Determining Location

Where in the World are We
Geodetically Speaking

Meades Ranch
How do we find the Mark?

KG0640 DESCRIBED BY COAST AND GEODETIC SURVEY 1948 (MZB)
KG0640 STATION IS LOCATED ABOUT 12 MILES NORTH OF LUCAS, 9 MILES SW OF
KG0640 TIPTON, 2.5 MILES NORTH OF THE HOME OF MR. FRANK RIBINSON (PRESENT
KG0640 OWNER OF PROPERTY), IN THE SW 1/4 SEC. 34, T 9 S., R 11W., 237 FEET
KG0640 W OF THE EAST SECTION LINE FENCE AND 1,541 FEET NORTH OF THE SOUTH
KG0640 SECTION LINE FENCE. ABOUT DUE W OF A GATE IN THE EAST LINE
KG0640 FENCE, ON THE HIGHEST POINT OF A PROMINENT E-W RIDGE, WHICH IS ALL
KG0640 PASTURE LANDS.
KG0640
KG0640 TO REACH FROM LUCAS, GO N ON RT. 691 (DOWNS ROAD), ABOUT 5 MILES TO
KG0640 THE COUNTY LINE. TURN E ABOUT 1/2 MILE, THEN N AND PROCEED 5 MILES
KG0640 TO RT. 412. CONTINUE N ON RT. 691 FOR 1.1 MILES TO A GATE ON
KG0640 THE LEFT (W). TURN IN THROUGH GATE AND FOLLOW DIM TRAIL ROAD N
KG0640 AND W THROUGH PASTURE ABOUT 1 MILE TO A GATE IN N-S FENCE LINE
KG0640 AND THE STATION ABOUT 80 YARDS DUE WEST.

KG0640 STATION RECOVERY (2008)
KG0640 RECOVERY NOTE BY GEOCACHING 2008 (EC)
KG0640 RECOVERED WITH OWNER KYLE BRANT AND A CREW OF 31 PEOPLE ON A TOUR
KG0640 OF
KG0640 THIS SPOT. ALWAYS CONTACT OWNER KYLE BRANT FOR ACCESS. ACCESS INTO
KG0640 THE PASTURE FIELD IS FROM A GATE AT LATITUDE NORTH 39.20571 AND
KG0640 LONGITUDE WEST 098.54163 (SMALL HANDHELD GPS RECEIVER). FROM THE
KG0640 GATE, DRIVE NORTH ON ROUGH GRAVEL ROAD FOR 1.20 MILES TO THE STATION.
KG0640
KG0640 FOUND REFERENCE MARK NO.3 FLUSH WITH GROUND BY A FENCE LINE EAST OF
KG0640 THE STATION, 1.8 FT WEST OF THE NORTH-SOUTH FENCE LINE AND 2.05 FT NNE
KG0640 OF THE NW CORNER OF THE FOURTH STONE FENCE POST NORTH OF A GATE.
KG0640 COUNTING THE NORTH-GATE POST AS THE FIRST POST NORTH.
KG0640 AGEDITY WAS ON SEPERATE PROPERTY AND DID NOT HAVE PERMISSION TO
KG0640 RECOVER IT.
TRI-STATIONS ARE OLD SCHOOL

TODAY WE USE GPS AND CORS SITES

CORS SITE FAIR

UAF CORS SITE
Geodetic position is not the same as property location or property definition.
Defining Property

Public Land Survey System
Fairbanks Initial Point

Cutting up Townships

Sections
Section 14 shows both normal division of the section into aliquot parts and the fractional division into government lots.
**THEORETICAL TOWNSHIP DIAGRAM**

**METHOD OF NUMBERING SECTIONS WITH ADJOINING SECTIONS**

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**Figure 2**—Numbers of sections on certain lines show normal order of subdivision.
Some Typical corner markings
US SURVEYS
SOME PROBLEMS

Typical and otherwise
(m) The Submerged Lands Act of 1953 (Public Law 31, Eighty-third Congress, first session; 67 Stat. 29) shall be applicable to the State of Alaska and the said State shall have the same rights as do existing States there under.
However, a boundary that has been fixed by final decree of the U.S. Supreme Court remains immobile. Lands beneath navigable waters: (1) all lands within the boundaries of each of the respective states which are covered by nontidal waters that were navigable at the time the state became a member of the Union or acquired sovereignty over the lands and waters, up to the ordinary high water mark, (2) all lands permanently or periodically covered by tidal waters up to the line of mean high tide and seaward to a line three miles from the coast line of each state, and to the boundary line of a state the boundary of which at the time the state became a member of the Union, or as approved by Congress, extended seaward beyond three miles, and (3) all filled in, made, or reclaimed lands which formerly were lands beneath navigable waters. Natural resources: includes, without limiting the generality thereof, oil, gas, and other minerals and fish, shrimp, oysters, clams, crabs, lobsters, sponges, kelp, and other marine animal and plant life, but does not include water power or the use of water for producing power. § 1301.

The term ordinary high water mark means “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.” 33 CFR 328.3

The legal definition of OHW used by the Department of Fish and Wildlife and defined in WAC (220-110-020(57)) is:

“Ordinary high water line means the mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting upland. Provided, That in any area where the ordinary high water line cannot be found the ordinary high water line adjoining saltwater shall be the line of mean higher high water and the ordinary high water line adjoining freshwater shall be the elevation of the mean annual flood”.

Considerable judgment is required to identify representative OHW marks. It may be difficult to identify the mark on cut or rocky banks. A biologist experienced in vegetation typing typically performs the interpretation of OHW.
### Water Level Heights

To refer Water Level Heights to a Tidal Datum, apply the desired Datum Value.

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### Questions

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