Amoco Production Company

Composite Stratigraphic Section

Name WEST COPPER RIVER BASIN

AREA OR QUAD NELCHINA UPLIFT STATE ALASKA

LOCATION AND UPPER MATANUSKA VALLEY Sec. ___ TWN ___ RNG ___

MEASURED BY ___ DATE ___

INTERVAL Quaternary to Lower Jurassic

REMARKS Quaternary and Tertiary from Atlantic No 1 Rainbow-Federal, sec 31, T.8N, R5W, CRM
Surface Sections Compiled from Amoco 1960-1974 Field Work and USGS-1953-1965

LOCATION ___ N ___ W

PLOTTED BY J.D.P DATE 5-1-75

PERIODS	EPOCHS	GROUP or FM.	MEMBER	AGES (Stages)	FOSSILS	CORES	SHOWS	DEPTH	LITHOLOGY	POROSITY	SAMPLES	DESCRIPTION	LOCALITY
QUAT.												Glacial-Fluvial Deposits	
TERTIARY	MIOCENE-PLIOCENE											Sandstone and Conglomerates in fine to coarse grain matrix	
								1000				Claystone and coal with few sandstones and conglomerates	ATLANTIC NO 1 RAINBOW-FED SEC 31, T8N, R5W CRM
								2000				Sandstones to conglomeratic sandstones with siltstone and claystones to shales.	
CRETACEOUS	UPPER CRETACEOUS	MATANUSKA FORMATION		Campanian-Maestr.				3000			4.5-6.5% φ 1.8-3.1 mds	Shale, medium grey, platy to fissile some thin siltstone and sandstone beds.	
								4000			11.4% φ 3.9 mds	Sandstone, medium-grey, very fine to fine grained, well indurated with siltstone and shale increasing toward base. Some contorted basal beds. Unit is about 750' thick, coarsens and contains pebbly beds with pebble-cobble conglomerate in basal 200'	SOUTH SYNCLINE MOUNTAIN
				Santonian				5000				Shale, gray-medium grey, platy to blocky, few thin siltstone and sandstone beds (1"to 10" thick) in part calcareous and silty with limestone concretions 4" to 10", some sandstone concretions.	
								6000					
								7000					
								8000				Rare Coquina bed 3 beds 1'-8' thick conglomerates pebble-cobble (6") Sandstones, salt and pepper, very fine-fine grained, fair porosity	
								9000				Shale, grey, non calcareous, with limestone concretions.	NORTH SHEEP MOUNTAIN
								10000					
				Turonian Cenomanian				11000					
								12000			7.4-9.8% φ 1.8-4.4 mds	Siltstone-very fine sandstone. Sandstone, grey fine-grained well-sorted flaggy. Fossiliferous, glauconitic, slightly calcareous poor-fair porosity. Some silty shale	(GUNSIGHT CREEK)
								13000				Siltstone and silty claystone, greys and brown, with numerous irregular thick zones of siliceous claystone and siltstone, locally abundant interbeds of sandstone and coarse siltstone. Thickness varies 200-300'	UPPER MATANUSKA VALLEY-NORTH CHUGASH MOUNTAINS
	LOWER CRETACEOUS	NELCHINA L. SS to Up. SS		Albian				14000			16.6-24.3% φ 1.1-6.4 mds	Maune lithic sandstone (epiclastic volcanic), commonly x-bedded, coarse, hall, coarse and conglomeratic with Maune fossils. Upper half fine-medium grained, unit variable, 150-400' to north in Lonesome Hills represented by sandstone, coal beaver claystone and conglomerates Maune and Tay-Mount. Thickness varies 150-400'	LIMESTONE GULCH AND GAP IN LIMESTONE HILLS AREA EAST SIDE OF BILLY CREEK.
				Neocomian				15000			16.8% φ 7.0 mds	Sandstone, dark, blue grey, fine to coarse grained, grades to calcareous, with the 3rd bed on fresh breaks fossils light brown oil stain, fair-good porosity. Limestone (Calcarenite) of pulverized Inoceramus prisms very light grey, x-bedded on odd on fresh breaks, silty	
								16000			12.8% φ 3.4 mds	Sandstone, grey, poorly sorted, coarse to very coarse grained, quartz, feldspars, volcanic chips, good porosity. Calcareous	
JURASSIC	UPPER JURASSIC	NAKNEK FORMATION		Kimmer.-? Port.				17000			20.7% φ 8.0 mds	Sandstones, grey, very fine to medium grained, x-bedded, calcareous in part, slightly shaly. Fair porosity. Interbedded conglomerate, sandstone and shale good porosity	UPPER LITTLE NELCHINA RIVER
		CHINITNA	Chinkie Cgl.	Oxfordian				18000				Shale, dark grey to black, blocky and siltstone with limestone concretions.	
								19000				Conglomerate, grey-dark grey to brown grey cobble to boulder (8") strongly glaciated, reliable material. Matrix of siltstone-silty ss. Massive appearance	LITTLE OSHETNA RIVER NORTH OF CONGLOMERATE CREEK
	MIDDLE JURASSIC	TUXEDNI GROUP		Callovian				20000				Shale to claystone, grey, soft, weathers yellow, blocky. Some calcareous silty concretion. Cobble conglomerates (up to 8"), sandy matrix, some sandstone and siltstone, calcareous, marine fossils. Mudstone, black, sandy, few pebbles, marine fossils and fossil. wood in thin coquina bed. Pebbly sandstone, yellow-brown, shaly, tight. Claystone, soft with coaly material and leaf imprints with pebbly sandstone, siltstone and coaly claystone	
				Bathonian				21000			7.3% φ 2.00-13.1 mds 8.8-14.9% φ 2.0-1.1 mds	Sandstone, grey-black, pebbly, marine fossils, siltstone and claystone. Sandstone, very fine to medium grained, poorly sorted, occasional siltstone and chunks, x-laminations. Friable to very hard, black dirty matrix in part. Tight to poor porosity, scattered fair to good throughout.	CARDIOCERAS CREEK
				Bajocian				22000			4.3% φ 1.0 mds 3.4% φ 11.9 mds	Angular unconformity. Volcaniclastics. Siltstone to sandstone, coarse grained to pebble-cobble conglomerate. No discrete beds, no trees, poss. wood and marine fossils.	LITTLE OSHETNA RIVER, MOUSE CREEK (ALONG CARIBOU FAULT), SHEEP MOUNTAIN AND NORTH FRONT CHUGASH MTNS
	LOWER JURASSIC	TALKEETNA FORMATION		Toarcian				23000				Talkeetna formation - estimated 6000-8000'. Base is not exposed. Divided into three units: Upper part - sandstone and argillite. Middle Part - flows and pyroclastics. Lower Part - Argillite and Sandstone.	
				Sinemurian				24000					
				Pliensbachian				25000					
								26000					
								27000					
								28000					
								29000					