Report of Investigations 98-14 ALASKA DIVISION OF GEOLOGICAL & Sheet 2 of 2 **GEOPHYSICAL SURVEYS** 155° 55′ 155° 50' 155° 20′ 155'05' 62° 00′ R 34W R 33W R 33W | R 32W R 35W | R 34W R 36W | R 35W R 37W R 36W R 38W R 37W 62°00′ Department of Natural Resources T 22N Division of Geological and Geophysical Surveys T 21N Geologic Data Modeling System 61° 55′ 61°55′ T 21N T 20N 61° 50′ 61° 50′ T 20N T 19N 61° 45' 61° 45′ COLOUR BAR 54979 54946 T 19N 54939 T 18N 61° 40′ 54929 61° 40′ 54922 54921 54919 T 18N T 17N 61°35′ 54914 54913 54911 54908 54907 54906 54905 54903 17N T 16N 54901 54900 54899 54895 54886 61° 30′ Total field magnetics in nT T 16N T 15N 61° 25′ T 15N T 14N 61° 20′ SURVEY HISTORY This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys (DGGS), and On-line Exploration Services, Inc. Airborne geophysical data for the area were acquired by Sial Geosciences, Inc., in 1997. 61° 20′ This map and other products from this survey are available from DGGS, 794 University Ave., Suite 200, Fairbanks, Alaska, 99709. Phone: (907) 451-5020. FAX: (907) 451-5050. T 14N T 13N **DESCRIPTIVE NOTES** The geophysical data were acquired with a RMS GR-33/HDS60 data acquisition system, and a Geometrics G822A cesium magnetometer installed in a Piper Navajo 310 (C-GAKM) airplane. In addition, the survey recorded data from a radar altimeter (King KRA-10), GPS navigation system, and video camera. Flights were performed at a mean terrain clearance of 300 ft along survey flight lines with a spacing of a half mile. Tie lines were flown perpendicular to the flight lines at intervals of approximately three miles. T 13N Two Trimble-4000 SE Differential Post-processing Global Positioning Systems were used for both navigation and flight path recovery. The airplane postion was derived every one second to a relative accuracy of better than 10 m. Flight path positions were projected onto the Clarke 1866 (UTM) spheroid, 1927 North American datum using a Central Meridian (CM) of 159 degrees west, a north constant of 0 and an east constant of 500,000. Positional accuracy of the presented data is better than 10 m with respect to the UTM grid. T 12N T 12N 61°05′ TOTAL FIELD MAGNETICS The total field magnetic data were acquired with a sampling interval of 0.1 seconds. The magnetic data were (1) corrected for diurnal variations by subtraction of the digitally recorded base station magnetic data, (2) leveled to the tie line data, and (3) interpolated onto a regular 200 m grid using a modified Akima (1970) technique. T 11N Akima, H., 1970, A new method of interpolation and smooth curve fitting based on local procedures: Journal of the Association of Computing Machinery, v. 17, no. 4, p. 589-602. R 34W | R 33W R 35W | R 34W R 36W R 35W 61°00′ R 37W | R 36W R 38W | R 37W R 39W | R 38W R 40W R 39W 156° 20′ 156° 00' 155° 25′ 155° 20′ 155° 10′ Section outlines from U.S. Geological Survey topographic bases: Lime Hills A-8, 1975; B-6, B-7, B-8, C-7, C-8, D-7 and D-8, 1954; Sleetmute A-1, B-1, and C-1, 1954; D-1, 1985; SCALE 1:125,000 Quadrangles, Alaska. 156°00' ALASKA HOLY CROSS IDITAHOD TALKEETNA MC GRATH 62°00' The State of Alaska makes no express or implied warranties (including warranties for merchantability and fitness) with respect to the character, USSIAN MISSION LIME HILLS APPROXIMATE MEAN DECLINATION, 1954 TYONEK functions, or capabilities of the electronic services or products or their appropriateness for any user's purposes. In no event will the State of Alaska be liable for any incidental, indirect, special, consequential or TOTAL FIELD MAGNETICS OF THE other damages suffered by the user or any other person or entity whether BETHEL TAYLOR MTS LAKE CLARK KENAI from use of the electronic services or products, any failure thereof or otherwise, and in no event will the State of Alaska's liability to the HOLITNA BASIN AREA, WESTERN ALASKA Requestor or anyone else exceed the fee paid for the electronic service or Quadrangle Location Location of map area 1998 September 02, 1998