% clay matrix, firm.																	
22	3050.5	1.5	Silty claystone	Medium greyish-brown, 30% silt, homogenous.																	
23	3031.5	1.5	Sandstone	Pale yellowish-grey, faint yellowish-brown oil stain, firm, very fine to fine grained, predominately very fine grained, moderately sorted, subangular, quartzose, trace lithic and carbonaceous grains, moderate patchy kaolin matrix, trace dolomitic cement.	Fair	patchy	Yellow-brown	Patchy	100% Mod. to bright	Yellowish white	Mod instant, foll by slow blooming bright, mod crush	Blue-white	Mod blooming	Bluish white	Bright mod thick white ring	Good	Y	Jk			
24	3030	1.5	Sandstone	Pale yellowish-grey, faint yellowish-brown oil stain, firm, very fine to fine grained, predominately very fine grained, rare coarse grains, moderately sorted, subangular, quartzose, trace lithic and carbonaceous grains, dense white kaolin matrix, trace patchy pyritic cement.	Trace	Patchy	Yellow-brown	100%	100% Mod to bright	Yellow-white	Faint instant yellow cut, slow blooming, slow streaming.	Blue-white	Mod crush	Blue-white	Thick bright yellow white	Good					
25	3022.5	2.0	Carb. shale	Dark greyish-brown, slightly carbonaceous claystone, thin coal laminae, sub-fissile.																	

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	mRKB	cm	TYPE			DIST	COLOR	DIST	INTEN	COLOR	INTEN	COLOR	INTEN	COLO R					COLOR	QUAL	Analysis
26	3013	1.5	Siltstone	Pale greyish-brown speckled, very hard siltstone, trace mica, trace carbonaceous specks, silica cement..																	
27	2991.5	2.0	Carb. Shale	Very dark brownish-black, splintery, firm to hard.																	
28	2983.5	2.0	Sandstone	Laminated siltstone and very fine sandstone, silty, poorly sorted, angular grains, patchy kaolinitic matrix, calcareous cement.	Trace	Nil	Nil	30%	Dull (in sst)	Yellow	Very slow blooming	Yellow	Faint	Yellow-white	Thin faint yellow, dim, spotty	Poor					
29	2976.5	1.5	Silty claystone	Medium brownish-grey, homogenous, firm to hard.																	
30	2941	1.5	Sandstone	Light grey speckled, very fine to very coarse, very coarse intraformational claystone clast, poorly sorted, firm friable, quartzose with common dark grey lithic grains, moderate patchy silica cement.	Fair-good	Nil	Nil	30%	Dull	Gold	Very slow blooming, diffuse.	Green	Faint	Green	Mod, thin, yellow	Poor					
31	2913.9	Nil		No recovery																	
32	2898.5	1.5	Sandstone	Very light brown, speckled, very fine to fine grained, predominantly very fine, poorly sorted, angular to rounded, quartzose, abundant grey lithic grains, patchy silty matrix.	Fair	Trace	Brown	30%	Dull on edges and bright in middle of core	Yellow-white	Faint instant with strong streaming	Blue-white	Mod	Blue-white	Thick white	Good					
33	2898	1.0	Sandstone with carb. laminae	Pale yellowish-grey, firm and friable, very fine grained, silty, angular to sub-rounded, quartzose, grey lithic grains, very patchy white kaolinitic matrix. Brighter fluorescence associated with carb. laminae.	Fair	Trace	Brown	20%	Dull, patchy	Yellow	Very weak instant. Moderate streaming.	Yellow Blue-white	Mod	Blue-white	Dull yellow, thin	Fair					
34	2889.5	1.0	Sandstone	Very light grey speckled black, common carbonaceous grains, firm to hard, very fine to fine grained, moderately sorted, angular to subrounded, common white patchy kaolinitic matrix, dolomitic cement.	Trace	Nil	Nil	70%	Dull to patchy	Yellow	Very faint instant diffuse,	Yellow	Faint	Yellow w	Faint, dull yellow	Poor					
35	2886	1.5	Claystone	Light brownish-grey, trace carbonaceous specks, soft, 10% silt, homogeneous.																	
36	2870.2	2.0	Silty claystone	Medium greyish-brown with white patches, intraformational clasts of kaolinitic sandstone, occasional very coast matrix supported quartz grains, ?debris flow.																	

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	mRKB	cm	TYPE			DIST	COLOR	DIST	INTEN	COLOR	INTEN	COLOR	INTEN	COLO R	COLOR	QUAL		
37	2840.9	1.0	Sandstone	Very light brown, spotted grey, firm, friable, very fine to coarse grained, poorly sorted, angular to subrounded, dense white clay matrix, trace quartz silt matrix.	Poor	Trace patchy	Brown	100%	Patchy, bright	Yellow-white	Moderate instant, moderate slow streaming	Yellow-white	Mod to strong	Blue-white	Thick white	Good		
38	2839.5	1.5	Sandstone	As for previous sample, left undisturbed.														
39	2758	1.5	Silty claystone	Speckled light greyish-brown, trace matrix supported quartz grains, firm, trace carbonaceous wisps, trace fine iron staining,														
40	2750	1.5	Claystone	Medium grey, 30% quartz silt, homogeneous, firm to hard.														
41	2735.5	2.0	Altered volcanics	Very pale grey, firm, relic vesicles?, aphanitic.														
42	2635.2	1.5	Sandstone	Light grey, very fine to coarse grained, poorly sorted, abundant white matrix. Left undisturbed.	Poor	Nil	Nil	80%	Dull to bright patchy	Yellow-white	Faint instant, faint blooming	Yellow-white	Faint	Yellow-white	Bright thin yellow-white	Fair		
43	2630.5	2.0	Sandstone	Core crushed, very light brown, very fine to fine grained, well sorted, angular, quartzose, trace grey lithic grains, trace pyrite, trace silica cement, moderate clay matrix adhering to grains.	Fair	Nil	Nil	100%	Bright	Yellow-white	Faint instant, strong, slow blooming	Blue-white	Mod	Blue-white	Bright moderately thick white	Good		
44	2627.5	3.0	Altered volcanic	Dark greenish-grey, firm, microcrystalline with vesicles filled with chlorite.														
45	2601.5	2.0	Siltstone	Medium to brownish-grey, 20% clay, 10% fine and medium quartz grains.														
46	2586.7	2.0	Claystone	Light to medium grey, homogeneous, non-silty.														
47	2529.5	2.5	Claystone	Medium greyish-brown, coaly wisps and lenses, filter-cake injected along fractures.														
48	2402.5	2.0	Claystone	Medium grey, 10% silt, micro-micaceous, laminated with quartz silt,														
49	2304	2.0	Carb. shale	Brownish-black, coaly laminations, firm, pyritic.														
50	2204.5	3.0	Sandstone (greensand)	Dark greyish-green, glauconite sand, very fine grained, soft, abundant pyritic cement, dark grey matrix, trace mica, nil quartz.														
51	2192.7	1.5	Siltstone	Medium brownish-grey, 40% clay, occasional medium quartz grains, micro-micaceous.														
52	2090	2.0	Claystone	Light grey, homogeneous, 10% silt.														
53	2029.5	Nil	Lost	No recovery														

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#	DEPTH	REC	ROCK	LITHOLOGY DESCRIPTION and COMMENTS  (clr, hdness, texture, mineralogy, modifiers, cmt)	POR	STAIN		FLUOR			CUT FLUOR		CR .CUT FLUOR		R. RES	SHOW	Post WI Analysis	C
	mRKB	cm	TYPE			DIST	COLOR	DIST	INTEN	COLOR	INTEN	COLOR	INTEN	COLO R	COLOR	QUAL		
54	1936.5	2.2	Claystone	Medium grey, homogeneous, firm, trace quartz siltstone intraformational clasts.														
55	1837.8	2.4	Claystone, carbonaceous	Dark olive-black, pyritic, abundant matrix supported medium to very coarse subangular quartz grains.														
56	1770	3.0	Claystone	Dark brown, soapy texture, non silty.														
57	1762	3.0	Claystone	Dark yellowish-grey, 20% silt, dolomitic, homogeneous, hard.														
58	1745	2.0	Claystone	Dark yellowish-grey, 30% silt, slightly dolomitic.														
59	1725	3.0	Claystone	Medium to dark greyish-brown, mottled green, 20% quartz silt, trace of very fine quartz sand, 10% glauconite, calcareous.														
60	1717	Nil	Lost	No recovery														