

EXPLANATION

STRUCTURE CONTOUR SYMBOLS

- CONTROL BY SURFACE MAPPING
- CONTROL BY INTERPOLATION
- CONTROL INADEQUATE, POSITION OF CONTOURS INFERRED
- DEPRESSION CONTOURS

WELL SYMBOLS

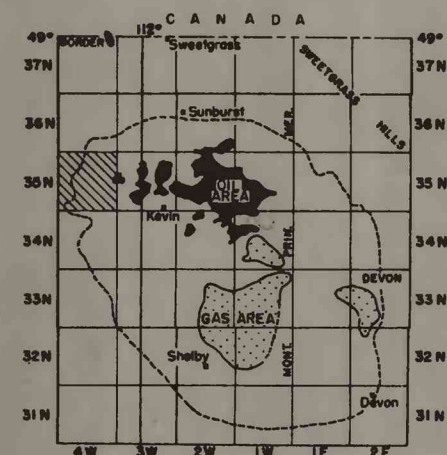
- OIL WELL OIL WELL, SUNBURST SAND PRODUCTION
- OIL WELL, ABANDONED
- SHOW OF GAS AND OIL, ABANDONED
- SHOW OF OIL, ABANDONED
- GAS WELL, ABANDONED
- GAS WELL, SHUT IN
- GAS WELL
- DRY HOLE, ABANDONED
- LOCATION OR DRILLING WELL
- WATER WELL, ABANDONED

MISCELLANEOUS SYMBOLS

- EAST BOUNDARY OF DEFINED CUT BANK GAS AREA
- GRADED GRAVEL ROAD
- UNSURFACED ROAD
- SPRING
- SULFUR SPRINGS
- GRAVEL PIT
- HOUSE
- SCHOOL
- FOUND CORNER
- SECTION CORNER WITH ELEVATION
- BENCH MARK
- GRAVE

PIPE LINES

- THE MONTANA POWER CO. (Gas)
- MONTANA DAKOTA UTILITIES CO. (Gas)
- THE TEXAS CO. (Oil)
- BIG WEST REFINING CO. (Gas)



INDEX MAP OF KEVIN-SUNBURST DOME
Showing Location of T. 35 N., R. 4 W.

AREAL GEOLOGY SYMBOLS

- UPPER CRETACEOUS
- TWO MEDICINE FM.
- VIRGELLE SANDSTONE MEMBER
- EAGLE SANDSTONE
- TRANSITION ZONE
- COLORADO GROUP



BASE COMPILED FROM G.L.O. TOWNSHIP
PLATS AND AUTHORS' FIELD SHEETS.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

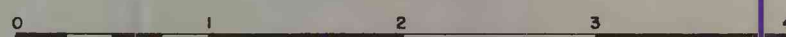
MAP OF THE AREAL AND STRUCTURAL GEOLOGY

OF

T. 35 N., R. 4 W., TOOLE COUNTY, MONTANA

SHOWING HIGH GRAVITY POOL, KEVIN-SUNBURST OIL FIELD AND PART OF CUT BANK GAS FIELD

SCALE OF MILES



CONTOURS DRAWN ON TOP OF COLORADO GROUP
INTERVAL 20 FT. DATUM MEAN SEA LEVEL

OCTOBER 1946

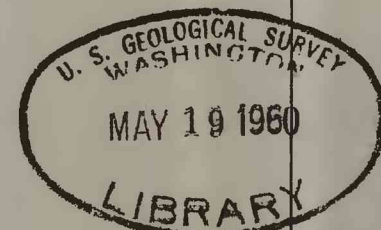
GEOLOGY BY C.E. ERDMANN,
A.B. COZZENS AND J.T. GIST.
1943-1944; J.W. NORDQUIST
1945

COMPOSITE SECTION OF EXPOSED ROCKS

SYSTEM SERIES GROUP	FORMATION	THICKNESS	GRAPHIC LOG	CHARACTER OF ROCKS					
				0 25 50 100FT.	VERTICAL SCALE				
C R E T A C E O U S	TWO MEDICINE FM.	169 FT.		Sandstone, brown, hard					
				Sandstone, concretionary, ferruginous					
				Sandstone, resistant, gray to buff					
				Shale, purplish-gray					
				Shale and sandstone interbedded, gray to buff					
				Shale, sandy					
				Sandstone, medium-grained, crossbedded, gray to buff					
				Shale and sandstone interbedded, gray to buff					
				M O N T A N A	EAGLE SANDSTONE	115 — 122 FT.		VIRGELLE SANDSTONE MEMBER	
								Magnetite sandstone, olive drab to dark gray	
Sandstone, soft, friable, thin-bedded with some thin beds lighter; makes slope									
Zone of brown ferruginous concretions, makes pedestal rocks									
Massive, cliff-making, gray-buff									
Fine-to medium-grained, thin-bedded, buff									
P E R M I A N	TRANSITION ZONE	163 — 170 FT.						Shale, sandy, gray-buff	
								Siltstone	
								Sandstone, gray, calcareous with some limestone concretions	
								Sandstone, gray, fine-grained	
				Cone-in-cone, buff (local)					
				Shale, sandy, fine-grained, soft, gray-buff					
				C O L O R A D O	CONTOUR DATUM	480 FT. EXPOSED		Bentonite	
								Sandstone, thin-bedded, resistant	
								A Limestone, impure, cream, crinkly	
								Shale, soft, dark gray	
B Limestone, concretionary, gray, weathers buff; concentric structures									
C Limestone, concretionary, dark gray, oval septarian masses									
D Limestone, concretionary, gray, sandy, almost continuous layer									
E Limestone, concretionary, ferruginous. A "red chip" zone; persistent									
Limestone, concretionary, weathers ochraceous yellow, gnarly, fairly persistent									
F Concretionary intraformational mud pellet conglomerate; weathers orange-buff with light gray pellets; very persistent and distinctive									
Limestone, concretionary, gnarly brown masses									
G Limestone, concretionary									
C O L O R A D O	CONTOUR DATUM	480 FT. EXPOSED		H Limestone, concretionary, weathering buff at base					
				Sandstone, fine-grained, "chippy"					
				I Calcite, light gray weathering tan, fibrous, cone-in-cone structure; makes bench					
				J Limestone, concretionary, gray, dense, weathering brownish					

LETTERED BEDS IN COLORADO GROUP ARE MARKERS FOR STRUCTURAL MAPPING. LACK OF CONTINUITY OF BEDS RESULTS FROM ERRATIC COVER OF GLACIAL DRIFT

GLACIAL DRIFT AND ALLUVIUM ARE NOT SHOWN IN THE ABOVE SECTION OR ON THE MAP



Montana (Toole County, T35N R4W). Geol. 1:63,360. 1946.
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