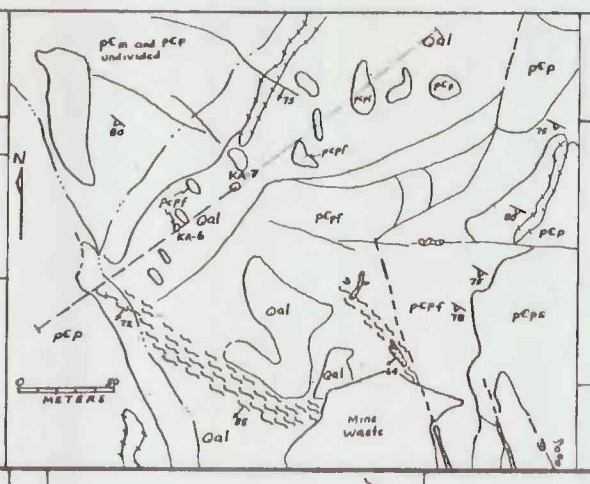
78-579

KINGDOM OF SAUDI ARABIA
Ministry of Petroleum and Mineral Resources
Directorate General of Mineral Resources

U S Geological Survey

Mineral Occurrence
KUTAM PROSPECT
Drill Hole Number: KA-7

References



Date started: 18/5/75
Date completed: 7/6/75
Driller: ADC
Hole size: Nx- 0-84.90
Bx- 84.90-175.65
Ax-

Survey Data
Collar Coords: Lat 17°35'55" Long 43°34'10"
Subsurface

Depth	Inclination	Azimuth
Collar	-45°	235°
	(Tropari)	
50m	-46°	235°
100m	-43°	236°
150m	-39°	236°
175m	-39°	231°

Logged by: C.W. SMITH

SHEET #1 OF 1

CORE RECOVERY LENGTH	%	CORE AXIS	STRUCTURE	INTERSECTION ANGLE WITH CORE AXIS	LOG SCALE 1/100	DEPTH	LITHOLOGY	MINERALIZATION	SAMPLE DATA DEPTH	SAMPLE DATA LENGTH	SAMPLE NUMBER	ANALYSES	AVERAGES
			CORE BROKEN				QUARTZ PORPHYRY WEATHERED						
			FOLIATION STRONG					FeO, MALACHITE IN VEINLET	4.00				
			ROCK APPEARS LAYERED	40°									
		1				5.00	QUARTZ PORPHYRY, GRAY WHITE, DACITIC CHLORITE, MODERATE WITH FINELY SCATTERED BIOTITE. QUARTZ PHENOCRYSTS, GRAY-BLUE TO 2mm. GARNET, PINK-BROWN, IN PLACES AS MUCH AS 10% OF ROCK						
		2	CONTACT?			11.10	CHLORITIC, FINE GRAINED ROCK WITH PINK GARNET TO 3mm ARRANGED ALONG FOLIATION ~ 20 cm. DIKE?						
			CONTACT			11.10	CHLORITIC, FINE GRAINED - DIKE?						
			CONTACT			14.90							
						18.90		MALACHITE ASSOCIATED WITH QUARTZ STRINGER, 5°	15.90				
			FOLIATION	45°		19.40	QUARTZ PORPHYRY WITH INCLUSIONS OF LIGHTER COLORED MATERIAL - FLOW BRECCIA?						
		3											
			NEAR 100% CORE LOSS - FEW ROUNDED PEBBLES RECOVERED				REASON FOR NEAR TOTAL CORE LOSS?						
			FOLIATION	20°		25.00							
			CONTACT?			27.40	FLOW BRECCIA GRADES INTO DARK GREEN MAFIC ROCK WITH FELDSPAR PHENOCRYSTS, CHANGING AGAIN TO GRAY GREEN FINELY LAMINATED ROCK WITH TINY GARNETS ALONG FOLIA	POLY GREEN-YELLOW MINERAL ON FRACTURE - TURQUOISE?	27.40				
			OBSIDIZED ZONE WITH RED BROWN FEO - FAULT?										
		4											
			CONTACT										
			FAULT?			34.65	MAFIC WITH FELDSPAR PHENOCRYSTS. APLITE? DIKE						
		5					CHLORITIC MATERIAL WITH BAND OF LIGHTER COLORED MATERIAL - RHYOLITIC?						
							CHLORITIC ROCK APPEARS LAYERED WITH GRAINS AND CLASTS OF LIGHTER MATERIAL ALONG FOLIA. GARNET IRREGULARLY BUNCHED AND NOT CONTROLLED BY FOLIATION.	PYRITE - FEW GRAINS AND STREAKS <0.5% ROCK	39.00				
			CONTACT			39.00	TREMOLITE WITH BROWN BIOTITE IN LAYER 2.5 TO CORE	TINY SPOT OF MALACHITE	39.00				
			QUARTZ VEINS PARALLELING DIKE				LAYERED MATERIAL CONSISTING OF AMPHIBOLE, FELDSPAR PORPHYRIES, FINE GRAINED CHLORITE	CHALCOPYRITE - FEW GRAINS	39.40				
		6				48.00	ROCK TYPE? DENSE, MASSIVE, GRAY WITH BIOTITE ALONG FOLIA						
			FOLIATION	20°		49.70	QUARTZ, WHITE, BARREN, 5° TO CORE - AT LEAST CORE WIDTH IN THICKNESS.						
		7											
						49.70	QUARTZ WHITE WITH MINOR ASSOCIATED PYRITE ~ 10 AND 5 CM WIDE						
		8	FOLIATION	30°		52.70	AMPHIBOLITE NEEDLES ALIGNED ALONG FOLIATION	PYRITE IN STREAKS ALONG FOLIATION ~ 1%	58.90				
		9						PYRITE ~ 1% TO 60.00					
		10					ROCK TYPE? DENSE, GRAY, MASSIVE, WEAKLY FOLIATED						
									61.80				
		11						PYRITE < 0.5% 61.50-66.10					
			FOLIATION	25°									
						66.10	FEW QUARTZ PHENOCRYSTS		66.10				
		12	CONTACT - FAULT			69.00	AMPHIBOLITE - CONTACT NEARLY PARALLEL TO CORE						
		13				72.50	QUARTZ VEIN PARALLEL TO FOLIATION						
		14											
						79.45	QUARTZ PORPHYRY DARK GRAY-GREEN WITH OCCASIONAL QUARTZ PHENOCRYST						
		15											
						83.95							
			FOLIATION	50°			ROCK TYPE? GRAY, SLIGHTLY MOTTLED, MASSIVE	PYRITE SCATTERED <0.5%	84.00				
		16					AMPHIBOLE NEEDLES TO 2 cm.						
						88.50							
						89.50	FEW QUARTZ PHENOCRYSTS						
		17						PYRITE WITH ASSOCIATED FINE BROWN BIOTITE - 0.5-10% / MINOR PYRRHOTITE	91.00				
						94.35	QUARTZ PORPHYRY, CHLORITIZED						
			FRACTURE WITH GOUGE - 10 cm			95.00		PYRITE IN STRINGERS ALONG FOLIA, 0.5-1.0%					
		18											
			FRACTURES WITH SAND 10 cm GOUGE AND QUARTZ FILLED CAVITIES			100.15		PYRITE WITH ASSOCIATED BROWN BIOTITE, < 1% TO 111.85	100.15				
		19											
						106.40	QUARTZ-FELDSPAR PORPHYRY WITH BEDDED APPEARANCE						
		20											
			FOLIATION	35°		111.85	QUARTZ PORPHYRY, MASSIVE WITH WEAK FOLIATION	PYRITE < 0.5% UNIFORM THROUGHOUT - TO 117.44	111.84				
		21											
		22						PYRITE ~ 1% - TO 123.00	120.00				
			FRACTURE SEALED PARALLEL WITH CORE					PYRITE < 1% TO 128.67	128.00				
		23											
			FOLIATION, WEAK	40°		123.00							
								PYRITE 1% TO 169.00	127.47				
		24											
			FOLIATION	30°		134.53	QUARTZ PORPHYRY, WEAKLY SILICIFIED - TO 140.08						
		25											
						140.08	QUARTZ PORPHYRY, MODERATE ARGILLIC ALTERATION						
									140.44	100	109797	0.08 0.50 0.01	0.002 0.01
									141.84	100	109798	0.08 0.70 0.02	0.004 0.01
		26							142.84	100	109799	0.08 0.70 0.01	0.002 0.27
						144.00	PORPHYROBLASTIC QUARTZ GRAINES GIVING SPOTTED TEXTURE, MAFIC	PYRITE ~ 2%	143.84	100	109790	0.08 0.80 0.004	0.002 0.005
									144.84	100	109791	0.08 0.70 0.001	0.001 0.005
			FRACTURE WITH 30 cm GOUGE	30°				PYRITE 4-5% TO 145.9	145.84	100	109792	0.08 0.80 —	0.002 0.004
		27				147.80	APLITE ?, LIGHT GRAY, VERY FINE GRAINED		146.84	100	109793	0.08 1.00 —	0.003 0.003
									147.84	100	109794	0.08 1.00 0.001	0.003 0.02
			CONTACT	36°		148.40	STRONG ARGILLIC ALTERATION		148.50	100	109795	0.07 1.40 —	0.004 0.004
				65°					149.84	100	109796	0.07 1.00 —	0.003 0.004
								SULPHIDES SPARSE	150.84	100	109797	0.06 1.10 —	0.004 0.003
						152.00	ROCK TYPE?		151.00	100	109798	0.06 0.80 0.001	0.003 0.004
			FAULTED, BRECCIATED ZONE						152.84	100	109782	0.08 1.30 0.002	0.003 0.007
		28							153.84	100	109783	0.08 1.30 0.003	0.004 0.01
				60°		154.00	APLITE ? DIKE		154.84	100	109784	0.08 1.50 0.003	0.003 0.003
			CONTACT			154.50	STRONG ARGILLIC ALTERATION, TEXT: EARTHY GREEN ROCK WEAKLY FOLIATED, MINOR SILICIFICATION		155.84	100	109785	0.08 1.80 0.003	0.003 0.007
			CONTACT	30°					156.84	100	109786	0.08 1.60 0.001	0.004 0.003
								SULPHIDES SPARSE	158.00	100	109799	0.06 1.40 0.002	0.003 0.007
		29							159.00	100	109781	0.08 1.80 0.004	0.003 0.006
			FOLDING WITH FOLD PLANE 45° TO CORE AXIS				QUARTZ PORPHYRY, SHEARED, WITH ABUNDANT BIOTITE	PYRITE, STRONG, 5-10%	160.84	100	109800	0.08 1.80 0.004	0.003 0.006
			TERMINATION OF FAULTED ZONE			161.84			161.84	100	109801	0.07 1.80 0.004	0.003 0.007
		30						PYRITE < 1%	162.84	100	109802	0.07 1.70 0.004	0.004 0.04
							QUARTZ PORPHYRY RELATIVELY FRESH AND UNSHEARED, BLUE QUARTZ PHENOCRYSTS TO 0.5mm, BLACK BIOTITE, FINELY DISSEMINATED		163.84	100	109803	0.07 0.80 0.005	0.001 0.005
									164.40	100	109804	0.07 0.80 0.006	0.002 0.005
			FOLIATION WEAK	35°		167.00		PYRITE PRACTICALLY ABSENT TO END OF HOLE	167.84	100	109805	0.07 0.80 0.006	0.002 0.005
		31							168.84	100	109806	0.07 0.80 0.005	0.001 0.005
									169.84	100	109807	0.07 0.80 0.005	0.001 0.005
									170.84	100	109808	0.07 0.80 0.006	0.002 0.005
		32	FRACTURE WITH GOUGE - 0.5 cm						171.84	100	109809	0.07 0.50 0.005	0.003 0.003
							END HOLE 175.65						