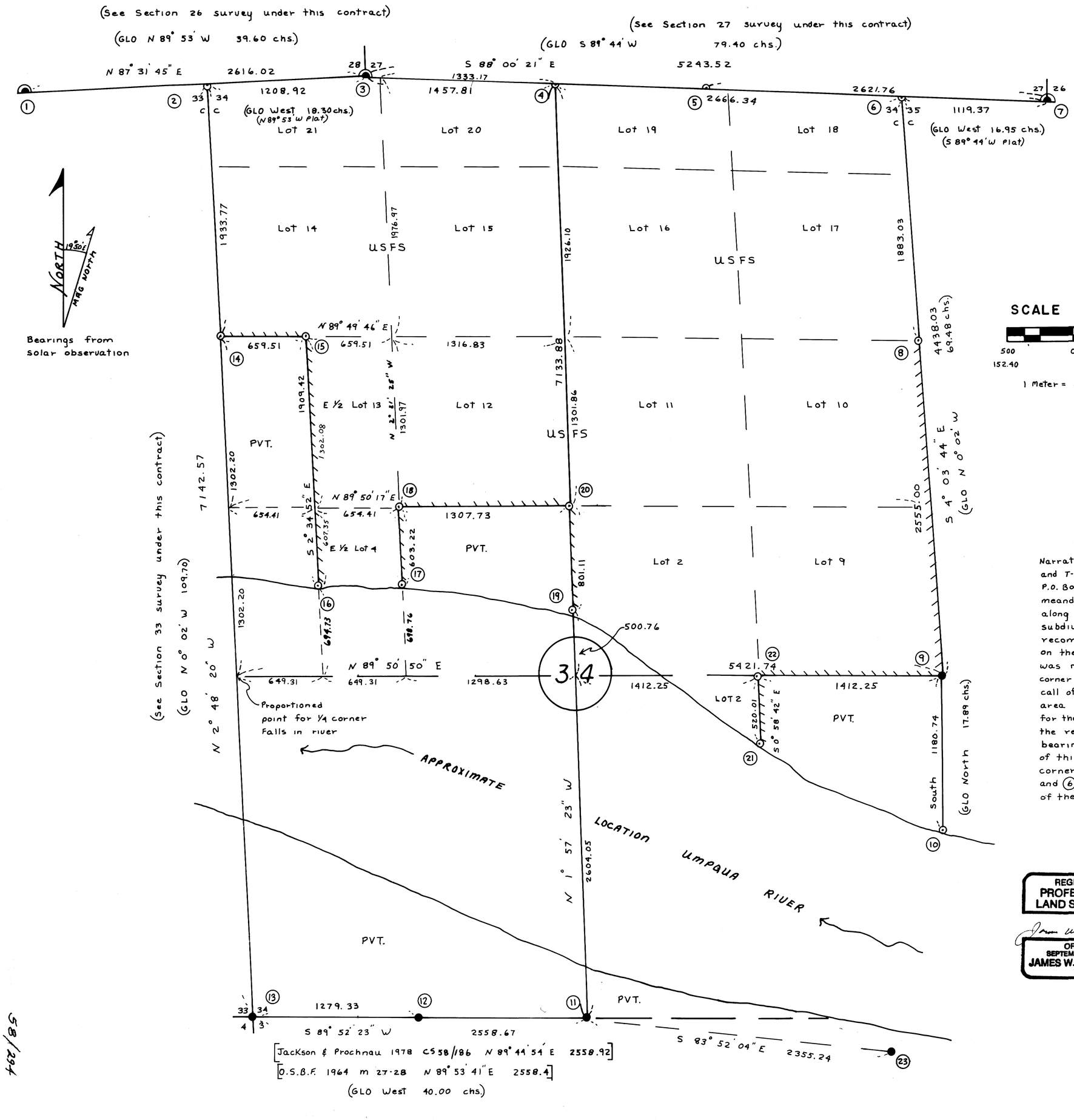
58/294
M 96-65 A



SURVEY FOR

U.S. FOREST SERVICE

SMITH - UMP CADASTRAL

CONTRACT NO. 53-04TO-3-0935N

SECTION 34, T21S, R11W, W.M.

DOUGLAS COUNTY, OREGON

SCALE 1" = 500'

FEBRUARY 24, 1984

500 0 500
152.40 152.40

1 Meter = 3.28083 ft.

LEGEND

- ● Corner evidence found
- ◉ Corner evidence found from adjacent survey under this contract.
- ⊙ Corner set by survey
- ////// Property line posted with 6' fiberglass posts with F.S. decals 54-2a or ½" x 5' rebar with F.S. signs 54-2.
- [ ] Bearings and distances of record by other surveys
- ( ) Bearings and distances of record from original GLO survey

Narrative: This survey is a closed traverse by T-16 theodolite with DI-4 EDM and T-1 theodolite with Citation 460 EDM, made by Jackson & Prochnau, Inc., P.O. Box 177, Albany, Oregon 97321. The South boundary of the township, the meanders of the Umpqua River and subdivision of portions of the township along the river was originally done by W.H. Byars in 1874. William Thiel subdivided portions of the township North of the river in 1891. Per BLM recommendation, Haines position for the meander corner to Sections 3|2 on the South bank (determined from his recovered witness corner No. (23)) was not used to subdivide this section. The position for the meander corner 34|35 corner No. (10) on the North bank was determined from the original call of South 17.89 chains, as recommended by the BLM. This point falls in a tidal area and a witness corner was set to the North. A mean course was adopted for the East boundary of Lot 2, in the SE ¼, (between corners (21) and (22)), from the record bearing on the East line (between corners (9) and (10)) and the bearing of the North-South centerline. In order to subdivide the North ½ of this section, a proportioned position for the West ¼ was computed. This corner falls in the river and was not originally set. Corner No's (2) (4) (5) and (6) were set by single proportion measure, following a thorough search of the respective areas.

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
SEPTEMBER 21, 1977
JAMES W. PROCHNAU
1305

I, James W. Prochnau, a registered Land Surveyor in the State of Oregon, hereby certify that this plat and the notes hereon, or attached, are a correct representation of a survey I performed during October 1983 through February 1984 for the U.S. Forest Service in accordance with the statutes of the State of Oregon and with the articles of my contract.

James W. Prochnau
PLS 1305, Oregon

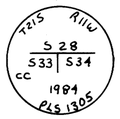
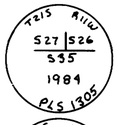
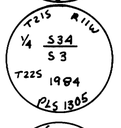
58/294
M 96-65 A

SECTION 34, T21S, R11W, W.M.
SMITH-UMP CADASTRAL

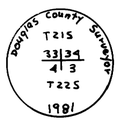
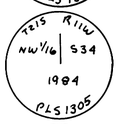
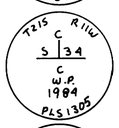
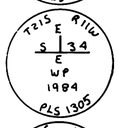
NOTE: All new BT's are faced with a double blaze and marked per BLM manual, and in addition have a brass washer marked LS 1305 nailed flush in lower blaze. New BT's are tagged with USFS signs 54-9 and 54-3, and painted with a 6" red band. All corner monuments set are stamped per the BLM manual plus township, range, 1984 and PLS 1305. Reference monuments at property corners were set within one minute of true bearing. 6 ft. fiberglass posts with decals LSM 130, or ½" x 5' rebar with signs 54-9 were set 3 to 5 ft. from all corners set as per contract. Field notes are in book's 4, 5, 6, 9, 10, 11, 15, 20 and 21. Contract No. 53-04T0-3-0935N.

BS BS BS

58/294 M 96-65 B

CORNER NO.	MONUMENT	ACCESSORIES
 ①	Fd. 3" alum. cap on 2½" x 30" alum. pipe set by Jackson & Prochnau. Rockmound.	Fd. Jackson & Prochnau BT's: 34" D. Fir brs N 2° W 12.1 ft. scribed ¼ S 28 BT; 21" D. Fir brs. N 60° E 18.6 ft. scribed ¼ S 28 BT.
 ②	Fd. 1" I.P. set by Hootman brs. S 3° 05' 28" E 18.82 ft. from true position. Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	Fd. Hootman BT's from his monument: 36" D. Fir snag brs. S 39° E 58.0 ft. healed face; 24" D. Fir brs. S 65° W 26.0 ft. healed face; 12" D. Fir brs. N 19° E 41 ft. New BT's: 24" D. Fir brs. S 38° W 37.5 ft. scribed T21S R11W CC S33 BT; 34" D. Fir brs. S 58° E 65.0 ft. scribed T21S R11W CC S34 BT.
 ③	Fd. 3" alum. cap on 2½" x 30" alum. pipe set by Jackson & Prochnau. Rockmound.	Fd. Jackson & Prochnau BT's: 7" D. Fir brs. N 67° W 6.9 ft., scribed T21S R11W S 28 BT; 7" D. Fir brs. N 21° E 26.9 ft. scribed T21S R11W S 27 BT.
 ④	Set 2" alum. cap on ½" x 30" I.R. Rockmound.	New BT's: 32" D. Fir brs. S 43° E 13.9 ft. scribed ¼ S 34 BT; 6" Alder brs. S 14° W 17.1 ft. bark scribed ¼ S 34 BT.
 ⑤	Set 3" alum cap on 2½" x 30" alum. pipe. Rockmound.	New BT's: 38" D. Fir brs. N 38° E 60.2 ft. scribed ¼ S 27 BT; 22" Maple brs. N 69° W 55.6 ft. scribed ¼ S 27 BT.
 ⑥	Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	New BT's: 34" D. Fir brs. S 13° W 40.3 ft. scribed T21S R11W CC S34 BT; 32" D. Fir brs. S 40° E 35.5 ft. scribed T21S R11W CC S35 BT.
 ⑦	Fd. 3" alum. cap on 2½" x 30" alum. pipe, set by Jackson & Prochnau.	Fd. Jackson & Prochnau BT's: 40" D. Fir brs. N 78° W 44.9 ft. scribed T21S R11W S 27 BT; 20" D. Fir brs. N 5° E 83.5 ft. scribed T21S R11W S 26 BT.
 ⑧	Set 3" alum. cap on 2½" x 30" alum. pipe.	New BT: 5" D. Fir brs. N 4° E 12.1 ft. chopped "X" scribed BT. Set R.M.- 3" alum. cap on 2½" x 30" alum. pipe brs. S 57° 28' 38" E 48.96 ft. marked RM 1/16 80 S35 1984 PLS 1305 48.96
 ⑨	Set W.C.- 3" alum. cap on 2½" x 30" alum. pipe, brs. N 1° 03' 44" W 30.00 ft. from true corner.	Fd. Lewis' BT's (PE 722-1939) 47" forked Spruce brs. S 10° E 5.0 ft. healed face; 43" Spruce brs. S 75° W 29.0 ft. healed face. New BT: 6" Alder brs. S 56° E 10.6 ft. bark scribed X BT. Set R.M.- 3" alum. cap on 2½" x 30" alum. pipe brs N 71° 30' 24" W 50.82 ft. from W.C. marked RM W.C. S34|S35 1984 PLS 1305 50.82
 ⑩	Set W.C.- 3" alum. cap on 2½" x 30" alum. pipe North 63.37 ft. from true position.	New BT's: 16" Alder brs. S 81° W 15.9 ft. bark scribed X BT; 16" Alder brs. N 52° E 29.2 ft. bark scribed X BT.
 ⑪	Fd. 1½" iron pipe (no record) Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	Fd. Orig. BT: 62" Spruce brs S 30° E 50.1 ft. (S 31½° E 47.5 ft. rec.) healed face. Fd. Hootman BT: 26" forked Spruce brs. N 70° E 16.3 ft. (rec. N 70° W 14.5 ft.) healed face.
 ⑫	Fd. ½" iron rod set by Jackson & Prochnau, PLS 1305 in 1978. Replaced rod with 3" alum cap on 2½" x 30" alum. pipe.	Fd. Jackson & Prochnau BT's: 6" Alder brs. S 49° E 116.3 ft. (rec. 117.2 ft); 9" Alder brs. N 84° W 73.1 ft. (rec. 72.3 ft)

M 96-65 B 58/294

CORNER NO.	MONUMENT	ACCESSORIES
 ⑬	Fd. 2½" brass cap on 1¼ iron pipe.	Fd. orig. BT: 42" D. Fir brs. N 21° W 20.5 ft. cut open face. Fd. County BT: 7" D. Fir brs. S 46° E 25.2 ft. U/S. scribe. Fd. Hootman BT's: 36" D. Fir brs. N 39° E 14.3 ft. (rec. N 42° 15' E 15.0 ft.) healed face; 44" D. Fir brs. S 82° W 57.7 ft. (rec. 58.5 ft.) healed face
 ⑭	Set 3" alum cap on 2½" x 30" alum. pipe. Rockmound.	New BT: 6" D. Fir brs. N 86° E 21.0 ft. scribed 1/16 80 S 34 BT. Set R.M. - 2" alum. cap on ½" x 18" iron rod brs. N 84° 49' 41" W 58.0 ft. marked RM S 33 1/16 80 1984 PLS 1305 58.00
 ⑮	Set 3" alum. cap on 2½" x 30" alum. pipe. Rock mound.	New BT's: 13" White Fir brs. S 01° W 6.6 ft. scribed WW 1/64 80 S34 BT; 11" White Fir brs. N 20° E 11.0 ft chopped X BT.
 ⑯	Set 3" alum. cap on 2½" x 30" alum. pipe.	New BT's: 19" D. Fir brs. S 65° E 19.5 ft. scribed X BT; 22" D. Fir brs. S 57° W 13.8 ft. scribed X BT.
 ⑰	Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	New BT's: 18" D. Fir brs. S 76° W 20.0 ft. scribed X BT; 15" D. Fir brs. N 69° W 15.9 ft. scribed X BT.
 ⑱	Set 3" alum. cap on 2½" x 30" alum. pipe.	New BT: 11" D. Fir brs. S 65° E 62.8 ft. scribed NW 1/16 S 34 BT. Set R.M. - 3" alum. cap on 2½" x 30" alum. pipe brs. S 4° 39' 59" W 53.76 ft. marked RM NW 1/16 S34 1984 PLS 1305 53.76
 ⑲	Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	New BT's: 22" D. Fir brs. N 78° E 15.0 ft. scribed X BT; 24" Cedar brs. S 31° W 44.4 ft. scribed X BT.
 ⑳	Set 3" alum. cap on 2½" x 30" alum. pipe. Rockmound.	New BT: 16" D. Fir brs. S 79° W 37.3 ft. scribed CN 1/16 S34 BT. Set R.M. - 3" alum. cap on 2½" x 30" alum. pipe brs. N 19° 24' 34" E 39.81 ft. marked RM CN 1/16 - S34 1984 PLS 1305 39.81
 ㉑	Set 2" alum. cap on ½" x 5' rebar.	New BT's: 42" Spruce brs. N 15° W 75.5 ft. scribed X BT; 36" Spruce brs. N 17½° E 74.3 ft. scribed X BT.
 ㉒	Set true corner 2" alum. cap on ½" x 5' I.R. Set W.C.- 3" alum. cap on 2½" x 30" alum. pipe due North 80.00' from true corner, marked T21S R11W W.C. E 1/16 C—C S34 1984 PLS 1305. 80.00	Scribed BT to true corner: 8" Spruce brs. S 61° W 28.9 ft. marked CN 1/16 S 34 BT. Scribed BT. to W.C.: 12" Spruce brs. N 2° W 12.2 ft. marked X BT. Set R.M. to W.C. - 3" alum. cap on 2½" x 30" alum. pipe brs. N 72° 17' 34" E 51.98 ft. marked RM WC CE 1/16 - S 34 1984 PLS 1305 51.98
㉓	Fd. ¾" angle iron set by Haines LS 239 for W.C. to M.C. 3|2 record S 03° 19' E 136.89 ft. from Haines position for true meander corner (CS# 42121)	Fd. 63" Spruce brs N 47° W 42.9 ft. (rec. N 46° 36' W 39.55 ft.) B.O. rock brs. N 83° E 35.9 ft. (rec. N 80° 06' E 35.76 ft.) scribed X WC.

REGISTERED PROFESSIONAL LAND SURVEYOR
James W. Prochnau
OREGON
SEPTEMBER 21, 1977
JAMES W. PROCHNAU
1305

M 96-61 A&B, M 96-62, M 96-63 A&B,
M 96-64 A&B, M 96-65 A&B

IN REPLY REFER TO

United States Department of the Interior

9641 (942)

BUREAU OF LAND MANAGEMENT
OREGON STATE OFFICE
P.O. Box 2965 (825 N.E. Multnomah Street)
Portland, Oregon 97208

January 26

FILED
RECEIVED
MAY 16 1984
COUNTY SURVEYOR
DOUGLAS COUNTY, ORE.

Mr. James W. Prochnau
Jackson and Prochnau, Inc.
P. O. Box 177
Albany, Oregon 97321

Dear Mr. Prochnau:

This is in response to your request for our opinion concerning survey procedure in T. 21 S., R. 11 W., Willamette Meridian, Oregon, as discussed in your meeting with Dan Berry on January 24, 1984.

As you point out in your letter accompanying the material presented in the meeting, this situation was previously addressed in a letter from this office to the Douglas County Surveyor, dated January 25, 1974. The procedures for reestablishing lost corners outlined in that letter were those which would normally be used when considering the methods originally used to establish the section corners involved.

Based on the ground conditions you have developed, your submitted material contains several proposed methods, including the 1974 BLM recommendation, all of which indicate some distortion in bearings and/or distances from the original record. The 1974 BLM recommendation (your method No. 1) creates what we consider to be minor distortion in bearing but produces distances that in most cases are closer to matching the record than the alternatives; i.e, some bearing distortion gives way to generally good distance relationships.

After examining all possible methods that you have proposed, it appears that no one method can be adopted that will not create some distortion. Considering this, we feel the factor that should determine the method used is that which would normally be called for in such instances, according to the BLM Manual and common practice.. Therefore, it is our opinion that the procedures outlined to Mr. Ingram in 1974, and reiterated in your letter, are still valid and would probably be used by this office if we were conducting the survey.

1 of 4

C.S. File No. 58/294-1A

With regard to the monument at the ¼ section corner of sections 21 and 28 which the BLM reestablished in 1960, and you found to be approximately 25 feet from its proper position, we feel it should remain as is. This decision is based on (1) its length of existence, (2) the fact that its position was used by a 1977 private survey, and (3) its position does not constitute what we consider to be gross error.

Sincerely,

Bill

William W. Glenn
Chief, Branch of Cadastral Survey

2 of 4

C.S. File No. 58/294-1b

IN REPLY REFER TO

United States Department of the Interior

9641.5 (942)

BUREAU OF LAND MANAGEMENT
OREGON STATE OFFICE
P.O. Box 2965 (825 N.E. Multnomah Street)
Portland, Oregon 97208

February 9, 1984

FILED
RECEIVED
MAY 16 1984
COUNTY SURVEYOR
DOUGLAS COUNTY, ORE.

Mr. James W. Prochnau
Jackson & Prochnau Inc.
P. O. Box 177
Albany, Oregon 97321

Dear Mr. Prochnau:

This is in response to your letter dated January 30, 1984, concerning survey procedure in T. 21 S., R. 11 W., Willamette Meridian, Oregon.

The problem you have posed is not to calculate the position for the southeast corner of section 34, but rather to restore the meander corner of sections 34 and 35. The point for the section corner mentioned in Byars' record falls in a meandered river and hence does not exist either in theory or practice.

The Manual (Section 5-40) prescribes that meander corners on lines projected across meandered bodies of water will usually be reestablished by single proportionate measurement (occasionally, by single point control), or in extreme cases, by adjustment of the record meanders. It also allows for special cases (Section 5-46) where the surveyor's experience and judgment may properly override or modify these principles.

In our opinion, the meander corner of sections 34 and 35 should, in this case, be reestablished at record bearing, South, from the original ¼ section corner of sections 34 and 35, and at record distance, 17.89 chains, from the ¼ section corner if this distance places the meander corner on or very near the present meander line. If the record distance falls close, but not on the meander line, the present shoreline may be treated "as an identified natural feature" (Section 5-40) and the meander corner reestablished on it.

There are many potential pitfalls in using control south of the river to restore the meander corner in question. You refer to some of these in your letter. Whenever possible, survey errors or discrepancies should be isolated where they "properly belong" (Section 5-23) and should not effect proportioning of lost corners beyond their immediate area. In line with this principle, projecting Byars' survey across the river through his 23.22 chain triangulation would probably introduce more error than using his 17.89 chain tie to the ¼ section corner.

(3)of4

C.S. File No. 58/224-1C

In addition, it makes little sense to extend possible distortion from questionable corners, which are 74 to 96 chains away, across a river, and in another township, when the original ¼ section corner of sections 34 and 35 is much closer, probably more reliable, and in the same township. While certain aspects of Haines' work are debatable, it is not necessary to pass judgment on his survey one way or another, as the method we suggest for restoring the meander corner ignores his survey and conforms to the Manual.

A second best solution might be to reestablish the meander corner by single proportionate measurement between the corner of sections 3 and 10, T. 22 S., R. 11 W., and the ¼ section corner of sections 34 and 35, since these two seem generally accepted as original corners. From your data, it appears that such a restoration would place the meander corner about 8 links south and 30 links west of a point at record bearing and distance from the ¼ section corner of sections 34 and 35. The two locations are favorably related and tend to confirm one another, but all things considered, a single point control restoration is preferable.

We hope that this information is helpful to you.

Sincerely,

Bill

William W. Glenn
Chief, Branch of Cadastral Survey

cc: Dennis Moonier
Larry Hunnemuller

4 of 4

C.S. File No. 58/294-1d