



Apache Cuttings Descriptions Report

Well Name : Dory-1		Print Date 13/11/2008		
Wellsite Geologist(s) : A Cruickshank G Fawns				
Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
Main 2800.0 - 2805.0	75	CALCAREOUS CLAYSTONE: Olive grey, common medium grey, trace to minor micromicaceous, common silt, trace very fine to fine floating quartz grains, rare carbonaceous material, trace nodular and disseminated pyrite, trace glauconite, firm to brittle, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.		
	25	SILTSTONE: Dusky yellowish brown to brownish black, olive black in part, arenaceous, abundant glauconite, minor micromicaceous, trace very fine floating quartz grains, trace mica flakes, trace pyrite, soft to firm, sub-blocky.		
2805.0 - 2810.0	50	SILTSTONE: Dominantly olive black, common dusky yellowish brown to brownish black, arenaceous grading to argillaceous in part, abundant very fine to coarse glauconite, grades to GLAUCONITIC SILTSTONE, minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, trace ammonites, trace ooids, soft to firm, sub-blocky.		
	35	CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, dominantly medium grey, common olive grey, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace glauconite, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.		
	15	SANDSTONE: Clear to translucent, very fine to very coarse, dominantly very fine to fine, trace medium to very coarse, moderately sorted, angular to rounded, dominantly sub-angular to sub-rounded, minor angular and rounded, trace strong pyrite cement/matrix, trace argillaceous cement/matrix in part and grading to ARGILLACEOUS SANDSTONE, abundant glauconite, very hard aggregates where pyrite cement, soft aggregates where argillaceous cement, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence.		
2810.0 - 2815.0	40	SILTSTONE: as above		
	40	CALCAREOUS CLAYSTONE: as above		
	20	SANDSTONE: as above		
2815.0 - 2820.0	35	SILTSTONE: as above		
	35	CALCAREOUS CLAYSTONE: as above		
	30	SANDSTONE: Clear to translucent, very fine to medium, dominantly very fine to fine, trace medium, well sorted, sub-angular to rounded, dominantly sub-rounded, common sub-angular, abundant rounded, trace strong pyrite cement/matrix, abundant glauconite, very hard aggregates where pyrite cement, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence.		
2820.0 - 2825.0	40	SANDSTONE: Clear to translucent, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, sub-angular to rounded, dominantly sub-rounded, common sub-angular, abundant rounded, trace strong pyrite cement/matrix, trace moderate siliceous cement, abundant glauconite, trace pyrite and glauconite inclusions, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence.		
	35	SILTSTONE: as above		
	25	CALCAREOUS CLAYSTONE: as above		
2825.0 - 2830.0	50	SANDSTONE: Clear to translucent, very fine to very coarse, dominantly very fine to fine, common medium, trace coarse and very coarse, moderately sorted, sub-angular to rounded, dominantly sub-rounded, common sub-angular, abundant rounded, trace strong pyrite cement/matrix, common glauconite, trace pyrite and glauconite inclusions, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence.		
	35	SILTSTONE: Dominantly olive black, common dusky yellowish brown to brownish black, arenaceous grading to argillaceous in part, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, trace ammonites and ooids, soft to firm, sub-blocky.		
	15	CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, dominantly		

Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		medium grey, common olive grey, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace glauconite, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.		
2830.0 - 2835.0	50 35 15	SANDSTONE: as above, minor coarse to very coarse. SILTSTONE: as above CALCAREOUS CLAYSTONE: as above		
2835.0 - 2840.0	50 35 15	SANDSTONE: Clear to translucent, very fine to very coarse, dominantly fine to medium, abundant very fine, minor coarse to very coarse, moderately sorted, sub-angular to well rounded, dominantly sub-rounded, abundant sub-angular, abundant rounded, common well rounded (coarse to very coarse grains), rare strong pyrite cement/matrix, common glauconite, trace pyrite and glauconite inclusions, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above CALCAREOUS CLAYSTONE: as above, grading to CALCILUTITE in part.		
2840.0 - 2845.0	60 30 10	SANDSTONE: Clear to translucent, very fine to very coarse, dominantly very fine to fine, common medium, minor coarse to very coarse, well sorted, sub-angular to well rounded, dominantly sub-rounded, abundant sub-angular, abundant rounded, minor well rounded (coarse to very coarse grains), rare strong pyrite cement/matrix, common glauconite, trace pyrite and glauconite inclusions, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, poor inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Dominantly olive black, common dusky yellowish brown, dominantly argillaceous, common arenaceous, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, minor mica flakes, trace pyrite, trace ammonites and ooids, soft to firm, sub-blocky. CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, dominantly medium grey, minor olive grey, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, trace glauconite, grades to CALCILUTITE in part, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky, minor sub-fissile.		
2845.0 - 2850.0	70 25 5	SANDSTONE: Clear to translucent, common opaque, fine to very coarse, dominantly medium to coarse, common fine, common very coarse, moderately sorted, sub-angular to well rounded, dominantly sub-rounded, abundant sub-angular, abundant rounded, minor well rounded (coarse to very coarse grains), trace strong calcareous cement, trace strong pyrite cement/matrix, abundant glauconite, trace pyrite and glauconite inclusions, rare fissile quartz shards, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above CALCAREOUS CLAYSTONE: as above		
2850.0 - 2860.0	75 20 5	SANDSTONE: Clear to translucent, common opaque, fine to very coarse, dominantly medium to coarse, common fine, common very coarse, moderately sorted, sub-angular to well rounded, dominantly sub-rounded, abundant sub-angular, abundant rounded, minor well rounded (coarse to very coarse grains), trace strong calcareous cement, trace strong pyrite cement/matrix, abundant glauconite grading to GLAUCONITIC SANDSTONE in part, trace pyrite and glauconite inclusions, trace mica flakes, trace fossils, rare fissile quartz shards, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above CALCAREOUS CLAYSTONE: as above		
2860.0 - 2870.0	85 10	SANDSTONE: Clear to translucent, abundant opaque, fine to very coarse, dominantly coarse to very coarse, minor fine, abundant medium, well sorted, sub-angular to well rounded, dominantly sub-rounded to rounded, abundant sub-angular, common well rounded, trace strong calcareous cement, trace strong siliceous cement with fused grain boundaries, abundant glauconite, trace pyrite and glauconite inclusions, trace mica flakes, trace fossils, rare fissile quartz shards, trace brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, very good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above, becoming more arenaceous.		

Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2860.0 - 2870.0	5	CALCAREOUS CLAYSTONE: as above		
2870.0 - 2880.0	90	SANDSTONE: Clear to translucent, abundant opaque, fine to very coarse, dominantly coarse to very coarse, minor fine, abundant medium, well sorted, sub-angular to well rounded, dominantly sub-rounded to rounded, abundant sub-angular, common well rounded, trace strong calcareous cement, trace strong siliceous cement with fused grain boundaries, trace argillaceous matrix, in part abundant argillaceous cement/matrix with fine grains and abundant glauconite and grading to an argillaceous glauconitic sandstone, common glauconite, trace mica flakes, trace fossils, rare fissile quartz shards, brittle to very hard aggregates (10%), dominantly disaggregated (90%), nil visible porosity, very good inferred porosity, no hydrocarbon fluorescence.		
	5	SILTSTONE: as above		
	5	CALCAREOUS CLAYSTONE: as above		
2880.0 - 2890.0	90	SANDSTONE: as above		
	5	SILTSTONE: as above		
	5	CALCAREOUS CLAYSTONE: as above		
2890.0 - 2900.0	50	GLAUCONITIC SANDSTONE: Medium grey to dark greenish grey, clear to translucent, very fine to medium, dominantly very fine to fine aggregates, dominantly medium disaggregated grains, well sorted, sub-angular to rounded, dominantly sub-rounded to sub-angular, common rounded, moderately strong calcareous cement, trace strong pyrite cement, trace to abundant argillaceous matrix in part, very fine to medium glauconite grading to GREENSAND in part, trace to minor mica flakes, trace fine pyrite nodules, trace lithics, abundant friable to moderately hard aggregates, dominantly brittle to moderately hard, rarely friable, dominantly disaggregated, nil to very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence.		
	30	SANDSTONE: Clear to translucent, abundant opaque, medium to very coarse, dominantly coarse to very coarse, abundant medium, well sorted, sub-angular to well rounded, dominantly sub-rounded to rounded, common sub-angular, abundant well rounded, trace strong calcareous cement, trace pyrite cement/matrix, trace glauconite, trace mica flakes, rare fissile quartz shards, brittle to very hard aggregates, dominantly disaggregated, nil visible porosity, very good inferred porosity, no hydrocarbon fluorescence.		
	10	SILTSTONE: Dominantly olive black, common dusky yellowish brown, argillaceous, common arenaceous, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, minor mica flakes, trace pyrite, soft to firm, sub-blocky.		
	10	CLAYSTONE: Medium dark grey to olive grey, common medium light grey, moderately calcareous, trace micromicaceous, minor very fine to fine floating quartz grains, trace nodular and disseminated pyrite, brittle to hard, blocky to fissile, dominantly sub-fissile, trace blocky, common sub-blocky, common fissile to splintery.		
2900.0 - 2905.0	60	GLAUCONITIC SANDSTONE: as above		
	20	SANDSTONE: as above		
	10	SILTSTONE: as above		
	10	CLAYSTONE: as above		
2905.0 - 2910.0	50	SANDSTONE: as above		
	30	GLAUCONITIC SANDSTONE: as above		
	10	SILTSTONE: as above		
	10	CLAYSTONE: as above		
2910.0 - 2920.0	40	SANDSTONE: as above		
	40	GLAUCONITIC SANDSTONE: as above		
	10	SILTSTONE: as above		
	10	CLAYSTONE: as above		
2920.0 - 2930.0	40	SANDSTONE: Clear to translucent, abundant opaque, medium to very coarse, dominantly coarse to very coarse, abundant medium, well sorted, sub-angular to well rounded, dominantly sub-rounded to rounded, common sub-angular, abundant well rounded, trace strong calcareous cement, trace pyrite cement/matrix, trace glauconite and glauconitic staining, trace mica flakes, rare fissile quartz shards, trace pyrite lens		

