1084-13-127 **Bruce Olberding*** (olberdin@nmsu.edu), Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003-8001, and **Francesca Tartarone** (tfrance@mat.uniroma3.it), Dipartimento di Matematica, Università degli Studi "Roma Tre", Largo San Leonardo Murialdo 1, 00146 Roma, Italy. *Integrally closed rings in birational extensions of two-dimensional regular local rings.*

Let D be an integrally closed local Noetherian domain of Krull dimension 2, and let f be a nonzero element of D. Motivated by the problem of classifying the integrally closed rings H between D and $D[1/f]$, we consider when H is determined locally by finitely many valuation overrings of D, in the sense that if M is a maximal ideal of H, then there are finitely many valuation overrings $V_1, \ldots, V_n$ of D such that $H_M = V_1 \cap \cdots \cap V_n \cap (D_f)_M$. (With such a representation, it is possible to describe the structure of the ring H_M in some detail.) In some central cases where D is a regular local ring and f is a regular parameter of D, then H is determined locally by a single valuation. As a "Noetherian" consequence, we show that with such a choice of D and f, if H is normalization of a finitely generated D-subalgebra of D_f, then the height one prime ideals of H lying over the maximal ideal of D are comaximal. Geometrically, this translates into a statement about intersections of irreducible components in the closed fiber of the normalization of a proper birational morphism. (Received August 28, 2012)